Margaret Minsky

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Education

Massachusetts Institute of Technology
PhD in Media Arts and Sciences, June 1995
Thesis: "Computational Haptics"
Advisor: Nicholas Negroponte

Massachusetts Institute of Technology
BS in Mathematics, June 1978

Positions Held

Visiting Professor of Computational Media and Arts, HKUST(GZ), 2025 - present

Adjunct Professor of Computational Media and Arts (Honorary, non resident) HKUST(GZ), 2024-2025

Visiting Researcher (Professor), Academic Center for Computing and Media Studies, Kyoto University, 2024-2025

Visiting Professor of Arts in Interactive Media and Business, NYU Shanghai, 2023-2024

Visiting Professor of Arts in Interactive Media Arts, NYU Shanghai, 2019-2023

Scholarship and Creative Work, Independent (Haptics, Educational Technology, Multimedia Production, Soft Circuits), 2008-2019

StyleCart Inc, COO, Amherst, MA and Santa Barbara, CA 2006-2008

MINSKY's, Founder, Amherst and Brookline, MA 1997-2005

Interval Research Corporation Technical Staff, Palo Alto, CA 1993-1995

MIT Media Lab, Graduate Research Assistant, Cambridge, MA 1990-1995

UNC-CH Department of Computer Science, Visiting Scholar, Chapel Hill, NC 1989-90

MIT Media Lab, Graduate Research Assistant, Cambridge, MA 1985-1988

Atari Cambridge Research Lab, Member of the Research Staff, Cambridge, MA 1982-1984

Centre Mondial Informatique, Technical Staff, Paris, France 1982

Logo Computer Systems, Technical Staff, Boston, MA 1980-1981

Logo Laboratory, Massachusetts Institute of Technology, Research Staff, MA 1978

Advisory Positions

Academic Advisor, Embers of Qiong Art Residency sponsored by Rotohaus, Sichuan, China, 2026

Member, Board of Advisors, ATLAS Institute, University of Colorado at Boulder 2017-2023

Board of Advisors, Globaloria, EdTech Company, New York 2014-2018

HAYP Pop-Up Contemporary Art Gallery, Yerevan, Armenia 2017 Advisor

Advisory Committee, M.Tech Robotics, Amrita University, Kerala, India 2014-2019

Advisory Board, LifeScore, Music Technology Company, London, UK 2019-present

Journal, Conference, and Book Chapters

Minsky, Margaret "A Little Help from Friends: Short-Term Collaborations with AI and non-AI Agents for Exploring Digital Embroidery", UbiComp/ISWC 2025 SoftWearables, Espoo, Finland, Oct 2025

Minsky, Margaret and Yuchen Li, "Exploring a Computer Embroidery Swatchbook in a University Classroom", Constructionism/FabLearn Conference 2023, New York, Oct 2023

Minsky, Margaret, "College Students Respond to 'Twenty Things' in 2020", *Contemporary Issues in Technology and Teacher Education,* Vol. 22 No. 1-22, 2022. https://citejournal.org/volume-22/issue-1-22/seminal-articles/college-students-respond-to-twenty-things-in-2020/

Lin, Monika, **Margaret Minsky**, Eric Parren, and Alice Wang, "Movement Practices and Computing: We are Internet Beings", Abstract, in Panel Session "Tactics for Studio Courses during a Pandemic", 109th College Art Association Conference, Feb 2021

Cynthia Solomon, Brian Harvey, Ken Kahn, Henry Lieberman, Mark L. Miller, **Margaret Minsky,** Artemis Papert, and Brian Silverman, "History of Logo", Proc. ACM Program. Lang. 4, HOPL, Article 79, 2020, 66 pages. https://doi.org/10.1145/3386329

Minsky, Margaret, "Learning to Draw", In *Inventive Minds: Marvin Minsky on Education*, Cynthia Solomon and Xiao Xiao (Editors), MIT Press, April 2019. Available in Japanese and Chinese translation, 2020.

Minsky, M., Akshay, N., Amritha, N., Anila, S., Nair, A. C., Gopalan, A., & Bhavani, R. R., "Soft Circuits for Livelihood and Education in India", Poster, FabLearn 2013, Stanford, 2013

Jacob C. Jurmain, Andrew J. Blancero, James A. Geiling, MD, Andrew Bennett, PhD, Chris Jones, PhD, Jeff Berkley, PhD, Marc Vollenweider, PhD, **Margaret Minsky**, PhD, Jon C. Bowersox, MD, PhD, Joseph M. Rosen, MD, "HazBot: Development of a Telemanipulator Robot with Haptics for Emergency Response", American Journal of Disaster Medicine, Vol. 3, No. 2, 2008

Minsky, Margaret, "Will Haptics Research Parallel Computer Graphics Research?", Proceedings ICAT '97 Conference, Tokyo, Nov. 1997

Minsky, Margaret, Lederman, Susan J., "Simulated Haptic Textures: Roughness", Proceedings of the ASME International Mechanical Engineering Congress: Dynamic Systems and Control Division, Vol. 2 (Haptic Interfaces for Virtual Environments and Teleoperator Systems), DSC-Vol. 58, 1996

Minsky, Margaret, "Computational Haptics: The Sandpaper System for Simulating Texture", MIT Doctoral Thesis, MIT Media Arts and Sciences, June 1995

Minsky, Margaret, Ming, Ouh-young; Steele, Oliver; Brooks, Frederick P. Jr.; Behensky, Max, "Feeling and Seeing: Issues in Force Display", Proceedings of 1990 Workshop on 3D Interactive Computer Graphics, March 1990, ACM SIGGRAPH (over 950 citations)

Also published as a book chapter, "Feeling and Seeing: Issues in Force Display", in Dannenberg, Roger and Meera Blattner, MultiMedia Interface Design, ACM Press, 1992

Minsky, Margaret, "Manipulating Simulated Objects with Real-World Gestures Using a Force and Position Sensitive Screen", Proceedings of ACM SIGGRAPH, 1984

Manuscripts in Preparation

Invited Book Chapter, **Minsky, Margaret** and Joseph Paradiso, "Artificial Intelligences and Creativities in Music Education", New Oxford Handbook of Music Education, Oxford University Press, expected Jan 2028

Minsky, Margaret and Oliver Steele, "PoseShare: Enabling Full-Body Inter-Tile Interaction in Video Conferencing"

Minsky, Margaret and Oliver Steele, "Objex: Recognition and Manipulation of Common Objects in Video Conferencing"

Books

LogoWorks, eds: Cynthia Solomon, **Margaret Minsky,** and Brian Harvey, McGraw-Hill, 1984

Technical Reports

Minsky, Margaret, "Improvisational Thinking in the Classroom: A Dance with Mathematics" Creative Classroom Issue 4,Revisiting Experiential Learning, Eds. Y. Yuan and Z. Yuan, 2024 https://medium.com/the-creative-classroom/improvisational-thinking-in-the-classroom-a-dance-with-mathematics-86c9da2a5959

Minsky, Margaret, "Ants Fabric", "Drawing from Tinbergen"
Minsky, Margaret and Oliver Steele, "DinaCrab: Hermit Behavior" all in Proceedings of First Digital Naturalism Conference, Koh Lon, Thailand, 2018 https://archive.org/details/dinacon_2018_book/mode/2up Identifier-ark: ark:/13960/t08x2435r

Minsky, Margaret, Preface, Website: Music, Mind, and Meaning. 2014, https://www.musicmindandmeaning.org/

Minsky, Margaret, "Home Haptics" Proceedings of the Phantom User's Group Meeting, MIT AI Lab Technical Report #1596, Oct. 1996

Patents

Wang, Wejia; Shurman, Daniel; **Minsky, Margaret D.R**., US Patents #5,757,929, "Audio Interface Garment and Communication System for Use therewith"

Wang, Wejia; Shurman, Daniel; **Minsky, Margaret D.R**., US Patents #5,563,951, "Audio Interface Garment and Communication System for Use therewith"

Minsky, Claudia Juliana; Steele, Oliver; **Minsky, Margaret D. R**., US Patent #8,117,089, "System for segmentation by product category of product images within a shopping cart"

Minsky, Claudia Juliana; Steele, Oliver; **Minsky, Margaret D. R**., US Patent #9,530,142, "Method and system for creating a multifunctional collage useable for client/server communication"

Courses Taught

***developed new course
****co-developed new course

HKUST(GZ)

Creative Coding and Interactive Art, Spring 2026
Students learn programming, machine learning and AI in an art-technology context. UG Course, Cap: 20

CMA Seminar, 25% co-teaching responsibility, Spring 2026
Co-designed assignment rubric, identify and host thematically appropriate speakers, PG Course, Cap: 100

***e-Textiles** Fall 2025, Spring 2026
Project-based course with theory component, combining textile-based creative coding, electronics, and wearable technology. Labs and assignments combine coding, craft, and technology mastery including algorithmic stitching design, soft sensors, and live-coding for network-based fashion. Readings and guest lecture materials have written response components. PG Course, Cap: 15

NYU-Shanghai

***Experience Studio** Fall 2023, Spring 2024
Students address real-world challenges, acquiring reflective, theoretical, and practical skills in experience design, through community engagement, partnerships, and field experiences in science, technology, and performance-based areas. Developed "Dance and Movement Experiences" and "Natural Sciences: Crafting Curious Encounters" for Fall 2023; "e-Textiles" and a redesigned "Dance and Movement Experiences" for Spring 2024, Seminar Cap: 10 to 12

***History of Human Computer Interaction** Spring 2023
Primary and secondary source readings guide students to engage with history from 1843 to 2007 of the creation of computers worth interacting with, and the ecology of the academic field of Human-Computer Interaction. Course approved for University core curriculum Science STS credit. Seminar Cap: 16

Interaction Lab 2020-2022, Spring 2023
Physical Computing and Interactive Experience Design including computing, electronics, prototyping, and digital fabrication. Students complete two major projects exhibited for guest faculty. Program foundation

course. Course approved for University core curriculum Algorithmic Thinking credit. Students: 64 as instructor of record, 128 lab supervision

Capstone Studio I 2019-20 and 2022
Capstone Studio II 2022, 2023, 2024
Structured seminar and advising of Interactive Media Arts program Seniors, in a year-long two-course sequence, to complete required 4000-word research paper and exhibition-quality individual project installed for community and public viewing at year-end. Students: 19

***Introduction to Movement Practices** Spring 2022
Project-based course on interaction with human movement. Students code in ml5.js (AI) and p5.js for computational interaction with real-time movement, create structured weekly projects, a group performance, and a scholarly presentation of individual research. Students: 7, offered online

***e-Textiles** Spring 2022
Project-based course with theory component, combining textile-based wearables and technology. Assignments combine technology and coding mastery with sewing craft, including live-coding, for network-based fashion. Readings, theory exercises, and guest lectures have written response components. Students: 8

****Movement Practices and Computing** 2019-2021
Theory and practice course on human movement and technologies for movement interaction. Students master coding for real-time pose recognition and create their own inertial movement tracking wearable. Students research and writing assignments cover dance, performance art, environmental psychology, and urban studies perspectives on "thinking with the body". Students: 25 .Spring 2020 version was offered online

***Learning with Turtles** Fall 2020
Students explore questions about computational thinking pedagogy, reading constructionist- learning and computational thinking literature, and mastering programming languages focussed on "turtle geometry", a computational graphics and mathematics system. Students:7, hybrid offering

Artist Residencies

Art/Technology Residency and Aerial Performance, ATLAS Institute Black Box Performance Center, University of Colorado at Boulder, CO 2016

Invited Presenter and Aerial Performer, Workshop and Symposium on The Future of Augmented Reality and Human Communication, Centre for Digital Media, Vancouver, Canada 2014

Invited Presentations & Workshops

Presenter, "Computer Embroidery Partners", Turtlestitch 10 Fest (Conference), Tilburg, Netherlands, July 2025

Invited Panelist, 'Tech Trailblazers: Advancing Virtual + Immersive Technologies", GLOW: Illuminating Innovation Exhibition, King's College London, April 2024

Invited Works, Haptics Interface Artifacts, in Glow: Illuminating Innovation Exhibition, King's College London, March 2024

Guest Presenter, "Turtlestitch Computer Embroidery Swatchbook in a Higher Education Context", Tea & Turtlestitch online course for Technology Educators, organizers Susan Klimczak and Cynthia Solomon, Aug 2021

STEAM and Innovative Education Panel Presentation, "STEM and STEAM Education", China Education Symposium at the Harvard Graduate School of Education, April 2021

Workshop and Presentation, "Exploring Coding Stitching Culture", Presenters: Mags Amond, Susan G Ettenheim, Margaret Low MBE, Andrea Mayr-Stalder, Richard Millwood, Margaret Minsky, Joek van Montfort, Susan Klimczak, Simon Mong, Cynthia Solomon, Sunita Vatuk, Mozilla Festival, March 2021

Discussant, Inventive Minds Bi-Weekly Discussion Group, Virtual Ottawa online, organizers Bryan Sanders and Peter Skillen, Aug-Oct 2020

Invited Lecture, CITIE Conference: II Congreso Internacional de Tendencias e Innovación Educativa, Arequipa, Perú, 2018

Invited Session Chair, "Labor, Stress, and Problem-Solving: Modeling the Human Mind in US Cybernetics & AI in the mid-20th Century", The Society for the History of Technology Annual Meeting, St. Louis, MO 2018

Invited Workshop Co-Leader, "Turtle Art", with A. Papert, B. Silverman, C. Solomon, Exploratorium Tinkering Studio, San Francisco, CA 2018

Invited Presentation, "Technologically Enhanced Environments for Thinking and Learning", National University of Singapore 2018

Invited Panel Presentation, "Making Media: Predicting the Future by Creating It", Pioneering Play panel, The Sarnoff Collection at The College of New Jersey, NJ 2018

Invited Presentation, at "50 years with LOGO. Past, present and future of coding at school" event, SokoTech FabLab, Barcelona 2017

Invited Instructor, Turtle Art Workshop for Middle School Girls at Risk, Kingston, Jamaica 2016

Invited Lecture, LUYS Foundation, Yerevan, Armenia 2016

Invited Month-Long Workshop, "Soft Circuit Design", Amrita University, Kerala, India 2012

Invited Speaker, Music.Mind.Invention Conference, College of New Jersey, NJ 2012

Guest Lecture, "Haptics", Dartmouth College School of Engineering, NH 2005

Keynote Speaker, ICAT (International Conference on Artificial Reality and Telexistence), The Virtual Reality Society of Japan, Tokyo, Japan 1997

Panelist, "Virtual environments and interactivity: windows to the future", C. Conn, J. Lanier, M. Minsky, S. Fisher, A. Druin, ACM SIGGRAPH Computer Graphics Vol. 23, No. 5 1989 https://doi.org/10.1145/77277.77278

Panel Chair, "Recent progress creating environments with the sense of feel: Giving look and feel its missing meaning" Minsky, Margaret, Panel Chair. F. P. Brooks, Jr., M. Behensky, D. Milliken, M. Russo and A. Druin, Proceedings of CHI'89 Austin, TX. 1989.

Service

Steering Committee, NIME (New Interfaces for Musical Expression), 2021-2023

Co-Chair, NIME 2021 Conference, (New Interfaces for Musical Expression), NYU-Shanghai and Worldwide, June 15-18, 2021

NYU-Shanghai
Chair, Faculty Review Committees 2022, 2023
Member, Faculty Review Committees 2021

NYU-Shanghai IMA Program Service:
Strategic Planning Committee 2022
Program Assessment Committee 2022
Post-Graduation Program Project 2022, 2021

Symposium Organizer, Reconstructing Beethoven's Improvisations, located at MIT Media Lab, Cambridge, MA 2014

Board of Directors & Building Committee, New England Center for Circus Arts, 2007-2017

Past Program Committee: ACM Interaction Design and Children (IDC) Conference

Past Reviewer: IEEE Haptics Symposium, ACM SIGGRAPH Conference, ACM Transactions on Computer Graphics and Visualization, IEEE Transactions on Haptics, ACM SIGGRAPH Symposium on Real-Time 3D Graphics, ASME Haptics Workshop, ACM Symposium on Virtual Reality Software and Technology (VRST), IEEE VRAIS