Maria Hwang

℘ +1 (614) 313 3930
✉ maria_hwang@fitnyc.edu
🖰 www.mariahwang.com
⊙ github.com/mlhwang

Research Interests

Human Computer Interaction; Computer Science in Undergraduate Education; Data-Driven, User-Centered Design; User Engagement and Motivation; Gamified Ubiquitous Learning; Tailored and Persuasive Interventions; Health Games; Self-Monitoring and Management Apps for Chronic Diseases.

Current Position

Aug 2018 – Present
Assistant Professor (Tenure Track), *Fashion Institute of Technology (FIT)*, New York, NY.
Courses taught: Mobile App Development; Intro to Machine Learning and Statistics; Developmental Math;

Education

2011 – 2016
Instructional Technology and Media, Ed.D., *Teachers College, Columbia University*, New York, NY, *Dissertation: Effectiveness of Message Framing in a Digital Game Environment*.
Advisor: Dr. Charles Kinzer

2009 – 2011
Cognitive Studies in Education, M.A., *Teachers College, Columbia University*, New York, NY.
Advisor: Dr. John Black

2004 – 2008
Neuroscience and Behavior, B.A. & East Asian Studies, B.A., *Wesleyan University*, Middletown, CT.
Advisor: Dr. Ellen Widmer

Professional Experience

Aug 2016 – July 2018
Postdoctoral Research Fellow, *Columbia University Medical Center, Biomedical Informatics*, New York, NY.
Conducted research in the areas of human computer interaction, game-based motivational strategies, ubiquitous learning, persuasive health interventions, and diabetes education; Advised 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).

Feb 2017 – Present
Co-Founder & President, *World Scholars LLC*, New Haven, CT.
Founded an international educational exchange company to provide inclusive, thought-provoking, liberal arts educational experience for students. https://worldscholars.global

Nov 2015 – Aug 2016
Visiting Faculty , *Geumgang University*, Nonsan, South Korea.
Taught 2 courses in a mix of Korean & English; Intro to Game Design & Web Design; Formulated strategic plans for the new Information Science dept by curriculum planning, and developing interdisciplinary studies.

Mar 2013 – May 2016
Lead Research Assistant, *Games for Learning Institute; TC Games Research Lab: Columbia U.*, New York, NY.
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.

Oct 2013 – Dec 2015	**Instructional Technology Integrator**, *The Abraham Joshua Heschel School*, New York, NY.
	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.
Sep 2013 – May 2014	**Teaching Assistant for the Doctoral Colloquium**, *Math, Science, and Technology Dept., Columbia U.* , New York, NY.
	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.
Feb 2012 – Dec 2012	**Lead Math Teacher & Assistant Technology Teacher**, *The Lang School*, New York, NY.
	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.
Feb 2011 – Dec 2012	**Student Teacher & Substitute Teacher**, *The Green School*, Brooklyn, NY.
	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.
Sep 2010 – May 2011	**Research Intern**, *Center for Technology and School Change, Columbia U.*, New York, NY.
	Created a professional development plan and technology-infused course design for NYC high school teachers.

Publications

Hwang, M., & Williamson, C. (2020). Using Cloud Tools for Literate Programming to Redesign an AI course for Non-traditional College Students. *The Tenth Symposium on Educational Advances in Artificial Intelligence (EAAI)* in the 34th AAAI Conference on Artificial Intelligence.

Hoffman, D., Santolucito, M., **Hwang, M.** & Paek, S. (2019). Lessons in Combining Discrete and Continuous Assessment Data: Activity Trackers, Standardized Tests, and Test Anxiety. *The Association for Educational Communications & Technology (AECT)*.

Mitchell, E., Burgermaster, M., Heitkemper, E., Levine, M., Miao, Y., Desai, P., **Hwang, M.**, Albers, D., Smaldone, A., & Mamykina, L. (2019, May). Personalized, data-driven recommendations for diabetes self-management with GlucoGoalie. In the *Extended Abstracts of the ACM CHI Conference on Human Factors in Computing Systems* (WISH 2019), Glasgow, UK.

Desai, P., Mitchell, E., **Hwang, M.**, Levine, M., Albers, D., & Mamykina, L. (2019, May). Personal Health Oracle: Explorations of Personalized Predictions in Diabetes Self-Management. In *Proceedings of the ACM CHI Conference on Human Factors in Computing Systems* (CHI 2019), Glasgow, UK.

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. Steinkueler (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., Desai, P., Mitchell, E., & Mamykina, L. (2020). Feed Avatar Together.

Santolucito, M., Hoffman, D., Paek, S., & **Hwang, M.** (2020). Using Wearables for Data Driven Decision Making in Education.

Mitchell, E., Burgermaster, M., Heitkemper, E., Levine, M., Yishen, M., **Hwang, M.**, Desai, P., Cassells, A., Tobin, J., Tabak, E., Smaldone, A., Albers, D., & Mamykina, L. (2020). GlucoGoalie: Personalized Goal Recommendations to Support Nutrition Decisions in Type 2 Diabetes Among Underserved Individuals.

Awards and Honors

2019 **Research for Monster Appetite through the lens of women**, *Office on Women's Health (OWH) Challenge, Dept of Health & Human Services.*
Grant funding provided for applicants who passed Phase 1 and 2 of the Shape of Health - An Obesity Prevention Game Competition. Awarded amount: $12,000

2019 **Research for Feed Avatar Together**, *The Faculty Development Grants and Awards (FDGA).*
Grant funding provided for faculty at Fashion Institute of Technology (FIT). Awarded amount: $1,000

2019 **ACM CHI 2019 Conference on Human Factors in Computing Systems**, *Grant from the School of Liberal Arts.*
Grant funding provided for faculty in the School of Liberal Arts at FIT. Awarded amount: $1,500

2019 **ACM CHI 2019 Conference on Human Factors in Computing Systems**, *The Faculty Development Grants and Awards (FDGA).*
Grant funding provided for faculty at Fashion Institute of Technology (FIT).

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

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

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

2015, 2016 **Columbia University**, *TC International Scholarship.*
Stipend provided for doctoral students at Columbia.

2014, 2016 **Columbia University**, *Louis Gerstner Fund Scholarship.*
Stipend provided for doctoral students at Columbia.

April 2015 **Columbia University**, *Finalist for Academic Festival Student Research Poster Conference.*
Awarded to students who, in the eyes of Teachers College, has conducted the best research in their respective departments.

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

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

Multiple **Various**, *Travel Funding*.
Travel Grants for attending conferences INTED 2013, G4H 2013, GLS 2013, DiGRA 2014, GLS 2014, SIGCHI 2017, G4C 2017, SIGCHI 2018, SIGCHI 2019.

2012 **Columbia University**, *Innovative Mobile Tech for Development Competition First Prize*.
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

Feb 2020 **13th Annual American College Counseling Association Conference, Washington DC**.
OnlineHaters: A Pilot Treatment Approach for Cyberbullies Using VR

Dec 2019 **CUE.NEXT Workshop, Washington DC**.
"Computing in Undergraduate Education" (Panelist)

Nov 2019 **Office on Women's Health (OWH), Washington DC**.
"Monster Appetite through the Lens of Women"

Mar 2019 **Retail Marketing Society, New York, NY**.
"How AI and Machine Learning is Changing the Fashion Industry"

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

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

Service

Reviewer – Conferences and Journals
Games+Learning+Society (GLS);
ACM Conference on Human Factors in Computing Systems (SIGCHI);
ACM SIGGRAPH;
Connected Learning Summit (CLS);
American Educational Research Association (AERA);
Health Informatics Journal;
European Journal of Pediatrics;
PLOS ONE;
Creativity and Cognition;

TPC Member – Program Committee
Advances in Computer-Human Interactions (ACHI, 2020);

Institutional Service for Fashion Institute of Technology
Hackathon, Bermuda (Keynote speaker: Dec, 2018; Session leader: Dec, 2019 / featured in Bermuda Royale Gazette and FIT News);
Programming Digital Embroidery workshops (Workshop host: Oct & Nov, 2019);
Academic Open Mic (Presenter: Nov, 2019);
LG Global Challenge on Ethical Artifical Intelligence (Interviewee & Consultant: Aug, 2019);
Gladys Marcus Award Interview (Interviewer: April, 2019);
Computer Science Fair (Represented FIT as one of the non-profit higher educational leaders: April, 2019);
Retail Marketing Society Talk (Keynote Presenter: Mar, 2019);
Flexible Learning Think Tank (Co-Chair: Spring, 2019 – Present);
Interviewed for the annual report through the Communications and External Relations (CER, Spring 2019);
Emerging Technologies Committee (Committee Member: Fall, 2018 – Present);
Internal Review Board (Committee Reviewer: Fall, 2018 – Present);