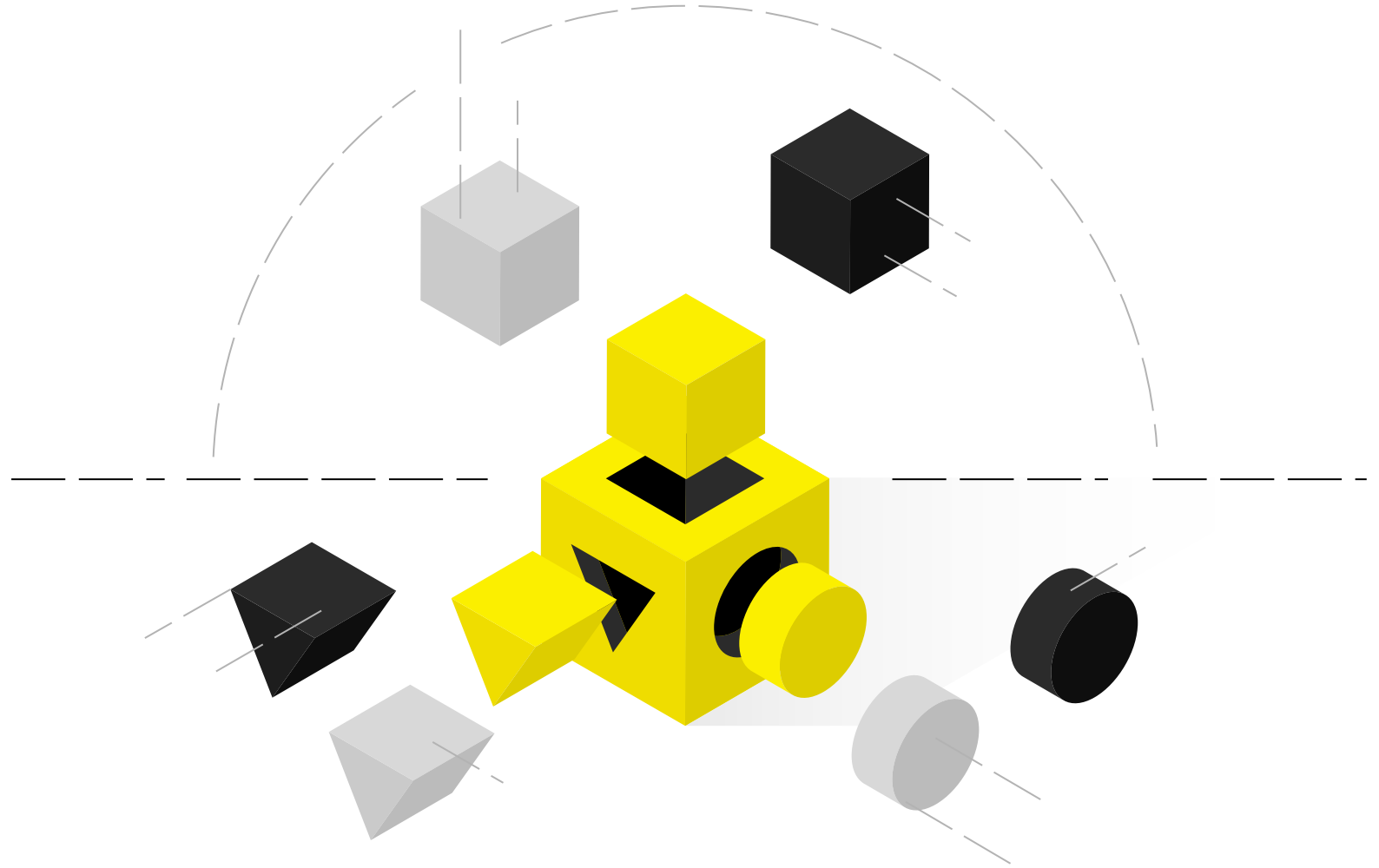
DIGITAL PUBLIC SPACE PRIMER

Investing in public digital infrastructures to secure digital rights



OPEN _FUTURE

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_INTRODUCTION

In recent years, the notion of digital public spaces has gained prominence in digital policy discussions in the EU and elsewhere. More recently, the idea of building and safeguarding digital public spaces — originally developed by civil society organizations and digital rights activists — has been increasingly embraced by policymakers, as evidenced by the inclusion of a section on "Participation in the Digital Public Space" in the European Declaration on Digital Rights and Principles for the Digital Decade*, adopted by EU co-legislators at the end of 2012.*

The purpose of this primer is to explain the concept of digital public spaces as a central tenet of European digital policies. We do so by describing the need for such spaces, and providing a definition of digital public spaces and related concepts such as Digital Commons and a public digital infrastructure. We also show why digital public spaces are a necessity for the full realization of digital rights and how the European Union should support digital public spaces by investing in public digital infrastructure.

Access to, and the use of, digital platforms is no longer an innovation — it is an essential resource for public, civic, or commercial organizations. The European digital public arena is dominated by a small number of commercial platforms, most of which are based outside of Europe.

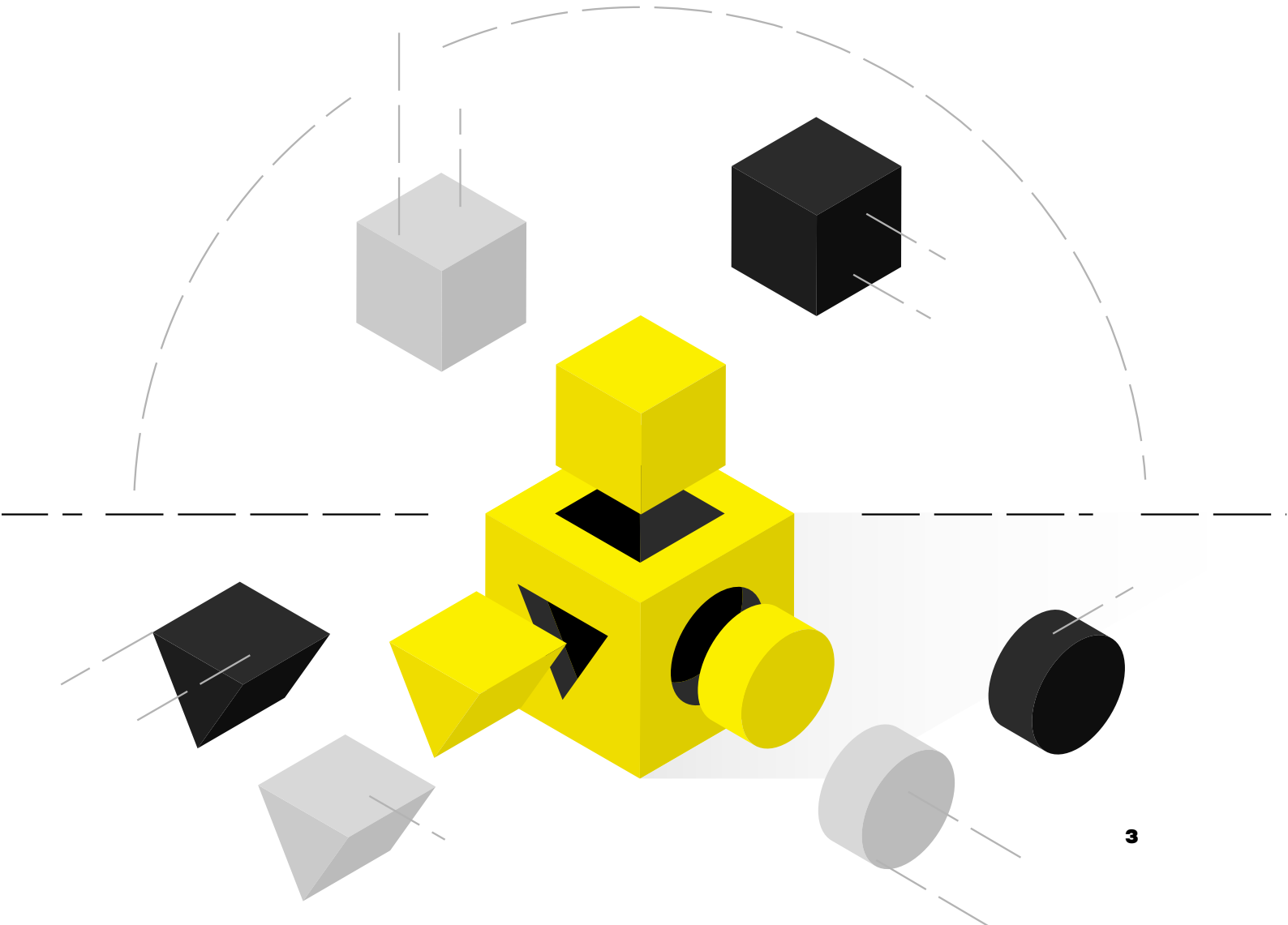
Governments, public service, and community media, educational and academic institutions, cultural organizations and producers, as well as nonprofits and civic initiatives, have increasingly become dependent on commercial services in the absence of viable public alternatives. The result has been an enormous transfer of wealth from the public sector to these private actors' platforms, which in turn has allowed them to wield extensive power over the media landscape and public

discourse with little or no accountability. This imbalance and the lack of viable alternatives are detrimental to the Open Internet, our democratic values, and the health of our societies.

Policymakers across Europe have started to realize that this status quo must be changed and that they can positively shape this landscape. Over the past few years, we have seen an increasing effort to regulate the digital arena with the express aim of upholding democratic values and individual rights, accompanied by a clear recognition of the central role that "digital" plays across society and in Europe's future.

These efforts to improve the digital arena through platform regulation are very much welcome, however, there is a need to do more to ensure the digital values and sovereignty that Europe aspires to. **With regulation in place, there is now a need to ensure the emergence of digital public spaces that can serve as alternatives to the existing commercial platforms.**

In the remainder of this document, we will outline the key characteristics of digital public spaces and describe the conditions that need to be met for them to thrive. Throughout the document, we are also providing a number of examples.



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UNDERSTANDING DIGITAL PUBLIC SPACES

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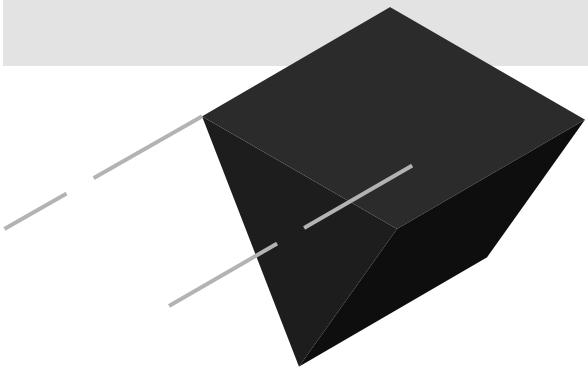
At their core, digital public spaces are digital services and platforms that exist outside the control of commercial entities that extract value from users of their platforms. They provide fora for public and private exchanges, access to information, and tools for civic organization. Digital public spaces adhere to democratic and collective forms of governance.

Digital public spaces can take a number of different forms, including (small) community-run services, platforms provided by public interest organizations and governments, federated social media platforms, and large public projects maintained by communities operating on a global scale. Their defining feature is the fact that the services underpinning them are operated not as for-profit entities but to foster public interest or community-defined missions. This means that the definition of digital public spaces excludes commercial platforms and services that function as places for public discussion and communication but are fully controlled by private owners and thus extract public value for private profit.

A practical illustration of how these structural differences between privatized spaces and public spaces play out in the digital domain is provided by Rebecca Giblin and Cory Doctorow in their 2022 book Chokepoint Capitalism. In it, they contrast the way Amazon extracts value from reading ebooks sold via its platform with the way public libraries protect the privacy of their patrons:

"Amazon tracks the phrases we highlight, the words we look up, who else is reading from the same address. All this allows it to deduce the most intimate information about our lives: whether we're struggling with our gender identity or sexual orientation, if we think our partner is cheating or that we might be depressed, if we're having money problems or struggling to get pregnant or considering leaving our jobs. Public libraries have some of this same information and guard it fiercely, but Amazon feeds it into an insatiable machine designed to extract maximum profit." (Page 36)



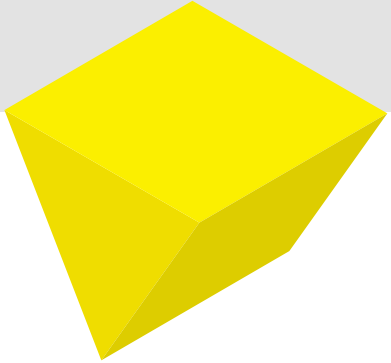
When we speak about the Digital Public Space, we are referring to an interoperable ecosystem of digital public spaces maintained by a dense web of public institutions and civic initiatives. The Digital Public Space is a rights-based, society-centered alternative to extractive commercial platforms.

The Digital Public Space is part of the Open Internet, where it exists and interacts with other — often commercial — services. In promoting and supporting digital public spaces, we are not advocating for replacing the commercial platforms and services but to ensure the existence of alternatives alongside them. In this sense, public digital spaces fulfill a function that is very similar to public service broadcasters and community broadcasters that also exist alongside a wide offering of commercial broadcast media. The existence of digital public spaces ensures that the internet itself adheres to public values and serves a societal interest.

The importance of open protocols for digital public spaces can be illustrated by looking at Mastodon and the ActivityPub protocol. Mastodon consists of a large number of instances that can be operated by anyone, including small communities, public institutions, government entities, and commercial entities that can seamlessly communicate with each other because they make use of the same underlying protocol (Activity Pub).

The defining feature of Mastodon is the fact that anyone can set up a server and define the rules and norms for users on this server. This enables a variety of approaches that can range from servers run by organizations — as part of their communication platforms — that see value in maintaining full control over their own publishing channels, to community-run servers, where the explicit goal is to enable intra-community communications. Thanks to the open nature of the protocol, interactions across the entirety of this spectrum are possible and are not dependent on the decisions of a single actor. Members of a community-focused server are still able to follow a public institution from their place of residence to stay informed on local matters.

This approach, based on an open protocol, also illustrates what we mean when we speak about public spaces operating alongside commercial platforms: Meta has announced that its Threads social media service will become interoperable with Mastodon at some point in the future. The setup of the protocol means that this is possible without granting Meta control over the rest of the Fediverse.

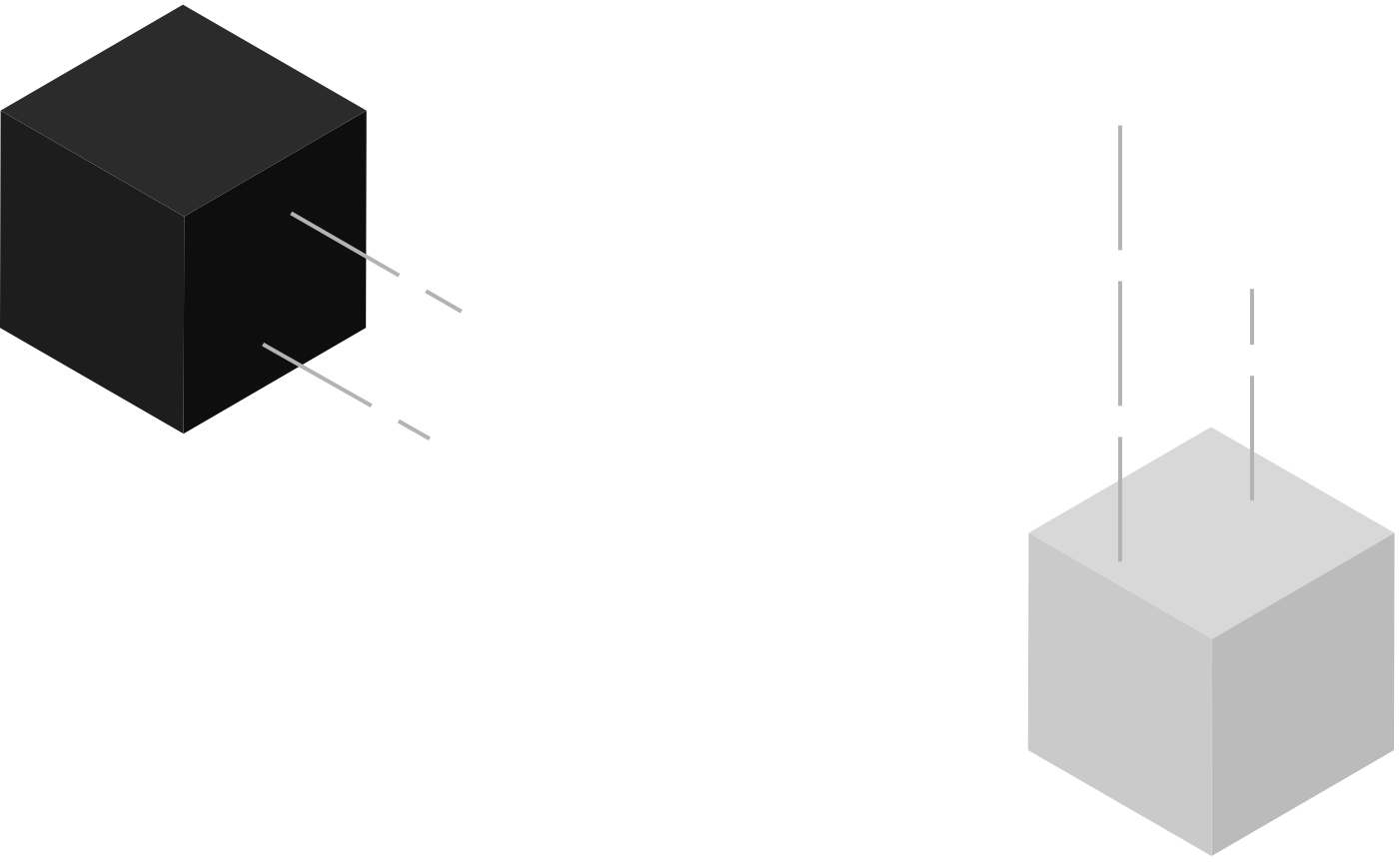


To flourish, digital public spaces require a robust public digital infrastructure that provides a base layer that ensures interoperability, shares resources, and ensures a level of technological independence from commercial service providers and their extractive business practices. We will look closer at the relationship between digital public spaces and public digital infrastructure in the final section of this primer.

READ OUR REPORT ON GENERATIVE INTEROPERABILITY AND DIGITAL PUBLIC SPACES

https://openfuture.eu/publication/generative-interoperability/

Before we do that, we need to better understand the societal purpose of digital public spaces. Much like the existence of public spaces in the real world guarantees essential rights and freedoms, digital public spaces are wwessential for people to exercise their rights online. We will discuss the relationship between digital rights in the following section.



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THE ROLE OF DIGITAL RIGHTS IN BUILDING DIGITAL PUBLIC SPACES

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The paradox of privately owned platforms, such as social media platforms, frequently serving as de facto digital public spaces, adds to the complexity of digital rights. These spaces, which facilitate civic activism and social and political interactions, are frequently governed by market-driven principles and dynamics. As privately-owned online platforms have taken on the role of digital public spaces, businesses find themselves as rights protectors and enforcers. However, they remain driven by commercial interests, prioritizing the interests of their shareholders, which differs from the obligations of public entities acting in the public interest. This fundamental misalignment between private economic interests and the conditions for fully realizing rights may be at the heart of the challenge in upholding digital rights.

READ OUR WHITE PAPER ON A RIGHTS-BASED APPROACH TO BUILDING DIGITAL PUBLIC SPACES

https://openfuture.eu/publication/digital-rights-revisited/

This misalignment is also a key reason why the efforts to secure digital rights have been so arduous and constitute such a big challenge for policymakers. Currently, data extraction serves as the fundamental operating principle for some commercial digital services and runs deep in their business models. Prioritizing just and sustainable practices in information and communication technology, including socio-ecological restoration, stands in direct contrast to this profit-driven logic, creating a wide gap between expectations for rights protection and the reality of the online world.

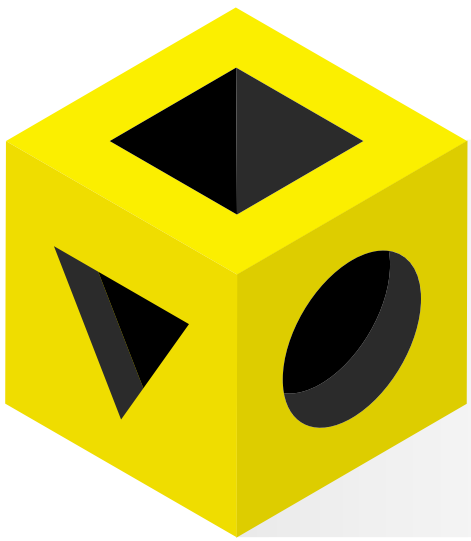
At the same time, the digital rights frameworks need to be revisited and expanded. Digital rights have their roots deeply embedded in human rights frameworks. Today, asserting digital rights also draws from other frameworks, encompassing consumer protection laws, data privacy regulations, telecommunications legislation (including infrastructure laws), and cybersecurity measures. This gives rise to several significant implications.

The historical distinction between different categories of human rights has influenced digital rights frameworks. This distinction separates civil and political rights from economic, social, and cultural rights. In practice, it has led to a long-standing neglect of social and economic rights by states, both in the digital and non-digital realms, spanning several decades.

This neglect has had a far-reaching impact on digital rights initiatives, which have traditionally prioritized the protection of civil and political rights. Policymakers have only recently begun to pay more attention to the socioeconomic aspects of digital technologies, such as recognizing their potential for economic exploitation and the need to address resulting financial insecurity and instability.

Likewise, online spaces' hardware layer — along with the environmental risks and harm associated with the production, use, and disposal of digital technologies — have long been overlooked in digital policies. These blind spots must be recognized and addressed if digital rights are to serve as an effective framework for handling exploitative business models and safeguarding both individual and collective well-being. Shifting the perspective on digital rights is not only necessary but also feasible, given that human rights are not static or universally fixed truths; rather, they evolve within cultural, economic, and political contexts.

The misalignment between private economic interests and the conditions for fully realizing rights underscores the significance of establishing viable public alternatives to the dominant commercial platforms in the tech industry, emphasizing the need for community-driven solutions that serve the public interest. It also highlights the interdependence of rights and the need for an enabling environment. The realization of rights is contingent on a conducive environment that allows people to exercise their rights freely and without undue influence. **Given the prevalence of extractive business models in the digital platform landscape, creating genuine digital public spaces is just as crucial as platform regulation and the defense of rights within the current online ecosystems.** With most of the regulatory agenda of the von der Leyen Commission achieved, it is, therefore, time that the EU expands its efforts to safeguard digital rights to include creating the conditions for digital public spaces to flourish. And this requires investing in the public digital infrastructures that sustain them.



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PUBLIC INFRACTRUCTURE FOR DIGITAL PUBLIC SPACES

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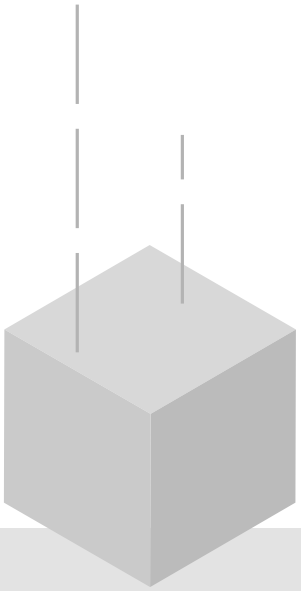
A healthy digital public space relies on the existence of public digital infrastructures that are under control of the organizations, institutions, and communities operating digital public spaces. This separates them from de-facto public spaces that give the outward appearance of being a public space but are, in fact, under the control of commercial players.



The implosion of Twitter (now X) over the past year is a prime example of this. While Elon Musk has framed his acquisition of Twitter as an effort to preserve the service as a "digital town square," his subsequent actions have made it clear that it is, in fact, a privately owned service where communication happens at the mercy of its owner. While Twitter may be an extreme case here, it is worth remembering that currently, all major online communication platforms are owned and operated by private entities, most of which are under the majority control of a small number of individuals.

When we speak about public digital infrastructures we use this term not to indicate the material-technical infrastructure of the internet (such as cables, wireless networks, and internet exchanges) but rather to indicate services and platforms that enable connection and exchange between users (both individual and institutional). This concerns communication services and platforms, storage and computer services, identity services, and their underlying software functionality, protocols, and standards. To be considered public, they need to be open and under the control of public institutions or communities of users, workers, and maintainers (as opposed to being under the proprietary control of private entities).

Ideally, public digital infrastructures are developed, maintained, and governed as Digital Commons. A public digital infrastructure is a crucial mechanism for helping us move away from the status quo, in which single actors own suites of tools and can unilaterally set the rules towards a protocol-based ecosystem of smaller, decentralized, and interoperable solutions and emerging applications, built on top of a shared set of rules and open protocols. Digital Commons are also collectively owned and governed through mechanisms that are participatory and democratic. Ultimately public digital infrastructures can promote more sovereign societies and individuals through the democratization of access, transparency, and accountability. At the same time, shared standards and interoperability will allow knowledge and culture to flow, helping people to connect.

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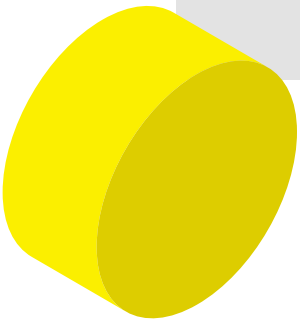
Digital Commons are a key mechanism for the provision of a public digital infrastructure. As defined by 2009 Nobel Laureate Elinor Ostrom, Commons are those goods that have a high subtractability of use and where it is very difficult to exclude potential beneficiaries. Commons-based approaches are often understood as those that serve to oppose power concentration and predatory extraction of data.

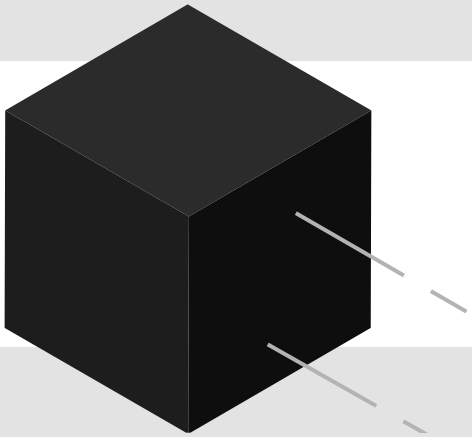
Following Ostrom's principles for managing Commons, we understand Digital Commons as resources designed and managed by a community, with established rules for access and sharing. They take the form of collectively created and shared information and knowledge resources that are oriented toward use and reuse rather than exchange as commodities. Crucially, the resources are not shared just within the community but function as a public good and serve the broader public interest. Another important element is that the community of people who create them can intervene in the governance of their interaction processes and their shared resources.

Examples of Digital Commons include free and open-source software projects and collaborative projects such as Wikipedia. A recurring element of such projects is that they are maintained and/or supported under the umbrella of a foundation.



An interesting example that highlights the importance of public digital infrastructures are the plans for a digital euro. In June 2023, the European Commission and the European Central Bank (ECB) published a proposal for a regulation to establish a central bank digital currency denominated in euros. With this proposal, the Commission and the ECB signaled their willingness to create a public digital payment infrastructure that operates under democratic control and provides an alternative to the existing privacy invasive private digital payment methods (such as Mastercard and Visa or Paypal) that currently dominate the online payment space.

In order to function as a truly public digital (payment) space, it is essential that key rules and design decisions related to the digital euro are under the control of democratically legitimized public institutions and have the interests of EU citizens and residents at their core. To ensure this, it is essential that the entire core infrastructure stack is developed as a public digital infrastructure and that there are no dependencies on commercial platforms or other infrastructure providers. This includes the requirement that the core infrastructure for the digital euro must be implemented based on open source software and open standards.



Another example arises in the field of AI development. All efforts in this domain currently rely on resources controlled and owned by large tech companies. Depending on the infrastructure and services that big tech firms provide, these pose a significant challenge to developing AI governed as a Digital Commons. To tackle the issue of limited access to computing resources and to foster independent open source AI development, the EU should make essential investments in new infrastructure.

There are signs pointing towards a solution to the limitations in the availability of public digital infrastructures. The Large-Scale Artificial Intelligence Network (LAION) in Germany has launched a petition urging the European Union to create a publicly funded and democratically governed research center capable of building large-scale AI models. In France, discussions on this topic are thriving, with President Macron announcing increased funding for an open "Digital Commons" dedicated to French generative AI projects. Given the scale of the investments required to build competitive AI training infrastructures, there are obvious advantages of pooling national resources here either in the context of the EU or in a model similar to CERN.

4

TOWARDS A EUROPEAN PUBLIC DIGITAL INFRASTRUCTURE FUND

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Building infrastructure requires investment. This is why we and many others have been calling for creating a European Public Digital Infrastructure Fund. After a strong focus on regulating digital platforms and markets, there is a clear and present opportunity for the EU, and the EU member states to put their weight behind the creation and support of public digital infrastructures.

Ursula von der Leyen
@vonderleyen

The future is digital. […] Digital public infrastructures are an accelerator of growth. They must be trusted, interoperable & open to all

Sep 10, 2023

As we have outlined in our white paper on a European Public Digital Infrastructure Fund, there is a clear need for a fund that can operate on the EU level and at a sufficient scale to support public digital infrastructures that can function as a viable alternative to the existing services. **The overall objective of the proposed fund must be to support the emergence and maintenance of digital public spaces in Europe by investing in the creation and maintenance of public digital infrastructures. Only by investing public money can we ensure that public digital infrastructures are optimized for societal value instead of economic returns and break the logic of extracting economic value from interactions in the digital sphere.**

READ OUR WHITE PAPER ON A EUROPEAN DIGITAL PUBLIC INFRASTRUCTURE FUND

https://openfuture.eu/publication/european-public-digital-infrastructure-fund/

The creation of such a fund can build on — and expand — a number of existing Initiatives, such as the European Union-funded Next Generation Internet initiative, the Sovereign Tech Fund initiated by the German government, and the French government-led effort to support Digital Commons infrastructure. As we argue in our white paper — building on similar arguments developed in the context of the Next Generation Internet Initiative — there is a need to bundle existing initiatives to increase coherence and provide those building and maintaining digital infrastructures with a simple and effective support structure.

READ KRZYSZTOF SIEWICZ'S PAPER ON THE REGULATORY REQUIREMENTS FOR AN INFRASTRUCTURE FUND

https://openfuture.eu/publication/regulatory-requirements-for-establishing-the-european-public-digital-infrastructure-fund/

This also means that the governance model for a fund needs to include a strong representation of the primary target groups of the fund: Digital Commons communities, public institutions, and other civil society actors who are building and maintaining digital public infrastructures. In line with the principle "Public money = public code," all tools and services that are developed with support from the fund must be developed as free and open-source software. At the same time, it must also be ensured that the criteria of the fund do not exclude the ability of private entities (especially SMEs) to contribute to building and maintaining these infrastructures as long as the infrastructures themselves remain public.

Fundamentally, we need intervention from the European Union and Member States to establish a fund that can provide alternatives to commercially operated digital services, and that such a fund needs to operate on a significant scale (€100M+ on an annual basis).

The establishment of such a fund should be a key element of the next European Commission's policy agenda.
As we have argued above — and in our white paper on a rights-based approach to building digital public spaces — it is also a prerequisite or ensuring that digital rights can be exercised in practice, and as such, must be seen as a key building block towards achieving the goals set out in the European Union's Declaration on Digital Rights and Principles.

_ABOUT

About Open Future

Open Future is a European think tank that develops new approaches to an open internet that maximize societal benefits of shared data, knowledge, and culture.

About the authors

Paul Keller is a co-founder and director of policy at Open Future. His work focuses on the intersection of copyright policy and emerging technologies. He works on policies and systems that improve access to knowledge and culture and protect the digital public sphere.

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