



2024 Annual Report

Digital Intelligence & Innovation (DI²) Accelerator



Advancing Digital Transformation at WashU

Reflecting on the past two years since the launch of the Digital Transformation initiative within the Here and Next strategic plan, I am filled with pride at what we have accomplished together. What began as a bold vision to harness the transformative power of digital innovation across WashU has grown into the fully realized and thriving **Digital Intelligence & Innovation (DI²) Accelerator**, driven by a passionate team and a mission that now resonates across our campuses.

The DI² Accelerator, serving as the institutional hub for digital transformation, has delivered remarkable early successes. From fostering interdisciplinary collaboration and accelerating research outcomes to deploying innovative AI tools and expanding the **Digital Solutions Studio (DSS)**, the initiative has positioned WashU as a leader in digital innovation. Projects like the St. Louis Dashboard, which now enables faster access to critical public policy data, exemplify the accelerator's impact—completing in less than a year what was originally projected to take five.

This year marks a pivotal moment for the accelerator's evolution. With the hiring of its inaugural executive director, **Dan Maranan**, and the assembly of a diverse and talented team, the accelerator is poised for its next chapter. New efforts include creating a **universitywide faculty research profiling system** to connect researchers, fostering a collaborative digital ecosystem, and advancing **faculty cluster hires** in AI, geospatial analytics, and computational public health. These developments underscore WashU's commitment to leveraging technology as a force for good, empowering researchers to address global challenges.

As the DI² Accelerator expands its scope and influence, I will be stepping back from my role as chair of the Digital Transformation initiative to focus on my new position as the inaugural Chief Health AI Officer at the Center for Health AI—a joint initiative of WashU Medicine and BJC HealthCare. I do so with full confidence in the dedicated and growing staff who are leading this work into its next phase.

It has been an incredible honor to see this vision take root and flourish. I am excited to pass the reins to a team that will continue to drive innovation, collaboration, and research impact. Thank you to everyone who has contributed to this transformative journey—your efforts are shaping the future of WashU in profound and enduring ways. I cannot wait to see what lies ahead.

With gratitude,

Philip R.O. Payne, PhD, FACMI, FAMIA, FAIMBE, FIAHSI

Director, Institute for Informatics, Data Science and Biostatistics (I2DB)

Janet and Bernard Becker Professor

Inaugural Chief Health AI Officer

WashU Medicine



Digital Solutions Studio

The Digital Solutions Studio (DSS) provides professional data engineering and software development services to help WashU faculty bring digital research projects to life. In 2024, under the direction of the inaugural Director of Digital Solutions, Saif Arif, the DSS partnered with WashU researchers to successfully launch three innovative digital products, with additional projects currently in development.

“Having someone help with the design, the project management, etc., in such a bold and competent way – it was really like being strapped into a rocket. That’s how much it advanced our project.”

Andrew Reeves, PhD
Professor of Political Science

Projects launched

St. Louis Data Dashboard 2.0

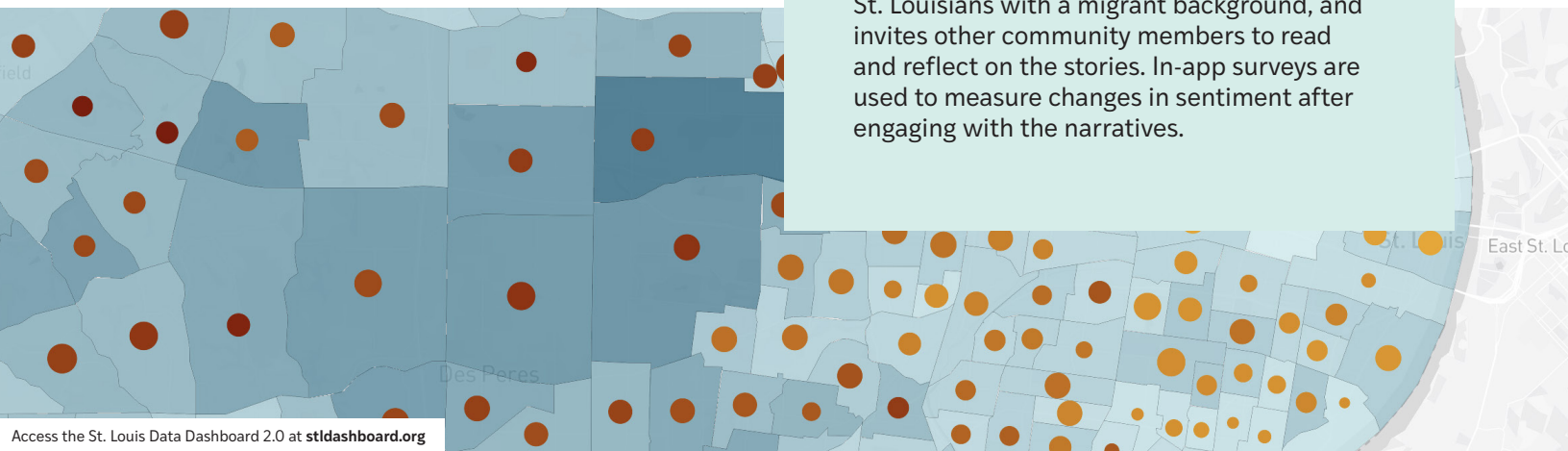
The relaunched platform, developed in collaboration with the Incubator for Transdisciplinary Futures, provides a user-friendly dashboard that visualizes data about St. Louis and St. Louis County, including census information, local election results, 311 call statistics, and more.

Star*Bien

The mindfulness platform, developed in collaboration with the Psychological and Brain Sciences department, is designed for impact studies, enabling researchers to analyze and visualize data on the cognitive health effects of mindfulness in Latino adults.

Moving Stories

The web app, developed in collaboration with the Incubator for Transdisciplinary Futures, collects the personal narratives of St. Louisians with a migrant background, and invites other community members to read and reflect on the stories. In-app surveys are used to measure changes in sentiment after engaging with the narratives.



Highlighted projects in development

The WashU Chatbot Builder will allow researchers to build custom chatbots grounded in their own data to uncover new insights or navigate information more efficiently, without requiring technical expertise.

BrainMindR is a next-generation mindfulness app for iOS and Android that integrates Ecological Momentary Assessment (EMA) with game and reward features to collect real-time data on behaviors and experiences, advancing clinical psychology research and practice.

Consultations and partnerships

The DSS consulted or partnered with WashU researchers on the following projects:

The development of a library for **ArcGIS Enterprise**, a cloud-based geospatial mapping platform.

An effort with physician Dr. Allison Miller to **integrate wearable device data into EPIC**, enabling the tracking and monitoring of physical activity beyond physical therapy.

WashU AI Toolbox

Together with WashU Information Technology, the DI2 Accelerator continues to build and expand a suite of artificial intelligence (AI) tools within WashU's secure AI sandbox empowering researchers to perform advanced data analysis and accelerate discovery.

WashU ChatGPT

In October, the accelerator and WashU IT upgraded the secure AI sandbox to use Open AI's new GPT-4o "omni" model – one of their most advanced artificial intelligence models capable of complex problem solving.

The upgrade to GPT-4o provides better functionality to WashU users, with text generation at double the speed and significant improvements with non-English languages.

Secure API access to AI endpoints

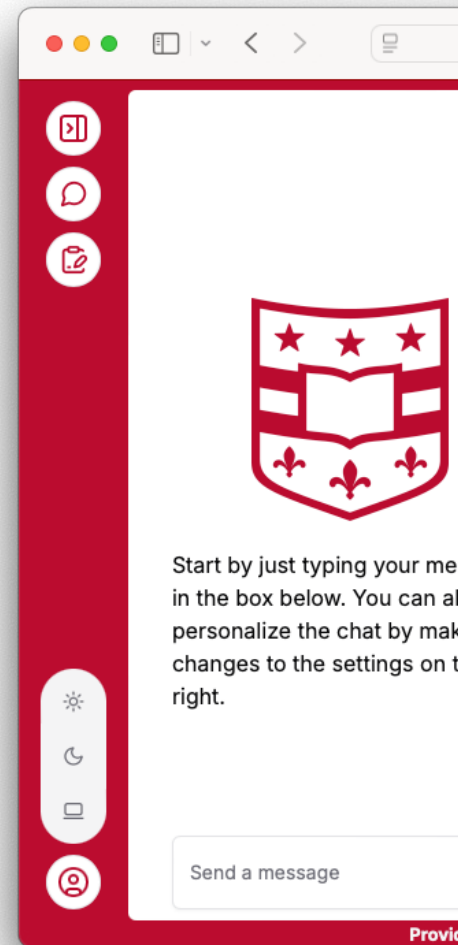
In September, the accelerator and WashU IT launched access to API endpoints within WashU's secure generative AI environment, enabling researchers to utilize advanced GPT functionality in their research projects to analyze data, review literature, translate text and more. A custom-built feature allows users to set a fixed budget and avoid surprise bills.

8,806
Unique users

490,560
Chats

4,674
Documents uploaded

26
API Beta users



Key partnerships

Collaborating for impact

Through strategic partnerships with WashU programs and departments, the accelerator is bridging the silos of academic research.

In February, a site visit to **Stanford University** provided opportunities for cross-institutional collaboration and knowledge sharing. Internally, we partnered with WashU Libraries to purchase an advanced 3D scanner and launched the **Accelerator Award for Open Educational Resources**, supporting the development of accessible digital materials. Additionally, we engaged WashU students by sponsoring **HackWashU**.

Joint Office for Digital Transformation

The new joint office, a collaboration between the DI2 Accelerator and WashU IT, streamlines the secure, rapid deployment of advanced digital tools on an institutional level, delivering the technology platforms needed for a "digital first" approach to research and innovation. Michelle Fuertes, director digital transformation for IT, leads the new office.

New leadership and location

In 2024, the accelerator expanded its leadership team with key appointments: **Dan Maranan** as the inaugural executive director, **Saif Arif** as director of digital solutions, and **Kelly Walker-Moseley** as director of industry relations.

The accelerator also relocated to Sever Hall, at the heart of the Danforth Campus, steps away from our collaborators. The shared space fosters synergies with the Provost's Institutional Effectiveness team and the Beyond Boundaries program.



Members of the DI2 Accelerator, TRIADS and WashU Libraries visit the Stanford University campus.

Convening events

Digital Universities US 2024

On May 6, WashU proudly hosted the third annual Digital Universities US conference, bringing together hundreds of thought leaders driving the digital transformation of higher education. Organized by Times Higher Ed and Inside Higher Ed, the national event featured over **100 speakers, including 15 from WashU**, and an inspiring Assembly Series presentation by **Jennifer Pahlka**, founder of Code for America and former U.S. Deputy Chief Technology Officer under President Obama.

DIGITAL
Universities_US

338
Attendees

163
Institutions

100
Expert speakers



Digital Transformation Summit: Translation by Design

The second annual *Digital Transformation Summit* on Oct. 17, brought together the campus community for discussions on how to approach research and problem-solving with translation, craft and collaboration as a foundation, using efficient and delightful digital solutions to have real-world impact in our community and beyond. Highlights included keynote speaker **Peter Embí, MD**, and an interactive **Research Translation Challenge**.



Digital Transformation Coffee Hours

Each week, the DI2 Accelerator hosted discussions with researchers and innovators working in prioritized digital domains, with representation from all eight schools in 2024. These morning sessions foster the exchange of ideas that help break down barriers to interdisciplinary research.

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| <p>23 Danforth Campus Coffee Hours</p> | <p>8 Medical Campus Coffee Hours</p> | <p>2 Delmar DivINe Coffee Hours</p> |
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2024 coffee hour guests

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|-----------------------------------|--------------------------------------|---|--------------------------------|--|--|
| Center for Teaching and Learning | Delmar DivINe | Digital Preservation | HackWashU | WashU Libraries AV/VR/AR Studio | Mallinckrodt Institute of Radiology |
| H&N Graduate Education | Student Technology Services | University Marketing & Communications | WashU Libraries Archives | In St. Louis For St. Louis | Center for Digital Education |
| Administrative Data Core Services | MDes for HCI and Emerging Technology | Tech Den | Geospatial Research Initiative | Center for the Environment | Vice Chancellor for Medical Education |
| Immersive Technology Collective | AI-ACCESS NRT Program | School of Continuing and Professional Studies | WashU Libraries Data Services | Sam Fox School of Design & Visual Arts | Transdisciplinary Institute in Applied Data Sciences |