SHAPING THE FUTURE

Sam Fox School Strategic Plan

Digital Transformation in Art, Architecture, and Design

We will harness the power of transformative digital tools in architecture, art, design, and museum to advance and critically assess emerging technologies that shape our world; to access and widely disseminate impactful research, creative activity, and scholarship; and to practice and teach at the cutting edges of our fields.

Progress 2024-2025

Andrew Witt Named Inaugural Kavita and Krishna Bharat Professor

Following a national search, Andrew Witt was appointed as the inaugural Bharat Professor in partnership with the McKelvey School of Engineering. A longtime faculty member at Harvard's Graduate School of Design, Witt co-directed the Master in Design Engineering program and was founder of Harvard's Geometry Lab. At WashU, Witt will lead University efforts in AI and design, integrating emerging technologies into both academic and studio experiences and developing new courses and research frameworks that shape the future of design education and practice. He will teach interdisciplinary studio and seminar courses in AI, computational design, and geometry in both schools and will serve as core faculty for the Sam Fox School's new Master of Design for Human-Computer Interaction and Emerging Technology (MDes). His work operates at the cutting edge and at the intersections of architecture, art, design, and engineering, with a focus on the relationship between geometry, data, AI, design, construction, and culture.

MDes Announces Inaugural Research Theme: Interactions with Extreme Weather

As the climate crisis accelerates, people, infrastructure, and ecosystems face unprecedented threats. From torrential floods and tornadoes to record-breaking heat and poor air quality, to crop degradation and water scarcity, the effects are increasingly visible, personal, and structural. These phenomena are no longer future scenarios—they are current, lived experiences, and they represent urgent, complex, and critical design challenges. This first cohort of MDes students, in collaboration with faculty, researchers, and external partners, will speculate on new modalities of interaction that reflect climate uncertainty: How might we design for weather we can't predict? How can interfaces adapt as the world becomes more volatile? How can tools and systems better connect, not just when weather hits, but over time as communities respond, adapt, and become more resilient? This is not just a studio about the weather. It is a studio about care, adaptation, anticipation, and justice—led by design, powered by technology, and shaped by the communities and needs it serves.

AI & Digital Transformation in the Classroom

Faculty are advancing digitally focused coursework across the School, pushing students to creatively engage with emerging technologies while building the critical analysis tools necessary to guide their ethical use in future practices. Notable courses include:

- Design with Artificial Intelligence (Art 4280): Led by Josh Azzarella, Senior Lecturer and Co-Area Coordinator for Time-Based Media Art, this course equips students with the skills to innovate at the intersection of art, design, and AI. This studio course introduces AI's transformative role in creative practice, teaching students to integrate AI into workflows, build AI-powered tools, and develop methodologies at the intersection of art, design, and AI. Students learn basic data science and model training foundations by making projects with methods such as creative coding, language model fine-tuning, image generation, and sound classification.
- The Details of Modern Architecture (ARCH 7010): Karel Klein, Senior Lecturer, leads a course working with students on projects that collaborate with artificial intelligence neural networks as a provocation to conventional aesthetic practices in architectural design. In this graduate option studio, students are preparing technical drawings, 3D printed models, and AI-generated models built using common non-architectural forms. Students in the course have remarked that the AI-driven coursework has helped them reconsider forms, connections, and processes to see alternatives. It isn't just about the final design, but how AI can challenge you to see things in new ways.

Future Directions & Opportunities

Digital Transformation Summer Corps

WashU's Digital Intelligence & Innovation (DI2) launched a Digital Transformation Summer Corps to bring together talented students with software development and data science skills to collaborate with faculty on cutting-edge research projects. This paid, 10-week program provides students with real-world experience while giving faculty access to technical expertise. By connecting students and faculty across disciplines, the Summer Corps is strengthening and uniting WashU's developer community, breaking down existing silos between schools and departments to drive interdisciplinary collaboration. DI2 is partnering with the MDes program for the Summer 2026 cohort to embed a design-led approach project development to accelerate implementation timelines and build more intuitive, reusable digital tools. The goal is not just to solve problems, but to create an infrastructure that will accelerate ongoing research projects across WashU for years to come.

Developing Effective Interfaces for Human/Computer Partnerships

Jonathan Hanahan and two colleagues from the McKelvey School of Engineering won a Here & Next Ignite grant to develop a haptic interface system for human/computer partnerships for physical activity and movement. This new collaboration will invert, and explore alternatives to, the visual-first priority of digital interfaces and investigate how information is translated through ambient and multi-sensory strategies that "complement a human's environment, rather than impose themselves on it." This is a significant area of interest across private and federal research priorities, and this will help build a unique infrastructure at WashU that brings together domains like human-centered design, wearables, instrumentation, and human-computer interfaces, similar to the Media Lab at MIT.