

Maria Hwang

📞 +1 (614) 313 3930 • ✉ mlh2169@tc.columbia.edu
🌐 www.mariahwang.com • 🐙 github.com/mlhwang

Research Interests

Human Computer Interaction; Health Game and Application Technologies; Data-driven, User-centered Design; User Engagement and Motivation; Gamified Ubiquitous Learning; Tailored and Persuasive Interventions; Self-monitoring and Management Apps for Chronic Diseases.

Current Position

Columbia University Medical Center

Postdoctoral Fellow

New York, NY

Aug 2016–Present

Conduct research in the areas of human computer interaction, game-based motivational strategies, ubiquitous learning, persuasive health interventions, and diabetes education;

Advising students — Chantes, Pantiphar (2018, EdD), Chau, Michelle (PhD, 2021); Sin, Margaret (MA, 2018); Mao, Yishen (MA, 2018), Lee, Brian (BS, 2017); Jae, Yeonjae (BS, 2021); Kim, Dongwon (BA, 2021); Paek, Kichan (BS, 2020)

Education

Teachers College, Columbia University

Instructional Technology and Media Ed.D.

New York, NY

2011–2016

Dissertation: Effectiveness of Message Framing in a Digital Game Environment

Advisor: Charles Kinzer

Teachers College, Columbia University

Cognitive Studies in Education M.A.

New York, NY

2009–2011

Advisor: John Black

Wesleyan University

Neuroscience and Behavior B.A. & East Asian Studies B.A.

Middletown, CT

2004–2008

Advisor: Ellen Widmer

Professional Experience

World Scholars LLC

Co-Founder & CEO

New Haven, CT

Feb 2017–Present

Founded an international educational exchange company to provide inclusive, thought-provoking liberal arts educational experience for students. <http://worldscholars.global/>

Geumgang University

Visiting Faculty

Nonsan, South Korea

Nov 2015–Aug 2016

Taught two + assisted three courses in a mix of Korean and English; Intro to Game Design, Intro to Web Design + Intro to Computer Science, Intro to Object Oriented Programming, and Computer Music; Formulated strategic plans for the new Information Science department by curriculum planning, and developing interdisciplinary studies.

Games for Learning Institute + TC Games Research Lab: Columbia U.

Lead Research Assistant

New York, NY

Mar 2013–May 2016

Worked with Prof. Charles Kinzer and Prof. Joey Lee on designing and evaluating game-based educational tools and applications; Monitored the progress of all research assistants' work; Mentored graduate students.

The Abraham Joshua Heschel School

Instructional Technology Integrator

New York, NY

Oct 2013–Dec 2015

Provided technology support for teachers and IT staff as the liaison between the two groups; Taught 9th graders Tech101 on technology tools as well as initiated discussions on 21st century issues such as cyber attacks, privacy, cloud computing, media literacy, & technology consumption vs. creation.

Dept. Math, Science, and Technology, Columbia U.*Teaching Assistant for the Doctoral Colloquium*

Planned and coordinated the doctoral colloquium curriculum and invited guest speakers; Led and facilitated discussions and conversations among doctoral students on current issues in educational technology.

New York, NY*Sep 2013–May 2014***The Lang School***Lead Math Teacher & Assistant Technology Teacher*

Taught kindergarten through middle school students (K-8) in mathematics and technology; Lesson-planned and coordinated technology-infused math and engineering instruction with co-teachers using programs such as Scratch, Greenfoot, Google SketchUp, Moodle, Alice, & LEGO Mindstorms.

New York, NY*Feb 2012–Dec 2012***The Green School***Student Teacher & Substitute Teacher*

Taught high school students (9-12) primarily in mathematics; Lesson-planned and coordinated instruction with co-teachers to focus on preparing students to achieve grade-level proficiency and meet Common Core standards for the Regents; Participated in math departmental meetings to manage instruction across grades.

Brooklyn, NY*Feb 2011–Dec 2012***Center for Technology and School Change, Columbia U.***Research Intern*

Engaged with a curriculum design process, *Understanding by Design* (Wiggins & McTighe, 2005), to create a goal-oriented professional development plan and technology-infused course design for NY high school teachers.

New York, NY*Sep 2010–May 2011***Concordia Language Villages***Counselor, Language Teacher, Life Guard*

Ascertained group interests, and evaluated campers and their behaviors to find and adopt the most developmentally appropriate and nurturing activities that meet their needs; Prepared materials for class activities and taught in small groups through different methods to promote language acquisition.

Bemidji, MN*Summer 2007, 2009, 2010***Wesleyan University***Residential Advisor*

Enforced rules and regulations to ensure the smooth and orderly operation of dormitory programs; Mediated interpersonal problems between residents; Made regular rounds to ensure that residents and areas are safe and secure; Hosted social events to increase community engagement and awareness.

Middletown, CT*Aug 2006–May 2007***Wesleyan University***International Orientation Leader*

Planned, developed, and provided orientation programs for new incoming international 1st year students; Provided academic and personal counseling for easy transition into the American Liberal Arts education system, leveraging personal insights, resources, and connections for further guidance.

Middletown, CT*Summer 2005*

Publications

Hwang, M., & Mamykina, L. (2018, Aug). Let Me Help You Learn from My Meal: User-Generated Meal Photos as a Benchmark for Nutritional Estimation. In the Extended Abstract of the *Connected Learning Summit* (CLS 2018). Boston, MA.

Hwang, M. & Mamykina, L. (2017, May). Monster Appetite: Effects of Subversive Framing on Nutritional Choices in a Digital Game Environment. In *Proceedings of the ACM CHI conference on Human Factors in Computing Systems* (CHI 2017), Denver, CO.

Hwang, M. & Mamykina, L. (2017, April). Monster Appetite: Effects of Message Framing on Nutritional Choices in a Digital Game Environment. In the Extended Abstract of *Annals of Behavioral Medicine*, San Diego, CA, (pp. S1519-S1520). Springer Press.

Hwang, M. (2016, April). Game based teaching for youth health: Testing a board game, Monster Appetite, for classroom implementation. *Proceedings of the American Educational Research Association* (AERA), Washington, D.C.

Kinzer, C., **Hwang, M.**, Chantes, P., Choi, A., & Hsu, S. (2015, July). Educational games: Insights for acceptance. In A. Ochsner, ...C. Steinkueller (Eds.), in *Proceedings of Games+Learning+Society*

(GLS). Madison, WI, ETC Press.

Santolucito, M. & **Hwang, M.** (2014, Aug). Communalizing the interfaces of single player games. In the Extended Abstract of the 7th *Digital Games Research Association (DiGRA)*. Salt Lake City, UT.

Hwang, M., Chantes, P., & Santolucito, M. (2014, June). Raid the fridge!: Promoting healthy eating habits through the game Monster Appetite. In A. Ochsner,...C. Steinkueler (Eds.), in *Proceedings of Games+Learning+Society (GLS)*. Madison, WI, (pp. 472-474). ETC Press.

Turkay, S., Hoffman, D., **Hwang, M.**, Chantes, P., Kinzer, C.,...Hsu, S. (2014, June). No hands needed: Investigating the affordances of using a Brain Computer Interface (BCI) as a game controller and its potential effect on learning and user experience. In A. Ochsner,...C. Steinkueler (Eds.), in *Proceedings of Games+Learning+Society (GLS)*. Madison, WI, (pp. 235-241). ETC Press.

Hwang, M.,...de Luna, C. (2014, June). Play it with your mind: Investigating the affordances of using a Brain Computer Interface (BCI) as a game controller and its potential effect on learning and user experience. In *Proceedings of Teachers College Educational Technology Conference (TCETC)*. New York, NY.

Hwang, M., Chantes, P., Tedaldi, G., & Lomboy, A. (2014, Jan). Monster Appetite: To eat or not to eat, that is the question. In R. Duncan, J. Bisz, F. Crocco, C. Hernandez, K. Offenholly,...M. Smalle. (Eds.). *Proceedings of the 1st Annual CUNY Games Festival*. New York, NY, (p. 23).

Hwang, M. (2013). Assessment of "Tale of the Tape." In N. Fletcher, A. Velamur, B. Waid, & A. Dimacali, (Eds.), *Mathematical modeling handbook II: The assessments*. Bedford, MA: COMAP.

Hwang, M., & Chantes, P. (2013, June). Monster Appetite: A board game targeting one nutritional aspect with one funky game mechanic. Presentation at the 9th *Annual Games for Health (G4H)*. Boston, MA.

Hwang, M., Chantes, P., Tedaldi, G., & Lomboy, A. (2013, March). Promoting healthy eating habits through Monster Appetite. In L. Gómez Chova, A. López Martínez, & I. Candel Torres (Eds.). In *Proceedings of the 7th annual International Technology, Education, and Development Conference (INTED)*, Valencia, Spain, (p. 2211).

Hwang, M., Chantes, P., Tedaldi, G., & Lomboy, A. (2012, May). Promoting Healthy Eating Habits through Monster Appetite. In *Proceedings of the Teachers College Educational Technology Conference (TCETC)*, p. 24). New York, NY.

Manuscripts in Preparation

Hwang, M., Levine, M., & Mamykina, L. (2019). Feed Me Data: Overcoming the Cold Start Problem for Personal Analytics Solutions in Health. *Proc. ACM Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)*.

Hwang, M., Sin, M., Lee, J., & Mamykina, L. (2018). The Effects of a Gaming Intervention on Information Seeking and Retrieval and Purchase Activities in the Context of Health. *Computers in Human Behavior*.

Awards and Honors

Games and Learning Early Career Award

Games and Learning Early Career Workshop at Games for Change (G4C) 2017
An invitation and funding to attend the 14th G4H festival and Early Career Workshop.

Early Career Development Symposium Award

Early Career Development Symposium at ACM CHI 2017 Conference 2017
An invitation and funding to attend the 2nd CHI Early Career Development Symposium.

Doctoral Dissertation Grant

Columbia University 2016
Dissertation funding support provided by Doctoral Application for Grant-In-Aid Funding at Columbia.

TC International Scholarship

Columbia University 2015, 2016
Stipend provided for doctoral students at Columbia.

Louis Gerstner Fund Scholarship

Columbia University 2014, 2016
Stipend provided for doctoral students at Columbia.

Finalist for Academic Festival Student Research Poster Conference

Columbia University April 2015
Awarded to students who, in the eyes of Teachers College, has conducted the best research in their respective departments.

Best of Show Poster Award

10th Annual Games+Learning+Society Conference (GLS) June 2014
Awarded to the best team/individual with the poster that received the most votes from conference attendees on the day of the poster presentation.

TC General Scholarship

Columbia University 2011, 2012, 2013
Scholarship provided for master and doctoral students at Columbia.

Travel Funding

Various Multiple
Travel Grants for attending conferences INTED 2013, G4H 2013, GLS 2013, DiGRA 2014, GLS 2014, SIGCHI 2017, G4C 2017, SIGCHI 2018.

Innovative Mobile Tech for Development Competition First Prize

Columbia University 2012
Awarded to the best team that received the most points from a panel of judges selected by the New Media Task Force at the School of International and Public Affairs, Columbia.

Invited Talks

SAT+ Summer Program with Culture Vision Education Inc., Woodbridge, CT Aug 2017
"Iterative Design in Game Design Research"

Geumgang University, Nonsan, South Korea June 2016
Commencement speech: "What is an Alma Mater?"

Service

Reviewer—Conferences

Games+Learning+Society (GLS);
ACM CHI Conference on Human Factors in Computing Systems;
Connected Learning Summit (CLS)

Reviewer—Journals

Health Informatics Journal;
European Journal of Pediatrics;
PLOS ONE

References

Dr. Lena Mamykina

Florence Irving Assistant Professor of Biomedical Informatics,
Department of Biomedical Informatics, Columbia University
email: om2196@cumc.columbia.edu

Dr. Charles Kinzer

Professor of Education,
Department of Math, Science, and Technology, Teachers College, Columbia University,
email: kinzer@exchange.tc.columbia.edu

Dr. Pamela Koch

Executive Director and Associate Research Professor,
Laurie M. Tisch Center for Food, Education, & Policy,
Department of Health and Behavior Studies, Teachers College, Columbia University,
email: pak14@tc.columbia.edu