SHAPING THE FUTURE

Sam Fox School Strategic Plan

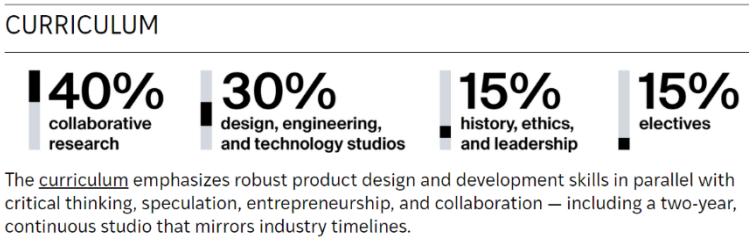
Digital Transformation in Art, Architecture, and Design

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 Fall 2024

MDes for HCI and Emerging Technology

The Sam Fox School is now recruiting the inaugural class for the two-year, STEM-designated Master of Design for Human Computer Interaction and Emerging Technology. Chaired by Prof. Jonathan Hanahan, the program partners with instructors from the McKelvey School of Engineering and the Skandalaris Center for Interdisciplinary Education and Entrepreneurship. The curriculum has been intentionally designed to immerse students with researchers from across campus to explore emerging technology's impact while advancing team-building and leadership capabilities.



Kavita and Krishna Bharat Professorship

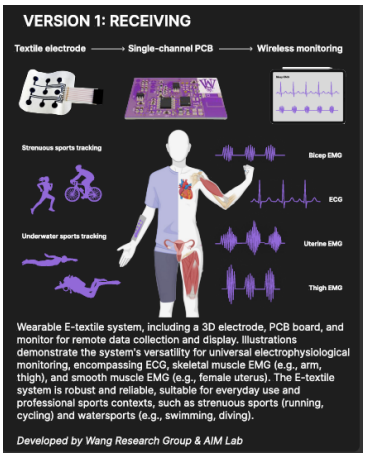
A search is underway for the Kavita and Krishna Bharat Professor. Conceived as a joint appointment between the Sam Fox School and the McKelvey School of Engineering, the Bharat Professorship will allow us to recruit an accomplished and dynamic faculty member at the full professor level who works at the intersection of architecture, art, and/or design; emerging technology with an emphasis on artificial intelligence (AI); and engineering. This position has been identified as a Field Leading Faculty hire through the University's *Here & Next* Washington University Strategic Plan. Park Square Executive Search has been engaged to help guide the search process.

Partnership with the DI2 Accelerator and Digital Solutions Studio

The Digital Intelligence & Innovation Accelerator (DI2) is the institutional home for implementation of the Digital Transformation pillar of Washington University's Here & Next strategic plan. The Digital Solutions Studio (DSS) was founded by DI2 and provides best-in-class software and data engineering services to Washington University researchers to accelerate prototype creation, software solutions, and AI capabilities. The design capabilities of the MDes and engineering prowess of DSS together provide an institutional partnership that creates unique experiential learning opportunities and greater services for DSS stakeholders. The teams are working to establish best practices for intellectual property and project management to support the inaugural cohort of students and projects, as well as to lay the foundation for greater collaboration in the Design Hub, the planned future home of both institutional initiatives on the Danforth Campus.

AI + Design & Digital Translation Symposia
The Sam Fox School hosted the second AI+Design symposium in March 2024. *AI+Design Symposium: Learning from AI* was held in Kuehner Court and invited students and faculty to delve into the intersections of artificial intelligence and design. Panel discussions addressed the creative design process and machine-augmented vision, focusing on understanding how perspective gained from AI can impact and influence creative practices. Sam Fox School faculty and research featured prominently in the October 2024 WashU Digital Transformation Summit – *Translation by Design*. This summit highlighted the successes of Here & Next's digital transformation team and showcased future potential for digital transformation and design to help advance health and equity.

Partnership with the DI2 Accelerator and Digital Solutions Studio
Prof. Jonathan Hanahan is partnering with Prof. Shantanu Chakrabartty and Chuan Wang, both from the McKelvey School of Engineering, to develop a proof-of-concept haptic interface system to guide human/computer partnership to drive physical activity and movement. Using a design-led approach, the team will use advanced materials to develop a wearable network of sensors capable of transmitting custom haptic patterns and monitoring biometric performance data as a means of non-visual feedback to guide subjects over a series of computer guided workouts. This is the first step in a long-term research collaboration to scale the technology to different users and use cases, including health, defense and other fields.



Future Directions & Opportunities

Here & Next Seed Grants
WashU's Here & Next strategic plan provides seed grants for collaborative faculty teams to conduct preliminary work that will help them successfully compete for future funding opportunities. New Sam Fox School faculty were quickly connected with collaborators across campus and are actively competing for these funds. Prof. Tiffany Calvert, Chair of the MVA-VA program, is working with Prof. Ulugbek Kamilov from the McKelvey School of Engineering to explore new methods for training AI systems on Dutch and Flemish still life paintings. This work will expand her creative practice and provide ways to test AI image generation models using new datasets. Prof. Bei Hu is seeking to collaborate with faculty from Public Health and Medicine to research user design approaches for the development of new, and more effective, apps for substance abuse and housing insecurity.

Digital Transformation for Economic Development and the Built Environment
Prof. Hongxi Yin is seeking to collaborating with Kent State University, municipal governments and national industry partners to leverage AI and autonomous tools to deconstruct non-viable housing and rework the reclaimed building materials for scale reintroduction to the domestic construction market.

Bloomberg Connects
Bloomberg Connects is a free mobile app that provides exert-curated content and guides to over 600 museums, galleries, sculpture parks, gardens, and cultural spaces. The Mildred Lane Kemper Art Museum has connected with Bloomberg Philanthropies leadership and is in the early stages of exploring how to connect the museum's collections and events through the app to reach more people.