Eileen McGivney

eileen_mcgivney@g.harvard.edu   (847) 208-3478   https://scholar.harvard.edu/mcgivney

EDUCATION

Harvard University   Cambridge, MA
Ph.D., Education: Human Development, Learning, and Teaching   2023

> Dissertation: *Promoting Learning, Agency, and Motivation in STEM Classrooms with Virtual Reality Field Trips*

> Committee: Chris Dede (Chair), Tina Grotzer, Jeremy Bailenson

Sabancı University   Istanbul, Turkey
MA in Public Policy   2012
> Thesis*: The returns to university education in Turkey by disciplines*

University of Illinois at Urbana-Champaign   Urbana, IL
BS in Media Studies, Minor: English   2007

ACADEMIC APPOINTMENTS

Northeastern University College of Art, Media and Design   Boston, MA
Assistant Professor, Art + Design (Primary) and Communication Studies (Secondary)   Beginning Fall 2023

RESEARCH AND TEACHING INTERESTS

Virtual Reality & Immersive Technologies	Motivation to Learn	Design-Based Research
Learning Sciences	Educational Psychology	Mixed Methods

PUBLICATIONS

PEER REVIEWED JOURNAL ARTICLES

McGivney, E., Forshaw, T., Medeiros, R., Sun, M., & Grotzer, T. (Accepted). Addressing emotions and beliefs for vulnerable jobseekers with virtual reality. *Education and Information Technologies*.

McGivney, E., Tribe, C., & Feng, T. (2022). Remote learning with virtual reality technologies: Student mastery, community, and agency. *Educational Innovations and Emerging Technologies*. 2(1), 56-73. https://doi.org/10.35745/eiet2022v02.01.0004

Gonzalez, E., Grotzer, T., **McGivney, E.** & Reilly, J. (2022). Details matter: How contrasting design features in two MUVEs impact learning outcomes. *Technology, Knowledge, and Learning.* 27, 801-821. https://link.springer.com/article/10.1007/s10758-021-09513-6

Reilly, J., **McGivney, E.,** Dede, C. & Grotzer, T. (2021). Assessing science identity exploration in immersive virtual environments: A mixed methods approach. *Journal of Experimental Education.* 89(3), 468-489. https://doi.org/10.1080/00220973.2020.1712313

PEER REVIEWED CONFERENCE PROCEEDINGS

McGivney, E., Forshaw, T., Medeiros, R., Sun, M., & Grotzer, T. (*In Press*). Opening the "black box" of VR for workforce development: Investigating learners' device, usage, and identities. *Proceedings of the 2023 Immersive Learning Research Network.*

McGivney, E. (2023). Improving technology-enhanced immersive learning with design-based implementation research. *Proceedings of the 2023 International Society of the Learning Sciences Annual Meeting.*

Queiroz, A., **McGivney, E.,** Liu, S., Anderson, C., Beams, B., DeVeaux, C. ... Bailenson, J. (2023). Collaborative tasks in immersive virtual reality increase learning. *Proceedings of the 2023 International Society of the Learning Sciences Annual Meeting.*

McGivney, E. (2021). "You get to see for yourself": Immersive media to facilitate observation and engagement in remote schooling. Poster Abstract. *Proceedings of the 2021 International Society of the Learning Sciences*.

McGivney, E. (2021). Immersive media in remote schooling: "I was surprised how engaged I was." Doctoral Colloquium Paper. *Proceedings of the 2021 Immersive Learning Research Network Conference*.

McGivney, E. & Schneider, B. (2020). 'This is how I can fit': Barriers and facilitating factors to gender inclusion in makerspace education. *Proceedings of the 2020 Connected Learning Summit.* J. Kalir & D. Filipiak (Eds). Carnegie Mellon University: ETC Press.

BOOKS

Winthrop, R., **McGivney, E**. & Barton, A. (2018). *Leapfrogging inequality: Remaking education to help young people thrive.* Washington, D.C.: Brookings Institution Press.

BOOK CHAPTERS

Grotzer, T.A., Gonzalez, E., & **McGivney, E.** (2022). Teaching students to grasp complexity in biology education using a "Body of Evidence" approach. In *Fostering understanding of complex systems in biology education: Pedagogies, guidelines, and insights from classroom-based research.* O.B.Z Assaraf & M.C.P.J. Knippels (Eds.). NY: Springer Nature

Dede, C. & **McGivney, E.** (2021). Lifelong learning for careers that don't yet exist. In *Educational technologies for sustainable development: Fostering lifelong learning and global transformation.* S. Jagannathan (Ed.)*.* Oxford: Routledge.

McGivney, E. (2017). Scaling impact: A focus on flexible adaptation—not replication. In *Empowering all students at scale*. F. Reimers (Ed.), CreateSpace Independent Publishing Platform.

Winthrop, R. & **McGivney, E**. (2015). Raising the global ambition for girls' education*.* In *Women and girls rising: Progress and resistance around the world*. E. Chesler & T. McGovern (Eds.). New York: Routledge.

SELECTED ADDITIONAL PUBLICATIONS (9 of 17)

McGivney, E., Forshaw, T., Medeiros, R., Sun, M., & Grotzer, T. (2022). *Learning with virtual reality: A study of Project OVERCOME*. Cambridge, MA: Project Zero.

Pimentel, D., Fauville, G., Frazier, K., **McGivney, E.**, Rosas, S., & Woolsey, E. (2022). *An introduction to learning in the metaverse*. Washington, D.C.: Meridian Treehouse.

McGivney, E., Gonzalez, E., & Medeiros, R. (2021) *Next level learning environments for next level work: Applying the learning sciences to technology-enabled training.* Research Brief for the Next Level Lab. Cambridge, MA: Project Zero.

Winthrop, R. & **McGivney, E**. (2017). *Can we leapfrog? The potential for education innovations to rapidly accelerate progress.* Washington, D.C.: Brookings Institution.

Winthrop, R. & **McGivney, E**. (2016). *Skills for a changing world: Advancing quality learning for vibrant societies*. Washington, D.C.: Brookings Institution.

Perlman-Robinson, J., Winthrop, R. & **McGivney, E.** (2016). *Millions learning: Scaling up quality learning in developing countries.* Washington, D.C.: Brookings Institution.

Winthrop, R. & **McGivney, E**. (2015). *Why wait 100 years? Bridging the gap in global education*. Washington, D.C.: Brookings Institution.

Oral, I. & **McGivney, E**. (2014). *Türkiye PISA 2012: Matematikte öğrenci motivasyonu, özyeterlik, kaygı ve başarsızlık algısı* (*PISA 2012 Turkey: Student motivation, self-efficacy, anxiety, and perceptions of failure in mathematics*.) Education Reform Initiative Research Note. Istanbul: Education Reform Initiative.

McGivney, E. (2014). *Türkiye'de cinsiyet ve bölge ayrımında eğitimsel kazanımlar* (*Equality of educational attainment across genders and regions in Turkey*). Education Reform Initiative Supplementary Note. Istanbul: Education Reform Initiative.

SPONSORED RESEARCH

Lead Researcher & Grantee. Virtual Reality in Workforce Development: Context, Identity, and Learning. Goodwill Industries International, $50,000. Faculty Sponsor: Tina Grotzer.	2022

FELLOWSHIPS AND AWARDS

Graduate Student Research Excellence Award, AERA Division C	2023
Dissertation Completion Fellowship, Harvard University Graduate School of Arts and Sciences	2022-2023
Best Research Application, Games for Change XR Brain Jam	2022
Honorable Mention: Ford Foundation Dissertation Completion Fellowship	2022
Research Grant, Harvard Graduate School of Education	2022
Engaged Student Grant, Radcliffe Institute for Advanced Study	2021-2022
VR Headset Recycling Pilot Recipient, Facebook Reality Labs	2020-2022
Top 10 Student Poster Finalist, APA Division 15 (Educational Psychology)	2021
Best Doctoral Colloquium Paper, Immersive Learning Research Network	2021
Summer Research Grant, Harvard Graduate Student Council	2021
Wallace Student Scholarship, International Society of the Learning Sciences Annual Meeting	2021
Emergency Research Grant, Harvard Graduate School of Arts and Sciences	2020
Summer Research Grant, David Rockefeller Center for Latin American Studies	2019
Conference Travel Grant, David Rockefeller Center for Latin American Studies	2018
Open Education Resources Research Fellowship, William and Flora Hewlett Foundation	2017-2018

RESEARCH EXPERIENCE

Harvard Graduate School of Education, Project Zero — Cambridge, MA
Next Level Lab — 2020- 2023
Researcher. PI: Tina Grotzer
- Researching immersive technologies in workforce development to prepare lifelong learners for the future of work
- Studying a VR application for formerly incarcerated job seekers to practice interview skills

EcoXPT — 2017-2020
Research Assistant. PI: Tina Grotzer, Co-PI: Chris Dede
- Evaluated the impact of a middle-school ecosystem science curriculum set in a virtual pond
- Conducted classroom observations of teachers and students, interviewed and surveyed students
- Developed and validated a measure of student-teacher interactions related to inquiry-based learning

Stanford University Department of Communication, Virtual Human Interaction Lab, — Stanford, CA
Collaborative Learning in Virtual Reality Environments — 2022-2023
Researcher. PI: Jeremy Bailenson

- Conducting design-based research on a VR-enabled underwater dive
- Assessing the impact of collaboration and hands-on manipulation of 3D models on learning outcomes

The Hydrous, Immersive Learning Research Lab   Remote
Researcher.   2021-2022

- Reviewed literature and synthesized evidence on learning with immersive technologies
- Co-authored report *An Introduction to Learning in the Metaverse* with academics, entrepreneurs, and educators; Presented findings to educators and researchers

The Center for Universal Education at the Brookings Institution   Washington, DC
Research Associate, Research Analyst   2014-2017

- Conducted research and published reports on innovation, technology, scaling, and gender in education in low- and middle-income countries
- Compiled and analyzed data on learning outcomes, educational access, and education innovations
- Reviewed literature and synthesized research for reports, policy briefs, blog posts, and presentations for expert and general audiences
- Recruited and managed teams of research assistants and interns

Education Reform Initiative   Istanbul, Turkey
Research Assistant and Data Analyst   2013-2014

- Researched and wrote reports for a Turkish education policy think-tank whose mission is to help ensure "quality education for all"
- Conducted quantitative analysis on large datasets such as household labor force surveys, TIMSS and PISA assessments
- Authored and co-authored studies and identified policy recommendations on equality in the Turkish education system

TEACHING & ADVISING

Harvard Graduate School of Education:

Course Designer and Instructor of Record

The Virtual Self: Identity, Culture, and Learning in Digital Worlds, *Online*   Fall 2020

Advisor

Technology, Innovation and Education Master's in Education Program   2020-2022

Course Designer and Teaching Fellow

Effectively Implementing Learning Technologies to Address Global and Local Challenges,   Fall 2020
Professor Chris Dede, *Online*

Teaching Fellow

Motivation and Learning: Technologies that Invite and Immerse, Professor Chris Dede,   Spring: 2022, 2020
In-Person and Online   and 2019

Research Experience in Prevention Science and Practice, Professor Nancy Hill, *Online*   Yearlong 2020-2021

Intermediate and Advanced Statistical Methods for Applied Educational Research,   Spring 2020
Professor Andrew Ho, *In-Person and Online*

Transforming Education through Emerging Technologies, Professor Chris Dede, *In-Person*   Fall 2019

ACADEMIC SERVICE

Harvard University:

Research Doctoral Advisory Committee, HGSE (Co-Chair: 2019)   2018-Present
Student Representative to Faculty Search Committees, HGSE   2019-2020

Alternate Departmental Representative, Harvard GSAS Graduate Student Council 2019-2020

APA Division 46 (Media Psychology), Grad Stepping Program Mentor 2021-Present

Reviewer:

Journals: *Review of Educational Research, Information and Learning Sciences, Comparative Education Review*

Conferences: SIGGRAPH Immersive Pavilion (2023), International Conference on Learning Sciences (2020, 2021, 2023), Immersive Learning Research Network (2023), Society for Research on Adolescence (2020), HGSE Student Research Symposium (2019, 2020, 2021), Comparative and International Education Society (2018, 2019), National Association for Research on Science Teaching (2019)

Memberships:

International Society of the Learning Sciences
Immersive Learning Research Network
American Educational Research Association, Division C (Learning & Instruction)
American Psychological Association, Divisions 15 (Educational Psychology) and 46 (Media Psychology)
Society for Research on Adolescence
Comparative and International Education Society
AR/VR in Education Club, Harvard Graduate School of Education
Harvard University Virtual and Augmented Reality Group (HUVAR)

PRESENTATIONS

Conference Presentations

Improving technology-enhanced immersive learning with design-based implementation research. International Society of the Learning Sciences Annual Meeting, (June 12-15, 2023).

Collaborative tasks in immersive virtual reality increase learning. International Society of the Learning Sciences Annual Meeting (June 12-15, 2023).

Opening the "black box" of VR for workforce development: Investigating learners' device, usage, and identities. Immersive Learning Research Network, (June 26-29, 2023).

Interactivity, presence, and agency in virtual reality learning environments. American Educational Research Association Annual Meeting, (April 13-16, 2023). (Division C Graduate Student Research Excellence Award)

Student agency and motivation in virtual reality learning, Psychology of Technology Conference, (2021, November 12).

Virtual reality as a tool for increasing student motivation in remote learning, Division 15 of the American Psychological Association Convention, (2021, August 12). (Best Student Poster Finalist)

'This is how I can fit': Barriers and facilitating factors to gender inclusion in makerspace education, Connected Learning Summit, (2021, July 1-31).

"You get to see for yourself": Immersive media to facilitate observation and engagement in remote schooling, International Society for the Learning Sciences Annual Meeting, (2021, June 7-11).

Complexity of measuring learning in a pandemic. Learning Sciences Graduate Student Research Conference, (2020, November 14-15).

Sociocultural learning in virtual worlds: 20th century approaches to 21st century EdTech, Graduate Student Research in Science, Technology, and Society, (2020, September 4-5).

Adolescents' science identity in an immersive virtual environment, Society for the Research on Adolescence Biennial Meeting. (Cancelled)

Female participation in open online courses in Latin America, Comparative and International Society, (2019, April 14-18).

Improving understanding of teaching practice for student learning: A holistic measure of fidelity of implementation, National Association for Research in Science Teaching Annual International Conference, (2019, March 31-April 3).

Predicting online open course attrition and certification: A cross-country survival analysis, Open Education Conference, (2018, October 10-12).

Invited Talks

Is AR/VR Training for Workforce finally here? ASU + GSV, San Diego, CA, (April 17-19, 2023).

Innovation Lab: Leading-Edge Technologies Driving Future Excellence. Brandon Hall Excellence Conference on Human Capital Management, Palm Beach, Florida, (February 2, 2023).

Learning in the Metaverse: The promise and limitations of virtual reality for education, Research Doctoral Colloquium. Harvard Graduate School of Education, Cambridge, MA, (2022, October 3).

An introduction to learning in the metaverse, Presentation to the Harvard University Virtual and Augmented Reality Group. Online, (2022, May 25).

Immersive learning morning at FUTURES, Smithsonian Arts and Industries, Washington, DC. (2022, May 18).

Next level technologies for next level work, Presentation to the Next Level Lab and Accenture Corporate Citizenship Virtual Joint Session, (2021, February 22).

Developing powerful learning experiences given universal access: Uruguay's CEIBAL program, Silver Lining for Learning Webinar, (2020, April 30).

Leveraging technology for education in uncertain times, Presentation to STiR Education India, (2020, March 16).

Fostering global citizenship with the support of digital tools, Presentation to Envoys educators. (2018, November 26).

Life skills development. Third International Congress of Escuela Nueva, Bogota, Colombia, (2016, November).

The effective use of analytical frameworks in scaling up development outcomes, Scaling Up Community of Practice Workshop. Management Systems International, Arlington, VA, (2016, October).

Barriers and supports for scaling 21st century learning, Panel Discussion at Harvard Global Education Innovation Initiative Think Tank Workshop, Cambridge, MA, (2016, October).

Global EdTech: Promise or peril? World Affairs Council Summer Institute on International Affairs. Washington, DC, (2016, August).

Millions learning: Scaling up quality education in developing countries, Keynote address at the Nigerian Education Innovation Summit, Abuja, Nigeria, (2016, July).

Creating a culture of R&D for innovation and scaling in global education, Presentation at Teach for All Research and Evaluation Workshop, Washington, DC, (2016, June).

Evaluating learning outcomes of a changemaker education, Panel Discussion at Ashoka U Exchange, New Orleans, LA, (2016, February).

Girls' education from the MDGs to the SDGs. Global Campaign for Education-US Youth Advocacy Training, Washington, DC, (2015, June).

PROFESSIONAL DEVELOPMENT & SERVICE

MIT Reality Hack, Mentor	2020, 2023
Games for Change XR Brain Jam	July 9-11, 2022
Institute for Public Interest Technology	June 21-July 2, 2021

Teaching with Purpose: Critical Pedagogy in a Time of Pandemic, Bok Center for Teaching and Learning at Harvard University

June 9- July 2, 2020

BLOG POSTS AND MEDIA

Media Coverage

Toczauer, C. "A map to the metaverse." *Online Education.* (2022, July 27). https://www.onlineeducation.com/features/metaverse-for-education

Metz, R. "Forget Zoom school. For some students, class is in session in VR." *CNN Business*. (2022, Jan 27). Retrieved from: https://amp.cnn.com/cnn/2022/01/27/tech/vr-classes/index.html

Bauld, A. "What will learning in the metaverse look like?" *Harvard Graduate School of Education Usable Knowledge.* (2022, June 9). Retrieved from: https://www.gse.harvard.edu/news/uk/22/06/what-will-learning-metaverse-look

Ofgang, E. "The metaverse: 5 things educators should know." *Tech & Learning.* (2022, May). Retrieved from: https://www.techlearning.com/news/the-metaverse-5-things-educators-should-know

Toczauer, C. "Learning in digital worlds: The future of virtual reality in education." *Online Education.* (2021, November). Retrieved from: https://www.onlineeducation.com/features/virtual-reality-and-student-learning

Bauld. A. **"**Learning in digital worlds: A doctoral student studies the benefits of immersive technology in the classroom" *Harvard Graduate School of Education News & Events.* (2021, May 19). Retrieved from: https://www.gse.harvard.edu/news/21/05/learning-digital-worlds

Selected Authored Posts (7 of 15)

"Science of learning: Why do we care?" [blog post]. *Education + Development.* (2017, March 28). Retrieved from: http://brook.gs/2ocV4ZN

"Using technology to teach the art of asking questions" [blog post]. *Stanford Social Innovation Review.* (2016, November 21). Retrieved from: https://ssir.org/articles/entry/using_technology_to_teach_the_art_of_asking_questions

"Rethinking education in a changing world" [blog post]. *Stanford Social Innovation Review*. (2016, September 12). Retrieved from: https://ssir.org/articles/entry/rethinking_education_in_a_changing_world

"Innovating to unburden teachers" [blog post]. *Education + Development.* (2016, July 22). Retrieved from: http://brook.gs/2bJhyfi

"Accelerating progress in education with hands-on, minds-on learning" [blog post]. *Education + Development.* (2016, July 14). Retrieved from: http://brook.gs/2bqyCc0

"Girls' education hotspots: A look at the data" [blog post]. *Education + Development.* (2014, September 22). Retrieved from: http://brook.gs/2bJYZdu

"Fundación Escuela Nueva: Changing the way children learn from Colombia to Southeast Asia" [blog post]. *Education + Development.* (2014, April 23). Retrieved from: http://brook.gs/2bpRAvL

ADDITIONAL PROFESSIONAL EXPERIENCE

Bilge Elementary School, English Teacher, Grades 5-8. Gebze, Turkey	2012-2013
The American Culture Center, English Teacher, Professional English. Gebze, Turkey.	2012-2013
The Fund for the Public Interest, Assistant Director, Recruitment & Citizen Outreach. Boston, MA	2010-2011
Massachusetts Public Interest Research Group, Grassroots Campus Organizer. Boston, MA	2008-2010

REFERENCES

Chris Dede
Timothy E. Wirth Professor in Learning Technologies
Harvard Graduate School of Education
617-495-3839
chris_dede@gse.harvard.edu

Tina Grotzer
Principal Research Scientist & Faculty
Harvard Graduate School of Education
617-496-4386
tina_grotzer@harvard.edu

Jeremy Bailenson
Thomas More Storke Professor
Stanford University Department of Communication
650-723-0706
bailenson@stanford.edu