



**HAL**  
open science

## Governance by Infrastructure (Part II): Preface

Léa Stiefel, Morgan Currie, Francesca Musiani, Alain Sandoz, Antti Silvast,  
Robin Williams

► **To cite this version:**

Léa Stiefel, Morgan Currie, Francesca Musiani, Alain Sandoz, Antti Silvast, et al.. Governance by Infrastructure (Part II): Preface. First Monday, 2024, 29 (10), 10.5210/fm.v29i10.13772 . hal-04723126

**HAL Id: hal-04723126**

**<https://hal.science/hal-04723126v1>**

Submitted on 6 Oct 2024

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Distributed under a Creative Commons Attribution - NonCommercial - ShareAlike 4.0 International License

---

## Governance by Infrastructure (Part II): Preface by Léa Stiefel, Morgan Currie, Francesca Musiani, Alain Sandoz, Antti Silvast, and Robin Williams

---

### Abstract

This collection of articles is the second part of the special issue published by *First Monday* in February 2024 (<https://firstmonday.org/ojs/index.php/fm/issue/view/747>). The original thematic series of case studies on ‘Governance by Infrastructure’ is extended here with three new case studies, an article on methodology, and a closing commentary. Their publication concludes an adventure that we began in 2021 with the preparation of a workshop held in 2022 at the University of Lausanne (Switzerland) (<https://wp.unil.ch/workshopgbi/>). But this is not the end. In September 2024, a workshop at ESADE (<https://www.esade.edu/en/IIIWorkshop2024>) in Barcelona (Spain) brought the “Governance by Infrastructure” community, represented by this double special issue, together with our colleagues from research in “Innovation in Information Infrastructures”: stay tuned.

---

In February 2024, *First Monday* published the first part of a special issue on ‘Governance by Infrastructure’. The collection of papers presented here is the continuation of that special issue. It consists of four articles that examine the case of information infrastructures or of information infrastructure projects, the diversity of governance challenges in sectors such as health, public services, finance, and energy, and different methodological approaches. A concluding note focuses on the very concepts of infrastructure and governance that are at the heart of this double series of articles.

The first article, by Andrey M. Elizondo, examines the case of an information infrastructure project to promote data sharing and interoperability between health and social care organisations across a region in England. Based on in-depth field work, the author highlights the difficulties of launching such a project when it involves the mobilization of distributed and autonomous entities (such as

hospitals, mental health services, and General practitioners). Drawing on the successful launch of the project, achieved through a coalition of three National Health Service administrative units, Elizondo highlights the concept of the 'collective mobiliser' as a key factor to bootstrap complex inter-organisational infrastructures.

The second paper, by Debarun Sarkr and Cheshta Arora, focuses on the case of blockchain in India and the emergence of an important but overshadowed stakeholder in this field — the state. Based on a critical analysis of two papers commissioned by the Indian government outlining the state's potential investment in blockchain, the authors identify a surprising move to 're-describe' blockchain technology: from a tool intended to promote transparency and distribution, it is transformed into an instrument to assist the state in its quest to centralize power and act as a gatekeeper for state-citizen transactions.

The third article, by Letizia Chiappini and Valeria Ferrari, also looks at the case of public investment in blockchain technology. The authors examine three projects for the development of monetary infrastructures based on blockchains and supported by European institutions. A comparative analysis of these initiatives, supported by interviews of key actors involved in their development, leads Chiappini and Ferrari to support the thesis that the broader the scope of an infrastructure project, the less visible the local socio-economic issues and challenges. At the same time, the smaller the scope of an infrastructure project, the less support it receives to ensure its sustainability.

The fourth paper, by Antti Silvast and Mikko J. Virtanen, explores three different areas of literature and their understanding of the notions of infrastructure and governance (of/by) infrastructure. The tradition of large technological systems, the field of information infrastructures, and that of Internet governance studies are examined and combined with their own research work in the field of energy systems and infrastructures. This literary journey, illustrated by empirical case examples, leads to six methodological suggestions for social scientists to 'situate' infrastructures and their governance dynamics in the design of their research.

The final contribution in this special issue, authored by Robin Williams, Antti Silvast, and Francesca Musiani, examines the origins and evolution of the concept of infrastructure. Their aim is to show that the concept of information infrastructure characterizes a socio-material form that is distinct from those carried by the concepts of (information) system or (online) platform, even though they are all regularly used interchangeably. These critical differences are manifested in particular expressions of governance that the article highlights, starting with the case of the Internet.

This double issue concludes an adventure that began in 2021, during the preparations for a workshop on "Governance by Infrastructure" in Lausanne. Our special thanks go to Edward J. Valauskas, chief editor of *First Monday*, for his meticulous and witty guidance. Governance by Infrastructure is not over yet, and we hope to continue the series with *First Monday* in the future.



## About the authors

**Léa Stiefel** (Ph.D.) is a research fellow at the Swiss Competency Centre for Penal Sanctions (<https://www.skjv.ch/fr>). She is also vice-president of IRIN, an independent research institute on digitisation (<https://www.irin.ch>).  
E-mail: lea [dot] stiefel [at] irin [dot] ch

**Morgan Currie** is a senior lecturer in Data and Society in Science, Technology and Innovation Studies at the University of Edinburgh, where her research focuses on open and administrative data, automated welfare, and activists' data practices.  
E-mail: morgan [dot] currie [at] ed [dot] ac [dot] uk

**Francesca Musiani** is Research Professor at the French National Centre for Scientific Research (Centre national de la recherche scientifique or CNRS), deputy director of its Centre for Internet and Society. Her research focuses on Internet architecture and infrastructure as instruments of governance, with a recent focus on digital sovereignty.  
E-mail: Francesca [dot] musiani [at] cnrs [dot] fr

**Alain Sandoz** is an associate professor in computer science at the University of Neuchâtel (Switzerland). His background comes from distributed computing systems and his interests are the (socio-technical) architectural mechanisms that underpin governance in IIs.  
E-mail: alain [dot] sandoz [at] unine [dot] ch

**Antti Silvast** is an associate professor in the LUT University, School of Engineering Sciences, Social Sciences. His interests include the energy infrastructure, social science methodology, interdisciplinary working, and energy modelling.  
E-mail: Antti [dot] silvast [at] lut [dot] fi

**Robin Williams** is Professor of Social Research on Technology in the School of Social and Political Sciences and Director of the Institute for the Study of Science, Technology and Innovation (ISSTI) at the University of Edinburgh. His current work, building on earlier studies of the 'social shaping of technology', applies the biography of artefacts perspective to address the design and implementation of information infrastructures through multi-site and longitudinal ethnographic investigation.  
E-mail: R [dot] Williams [at] ed [dot] ac [dot] uk

---

## Editorial history

Received 5 September 2024; accepted 8 September 2024.



This paper is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-nc-sa/4.0/).

“Governance by Infrastructure (Part II): Preface”  
by Léa Stiefel, Morgan Currie, Francesca Musiani, Alain Sandoz, Antti Silvast, and Robin Williams.  
*First Monday*, volume 29, number 10 (October  
2024).  
doi: <https://dx.doi.org/10.5210/fm.v29i10.13772>