NGI FORWARD

GENERATIVE INTEROPERABILITY
BUILDING ONLINE PUBLIC AND CIVIC SPACES

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NEXT GENERATION INTERNET
INTERNET OF HUMANS

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SUMMARY

We need online public and civic spaces. This fight has become more urgent than ever, as it has come to define the way we work, live, play, travel and much more. Our social and economic lives are increasingly organized around a few digital mega-platforms.

Interoperability is one of the original design principles underpinning the internet. By ensuring that information and data was able to flow freely between different parts of the network infrastructures, the principle allowed the internet to grow to its current size.

Interoperability is still relevant and resurfacing in policy debates as a solution to many of the problems of the internet today. Here we ask the questions: what kind of interoperability? And moreover: how can interoperability help us achieve the just and democratic digital spaces we need? Can interoperability policies help us build public and civic spaces online?

SETTING THE SCENE

The digital transition has come with many opportunities, but also with tremendous challenges. It has brought us surveillance capitalism and ever-growing societal and economic power imbalances. The infiltration of platforms into all spheres of our life has accelerated the hegemony of the logic of the market, of commodification and competition, marginalizing and replacing relational dynamics of cooperation, solidarity, and care.

- The privatization of digital spaces is affecting our democracy. Polarization, censorship and misinformation, intrinsic to current extractive business models, all harm the public sphere.

- Instead of challenging inequalities, the digital economy mainly reinforces them. Platforms are eroding local economies while their disregard for workers' rights is a major challenge to the social contract.

Interoperability has the potential to enable structural shifts and changes to the power balance. It is generative in nature, enabling other improvements in the online environment.

- However, interoperability of the core protocols or internet's basic infrastructure will not suffice. Interoperable ecosystems are prone to centralization and capture by a limited number of platforms.

- Today, commercial entities can benefit enormously from the scale of the interoperable internet, without being obliged to make their own data and services interoperable.

- Policies need to be introduced to ensure interoperability at the level of data, content and sercices. In particular, regulation should require commercial gatekeeper platforms to become more interoperable.

The European Union has the ambition to ensure that the further development of the internet is shaped by social values and objectives.

- In order to address societal challenges, mission-oriented policies have been able to create new technologies and sectors that did not previously exist. The same policy tools should be used to create a more socially-oriented digital space.

- Interoperability should be purpose-based and part of a broader integrated approach and policy program to re-build the internet as a European public space

COMPETITIVE INTEROPERABILITY: FIXING THE ONLINE PLATFORMS

Discussions around interoperability often focus on what we call 'competitive interoperability'. This approach is market-focused, frames the issue in terms of market competition, and is about creating a level playing field for companies and freedom of choice for consumers:

- Interoperability is then mostly seen as a corrective measure for the deficiencies related to the dominant online platforms and the envisioned impact is 'greater competition among market actors'.

- Improving the market for current platforms will not likely lead to a less centralized ecosystem. Regulation itself will not shift the current power balance away from a few dominant players.

- A market competition approach is not enough. In order to solve the problems we now face in the digital economy, a broader approach should be adopted. We call this approach 'generative interoperability' – a design principle to build a digital space.

GENERATIVE INTEROPERABILITY AND ECOSYSTEM BUILDING

It is important that we shift our perspective, from a single platform to an ecosystem view. Public policies should not only fix 'market failures'. They should actively co-create other ecosystems. This requires imagination and vision that goes beyond the need to regulate markets.

- As a positive norm, interoperability can serve as a foundational element of more complex policies aimed at nurturing healthy and just digital ecosystems.

- The aim should not be to facilitate the creation of another dominant platform, not even a European one, which would then operate under the existing rules of the game while relying on the same exploitative business models.

- Instead, decentralized and federated solutions should be co-developed, stewarded and supported. Fostering a different architecture of the digital space requires engaging with a variety of actors, not only commercial but also public and civic in nature. It is also a matter of investing in new digital infrastructures.

- In terms of interoperability, there is an important distinction between policies that target platform APIs and those that are applied to protocols. Open, standardized protocols that define how different platforms become interoperable with each other are key in fostering a different architecture.

BUILDING AN ECOSYSTEM OF PUBLIC AND CIVIC SPACES

All in all, there is a need for both competitive and generative interoperability. While the first focuses on market competition and regulation, generative interoperability, in turn, employs a broader range of policy instruments not just to regulate a market, but to intentionally build a digital ecosystem.

A public digital space means an ecosystem with a strong presence of public institutions and civic initiatives. The online environment has to be considered as a core aspect of our societies. Hence, there should be room for other social-relational logics than the transactional ones prevalent in the market.

- We need to create an ecosystem of public and civic online spaces. Today, public and civic actors communicate on the terms set by the largest commercial actors in mainstream communication spaces. These resemble public spaces but are in fact private commercial spaces.

- Policies that regulate the digital economy should be based on the principle of balancing the power of private, commons and cooperative, and public sector actors.

Public institutions have an important role to play as enablers of a different type of online space. Public broadcasters, universities and other educational institutions, libraries are some of the types of institutions that should engage as its makers and maintainers.

- Europe has a strong history of public institutions providing services and infrastructure. It should keep building these also in the digital realm, as the EU has done with Europeana and the European Open Science Cloud.

Data commons and cooperative models hold promise today as they offer ways to implement democratic governance and business models which are not based on extraction.

- Fostering these approaches and regenerative ways of production requires not only investing in technical infrastructure but also in the digital cooperative economy itself.

- Collaborative peer production and democratic stewardship have proven their potential through for example Linux, Apache or Wikimedia.

- As an alternative to current platforms, platform coops are often community-based and stimulate the local economy, while using open-source software.

BUILDING BLOCKS OF A GENERATIVE INTEROPERABILITY POLICY

Interoperability requirements should underpin the creation of a truly open and public internet in the coming decade. In order to do so, these requirements need to be part of an integrated strategy and vision for the digital environment. We cannot separate this from defining a vision of the economy that we want, as the digital space shapes our economy.

- We should see the internet as a living system that we build and sustain together. We constantly build the internet together and we can adapt it, develop it, nourish it.

There is a need for an ethic of cooperation instead of the ethic of competition which has become deeply ingrained in our societies.

- The social-cultural environment is therefore very important: interoperability rules need to be supported by different entities and individuals that adopt an ethic of cooperation and interdependence.

- We need cooperation on the maintenance of shared systems by public institutions; strong public institutions that can be key nodes that support the network of cooperating institutions.

- For this we need capacity building for institutions and more skilled professionals in the public sector, of which there is now a significant lack.

In the techno-political sphere of digital policymaking, we cannot just address the technical and be deaf to the political.

- Standard setting and governance of standards should be conducted in the open, by dedicated public service entities — with multi stakeholder representation.

The European digital public space base cannot be established without substantial public investment into both large-scale European level infrastructures, as well as incubation of smaller initiatives that will populate this ecosystem.

- For the pluralist economy to function, we need to transition to diverse ownership models geared towards local economies, regenerating and sharing wealth rather than extracting it.

- This means investing in public-civic digital infrastructures and varied business models such as the digital cooperative sector.

- Collective action is needed on different levels of government in funding, regulation and procurement. European, national governments and municipalities all have their roles to play.

"Public policies should build public and civic spaces, instead of just fixing market failures."