Funders' Toolkit for Digital Infrastructure

Report by [The IO Foundation](#)

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Introduction

The importance of infrastructures as a national priority relates to the protection of citizens and their data. When looking at digital technology and services offered in Asia, they are primarily run by the private and government sectors.

This document is the written report of a series of interviews conducted by The IO Foundation (TIOF) with funding organizations for the development of a Funders' Toolkit for Digital Infrastructure, a project led by Simply Secure.

The geographical scope for our research were funders that primarily reside in India, Malaysia, Singapore and the Philippines. For ease of reference, we will represent each funder with the following encoding:

Funder code	Funder name	Funder type	Funder territory
A	GitHub (India)	Private	India
B	Omidyar Network India	Philanthropy	India
C	Mozilla Foundation	Non-profit	India; the Philippines
D	FOSS United Foundation	Non-profit	India
E	Chintu Gudiya Foundation	Non-profit	India
F	Konrad Adenauer Stiftung Foundation	Political think tank & foundation	India; Malaysia; Singapore; the Philippines
G	Open Technology Fund (OTF)	Non-profit	Global
H	APNIC Foundation	Foundation	South East Asia
I	Hivos (Digital Defenders Partnership)	Non-profit	India; Malaysia; Singapore; the Philippines
J	DCN Global	Non-profit	South East Asia
K	ISOC Foundation	Non-profit	Philippines and Global
L	UNDP Malaysia	Intergovernmental organization	Malaysia

Table 1: reference to the 12 funders interviewed by TIOF in this project
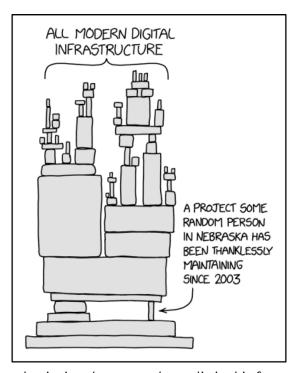
Background Information

Image 1: a meme depicting how modern digital infrastructures look like

The interviews revealed two types of infrastructure in the minds of the funder organizations:

1. **Hard infrastructure**
2. **Soft infrastructure**

Hard infrastructures refer to physical, material and built infrastructure such as those in the form of pipelines, roads, railways, tunnels or bridges. In the context of technology these are communication lines, networking equipment, servers and in general any hardware (and software) that enables the creation and maintenance of digital spaces.

Soft infrastructures, on the other hand, refer to the socio-cultural structures and political systems that govern the lives of society and support the development of the human capital necessary to build the hard infrastructures mentioned before. These include the family units, educational and healthcare systems, law-making

and law enforcement institutions, monetary and banking institutions that support the operation of businesses that make or break the economy and so on. In the context of technology, soft infrastructures also cover the software that enables all of the above to be implemented inside digital spaces.

The funding organizations that we talked to mostly fall under the second category with regards to their understanding of digital infrastructure. During the course of this research for the Digital Infrastructure Toolkit, we found that there is a lack of focus given to the soft infrastructure aspect of digital infrastructure development, especially when it comes to governance of technologies.

Therefore, it has to be noted that most funders we interviewed work in the area of the "soft" side of infrastructure, specifically technology policies or policies on technology. This was one of the most common themes that we had to elaborate on when clarifying how digital infrastructures are relevant to their work. Technology policy is not always as obvious as technology innovation. We found a need for a paradigm shift or a change in perspective when it comes to technology innovation to include social policies that parallel the innovation in the tech industry. In other words, it is not only technology that needs to innovate, social policies also need to do the same.

I. Key Findings

While all funders have different priorities to be in line with their mandates, the main objective to help make a positive difference in the digital space is evident. Below are some main takeaways from our interviews with the funders:

Lesson 1: what kind of projects get funded?

Grantee projects do not have to be top projects. Funders are more interested to see if grantees have an understanding of what else is out there and what role they play in the ecosystem.

Lesson 2: Constant shift in priority

Organizations may face drastic changes in their priorities and therefore in their mandates, which could affect their ability to further fund these types of projects and as a result hamper their sustainability.

Lesson 3: when it comes to digital infrastructure, what do funders care about?

Funders care about how technology and innovation democratizes access to knowledge and how projects can be scalable to reach the wider community. As a result, while funders support the building of better infrastructure, they also support the building of tools to better understand those systems.

Lesson 4: what do funders want to facilitate?

Funders want to help create or at least facilitate the development of platforms that collect and learn on their own to provide *relevant and useful data*. Most funders are also aware of their low to medium engagement level with the free and open source communities in general. This is something that the funders have expressed interest in changing in light of increased activity in the space.

Lesson 5: what kind of proposals are funders looking for?

In the non-profit sector, while most funders had structured grants, they are generally open to receiving unsolicited open proposals and they are often flexible enough to work with grantee's programs as long as they align to the funders' mission or organizational mandates.

Lesson 6: what goes into funders' landscape analysis?

Generally, it is common practice for funders to do a landscape analysis of the region or community before deciding to support projects. We found some elements that are considered for the analysis that might be beneficial for this project in developing the toolkit:
- Where is the energy, excitement and innovation of the funder's target grantee in the open source ecosystem?
- What are the overlaps between their funder's objectives and the grantee's objectives?
- Have the conversations surrounding topics funders care about reached the target grantees' community or country?

Lesson 7: what are funders looking at in the near future?

Several funders are looking forward to supporting work around emerging technologies, particularly in the areas of openness and governance around

Artificial Intelligence to strengthen the resilience of the soft infrastructures around existing and emerging digital technologies.

Lesson 8: Scope of ''Digital Infrastructure'' is too broad

Some funders remarked that the term digital infrastructure is a huge umbrella term as it covers different concepts and as a result, in the interest of clarity, a different term should be adopted.

Lesson 9: Lack of local funding resources in certain regions

Several territories within our scope face heavy legal and administrative restrictions when it comes to receiving financial support from international sources.

Lesson 10: Funders primarily focused on objectives

Several funders are both stakeholder and sector agnostic, actively investing in projects emerging from private sectors and individuals for as long as requirements such as being open source or transparent are met.

Lesson 11: Financing technology and innovation projects to strengthen democratic societies

Funders view these projects as an indirect contribution towards promoting democratic societies by integrating open-source frameworks that enable their citizens in areas such as elections or personal privacy.

II. Interview Synthesis

The following is a synthesis of the different interviews, allowing a quick comparison between all the stakeholders.

Note: The following 10 questions are the ones that can fit evenly across all funders and can be represented easily. The rest of the detailed response can be found highlighted in the transcript documents.

Funder	Funding programs: Existing or Potential?	Sees funding for digital infrastructure as relevant for their organization?	Considers the financing of technology and innovation projects as contributing to the strengthening of democracy and the exercise of rights?	Level of engagement with open-source projects or FOSS technologies.
A	Existing	Yes	✅	Very high
B	Existing	Yes	✅	Low to medium
C	Existing	Yes	✅	Very High
D	Existing	Yes	✅	Very High
E	Existing	Yes	✅	Very High
F	Potential	Yes	✅	Low
G	Existing	Yes	✅	Very High
H	Existing	Yes	✅	Low to medium
I	Existing	Yes	✅	High
J	Existing	Yes	✅	Very low
K	Existing	Yes	✅	Medium to High
L	Potential	Yes	✅	Very low

Funder	Type of DI	Funding Budget	Funding Programme	Projects seeking to finance in future
A	Soft	Grant size not specified. Overall budget of 1 Crore INR	GitHub Open Source Grants	Social Impact projects and security of projects that help other projects scale and become more secure.
B	Soft	Yes	• Emerging technology • Digital Society • Governance and Citizen Engagement	Digital Society, Governance and Education.
C	Soft	Varies from program to program	• Mozilla Technology Fund • Tech + Society Fellowship • Mozilla Fellows	Artificial Intelligence.
D	Soft	50,000 INR to 25,00,00 INR	FOSS technology community and education - Accept applications on a rolling basis every month	Software and social good while evaluating impact and sustainability.
E	Soft	$25,000 to $500,000	Not defined and do not accept unsolicited requests	Open source platforms that help the social sectors
F	Soft	Varies	Not defined	Artificial Intelligence policy and governance.
G	Soft	Varied	Information Controls Fellowship, Internet Freedom Fund, Rapid Response Fund	Core infrastructural development that is open source and projects that mainstream digital safety practices.
H	Soft and Hard	$5000-$125,000	ISIF grants	Inclusion, Infrastructure and Knowledge from a technical and operational perspective.
I	Soft	10,000 - 50,000 Euros	Incident Emergency Fund, Sustainable Protection Fund, Regional Partnership Fund, Global Partnership Fund, Community Network Fund	Improve digital emergency response networks.
J	Soft	Not specified	Various under member organizations	Expand to operate in South America, South East Asia and Africa.

K	Soft and Hard	$35,000 to $500,000	- BOLT Grant - Research Grant - SCILLS - Resiliency Program	Expanding existing grant programs to new regions in Global South.
L	Soft	Not specified	Not defined	Technology Policy and legislation.

*Note: **INR = Indian Rupees***

Testimonies

During the interviews, funders shared ideas, impressions and wishes. We found it relevant to, paraphrasing, express them in this report.

GitHub (India)
"Digital infrastructure actually helps in breaking boundaries between people, so the faster we can accelerate those projects the faster there can be solutions."

Omidyar Network India
"Technology can only enter a certain social contract and the impact technology will have on society and democracy at large."

Mozilla Foundation
"We have always seen ourselves as a demand-based funder. We will fund a variety of projects, based on the support that they're asking for; if the ask makes sense relative to the importance of the project, we will explore support options. This is a core part of how we look at source funding being connected to human rights and the openness of the web."

FOSS United Foundation
"FOSS is something that can actually help nonprofits to enable and manage their day to day business more efficiently. For us the impact of a project is defined by the rate of adoption and the ability to reach a large number of users."

Chintu Gudiya Foundation
"There are a limited number of projects in the open source community that cater to the social sector and are making significant progress at a good enough rate. There is also a dearth of developers working on them with a long-term commitment."

Konrad Adenauer Foundation
"In the Asian context, we don't have a very established network for the digital transformation portfolio. We aim to expand this network, to connect with more experts from academia, from policy makers within the region that are in different topics related to digital transformation."

Open Technology Fund
"Everything we develop it's free and open source because we believe that fair open source is a crucial path to social change, to empathic empowerment, to defending human rights."

APNIC Foundation
"The APNIC Foundation has historically been strongly supported by APNIC – so the priorities of APNIC remain central to the work of the foundation. We look at empowering organizations that research, design and implement technical solutions that support Internet development and facilitate human and economic development in the Asia Pacific region."

ISOC Foundation
"We make sure that the applicants become familiar with what is going on on the ground. It is important for them to show us that they are really understanding of the outcomes they can achieve."

Digital Communication Network (DCN) Global
"Private sector should play a role and participate in the life cycle of open digital infrastructure in order to make it more reliable."

UNDP Malaysia
"Compared to other UN agencies, UNDP's main bread and butter is policy. We look at advising governments on emerging issues as well and how to deal with them."

Hivos (Digital Defenders Partnership)
"DDP has supported the work of digital and holistic security experts embedded in human rights communities, networks and movements."

III. Reflection on the Interview Process

Funder Personas

During the interviews, we came across 2 interesting personas within the scope of our outreach and research phase that would make great additions to the existing list.

The Facilitator

Likes to facilitate the creation of systems or at the very least the better communication of existing systems for the purposes of increasing (digital) literacy. They look at digitalisation as a tool to promote and improve democracy globally.

The Disruptor

A more experimental profile and with higher willingness to take risks to fail. Early adopters of emerging technologies they understand will shape the future of digital spaces.

Methodology & Process Insights

The term digital infrastructure initially provided a lot of ambiguity in our cold outreach attempts, as not a lot of them really understood the objectives of the project. Many funders were uncomfortable sharing the intricate details of the process. We adopted a multistakeholder approach and approached over 40 funders from our designated regions. We received a poor response from the big tech giants despite multiple follow ups and introductions. We received positive feedback from the veterans in the open source space (who typically work with grants). We also learnt that many grantmakers don't understand infrastructure from a technical standpoint and thus digital infrastructure is not in the radar of funding.

Throughout the scope of this project, TIOF reached out to over forty (40) organizations via email based in India, South East Asia and beyond. We successfully interviewed a total of twelve (12) funders to develop the regional Funders' Toolkit for Digital Infrastructure. Many of our interviews in the latter stages were a result of the references from other funders.

We conducted the interviews between October and December 2021, each one running for an average of one (1) hour. We then collected the transcribed interviews and presented them in this report as one of the deliverables of this project.

The tools employed for the interview process were
- Google calendar, to schedule the interviews
- Google Meet + Jitsi for video conferencing
- Calipio, to record the interviews
- Fireflies.ai, for our internal note taking
- Miro board, for the exercises during the workshop

As materials for the sessions, we prepared an interview guide and collaborated with 2iC (Latam), Amarelha (Latam - Brazil) and TEDIC (Latin America) to build an unified battery of questions. However, we did find several challenges when it came to implementing them in the actual interview and had to go off script.

Upon reflection, we decided to change our strategy and included questions that were more specific to the monitoring and evaluation aspects, challenges, future collaboration opportunities and requesting referrals for other funders we could potentially interview. This significantly improved the quality of the overall process as we got more pointed / specific responses and the funders were able to get a better grasp of our requirements.

IV. Workshop Synthesis

Name of funding organization:
Digital Communication Network Global

Background Information
DCN Global is a relatively new coalition that is keen to present itself as a pioneer in training, research, publishing and content and production related to digital communication space. The workshop exercises helped them identify their loopholes in understanding the funding priorities and general their know-how of technology.

Type of funding organization (E.g: Governmental organization, private sector, foundations, et cetera.)
Non-Profit

Key findings

1. Approach-specific feedback

DCN was keen to comment on the innovation and novel aspects of the several tools designed in this project. This was their first encounter with such a tool and they hope to incorporate this exercise as a part of their internal strategy meetings.

2. Tool-specific feedback

Future Headlines

The activity was easily understandable and well received by the funder and helped them navigate through their goals of

    I.   Formally expanding and launching the coalition across two continents of the Global South,
    II.   Conducting more ground research by involving more local and global trainers and
    III.   Expanding their community of certified trainers.

The nature of the funder's projects requires physical activities. The current limitations compelled by the COVID-19 pandemic translate into an inability to conduct physical events and a general lack of participation due to connectivity and accessibility issues, in turn negatively affecting the aforementioned goals.

Moveover, the socio-political barriers in some territories also need to be factored in. The rise of disinformation and political tensions in their region greatly both dissuades active participation and hinders the perception of the public on topics addressed by their projects. Currently, there is no specific strategy adopted on countering these negative effects.

Impact Logic Model

The tool is suitable for advanced or veteran funders. It would be better received if it had more context and perhaps even examples. The funder seemed a little disoriented with the logical levels and we often found them repeating points, which showed their lack of understanding of the space in the radar of funding.

The primary audience the funders aspire to support are civil society actors and activists working on ground. They also seemed to lack the financial resources and technical expertise to scale the projects and heavily relied on in-kind support from other coalition partners and volunteers.

IV. Summary & Conclusions

The intimate connection between users and their data is traditionally disregarded: data requires sufficient (if not full) contextualization to be of any use and by virtue of it becomes intrinsically connected to the user, to the citizen; so much so that severing such connection results in data again losing all meaning and value. In major or minor degree, this is something data protection laws have attempted to protect. The lines between physical and digital are blurred; when digital infrastructure fails to protect the data it handles, the consequences are as destructive as with the failure of physical infrastructure.

The big missing piece in our digital lives is to ensure, to the very least, the same degree of protection for our data that we enjoy in our real life interactions. This is currently not possible due to the nature of the current implementation of infrastructures, products and services: laws are enacted that aim to protect citizens and their data while failing to ensure their compliance in a transparent, burden-free and standardized manner. We need instead to implement those laws in the technology itself, just as we embed our human rights in our physical infrastructures.

This research shows that there is an initial interest from funders to look into digital infrastructures, even if their definition is not always understood or agreed upon. The IO Foundation welcomes this upgrade from the more traditional perspective of looking at technology as a medium as it will allow us to take steps in the right direction: to care not only about how technology is used but most importantly how it is built.

One step further is however necessary: Once funding is secured for the infrastructure (or, arguably, instead of) funders should look into providing support for the people who build the infrastructure, most critically programmers. The IO Foundation regards programmers as the NextGen Rights Defenders as they are the ones in charge of architecting, building and maintaining all the digital spaces we are so much concerned about. "But that is another story and shall be told another time." as the quote says.

Appendix

Interview questions

No.	Question
1	How do you define digital infrastructure? Is digital infrastructure a possible field of financing in your funds? Why?
2	What does it mean to fund Digital Infrastructure?
3	Several of the funds that you have promoted are aimed at financing developments in technology and innovation. What type of projects fit into these categories for you?
4	What is the funding process at your organization?
5	In your opinion, how well does that overall process work? What works well? What doesn't work well?
6	Are there any principles you use when making application decisions?
7	What are the most important things in your organization's selection criteria?
8	What's your monitoring and evaluation process and method? In your view, how well does this work?
9	How do you measure the impact of your works and the works you funded have had on the ecosystem and society at large?
10	Specifically, what projects are you seeking to finance in the future?
11	Do you consider the financing of technology and innovation projects can contribute to strengthening more democratic societies as well as strengthening the exercise of rights to citizenship?
12	What region in the world is a priority of your funds?
13	How would you categorize your level of engagement or knowledge of the open source movement in general?

	I.	Care to share with us the rationale behind?
	II.	How do you define which region to prioritize?
	III.	How priorities and amounts of financing technology, especially digital infrastructure, are defined within your programme?
	IV.	How do you decide between a project in the application layer and another in the infrastructure layer
14	Should private companies invest in open source digital infrastructure? What role should they play in? How much agency should they have?	
15	What models of governance (digital & non-digital) do you think are ideal?	
16	From your perspective, what are the unique challenges around funding Digital Infrastructure in your region?	
17	What are the sustainable development goals that would benefit the most from digital technologies? What roles do they play in measuring your impact?	
18	For the global application process, is there a difference in funding approach or project type, theme, success rate for projects in your region?	
19	Would you like to be involved in the design process of this toolkit? (Co-design & testing workshop)	
20	Who else should we talk to about funding digital infrastructure initiatives?	

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