Book review

Lai, S. S., & **Flensburg, S.** (2023). *Gateways: Comparing digital communication systems in Nordic welfare states.* Nordicom (open access). 205 pp. https://doi.org/10.48335/9789188855848

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Nordic countries have for decades been inspired by what they view as a "welfare state" ideal with equal opportunities for all citizens regardless of economic or social status. More recently, with the increased digitalization of public infrastructures and datafication of citizens, both researchers and decision-makers have added the word "digital" before "welfare state." The digital welfare state is the result of the digitalization of welfare policy, institutions, and service delivery (Van Toorn et al., 2024), part of it being a datafication process, namely turning ever-increasing aspects of identities, practices, and societal structures into data (Andreassen et al., 2021). However, the material and historical foundations of the welfare state have received much less attention. This is a research gap which two Danish media scholars within the field of political economy, Signe Sophus Lai and Sofie Flensburg from the University of Copenhagen, aim to fill. Following in the footsteps of other political economists (such as Harold Innis, Nicholas Garnham, and Robin Mansell), they map out the digital communication infrastructure in the Nordics, which in the past have been characterized by a high degree of public regulation, funding, and ownership of critical infrastructures. This is rapidly changing, and Lai and Flensburg ask a seemingly simple question: "How are digital communication systems in Denmark, Finland, Norway, and Sweden shaped, organized, and controlled at the intersection between welfare state traditions and new infrastructural conditions?" They are particularly focusing on the hidden facets of the digital economy and their implications for society to find out that the digital welfare state, based on the idea of a publicly owned and democratically governed information society, is built on private property and hidden power structures, Big Tech, black boxes, and the exploitation of private individuals' data as a commodity. Lai and Flensburg argue that the foundation of the welfare state is eroded by digitalization.

The approach is comprehensive, and while the book covers a wide range of issues, it does not dilute the focus on specific aspects such as the privatization of digital infrastructure and the potential misuse of data by powerful entities.

Why is infrastructure so important? Recent incidents involving a series of suspected attacks on undersea fiber-optic communications and electricity cables in the

Baltic Sea are the latest examples of how vulnerable critical infrastructure is in the digital welfare state.

Last summer, the German journalism group Correctiv revealed that an anonymous data center in Tuusula was a critical part of the Russian propaganda war. In an industrial area just a stone's throw from Helsinki-Vantaa Airport, a German service provider served a host for four sites identified as central to a massive Russian influence campaign in Germany. The revelation did not lead to any major outcry in Finland demanding improved surveillance. On the contrary, data centers have become an important part of Nordic industrial policy, not least as a symbol of the digital economy.

We often refer to "the cloud," implying a vague form of rapidly growing business–services for processing data in huge halls of efficient computers (and servers)–about which we know very little. But the "cloud" is not vague; it is a very concrete physical infrastructure that requires much energy, poses a threat to the climate, and undermines the very foundation of the Nordic welfare state. It involves industrial buildings, fiber-optic data cables, cooling units, servers, radio signals, and data packets intended for IP addresses around the world. Just as cars, roads, tunnels, bridges, traffic lights and lighting, road signs, and maps make up the infrastructure of road traffic, there is a corresponding infrastructure for data traffic. It enables us to surf the internet, post videos on TikTok, buy cheap clothes on Temu, and watch Netflix.

Already in the utopian early days of the internet, experts talked about "electronic highways." But that is where the analogy ends. Road infrastructure in Nordic countries such as Finland is mostly publicly owned, controlled, and financed. Drivers have licenses, cars are registered and inspected, the police ensure that everyone follows traffic rules. The regulation of the analogue network, "the roads," largely disappears in the digital network, "the internet." The discussion in the book about the challenges is not new, but the complexity is at a whole different level than before, and few can oversee the entirety and understand the consequences.

In the data world, the infrastructure is increasingly privately owned because no single country can mobilize the enormous sums or specialized expertise required to build and maintain these investments. Not even the EU. Just look at the attempt to scale up Die Bundescloud to Gaia-X, which aims to challenge Amazon Web Services (AWS) and other global data operators.

The authors conclude: "By going digital, the Nordics have gradually surrendered their infrastructural power over to stakeholders that are unaffected by welfare policies and do not fit into the institutional and regulatory frameworks designed in and for the analogue age."

The book *Gateways* provides a detailed entry into a digital world, the understanding of which requires new analytical methods and theoretical concepts. That

it was written in Denmark is no surprise. The government there has relied on critical and well-researched data studies like the one Signe Sophus Lai and Sofie Flensburg have conducted. There is a serious and well-informed national public debate on the consequences of digitalization and reliance on global technology companies for critical infrastructure.

In an impressive way, Lai and Flensburg contribute to, and develop, a research agenda focusing on the evolution and institutionalization of the internet as a common and increasingly dominant societal infrastructure. What to do with all this complex information? While the authors offer valuable perspectives for future research and policy, the book lacks detailed practical implications or solutions for policymakers and industry stakeholders. Providing clear recommendations could enhance its impact. Yet, it is excellent that Lai and Flensburg effectively summarize what we know so far, and in that sense, the book is particularly relevant for the European field of communication research.

References

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