

BUILDING A EUROPEAN DIGITAL PUBLIC SPACE

**Strategies for taking back control
from Big Tech platforms**

Edited by Alexander Baratsits

iRIGHTS
media



BUILDING A EUROPEAN DIGITAL PUBLIC SPACE

Strategies for taking back control
from Big Tech platforms

Edited by Alexander Baratsits

iRIGHTS
media



The disruptive transformation of the “public” through digitization has led to monopolizing structures on the Internet that make Europe dependent – both at an infrastructural level and politically – on non-European private and state players. At the same time, these structures undermine our democratic order. To date, the European political response has centered mainly on regulatory action. Such measures, however, are insufficient for the (re-)construction of a European digital public. This book shows how the current crisis could boost our chances of breaking new ground by establishing an independent European Digital Public Space. The contributors are academics, actors from public and non-commercial media, and long-time activists in the field of the Commons. Accordingly, they shed light on the topic from different perspectives.

This book project was realized with financial support from the city of Linz, with funds from the LinzEXPORT program and with additional financial support from Radio Orange in Vienna and the Austrian Cultural Broadcasting Archive (CBA).



Note about the network graphic used on the cover:

The cover illustrates the first steps in mapping individuals, initiatives, organizations and projects that think, develop and foster new ways of managing European digital media and infrastructures. If you want more details, please visit <https://european-network.epics.fyi>. There you will also find information on how you can add further data to this project. All information shown was collected via public consultation about these initiatives or during the Public Spaces Conference in March 2021. Michael-Bernhard Zita is collecting and analysing this data as part of his dissertation project and will be glad to receive any additional information.

Building a European Digital Public Space

Strategies for taking back control from Big Tech platforms

Edited by Alexander Baratsits



Published by iRights.Media, Philipp Otto
iRights.Lab GmbH
Schützenstraße 8
D-10117 Berlin
www.iriights-lab.de
www.iriights-media.de

Contact email: kontakt@iriights-lab.de
Web: www.iriights-lab.de
Twitter: [@iRightsLab](https://twitter.com/iRightsLab)
Instagram: [iriights.lab](https://www.instagram.com/iriights.lab)

Layout and design by Josef Bacher
Copy editing by iRights.Lab
Proofreading by iRights.Lab
Printed by CPI books GmbH
eBook-Conversion by CPI books GmbH

ISBN: 978-3-94436-296-0

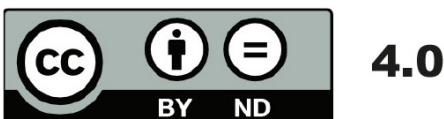
Licence: „All text of this book fall under the Creative Commons Licence CC BY-ND 4.0 DE. That means you are free to: Share – copy and redistribute the material in any medium or format for any purpose, even commercially. The licensor cannot revoke these freedoms as long as you follow the license terms.

Under the following terms:

Attribution – You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.

NoDerivatives – If you remix, transform, or build upon the material, you may not distribute the modified material.

No additional restrictions – You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits.“



iRights.Media is the publisher of think tank iRights.Lab. We make books, magazines, e-books and online offers for net-savvy readers and everyone who is interested in the subject of the Internet and society.

The independent think tank iRights.Lab develops strategies and practical solutions to shape the rapid changes in an increasingly digitalised world to the benefit of our society. iRights.Lab supports public institutions, foundations, companies, academia and politics with legal, technical, economic, socio-

political and socio-scientific expertise in mastering the challenges of digitization and effectively exploiting its potential.

Contents

Preface

Alexander Baratsits

European Digital Public Space: It's having an own infrastructure, stupid!

Platforms, Infrastructures and Public Value

Jan-Hendrik Passoth

Civil Society as Litmus Test for Democratic Governance

Alexander Baratsits

European Cultural Backbone 2.0

Alexander Baratsits and Franz Heinzmann

Challenging the Winner-Takes-All data economy: the case for public digital infrastructure

Katja Bego

Building a Sustainable European Cloud: A manifesto

Max Schulze

EU Media Policy

Digital Public Space: A missing policy frame for shaping Europe's digital future

Alek Tarkowski and Paul Keller

The Independence and Sustainability of Journalism

Mira Milosevic

Must-carry Obligations on Social Media: A fundamental rights perspective

Gabrielle Guillemin and Maria Luisa Stasi

Back to the Future?

Anna Mazgal

Best Practices on Digital Media

Digital Best Practices to Enhance Public Values

Geert-Jan Bogaerts

Towards an Infrastructure for a Democratic Digital Public Sphere

Volker Grassmuck

Public Service Media and Media Change

Creative Commons as a Public Service Task

Leonhard Dobusch

Occupy the Internet: Why we need a Public Service Internet

Klaus Unterberger and Christian Fuchs

Public Service Media and Media Change

Barbara Thomass

Thinking about the Digital Public Sphere

Bill Thompson

Non-profit Media and Media Change

Nonprofit Technology Development for Free Community Media in Austria

Ulli Weish and David Trattnig

Free, anonymous, no cost: What will happen to free frequencies?

Sabine Fratzke

Go With the Times or the Times Will Go Without You

Ingo Leindecker and Michael Nicolai

Preface

Digitalization has profoundly changed the existing order of the public sphere in Europe. With the emergence of market-dominating, privately organized social media platforms – situated, above all, in the US and China – two major developments can be seen: namely, a shift from the use of traditional media, such as print and radio broadcasting, to online platforms, and a corresponding, dramatic plunge in traditional media advertising – with large parts of the print sector, in particular, already struggling for survival. This domination by Big Tech means that public media creators – commercial as well as non-commercial – can no longer avoid using the Big Tech platforms. And by furnishing their own content free of charge, they contribute to the success of those platforms.

Meanwhile, the Covid pandemic, accelerating digital transformation, has only exacerbated the situation. In 2020, for example, there was a 30-80 percent drop in traditional media advertising revenues. But it's not just a disruptive change for the industry that makes this media crisis so dramatic for society, but that media and communication play such a central role in our democracies.

Urgent action is now therefore needed to counter the hegemony of privately organized Big Tech platforms with a European Digital Public Space – a concept that has been in discussion since 2017/2018. The core idea is to build – as an alternative to Big Tech companies in the US and China – a European infrastructure. Similar to public service

broadcasting, envisioned is a sovereign, democratically organized structure – only not restricted to a national level, but decentralized: A European network based on European values.

With this book, we hope to show how the current crisis can boost our chances of breaking new ground by establishing an independent European Digital Public Space that would contribute at political as well as financial levels.

Following circumstances lead us to believe that the time for alternative paths has come:

- The influence of social media on the election of Donald Trump in the US and on the Brexit decision of the British have led many Europeans to recognize social media's game-changing potential in political communications. Unless urgent measures are taken to regulate the political framework of social media, the serious threat to our democratic discourse is finally clear.
- In response to the Covid-19 crisis, Europe has proactively invested in digital transformation and climate neutrality on a previously unimaginable scale. Better still, its package ties the distribution of funds to constitutional control. If Europe wants to hold its own in the digital sphere with power blocs in the US and China, then – as suggested by Adam Tooze in a 2021 conversation with Tessa Szyszkowitz (Falter podcast #588) – it must not only play the game, but play it well. This means Europe must draw on its potential for collective action and apply its investments strategically and wisely.

- In Europe in the near future, for the first time ever, we may be technologically capable of interconnecting streams of public discourse that presently take place only in the isolation of individual language islands by using such tools as speech recognition, automatic translation, recommendation systems, and algorithmic searches across connected platforms.
- A large number of European players, collectively able to contribute a broad offering, are already available for the development of a European Digital Public Space, including content providers, developers, public and private media (commercial and non-commercial), and Open GLAM initiatives, among others.

As long as European Digital Public Space is conceived as a decentralized, federated network that links and strengthens existing infrastructures – as opposed to centralized, large-scale projects like Airbus or YouTube – alternatives to Google, Facebook, YouTube, TikTok, and the like become readily apparent. Strategies and networks already exist that can make such alternatives real in the here and now. The building blocks are at hand!

The first part of the book covers core questions for the development of a European Digital Public Space. Jan-Hendrik Passoth addresses the question of how alternatives to “large technology firms” can be encouraged and strengthened that are oriented toward public interest, European fundamental rights, and democratic values and procedures. I consider questions on governance and financing and, in a separate piece, co-authored with Franz Heinzmann, we use the European Cultural Backbone 2.0

project to show what a decentralized network of platforms might look like in practice. Katja Bego sheds some light – from a data-economic perspective – on the idea of a joint approach; and Max Schulze addresses the topic of a decentralized sustainable cloud.

The second part is dedicated to EU Media Policy. To this end, Alek Tarkowski and Paul Keller weave the strategy of a European Digital Public Space into the current policy framework of the European Commission. Mira Milosevic highlights the global economic structural crisis of the media; and Gabrielle Guillemin and Maria Luisa Stasi provide a critical analysis of must-carry obligations in the context of social media. Last but not least, Anna Mazgal addresses issues surrounding the moderation requirements proposed by the EU Commission for community platforms like Wikipedia.

The third part is about digital media best practices. Jan-Geert Bogaerts presents a list, developed by PublicSpaces on the basis of European values, of concrete projects that suggest alternatives on a selection of topics ranging from cloud computing to tracking. And, in his historical outline, Volker Grassmuck elucidates various concrete concepts, initiatives, and new proposals.

In the fourth part on public service media and media transformation – Leonhard Dobusch discusses the use of open licenses for public service TV and radio station programs as a basis for cooperation with third-party, commons-based platforms. Klaus Unterberger and Christian Fuchs explain the “Public Service Internet Manifesto” supported by more than 1,000 scientists worldwide. Barbara Thomass addresses how we may adhere to the public service mandate under conditions of media transformation; and Bill Thompson offers an exciting

historical outline of the development of discourse on the public sphere from Habermas to digital open space.

In the last part – on non-profit media and media transformation – Ulli Weish and David Tratting outline the exacting conditions associated with technology development for non-profit companies in a funding landscape geared toward commercialization. Sabine Fratzke describes the possible consequences of an FM radio shutdown in Germany. Finally, Ingo Leindecker and Michael Nicolai examine media transformation from the specific standpoint of community media.

Acknowledgements

This publication was made possible through the great contributions of my co-authors, by the city of Linz with funds from the LinzEXPOrt program, which continues to enable innovation, and with additional financial support from Radio Orange in Vienna and the Austrian Cultural Broadcasting Archive (CBA).

Many thanks to Petra Zimlich for expert editorial and production management; Sarah Waring for careful editing of the English texts; Warren Rosenzweig for translation; Josef Bacher for typesetting and cover design; and Michael-Bernhard Zita and Ian Forrester for preparation of the data for the cover image.

My great thanks, above all, to my family for all their patience, time and again, throughout this project.

Alexander Baratsits

**European Digital Public
Space: It's having an own
infrastructure, stupid!**

Platforms, Infrastructures and Public Value

Jan-Hendrik Passoth

Abstract

In this paper, I will address the question of how alternatives to digital infrastructures in the private hands of a few technology companies can be encouraged and strengthened that are oriented toward public interest, European fundamental rights, and democratic values and procedures. To do this, I will first address the political and societal role of large technology providers, relying primarily on research identifying the distinctive infrastructure projects of large technology providers as their particularly successful and, at the same time, particularly problematic strategy in terms of technology policy. In a second step, I will focus on the history and present of infrastructure projects and their political role, first in the context of nation states, and increasingly in the 20th century for the integration of Europe. In the third step, with a brief look at the European responses in the field of industrial policy, technology regulation, and research funding, I will show that the tools are at hand at the European level to take a determined path towards public interest alternatives of digital infrastructures. I will

conclude this paper with an outlook on several open questions as well as the initiatives already underway in politics, civil society, and the media.

Introduction

Digital transformations are challenging for European media providers. This has long since ceased to have anything to do with the fact that media services have shifted to the Internet, where they are confronted with changed usage habits and new forms of competition. The rise of the platforms of large players such as Google, Facebook or Baidu has also ensured that new services and new kinds of media use can be developed by start-ups and financed with venture capital. However, if they are to become established, these are dependent on being developed in the digital ecosystems and according to the rules of the major platforms, oriented toward private-sector interests: Digital infrastructures and the platforms that operate on them are firmly in the private hands of a few technology companies. In Europe in particular, regulatory measures are being implemented with initiatives such as the Digital Services Act and the Digital Markets Act, as well as with the proposals for an Artificial Intelligence Act, and strategic measures are also being taken with the recently presented Digital Compass 2030. Their focus is primarily on a combination of regulation and industrial policy – or in a nutshell: protection, punishment, and subsidies.

In this paper, I take this observation as a starting point to address the question of how alternatives to these digital infrastructures can be encouraged and strengthened that are oriented toward public interest, European fundamental

rights, and democratic values and procedures. To do this, I will first discuss the problem in greater detail. Addressing some of the positions on the political and societal role of large technology providers that have been discussed in public and academic discourse, I will rely primarily on analyses that identify the distinctive infrastructure projects of the large technology providers as their particularly successful and, at the same time, particularly problematic strategy in terms of technology policy. In a second step, I will focus on the history and present of infrastructure projects in general and their political role, first in the context of nation states, and increasingly in the 20th century for the integration of Europe. In the third step, with a brief look at the European responses so far in the field of industrial policy, technology regulation, and research funding, I will show that the tools are at hand at the European level to take a determined path towards public interest alternatives of digital infrastructures. I will conclude this paper with an outlook on several open questions as well as the initiatives already underway in politics, civil society, and the media.

In the outlook, the paper focuses primarily on the area of media services, i. e., on services that deliver, distribute, and make audio, video, and text content publicly available. In this paper, this focus serves on the one hand as a way of going through an example of problems, previous attempts to solve them, and alternative approaches. Comparable evaluations, with different empirical and field-specific details, could be undertaken in other technology fields and application areas, such as messenger services and social media, software-as-a-service use by public authorities and industry, or cloud storage and infrastructure-as-a-service services. The area of media services, however, is instructive

for another reason as well: many countries, especially most European countries, have dual broadcasting and media systems with public service media services providers as well as various publicly mandated oversight formats for private media companies. As much as the dual system and with it the idea of public service broadcasters has been criticized, both justifiably and unjustifiably, the system of simultaneous market and state neutrality established in it and the mechanisms of public funding, control and supervision organized as democratically as possible on behalf of the public and the independence thus established, at least in principle, represent an interesting blueprint for alternative models of digital infrastructure development and provision.

Platforms

Public and academic criticism of the business models, strategic activities, and, more generally, the role of large technology firms – often referred to as “big tech” or “big other” in reference to the critical and political discussion of “big pharma” (cf. Zuboff 2015) – has, over the past decade, pushed any hope of democratization and support for participation and social involvement via the construction and use of digital media technologies out of the discussion. In doing so, the public and academic critique has addressed several different aspects, some comparable to other fields, others very specifically tailored to the field of digital media services. First, there are the arguments against the dominance of individual market players, which are well known from other fields: innovation barriers due to orientation to the core clientele and focus on optimizing the

existing offering (following Christensen 1997), availability of resources to buy up competitors or otherwise force them out of the market (see Dolata 2020, for example), bundling of power resources and possibilities of influence through lobbying fall under this category. Second, several arguments have been made that focus on the special connection between technology and regulation. An example of this can be found in the debates on copyright and the technical implementation through automated systems, the so-called upload filters (for example Gillespie 2007). Here, it was rightly pointed out that it is precisely the large technology providers who, out of self-interest, are pushing for stricter regulation because only they are able to meet it through automated systems, simply because they have the resources and the data needed to develop and train such systems. Finally, third, arguments have emerged that have focused on the close connection between technology and the economic model, framed under catchphrases such as “platform capitalism” (Srnicek 2017), “platform society” (Van Dijck/Poell/de Waal 2018), or “surveillance capitalism.” (Zuboff 2019)

All in all, it is noticeable when looking at these debates that they are mainly discussed in principle and abstract terms, less based on existing results of empirical research. There is widespread agreement on the causes and problems in general, but the consequences are still open: That the concentration of the scope for action and design of digital technology development in the hands of a few companies poses a problem both for the opportunities of smaller, more local, younger companies and for civil society actors is hardly debatable. Whether this concentration subsequently also leads to the restriction of diversity, the prevention of innovation, or even to tangible dependencies

that can no longer be easily reversed, is a matter of controversy both in research and, above all, in technology policy. The fact that the operation of software such as algorithmic recommendation systems, upload and content filters, or image, video, and text analysis and manipulation tools is largely in a few private-sector hands due to their treatment as trade secrets and the lack of effective and democratically legitimized oversight is now widely discussed, not only politically and in social and communication science research, but also for some time in computer science itself. However, the consequences of this concentration of control over software are only slowly becoming visible and empirically describable on a case-by-case basis.

This is not to say that the empirical research available up to now is in contradiction to the more general academic and public debates. But while discursive bogeymen such as social bots, i. e., programs more or less autonomously faking personal communication in social media, filter bubbles, i. e., amplifying tendencies toward closure within narrow content and opinion collectives due to algorithms sorting and filtering content, or biased artificial intelligence that favors or disfavors individuals or content based on structural imbalances in training data, can be reliably used as legitimation in political debate and in justifications for regulation, providing empirical substantiation of systematic effects is far more laborious and slower. This has, as the discussion on social bots well illustrates (Cresci 2020; Keller/Klinger 2019), both to do with much more complex forms of usage on social media platforms, where automation and hand-produced communication posts of an account or network are more closely linked than the likewise automated tools for detection, identification, and

categorization based on pattern recognition could handle. As research on personalization and filter bubbles shows, this also has to do with the fact that independent research generally cannot access the data and algorithms of platform providers, and thus data must be collected laboriously and not without resistance by platform providers (Bruns 2019; Pariser 2012; Pöchhacker et al. 2017).

It is also noteworthy that public and academic debates are often concerned with what happens on and with platforms, somewhat less often with how they function, and even less often with their architecture and construction principles. Exceptions are works that deal with platform principles, such as questions of governance of and by platforms, or with the conditions and consequences of platform's intermediary function (Gillespie 2018a; Helberger/Pierson/Poell 2018; Katzenbach/Gollatz 2020). Work on the intermediary function is especially connectable to questions of regulation in general and debates about media regulation and the challenges for media systems and media service providers in particular (Gillespie 2018b; Helberger/Pierson/Poell 2018; Kleis Nielsen/Ganter 2018). Thus, the term "intermediaries" has been used in the definitions of the Organization for Economic Cooperation and Development (OECD) as well as in various proposals and recasts of Internet-specific media regulation, e.g., in the new version of the State Treaty on the Modernization of Media Regulation in Germany (or Medienstaatsvertrag, MStV for short), which replaced the Interstate Broadcasting Treaty in force since 1991 in November 2020. What the various debates about intermediaries have in common is that they see a core functionality in the intermediary function of platforms: they organize and

mediate content, people, and objects that they themselves neither own nor have produced or commissioned. This leads to the fact that there is not one type of user, but at least two – in the literature on platform economy or platform capitalism, one therefore speaks of 2- or n-sided markets – providers and consumers. Scale and network effects can then be used to make the use of the service attractive for both sides at first, and later almost without alternative, and that the actual business of platform services is to sit “fundamentally in the middle” (Gillespie 2018a, p. 220) – between providers and users, between users and the public, between regulatory frameworks.

As important as these arguments are, and as much as the metaphor of the platform has been useful for initiating these debates by drawing academic and political attention to the specifics of this in-between model and how it differs from other forms of market domination and opinion making, the metaphor of the platform also distracts from important aspects. This has to do, as Gillespie has pointed out at various points, both with the seemingly innocuous interpretation (Gillespie 2010) and the “myth of the unbiased platform” (Gillespie 2018a, 221), and with the fact that by means of the intermediary interpretation, platforms are placed argumentatively close to Internet providers and service providers. This has different consequences depending on the jurisdiction, in the United States, for example, because it allows the possibility of invoking the “safe harbor” regulations around Section 230 of the Communications Decency Act and retreating to the position that it is primarily the users and providers who bear responsibility for what happens on and with the platform offerings (Gillespie 2018b). In Germany and other European countries, very similar arguments have been

raised by technology companies in debates about content moderation or responsibility for protecting minors or dealing with hate comments. In this way, the very different ways in which the technology providers who make platforms available exert practical influence on what happens on their platforms, organizationally as well as algorithmically, via cultural and technical standards, via machine and human interfaces – in short: sociotechnically – have been systematically shifted out of sight (see also Plantin 2019).

Infrastructures

This treats one of the central sociotechnical controversies (T. Venturini 2012; Tommaso Venturini 2010) of our time exclusively as a social controversy: as a problem of markets and value creation, as a problem of organization and regulation, as a problem of mediation and service. As shown above, this already falls short politically. After all, as van Dijck et al (Van Dijck/Poell/Waal 2018) have shown, the major technology providers do not merely provide impartial platforms but build complex socio-technical ecosystems that can be broken up by antitrust law, but precisely not by technology. They thus produce entire systems of organizational and technical lock-ins, in which the choice for an offering, for example in the area of cloud storage or service architectures, makes it easier to remain in the ecosystem of the same technology provider in other areas as well: If the data is already in the cloud with one of the providers, processing it using that provider's repertoire of machine learning techniques is also an obvious choice; if one uses a provider's advertising and monetization

capabilities, it is easier to work with the same provider's analytics tools. Plantin et al have described the process of increasing interdependencies within an ecosystem as the "infrastructurization of platforms" (Plantin et al. 2018), a process that others (Van Dijck/Poell/Waal 2018) have already described as a shift from sectoral platforms - i. e.: platforms for media, platforms for education, platforms for commerce - to infrastructural platforms.

The notion of infrastructure that these teams of authors use for this development of the increasing sociotechnical deep structure of the role of platforms is instructive in three ways. First, it points out much more clearly than that of platforms or intermediaries that the websites, portals, or apps we think of when we think of, say, YouTube, Instagram, or TikTok are just the user interface, so to speak, for a complex fabric of technologies, organizations, and practices held together by Google's, Facebook's, or Bytedance's infrastructure initiatives (Bowker et al. 2007). Second, as Thomas Zeller (2017) has traced with regard to the current buzz of political and geopolitical infrastructure programs, the term has been associated both positively and negatively with public and welfare state services - or their absence - in Europe, for example, with concepts of services of general interest, and in America with concepts of "public works" (Folkers 2017; Rowland/Passoth 2015). This points to the fact that the crisis diagnosis associated with the observation that large technology providers have established themselves more and more as infrastructures also consists primarily in the fact that services and offerings that are often counted as services of general interest or at least as public services in certain sectors are increasingly being provided by companies whose core business is technology and who assert their independence

from existing institutional orders and sectoral regulations with shaft cries such as “Disruption!” and “Innovation!”.

Finally, the notion of infrastructure has become an important concept in social science research on science and technology for understanding, assessing, and designing large-scale and distributed sociotechnical systems (Bowker et al. 2007; see Edwards 2003; Rowland/Passoth 2015) in the last two decades. Three characteristics of infrastructure have been highlighted that are instructive for the current problems and challenges of digital technology development: First, empirical reconstructions of the construction, maintenance, and use of infrastructure technologies have highlighted their modularity and relationality (Star 1999; Star/Ruhleder 1996): infrastructure technologies are usually not “from a single mold”; instead, particularly successful infrastructure technologies are based on many different elements that are connected with each other technically, e.g., via interfaces, or socially, e.g., via conventions and the work of communities of practice. This modularity and relationality is not a deficit; on the contrary, it is one of the reasons for their success. Modularity and relationality also mean that change and replacement of components and carrier groups are always possible and that they are empirically even the standard and not the exception: even when many reasons speak for stability and standardization, e.g. because legal, economic or political framework conditions demand verifiability, economic benefit or reliability, infrastructure technologies are actually constantly rebuilt and changed. Second, standardization plays a crucial role in building infrastructures, both for individual components and for interfaces, exchange formats, and conventions (Bowker/Star 2000; Busch 2011; Hanseth/Monteiro/Hatling

1996). Standardization is by no means a purely technical exercise. Rather, standardization processes are sites of highly controversial debate and interest-driven technology policy: here, decisions are made about openness and closedness, centralization and distributedness, winners and losers, rule-making and dependency. Third, a look at the history of technology shows that classic infrastructure technologies in the fields of mobility, energy, broadcasting or telecommunications (see Kleinschmidt 2010; Schipper/Schot 2011; Schot 2010) shows how important coordinated technology policy measures – regulation, but above all funding, community building and organizational support – were, especially in Europe, for the development of infrastructures beyond national borders, and how similar the problems and issues – new central actors, attempts at subsequent regulation, the relationship between economic interests and public interest – are to those being discussed today with regard to digital technologies, platforms and digital infrastructures.

Understanding and addressing the current digital challenges not only as problems of market domination and its consequences for dependencies and public opinion formation, as problems of compatibility between technology and regulation and, as a consequence, for the impression that the latter is constantly lagging behind the former, or as an intermediary problem in which new central actors evade domain-specific conventions and regulations by placing themselves as intermediaries and platforms between the existing actors, has several conceptual advantages: the focus on modular sociotechnical infrastructures, whose components can be constantly changed and exchanged and whose central role as infrastructure depends on standardization strategies and thus on various, very

concrete technology policy controversies, allows research to determine and classify more precisely the different weightings of market power, regulatory compatibility, and intermediary functions. It also allows us to identify more concrete starting points for practical intervention, change and political frameworks, but more on this in the last section. And it virtually calls for thinking about an update of the mechanisms already established there, knowing that a number of the current challenges can certainly be compared with familiar and already known infrastructure challenges.

Europe's Answers:

Regulation, Industrial Policy, Research

The regulatory cat-and-mouse game of the last two decades in areas such as data protection and copyright law and the reforms of the e-commerce directive have made it clear that hardly any individual national solutions can be found against the dominance of the large technology providers. In recent years, the EU Commission has made extensive proposals on how to deal with market and opinion power as well as on guidelines and mechanisms for regulating digital technology development, most notably after the General Data Protection Regulation, which has become the “export hit” of European digital policy since 2018, the proposals for the Digital Markets Act (DMA) and the Digital Services Act (DSA) from December 2020 as well as the drafts for an Artificial Intelligence Act (AIA), for a European Data Strategy and for the EU Data Act expanding it. To go into them in detail here is beyond the scope of this article. It must suffice here to address two points that are at issue

with the newer regulatory initiatives as well as some of the more complicated open questions of their implementation.

First, the DSA and DMA introduce new responsibilities on national and European level, after previous regulations, for example on the Digital Single Market, focused primarily on the creation of a European single market with primary responsibility for national regulations according to a country-of-origin principle. In the case of the Digital Services Act, for example, which distinguishes online platforms and very large online platforms from intermediary and hosting services, these are primarily the national coordinators for digital services, for which each member country designates an independent authority to coordinate the various competent supervisory and monitoring bodies. The concrete design in the various member states will be exciting; for Germany, for example, the media institutions and the Federal Network Agency have already been discussed; in principle, consumer protection or competition regulators at national level are also possible in addition to media and telecommunications regulators. How the respective authorities will fulfill this new additional task in addition to their existing duties and whether they will succeed in building up the necessary expertise for this is an open question. Likewise, it remains to be seen what influence the respective core task will have on the implementation of the role as coordinator for digital services and whether it will make empirical differences whether this role is assumed by a media regulator or a telecommunications regulator, for example. If such differences do emerge, it will be interesting to see how online platform providers respond to this with strategic adjustments – much as they did with the DGSVO in response to differences in enforcement across countries.

The digital services coordinators will work together to coordinate in a European body to advise the Commission – except for the so-called very large online platforms (or VLOPs, to use the already common English acronym, that have more than 10% of the European Union’s population as users. Here, special supervisory powers lie with the Commission itself. Here it remains to be seen whether the coordination and consultation in the joint body and with the Commission will have speed and enforcement effects. In any case, the DSA draft does not provide for a central European digital services agency that could build up expertise as an independent European coordinator and promote knowledge exchange and independent research.

Second, the draft Artificial Intelligence Act in particular is clearly oriented to the institutional principles of financial market regulation (see Hacker/Passoth 2021), while the DSA and DMA are less clearly oriented with regard to the accountability obligations to be introduced and the practical implementation of the supervisory processes – only, as already explained, without European digital equivalents to central institutions such as the European Banking Authority. The accountability and reporting requirements will require reports that are requested and reviewed by the relevant national and European coordinated supervisors. Without going into the details here, because a lot may still change in the ongoing consultations on the regulatory proposals, it is nevertheless already possible to foresee a new demand for audit and review services and thus, with some certainty, an attractive business model for management consultancies. It remains to be seen whether this new service market will be of particular interest to the large consulting firms such as EY, KPMG or Capgemini, and whether they will succeed in