

Report to the President, Year Ended June 30, 2024, MIT Morningside Academy for Design (MAD)

In February 2022, the MIT Morningside Academy for Design (MAD) was established through a gift from The Morningside Foundation, the philanthropic arm of the T.H. Chan family, “... to create a transformative academic entity ... within MIT that integrates design into the educational and research enterprise and brings creative, humanistic thinking to society's biggest challenges.” The gift was allocated as follows:

The Morningside Foundation \$100M Gift		Funding Status
\$45M	Endowed Funds to Support Faculty, Education, and Outreach	\$15M funded
\$15M	Endowed Graduate Fellowships	\$15M fully funded
\$10M	Expendable Funds for Startup Costs	\$10M fully funded
\$30M	Named Space in the Metropolitan Warehouse	Funding starts FY25

MAD is an interdisciplinary hub for design education, research, and entrepreneurship. Its mission is to transform learning through design, to catalyze innovation using design tools and methodologies, and to encourage socially responsible entrepreneurship for greater problem-solving capacity globally.

MAD is directed by Professor Ochsendorf, associate director Professor Maria Yang, associate director for administration Marion Cunningham, and an executive team comprised of Professor Svafa Grönfeldt, Professor Skylar Tibbits, and Professor Kim Vandiver.

MAD HIGHLIGHTS

AY2024 was MAD’s second full year of operation. Over the year, we experimented with event formats, solidified burgeoning relationships with Institute and design partners, and continued to develop MAD’s strategic plan. Listed below are highlights from the year:

MAD Expands its Global Partnerships

MITdesignX Signs Two International Partnership Agreements

MITdesignX has extended its innovative approach to entrepreneurship and design globally through a series of international workshops tailored to address specific challenges. Run by Svafa Grönfeldt, MITdesignX faculty director, and Executive Director

Gilad Rosenzweig, two multi-year agreements were signed with the Dubai Integrated Economic Zone (DIEZ), and the City of Mexico.

1. In September, MITdesignX, in collaboration with the MIT International Science and Technology Initiatives (MISTI), signed a three-year renewable agreement with DIEZ to operate the MITdesignX accelerator program in Dubai for sustainability-focused startups. The first cohort ran between November and January with twelve startups, twelve MISTI undergraduate interns, and 150 pitch day attendees.
2. The second agreement was between MITdesignX, MIT's Leventhal Center for Advanced Urbanism (LCAU), and Mexico City (CDMX). The partnership addresses Mexico's needs for transitioning from fossil fuels to renewable energy. Funding was provided by the infrastructure sector company Mota-Engil México. MITdesignX ran a public hackathon with almost 200 participants and a summer venture accelerator with 27 accelerator participants and 200 pitch day attendees.

Design Research Society (DRS) Conference

DRS is a United Kingdom-based society focused on “promoting and developing design research [and scholarship] ... across all fields of design.” Their bi-annual conference was co-hosted by Northeastern University, MAD at MIT, and Harvard University and was held in the United States for the first time since the society's founding in 1966. Over 600 people from around the world attended the conference in person, with strong attendance for the MIT sessions on Thursday, June 27. Twelve MIT venues were reserved to accommodate workshops, conversations, paper sessions, poster sessions, book sales, and fringe events. MAD organized two sessions:

1. [Writing on Design: A Conversation on Data, Design, and Publishing](#). MIT Press Executive Editor-at-Large Gita Manaktala moderated a discussion between MIT Department of Urban Studies and Planning Professor Catherine D'Ignazio and Northeastern Professor Dietmar Offenhuber. About 115 people attended.
2. [Designing With, Not For](#). The program featured a conversation between Richard Perez, founding director of the Hasso Plattner School of Design Thinking at the University of Cape Town; Amy Smith, '84, ENG '95, SM '95, founding director of the MIT D-Lab; Surbhi Agrawal, 2022 MAD Design Fellow, urban planner, and data scientist at Sasaki; and Aditya Mehrotra, '22, SM '24, instructor of Mobiles for Development at MIT. The conversation was moderated by MAD Director Professor John Ochsendorf. Approximately 150 people attended.

MAD Experiments with New Program Formats

MAD Event: The Power of Design

MAD held its annual fall conference, The Power of Design, on November 15. This year's theme was “Designing Climate Futures” and offered a series of concurrent workshops

followed by speaker presentations, a conversation with Q&A, and reception. The workshop topics centered on design applications to three challenges:

1. Preserving the earth,
2. Engaging communities,
3. Developing entrepreneurial endeavors to combat climate change.

The speaker forum included Benjamin Bratton, director of the Antikythera Program at the Berggruen Institute; Paula J. Ehrlich, president and CEO of the E.O. Wilson Biodiversity Foundation; Janelle Knox-Hayes, professor of Economic Geography and Planning in the MIT Department of Urban Studies and Planning; and Ayr Muir, '00, the founder of Clover Food Lab. Professor Maria Yang moderated the conversation. Over 150 people participated in the event overall.

MAD Activates Making and Design: MAD IAP

MAD's three makerspaces supported 21 mini-maker grants as part of year two of the PKG Public Service Center's IAP mini-grant program, also in partnership with the MIT Climate Nucleus. Additionally, Project Manus, MAD N52, and MITdesignX offered sixteen workshops serving 138 participants during IAP, including a weeklong residency by Nervous System, "a design studio working at the intersection of science, art, and technology," workshops around textile, portfolio, maker skills, and a climate ideathon. Over 500 people registered for the workshops, which were attended at capacity.

MAD Develops its Organizational Infrastructure

Leader 2 Leader: Creating a Sustainable Startup

MAD sponsored a project with the 2023 class of Leader 2 Leader (L2L). The project commenced in July, and over the next six months, the L2L team worked to understand what conditions were required to create a sustainable startup and foster organizational success at MIT. The team's final report, delivered in February, included comparisons with organizational structures both inside and outside MIT.

MAD Faculty Advisory Council and Executive Team

The MAD Faculty Advisory Council was created to advise MAD on ways to elevate design at MIT. The Council is comprised of nine faculty members representing MIT's five Schools and met in April and June. MAD's executive team, comprised of the faculty leads of MITdesignX and Project Manus, Professors Grönfeldt and Vandiver, the Assistant Director for Education, Professor Tibbits, and MAD's senior leadership team of Professors Ochsendorf and Yang and associate director of administration Cunningham, met regularly throughout the year, and held year-end retreats to strategize around MAD's academic goals, the "making" infrastructure, and MAD's organizational structure.

MAD by DESIGN

MAD is charged with creating new educational experiences in design for students, building capacity for research, and connecting to a global network of industrial, educational, civic, and governmental organizations to expand educational impact and foster innovation among a new generation of socially responsible entrepreneurs, expanding design as a field of inquiry and action. Over the year, MAD realized this charge by emphasizing experiential learning, using design as a catalyst for change, and through the development of programming focused on participant engagement.

Transforming Learning

Students are looking to expand their design knowledge and understanding of how to use various design-centered tools, paradigms, and strategies for real world impact.

Design offers a conceptual framework for exploring and resolving complex problems while developing a sense of agency and mastery. Project Manus, the DesignPlus First-Year Learning Community (FYLC), and MAD's partnership with the Office of Experiential Learning are exemplars of this feature.

Project Manus

Project Manus is committed to creating maker spaces run by and for students, providing a mechanism for connecting making and design. One goal is to give 50% of first-year undergraduates exposure to the use of digital and manual shop equipment. To reach this goal, members of the Project Manus team raised awareness at the Academic Expo, Activities Midway, the First Generation and/or Low-income (FLI) first-year pre-orientation program (FPOP), and Arts on the Radar. Staff developed workshops for the Independent Activities Period, Campus Preview Weekend, and as part of the summer Interphase Scholar Program. First-year trainings were highlighted in an article published on MIT News for increased visibility. These efforts led to a 45.85% increase in the number of first-year students trained between AY2023 and AY2024 in the Project Manus shops:

Makerspace 1st-Year Training, AY22-AY24			
	AY2022	AY2023	AY2024
Unique number of students trained:	151	181	264
* Total first-year students in AY2024: 1,092			

DesignPlus First-Year Learning Community (FYLC)

DesignPlus, which stands for "Design + any discipline, is a new learning community open to MIT first-year undergraduates. It is a space for hands-on experimentation and exploration, acquiring technical skills, finding mentors and mutual support, learning about the MIT design community, and having fun. DesignPlus students discover different facets of design, both in theory and in practice. In AY2023, students were

assigned to advisor groups; this year, nine tracks of interest aligning with an advisor's area of research were introduced:

1. Material science and metalworking
2. Bio-making
3. Building for deployment (Hacking at MIT)
4. Design and International Development
5. Human-Computer Interaction
6. Audio engineering, designing your own boombox
7. Computer Science, Artificial Intelligence, and Accessibility
8. Art and Experience
9. Product Design and Development

Students attended weekly seminars where they were introduced to a generalist design framework around ideation, problem-definition, 2D illustration, and diagramming. Dedicated sessions featured several guest designers such as Professor Erik Demaine and entrepreneur Wombi Rose, '11. Students had full time access to a makerspace (with conventional tools, 3D printing and modeling software, and laser-cutting), dedicated technical instructors, faculty mentoring, and a community of peers.

Thirty students joined DesignPlus when it was created in the fall of 2021; 48 students joined DesignPlus in AY2024. Ninety-four applications were received for AY2025, and 50 students were selected.

IAP Mini-Grants

MAD provided \$11,365 in funding for design-related mini-grants during IAP through its partnership with the PKG Public Service Center. Twenty-one projects were funded, which included a student-led class on creating a LED light sign and lamp welding, several music-related projects, and robotics.

Catalyzing Positive Change

By amplifying and connecting design across MIT, MAD empowers individuals to engage complex challenges and play a pivotal role in shaping a more inclusive and sustainable future.

MITdesignX

MITdesignX is an academic program dedicated to design innovation and entrepreneurship, empowering students to build businesses addressing critical challenges facing society. The academic framework of MITdesignX consists of four phases:

1. understanding the nature of the challenge,
2. developing solutions that could solve the problem(s) based on research data and design,

3. envisioning the goals of a venture or solution, and
4. deploying a scalable, viable enterprise.

The venture accelerator is the hallmark of the MITdesignX program. Last year, fifty-one student teams, with over 150 students in total, applied to join the accelerator and “pitch” their idea to a panel of judges. The December “Entry” Pitch Day was the first major milestone in this process. Based on the strength of their pitch, twelve teams advanced, participated in the venture accelerator bootcamp in January, and took the Accelerator course in the spring. The culmination of the program is the May Final Pitch Day before an audience of peers, industry experts, and investors. This year, awards went to ventures dedicated to developing dynamic surfaces against injuries for wheelchair users; community-led participatory design processes for inclusivity in urban development; and the use of recycled coffee grinds to make vegan leather.

In conjunction with the venture accelerator, MITdesignX offered six subjects to 160 undergraduate and graduate students. Over 1,000 people accessed their online course and master classes through MIT Professional Education. In addition to the Dubai and Mexico agreements, MITdesignX offered programs in Venice, Italy; Hong Kong; and Reykjavik, Iceland, reaching over 140 participants and 600 program attendees.

MAD Design Fellows

MAD had eleven design fellows in its 2023 cohort. Students were from the School of Architecture and Planning (6), the School of Engineering (5), and the Sloan School of Management (1); one fellow was a dual degree in Architecture and Civil and Environmental Engineering. One of the students was supported through a partnership with the MIT Climate and Sustainability Consortium (MCSC). Fellows were engaged in a range of areas: nature-based solutions for coastal adaptation, designing software optimizing 3D-printable structures with exceptional properties, human-automation teaming for extreme medicine, and designing exercises to help engineering students learn in any context.

For the 2024 cohort, MAD received 89 applications, due January 16. Ten fellows were selected from the School of Architecture and Planning (5), the School of Engineering (5), and the MIT Sloan School of Management (1); one fellow is a dual degree with Architecture and Electrical Engineering and Computer Science.

MAD-Priscilla K Gray (PKG) Public Service Center Social Impact Internships

MAD partnered with the PKG Public Service Center to support two internships: one at iCivics, a provider of civics education, and one at Replate, a nonprofit focused on reducing food waste and food insecurity.

Hasso Plattner Foundation

AY2024 represented the first full year of the Hasso Plattner Institute (HPI)-MIT Designing Sustainability grant program funded by the Hasso Plattner Foundation (HPF). Twice a year, ten joint research teams of HPI and MIT Principal Investigators gather in

Potsdam, Germany (October) and Cambridge, Massachusetts (March) to report on their progress and meet in person. The deadline for the second call for funds was June 3. Proposals were reviewed by the Joint Selection Committee, awarding funding to four new proposals, five existing projects (additional funding), and three existing projects (one-year extensions).

Fostering Discovery and Lifelong Learning

MAD serves change agents at MIT and globally, providing design resources and experiences widely, to foster discovery, learning, creation, and impact on human, societal, and planetary scales. As an organization, we have a mandate to “broaden the application of design to unconventional fields including the civic realm, public health, lifelong learning, and community engagement.” One way we do this is through our public programs.

Generative AI + Creativity

Generative AI + Creativity was a part of President Kornbluth’s MIT Generative AI Week. Co-sponsored by MAD and the Media Lab, it included student lightning talks and two panel discussions with the following MIT faculty, researchers, and guests:

- Caitlin Mueller, Associate Professor, MIT Architecture and Civil and Environmental Engineering
- Zach Lieberman, Adjunct Associate Professor, MIT Media Arts and Sciences
- Michael Running Wolf, Software Engineer, Founder, Indigenous in AI/ML
- Caroline Running Wolf nee Old Coyote, Executive Director and Co-Founder, Buffalo Tongue, Inc.
- Pattie Maes, Professor, MIT Media Lab and Head of the MIT Fluid Interfaces Group
- Joshua Bennett, Professor, MIT Literature and Distinguished Chair of the Humanities
- Pelin Kivrak, Senior Researcher, Refik Anadol Studio

Approximately 165 people attended the event.

Design Redefined Speaker Series

In collaboration with the MIT Museum and Innovators for Purpose (iFp), a Cambridge-based, youth-focused non-profit dedicated to using design in conjunction with STEM for positive community and societal impact, MAD sponsored the Design Redefined speaker series. This bi-monthly series, offered at the MIT Museum, was organized as a panel presentation followed by a hands-on design activity. Four events explored artificial intelligence, shared public spaces, designing experiences, and accessibility. Design Redefined was targeted to middle- and high school students; 45 to 75 students and adults attended each event.

Boston Design Week

MAD organized an Open Studio for the public in N52 featuring the work of MIT D-Lab, MITdesignX, MAD Design Fellows, the Self-Assembly Lab, and the Urban Risk Lab. The event offered hands-on design activities, exhibits, and a student poster session. Ninety-four (94) people attended.

The following week, MAD organized a series of short discussions between three generations of Design Fellows: the inaugural 2022 cohort, the current cohort, and the newly selected 2024 designers. Each discussion explored design challenges across three themes: Bodies, Objects, Environments; 89 people attended.

Encouraging Community Engagement

MAD partnered with Architecture, Anthropology, the Computer Science and Artificial Intelligence Lab (CSAIL), Music and Theater Arts, and others to provide logistical, financial, and marketing support to programs and events that reached up to 1,000 people. Events included:

Arts on the Radar

MAD provided funding, volunteer staffing, and a hands-on activity for Arts on the Radar, joining Arts at MIT, List Visual Arts Center, Architecture; Art, Culture, and Technology, and the Media Lab, to produce this annual event attended by over 600 people and celebrating art and creativity at MIT.

On Wonder

In collaboration with MIT Anthropology and CSAIL, MAD supported the lecture and workshop of artist, magician, and researcher Jeanette Andrews. Eighty-nine people registered for the lecture and 18 people attended the workshop the following day.

Drawn Together

Cartoonist and teacher Lynda Barry, “explored questions of representational and other kinds of drawing” in her lecture. Additional supporters included MIT Anthropology and the Center for Art, Science, & Technology (CAST). Ninety-six people attended.

Transformative Design Lecture Series

MAD and the MIT Media Lab invited five up-and-coming academic leaders to share their work. Topics included critical technologies and their application to social and political issues; engaging our minds and hands in design as a way of embracing and exploring complexity; modes of making inspired by biology; design as a tool to shape our individual and collective worlds; and designing with the living world.

How to Design a Revolution

MIT professor Eden Medina co-authored the book *How to Design a Revolution* with Hugo Palmarola and Pedro Ignacio Alonso, both associate professors at the Pontificia Universidad Católica de Chile. The book documented the graphic and industrial design projects developed during the presidency of Salvador Allende in Chile. A book

discussion and Q&A with the authors was moderated by Professor Arindam Dutta from MIT Architecture. Sixty-five people attended.

The book launch was accompanied by a video installation of the exhibition derived from the book, displayed in Building 9.

This collaboration included the MIT Program in Science, Technology, and Society (STS); MIT School of Humanities, Arts, and Social Sciences (SHASS); MISTI; SA+P; MIT Architecture; Lars Müller Publishers; Centro Cultural La Moneda; Pontificia Universidad Católica de Chile; Ministerio de Ciencia, Tecnología, Conocimiento e Innovación de Chile; and Fundación Imagen de Chile.

Department of Architecture Lecture Series

Teddy Cruz and Fonna Forman discussed their books *Spatializing Justice* and *Socializing Architecture* (MIT Press). The event had an in-person audience of 65 people.

A Call for Collaborative Events

MAD posted three calls for submissions for event collaborations around design. We received twelve proposals and provided financial sponsorship to MIT D-Lab for a Design for Development Dinner; Sloan Design Club events (discussion with Tiffany Chu, '10, and a Journey Mapping Workshop); and a student-led dialogue series addressing planetary health, co-sponsored by the Radius Forum on Technology and Ethics, PKG Public Service Center, Planetary Health Alliance, and the Office of Sustainability.

MAD COMMUNICATIONS

MAD's communications serve four objectives:

- Be a physical and digital design resource for MIT students.
- Establish MIT as a reference in design education.
- Equip and inspire students to imagine / create / prototype / scale projects for social impact and sustainability.
- Spark behavioral change by co-creating new narratives for long-term societal change.

Multiple communications channels are mobilized to serve MAD's audiences, with a specific focus on students and faculty.

MAD Website: design.mit.edu

The graphic design studio Omnivore conceived the MAD website in collaboration with independent developers Rahul Shinde and Lukas Eigler-Harding. Since its launch in 2022, the site has been updated twice and is undergoing a third revision to improve navigability, include project and resource sections, and add a search function. In AY24, the website published 67 news items (long-form articles, highlights, calls for

applications), of which 18 were videos. It had 42,776 single users, from 170 countries, with an average engagement rate of 56.63%. As a point of reference, good website engagement is approximately 60%.

E-Newsletter

MAD sends monthly emails during the academic year with an average open rate of 55% and an average click rate of 8.6%. MAD’s open and click rates continue to compare favorably to other, similar organizations:

MAD Email Communications Performance vs Industry Benchmarks		
	Open Rate	Click Rate
MAD (10 emails)	55%	8.6%
Overall	35.6	2.6
Arts and Artists	42.2	2.8
Education	35.6	3.0
Entertainment & Events	37.3	2.3
Non-Profit	40.0	3.3
*Source: Mailchimp, “Email Marketing Benchmarks and Statistics by Industry.” mailchimp.com/resources/email-marketing-benchmarks/ . Accessed August 13, 2024.		

Social Media

MAD uses social media to maximize reach and infuse a culture of design among its audiences. MAD’s performance to date is summarized below:

MAD Social Media				
	Followers as of June 30, 2023	Followers as of June 30, 2024	# Change	% Change
Instagram	1,434	4,983	3,549	247%
LinkedIn	896	3,187	2,291	256%
Twitter (X)	500	937	437	87%
YouTube	53	912	859	1,621%
YouTube views	2,282	27,958	25,676	1,125%

MAD ORGANIZATIONAL DEVELOPMENT

MAD Executive Team

MAD continued to work with Human Resources consultant MDH and Associates to develop the elements of a change management plan that included a staffing structure and a process for transitioning to the new structure. Numerous organizational structures were identified and examined. However, none were adopted and exploration and self-examination continued.

L2L Team Project: Creating a Sustainable Startup

The L2L team presented its recommendations to its project sponsors in December and the final written report in February. The findings centered around the themes of strategic planning, financial stability, impact, brand development, and organizational structure. Their recommendations were based on 13 interviews of MAD leadership and stakeholders, an assessment of five successful startups operating within MIT, e.g., MISTI, and the Idea Forge at the University of Colorado Boulder, a well-regarded design-centered entity at a university.

Faculty Advisory Council

The first meeting of the Faculty Advisory Council was held in April. The group offered ideas about how to engage the MIT community, priorities, and ways to elevate design at MIT. Members of the Faculty Advisory Council are:

1. Sara Brown, Associate Professor, Music and Theater Arts
2. Catherine D'Ignazio, Associate Professor, Urban Studies and Planning
3. Canan Dağdeviren, Associate Professor of Media Arts and Sciences
4. Yolande Daniels, Associate Professor, Director, Architecture and Urbanism
5. Anette "Peko" Hosoi, Pappalardo Professor of Mechanical Engineering
6. David McGee, Associate Professor, Earth, Atmospheric, & Planetary Sciences
7. Stefanie Mueller, Associate Professor, Electrical Engineering and Computer Science
8. Scott Stern, David Sarnoff Professor of Management of Technology, The Sloan School
9. Amos Winter, Ratan N. Tata Career Development Professor, Mechanical Engineering

PERSONNEL

Over the year, MAD appointed an Assistant Director for Education, hired two people, promoted the Communications Coordinator to Director of Communications, and had two resignations (Alex Aho and Conor McArdle). MAD personnel are listed below:

MAD Leadership Team

- *Professor John Ochsendorf, Founding Director
- *Professor Maria Yang, Associate Director
- *Marion Cunningham, Associate Director, Administration

Administrative Team

- *Professor Skylar Tibbits, Assistant Director, Education
- Roi Salgueiro Barrio, Curator–Director
- Adélaïde Zollinger, Director of Communications (promotion effective December 1)
- C. Allison John, Financial Assistant 3 (hired March 25)
- Jennifer Spungin, Administrative Assistant

N52 Design and Facilities Specialists

- Christopher Haynes, Facilities Manager
- William McKenna, Technical Instructor

MAD/Project Manus

- *Professor J. Kim Vandiver, Director
- Jonathan Hunt, Associate Director
- Seth Avecilla, Maker Technical Specialist
- Jess Osserman, Maker Technical Specialist
- Lee Zamir, Maker Technical Specialist
- Oliver Thomas, Maker Digital Systems Architect
- Katherine Gilbreath, Administrative Assistant
- Chris Murphy, Senior Business Systems Analyst

MITdesignX

- *Professor Svafa Grönfeldt, Faculty Director
- Gilad Rosenzweig, Executive Director
- Laurent Witte (hired November 29)

**Executive team members*

John Ochsendorf

Founding Director, MIT Morningside Academy for Design

Class of 1942 Professor; Professor of Architecture; Professor of Civil and Environmental Engineering

Maria C. Yang

Associate Director, MIT Morningside Academy for Design

Gail E. Kendall (1978) Professor, Mechanical Engineering

Deputy Dean, School of Engineering

Marion Cunningham

Associate Director, MIT Morningside Academy for Design