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Digital Public Goods Alliance

Accelerating financial inclusion during COVID-19 and beyond

November 10, 2020

The Digital Public Goods Alliance is a multi-stakeholder initiative which aims to accelerate the attainment of the sustainable development goals in low- and middle-income countries by facilitating the discovery, development, use of, and investment in digital public goods. The Secretariat of the Digital Public Goods Alliance is co-hosted by the Norwegian Agency for Development Cooperation (Norad) and UNICEF and governed by an Interim Strategy Group consisting of: iSPIRT; The Government of Norway; The Government of Sierra Leone; and UNICEF.

Many staff, Community of Practice Members and allies of the DPGA generously contributed ideas to this paper.

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Special thanks to the following contributors:

Camilo Tellez-Merchan, Research and Innovation, Better Than Cash Alliance; C.V. Madhukar, Responsible Technology, Omidyar; Daniel Radcliffe, Financial Services for the Poor, Bill & Melinda Gates Foundation; Edward Duffus, Innovation, Plan International; Matthew Homer, Department of Financial Service, New York; Sudhanshu Shekhar, iSPIRT; and Victor Grau Serrat, UNICEF Office of Innovation.



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Introduction

The last years have seen growing international consensus around the need to accelerate digitalisation of public financing as a driver of financial inclusion and the broader 2030 agenda. According to [the United Nations Secretary-General's Task Force on Digital Financing \(DFTF\)](#), digitalisation improves the efficiency of government transfers to citizens, and digitalisation of social protection programmes can positively impact the way women participate in economies.¹ The value of digitalising government payments in developing countries is estimated at US\$220-\$320 billion annually by the IMF.²

The COVID-19 pandemic has accentuated this need, as governments with robust systems in place were better equipped to respond to the outbreak not only in their direct health response, but also by targeting vulnerable populations and delivering payments into people's accounts to mitigate the economic hardships caused by the outbreak.³ The World Bank and the Bill and Melinda Gates Foundation are among those that have responded swiftly, through the launch of the [G2Px Initiative](#) for digitalising government-to-person payments.⁴

Recognising this need, the Community of Practice (CoP) for Financial Inclusion, convened by the [Digital Public Goods Alliance](#) (DPGA), is seeking to support governments to identify and implement digital technologies that can be used by a range of service providers and innovators to build on across sectors. This can be particularly important for helping drive down costs and enable inclusion of vulnerable populations. The CoP sees the highest potential for driving financial inclusion at scale with digital technologies at the intersection of digital public goods and digital public infrastructures.

Defining Digital Public Goods (DPGs) and Digital Public Infrastructures (DPIs)

Digital Public Goods (DPGs)

Digital public goods (DPGs) are defined by the UN Secretary-General's [Roadmap for Digital Cooperation](#) as "*open-source software, open data, open artificial intelligence models, open standards and open content that adhere to privacy and other applicable international and domestic laws, standards and best practices and do no harm.*"⁵ Encompassing the UN's shared goals, DPGs should also be relevant for attainment of the Sustainable Development Goals.

This definition has been translated into a [9-indicator open standard](#) by the DPGA called the Digital Public Goods Standard. The DPGA hopes this standard will serve as a comprehensive shared definition to enhance alignment and reduce fragmentation in the digital donor landscape, with

¹ <https://digitalfinancingtaskforce.org/>

² <https://www.elibrary.imf.org/view/IMF071/24304-9781484315224/24304-9781484315224/ch13.xml?redirect=true>

³ 138 countries expanded or introduced cash transfer programs in response to COVID. See [World Bank \(2020\)](#).

⁴ <https://www.worldbank.org/en/programs/g2px>

⁵ <https://www.un.org/en/content/digital-cooperation-roadmap/>

relevance for all sectors. The standard has been designed to be relevant for all DPGs regardless of sector and to cover minimum criteria of general relevance.

Digital Public Infrastructures (DPIs)

There is no similarly authoritative definition of digital public infrastructures (DPIs), but they are often referred to as: *technologies that tend to be “horizontal”, solving problems impacting State (taxation, government aid, etc.), Market (startups, enterprises) and Consumers, and are the rails that other solutions “run on top of”*. Their implementation typically enables many other solutions & business models to flourish.

It is furthermore meaningful to divide DPIs into foundational and functional categories. Foundational technologies refer to the most horizontally and cross-sectorally enabling platforms such as MOSIP, Aadhaar and Mojaloop. Functional technologies refer to more sector-specific platforms that nevertheless have *some* enabling characteristics.

Figure 1: Depicts key features of digital public goods compared to digital public infrastructures. The DPGA’s Financial Inclusion CoP has narrowed in on technologies representing the intersection of these two concepts (see highlighted part of the matrix below) as the highest potential for driving financial inclusion at scale.

	Proprietary <i>Cannot be freely adopted or adapted</i>	Open Source <i>Can be freely adopted or adapted</i>
Functional <i>Enablers of public service delivery and of building out additional services in one or a few sectors</i>	DPI	DPI, DPG
Foundational <i>Backbones of public service delivery across all sectors, that solve problems impacting the state, market and consumers</i>	DPI	DPI, DPG *Focus area for the CoP

The Dual Meaning of “Public”

The term “public” in digital public good (DPG) refers to the economic definition of a public good. Two characteristics of public goods are: 1) non-rivalry, meaning that one person’s use of a good doesn’t preclude or limit utility of that good for someone else; and 2) non-excludability, meaning that it is impossible, or very costly, to exclude someone from using the good. Similarly, digital technologies tend to be non-rivalrous by nature - one individual’s use of a digital product does not limit its utility to someone else - and, the use of open source licensing can ensure that no one is excluded from using/reusing a good (although it may not be sufficient to simply enable reuse - a lack of documentation, how the code is built etc. can still make it very difficult).

Comparatively, when the term digital public infrastructure (DPI) is used, the “public” implies that the technologies in question are implemented as backbones/enablers of public service delivery and/or to

provide public services. DPIs are *not necessarily* non-excludable. For example, the technologies that constitute the DPI may be proprietary (owned by a government or private company) rather than open source.

Incorporating Best Practices and Doing No Harm

The definition of a DPG and the 9-indicator Digital Public Goods Standard that operationalizes it, explicitly address questions related to doing no harm and incorporating best practices. “Do no harm” is, for instance, divided into three sub-categories with corresponding criteria that are assessed. These include: 1) data privacy & security; 2) inappropriate and illegal content; and 3) protection from harassment.

There are no similar generic criteria in place for DPIs. However, particular DPI technologies have still been developed with the guide of best practices. For example, [MOSIP](#) was guided by [the Principles of Identification for Sustainable Development](#) that the World Bank’s ID4D program has helped evolve.⁶

Driving Financial Inclusion at Scale

The ultimate goal of the DPGA’s Financial Inclusion CoP is to drive financial inclusion at scale. To do this, the CoP sought technologies that had the most potential for impact, would be most horizontally enabling, and sat at the intersection of DPGs and foundational DPIs. The CoP used the following two questions to determine which technologies would fit these criteria:

1. Does it facilitate inclusive financial workflows across state, market, and consumers?
2. Does it enable other solutions (i.e. are other things built on top of it)?

Since the aim is to support foundational DPIs to be sustainably implemented in multiple countries, they are also verified against the DPG Standard. Below is a list that summarizes why alignment with the DPG Standard is important for sustainability and scale:

- **Adoptability**: DPGs can be freely adopted by governments. As an example, countries worldwide cannot freely reuse and adapt Aadhaar without the permission of the Indian government, but they can freely reuse and adapt MOSIP, an open source software developed based on the Aadhaar experience. And, even in cases where a government *has* given permission to another country to adopt a system, geopolitical shifts and tensions can create vulnerabilities for the implementing country.
- **Scalability**: Adopting DPGs that have been successfully implemented at scale elsewhere can save country resources and enable faster piloting and roll-out.
- **Adaptability**: DPGs can be adapted to fit local needs, and this can also help build long-term ownership and agency for implementing countries.
- **Harmonisation of approaches**: DPGs can facilitate community building, knowledge sharing, and joint training approaches across jurisdictional boundaries.

⁶ <https://id4d.worldbank.org/principles>

- Project sustainability: Adaptations and iterations in countries can be supported by the broader open source community and features/best-practices developed by implementing countries can be merged into the core DPG project.⁷ This can help ensure the long-term sustainability and health of the project.
- Cost of access and servicing: It can be costly to obtain licenses from commercial vendors and then be locked-in to that vendor for relevant services and maintenance for the period of the contract. Vendors may also go bankrupt or change terms.
- Sovereignty and long-term predictability: The risks and costs associated with lock-in to a commercial vendor or another government during implementation, as described above, can make it difficult for countries to make strategic decisions and have a long-term and holistic perspective when building out their digital foundations.
- Country ownership, trust, and capacity to iterate for future needs: DPGs can enable deep involvement of local expertise in country-specific implementations and can be deployed together with dedicated efforts to build long-term local capacity to maintain and iterate these implementations for future needs. Agency, in combination with the transparency of DPGs, can also help build country ownership and trust in technology.
- Minimum standard alignment: All DPGs are verified against the generic best practice and do no harm indicators embedded in the DPG Standard. This is not a deep assessment, but still helpful in identifying serious shortcomings that should be addressed before a technology is adopted more widely.
- Transparency and accountability: The open source licensing of DPGs means that their code base can be independently scrutinised and audited. This also facilitates accountability and public discourse around issues such as incorporating best practices and designing DPGs with the aim of doing no harm.

Some of the benefits listed above are inherent to DPGs, whereas others will depend on predictable funding over time in order to be realised. The DPGA is therefore working with philanthropic and government donors to align on a common global approach to resource mobilisation and coordination.

Conclusion

The Financial Inclusion CoP, convened by the Digital Public Goods Alliance, is working to harness the growing international consensus around digitalisation of public financing as a driver of financial inclusion at scale, the need for which has been accentuated by the recent COVID-19 pandemic. The CoP has therefore shortlisted technologies that sit at the intersection of digital public goods and foundational digital public infrastructure in an effort to support governments to identify and

⁷ Please note that this is not ensured just by a technology being DPG Standard compliant, as the requirement for open licensing for DPGs applies only upstream, i.e. to the generic DPG project. The type of open license used for the generic project will determine which requirements apply for national implementations. If the generic DPG project uses what is commonly called a full copy-left license, a national implementation will be required to be similarly licensed. At the other end of the spectrum, the most permissive licenses impose no restrictions on which licenses can be used for implementations.

implement digital technologies that can be used by a range of service providers and innovators to build on across sectors. This can be particularly important for helping drive down costs and enable inclusion of vulnerable populations.