

Can digital sovereignty be infrastructured?

Francesca Musiani

Centre for Internet and Society, CNRS, Paris, France

Associate Research Professor, CNRS and Deputy Director, CIS

<https://cis.cnrs.fr/francesca-musiani/>

@franmusiani

By means of introduction (and anticipation)...

#1

What is Gaia-X?

Gaia-X represents the next generation of data infrastructure: an open, transparent and secure digital ecosystem, where data and services can be made available, collated and shared in an environment of trust.

How does Gaia-X work?

The architecture of Gaia-X is based on the principle of decentralisation. Gaia-X is the result of a multitude of individual platforms that all follow a common standard – the Gaia-X standard. Together, we are developing a data infrastructure based on the values of openness, transparency, and trust. So, what emerges is not a cloud, but a networked system that links many cloud services providers together.

What is Gaia-X



Who is behind Gaia-X?

Representatives from business, politics, and science from Europe and around the globe are working together, hand in hand, to create a federated and secure data infrastructure. Companies and citizens will collate and share data – in such a way that they keep control over them. They should decide what happens to their data, where it is stored, and always retain data sovereignty.

By means of introduction (and anticipation)... #2

GAIA-X Board of Directors gives green light to Palantir

18.02.2021 Created by Alexander Matthäus



An unpleasant surprise for data protectionists and supporters of GAIA-X: The all-European Board of Directors of GAIA-X cleared the way for Palantir to become a member. The reaction to this decision ranged from surprise to horror, as the company does not seem to fit in at all with what GAIA-X is supposed to stand for. After a statement by the German federal government, a key political player, had already caused some concern, this decision of the economic stakeholders now raises some serious questions: What criteria are used in the GAIA-X selection

Topics

- [All topics](#)
- [Digitisation & Digitalisation](#)
- [Data Security](#)
- [Cloud-Computing](#)
- [Best Practice](#)
- [Partnership](#)

About this blog

With [our software Cryptshare](#) we enable our customers to share e-mails and files of any size securely in an ad-hoc way with a detailed audit trail and a strong ROI.

On our blog we write about email encryption, cybercrime, security gaps, malware, data protection and more. In short, anything about data security.

What this case (and others) show:

Digital infrastructures materialize broader transformations in which sovereignty, territories, national and supra-national institutions are co-produced

Digital sovereignty?

the idea that states should “reaffirm” their authority over the Internet and protect their citizens, institutions, and businesses from the multiple challenges to their nation’s self-determination in today’s digital sphere

Sovereignty (also) depends on locally-owned, controlled and operated innovation ecosystems, able to increase states’ technical and economic independence and autonomy

Understood primarily as a legal concept and a set of political discourses

As a consequence, it is predominantly analysed by political science, international relations and international law

Study of digital sovereignty as a set of infrastructures and socio-material practices has been, so far, comparatively neglected

How can the concept of digital sovereignty be studied...

...via the infrastructure-embedded “situated practices” of various political and economic projects which aim to establish autonomous digital infrastructures in a hyperconnected world?

Three strands of literature that need further « merging »:

- Internet governance studies of digital sovereignty and state transformations
- Networked information systems seen through the lens of STS and infrastructure studies
- The « turn to infrastructure » in IG

The “infrastructuring digital sovereignty” perspective elaborates on this past work, observing that states pursuing strategies of autonomisation, independence, sovereignisation and isolation of their national Internets are often engaged in these « politicized » uses of Internet infrastructure, with the associated risks becoming increasingly evident alongside potential opportunities

Approaching Digital Sovereignty Through the “Infrastructuring” Lens

- In order to shed new light on how strategies of digital sovereignty get inscribed in infrastructures, and understand what this reveals of transformations in institutions and territories, two main “scholarly gestures”, both theoretical and methodological, seem desirable.
 - First, to follow systems and arrangements, grounded in digital infrastructures, where sovereignty as a foundational principle of the nation state is promised, intended, constructed, co-opted
 - Second, to zoom in the technical components of digital infrastructure as strategic sites to trace the inscription of particular visions of sovereignty

And more specifically...

- Examining how the digital sovereignty label becomes instantiated in a number of macro and micro “infrastructures of control”, how institutional and other actors seek to co-opt them as proxies of their authority, and how this in return re-shapes their identities and the territories in which they operate.
- Identifying and analysing situations where Internet infrastructures do not merely act as tools, but as actual mediators tasked with the politically-relevant, and never neutral, assignment of translating the management of technical “control points” (DeNardis, 2014) into arrangements of power and definitions of digital sovereignty

Conclusions

In this talk, I have made a case, and outlined an agenda, for studying the concept of (digital) sovereignty via the infrastructure-embedded “situated practices” of various political and economic projects which aim to establish autonomous digital infrastructures in a hyperconnected world.

What the notion of “Infrastructuring Digital Sovereignty” has in it:

- sociological processes (organizing, acting towards political goals),
- interpretive activities (making sense of notions such as sovereignty and territory)
- socio-technical practices (handling and management of Internet infrastructures as key mediators)

Advancements in our understanding of digital sovereignty can be brought about by making sense, theoretically and methodologically, of infrastructures as processes, practices and settings that are expansive, evolving, and open-ended.

Infrastructure-based perspectives also allow us to understand actors (including institutions) not as given a priori, and their outputs not as *faits accomplis* (Flyverbom, 2011), but as the result of evolutionary techno-social activities

Need of close dialogue with:

- surveillance studies, to investigate how arrangements of power are enacted through technical devices and systems;
- political geography, to bring in methodological tools that focus on the conceptualizations of space embodied by digital infrastructures
- Internet governance studies informed by political science, international relations and international law, and by history of technology, to explore of long-term processes of sovereignization, erosion of state authority, and state “reassembling” as they relate to the Internet and digital technologies

The quest for digital self-determination:

...a central geopolitical issue in the coming decade?

“Digital sovereignty” is an increasingly crucial component not only of states’ Internet governance strategies, but of the very essence of their founding principles such as territoriality and authority.

Public and private actors worldwide are making a case that (digital) sovereignty is necessary to protect fundamental societal “goods” including economic prosperity, security, and culture.

The concept of digital sovereignty is expected to acquire even greater relevance in the coming years, with widespread deployment of technologies such as the Internet of Things and artificial intelligence

The systemic transformations brought about by the “digital sovereignty wave” worldwide, in its variety of instantiations, must also be addressed as sets of practices of social ordering

...intimately linked to how humans and organizations build, develop, use, co-opt and resist digital infrastructures

INFORMATION,
COMMUNICATION
& SOCIETY



 Routledge
Taylor & Francis Group

iCS

Volume 25 Number 4 2022

Francesca Musiani,
2022, “*Infrastructuring digital
sovereignty: a research
agenda for an infrastructure-
based sociology of digital self-
determination
practices*”, *Information,
Communication &
Society*, DOI: [10.1080/136911
8X.2022.2049850](https://doi.org/10.1080/1369118X.2022.2049850)

Thank you! Let's discuss please 😊

Here and at...

- <https://cis.cnrs.fr/francesca-musiani/>
- @franmusiani
- Francesca.musiani@cnrs.fr