Digital Infrastructure Insights Fund announces 9 new Research Grants to Advance Resilient, Open, and Equitable Digital Ecosystems

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The Digital Infrastructure Insights Fund (D//F), a globally recognized research initiative backed by the Ford Foundation and Alfred P. Sloan Foundation since 2018, is excited to announce the launch of 9 new grants under its fourth funding cohort.

The selected projects underscore D//F's mission to advance sustainable, secure, and resilient open digital infrastructures (ODIs) while fostering a deeper understanding of their societal impact and critical role in serving the public interest.

Our shared digital infrastructures—encompassing permissively licensed source code, open standards, and other knowledge assets—are indispensable to public functions such as ensuring data security, promoting equitable access to knowledge and technology, and safeguarding digital sovereignty.
They underpin all modern science, governance, and the global economy. Estimates suggest that 70–90% of globally deployed software relies on Free and Open Source Software (FOSS) components - ubiquity highlights their economic, social, and political significance.

However, challenges such as the absence of long-term funding mechanisms and the dominance of corporate or state agendas in some technological ecosystems pose significant threats to the openness and democratization that underpin ODIs. Sustaining those infrastructures long-term demands a nuanced understanding of open-source production rationales, the boundaries of openness, and a commitment to stewardship over control.

ODIs do not rely solely on financial resources; their strength lies in their communities of practice, which uphold functionality, relationships, and interdependencies within a complex network of behavioral norms, as well as social and technical standards. **D//F**

thus serves as a platform and field builder, bringing together researchers, practitioners, and public-private collaborations to drive the creation of sustainable ecosystems for open-source digital technologies.

The Cohort 4 grantees deliver essential and timely interventions to bolster the resilience of ODIs.

Through a combination of quantitative and qualitative research, their projects tackle social and governance challenges, regulatory barriers, cybersecurity risks, and sustainability gaps. These efforts aim to catalyze solutions to pressing global issues, addressing the interconnected threats to undersupplied yet indispensable digital building blocks and the communities that sustain them.

D//F was born in the wake of the Heartbleed bug, a major security vulnerability that revealed systemic flaws in the decentralized and under-resourced ecosystem of public coding communities and their intersection with external forces such as markets or law.

Since its inception, D//F has invested over $3 million in 45 projects, prioritizing public interest at the heart of research and implementation.
The program has fostered critical knowledge transfer and strengthened the digital infrastructures that underpin our interconnected future.

2024 Grant Highlights

Cohort 4 of the Digital Infrastructure Insights Fund grants represents a rich tapestry of domains, disciplines, methodologies, local contexts, and technologies: Explore the details of the 9 grant projects below and learn more on our website: https://infrastructureinsights.fund.

Governance, Policy, and Regulation

- **Democratic Governance for Browser Funding**
  Researcher: Robin Berjon

  Developing governance frameworks to democratize revenue-sharing systems in browsers and search engines. By prioritizing public interest, the project aims to create equitable funding models that reduce corporate dependency, ensuring transparency and alignment with societal needs.

- **Legal Liabilities in Open Source Development**
  Researchers: Benedict Kingsbury, Angelina Fisher, Han-Wei Liu, Thomas Streinz

  Addressing the increasing risks of legal liabilities for grassroots FOSS communities, this project examines regulatory challenges and their implications. It offers strategies to mitigate compliance burdens, safeguard community innovation, and foster sustainable software development.

- **Governance of Public-Private-Commons Systems**
  Researchers: Marco Berlinguer, Massimo Florio, Silvia Vignetti

  Investigating innovative governance models that integrate governments, markets, and commons, this project explores how public-private-commons collaborations can foster inclusivity, transparency, and innovation in managing digital infrastructure.

Privacy and Security

- **Privacy Risks in Indian Digital Public Infrastructure**
  Researchers: Divyank Katira, Gurshabad Grover, Anunay Kulshrestha

  This research delves into the privacy implications of India's rapidly growing digital public infrastructure, exposing risks such as mass surveillance and data misuse. The project offers actionable insights and recommendations to safeguard citizen data and uphold privacy rights.

- **Securing Open Source Supply Chains**
  Researchers: Stephanie Lieggi, Jarrod Millman, Robert Shaw, Juanita Gomez

  Drawing lessons from historic trade security principles, this project focuses on enhancing the resilience of open-source software supply chains. It proposes collaborative strategies to address dependency vulnerabilities and mitigate systemic risks.

Power Dynamics, Sustainability and Community Impact

- **Sustainability for Community-Focused ISPs in Brazil**
  Researcher: Nathalia Foditsch

  This project explores how small, community-based Internet Service Providers (ISPs) in underserved regions of Brazil can leverage FOSS to improve operational sustainability and expand affordable internet access, helping to bridge the digital divide.

- **Corporate Impacts on OpenStreetMap**
  Researcher: Yair Grinberger

  Analyzing the influence of corporate contributions on OpenStreetMap, this project investigates how these collaborations shape the platform's collective intelligence while striving to preserve community autonomy and transparency.

Metrics & Adoption

- **FOSS Code Classifications and their Socio-Technical Impacts**
  Researchers: Darren Gergle, Aaron Shaw, Matt Gaughan

  Through an in-depth analysis of MediaWiki's codebase and community practices, this project examines the socio-technical dynamics of FOSS development. It highlights the impact of decision-making on code complexity, maintainer engagement, and user communities, offering insights for sustainable software practices.

- **<u>Incentivising Open Research Infrastructure</u>**
  Researchers: Katherine Skinner, Chrys Wu, Lauren Collister

  Evaluating how metrics can drive investment in and adoption of open research tools, this project identifies strategies to ensure the long-term viability of infrastructure critical to global academic and scientific research.

Through fostering collaboration, experimentation, and the exchange of knowledge, the funders circle and program are dedicated to supporting the interests of those who create, use, sustain, and depend on critical open-source projects across FOSS communities, science, research, public administration, and the global economy.

Achieving long-term sustainability requires active partnerships across industries and organizations. If you identify synergies with your initiatives, we encourage you to reach out.

The grant program operates through open calls for proposals (RFPs) as well as commissioned research and (academic) events.
Stay informed about our 2025 plans by visiting our website or subscribing to our newsletter: https://newsletter.infrastructureinsights.fund