CHAPTER 1

Introduction

On two recent occasions, Swiss MPs have called for the incorporation of new fundamental rights into the Federal Constitution, in order to strengthen the protection of freedom of expression in the face of threats posed by digital technologies on the internet. The first parliamentary initiative, launched in 2018, called for a constitutional amendment that would introduce a new fundamental right to net neutrality.[1] The MP who sponsored it, Mathias Reynard, justified the initiative by pointing out that there was no mention of net neutrality in the Swiss Telecommunications Act (FMG), even though it arguably has the status of an 'unwritten law'. The initiative was subsequently withdrawn, after Parliament amended the FMG to include the open internet principle (and the associated concept of net neutrality) in the new Article 12e FMG. The second parliamentary initiative, submitted in 2022 by another MP, Samuel Bendahan, called for the right to digital integrity to be enshrined in the Constitution.[2] Specifically, the initiative sought to give citizens the right to know what data is being collected about them on the internet and by whom. However, the National Council (the lower house of Parliament) decided not to follow suit, arguing that existing gaps and difficulties in protecting citizens' digital

[1] Mathias Reynard, parliamentary initiative of 1 March 2018 (18.407 'Netzneutralität in der Verfassung verankern [Anchoring Net Neutrality in the Constitution]'), www.parlament.ch/de/ratsbetrieb/suche-curia-vista/geschaeft?AffairId=20180407.

[2] Samuel Bendahan, parliamentary initiative of 29 September 2022 (22.479 'Das Recht auf digitale Unversehrtheit in die Verfassung aufnehmen [Include the Right to Digital Integrity into the Constitution]'), www.parlament.ch/de/ratsbetrieb/suche-curia-vista/geschaeft?AffairId=20220479.

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integrity, which is already covered by Article 10 of the Constitution, should be addressed through statutory legislation.

The two initiatives are linked by the desire to guarantee freedom of communication under the conditions created by the technical and economic development of the internet. Moreover, they are both grounded in a conception of fundamental rights that, in two respects, is at odds with the prevailing understanding of the Constitution in legal doctrine and jurisprudence: first, because they invoke fundamental rights in cases where it is *not* a matter of defending freedom against *state* interferences and, second, because they see the technological infrastructure of the internet itself as representing an issue of fundamental rights. From a sociological perspective, the two initiatives reflect an understanding of constitutional law which acknowledges that the dynamics of producing constitutional norms can also involve issues of fundamental rights that fall outside the formal boundaries of the written constitutional text. They evince an understanding of the constitution that embraces bottom-up social change and is thus cognitively open to developments in the production of constitutional norms in society. Under the prevailing conditions in the digital ecosphere, these dynamics of social norm production respond to the effects of technological change and economic globalisation.

The present book seeks to present a critical perspective on freedom of expression, by focusing on the technological preconditions of this fundamental right. The term 'technosystem' was originally introduced by Andrew Feenberg.[3] In his groundbreaking work *Technosystem: The Life of Social Reason*, Feenberg combines philosophy with science and technology studies (STS) in an attempt to make a critical account of the development of technology conceivable. In this spirit, the present book intends to adopt a critical perspective on the complex relationships between normative ordering and internet technologies. A second reason for using the term 'technosystem' is that this book aims to bring together STS and sociological systems theory. These sociological perspectives are

[3] Andrew Feenberg, *Technosystem: The Social Life of Reason*, Cambridge, MA: Harvard University Press, 2017.

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then set in relation to legal practice, enabling the following three methodological approaches to be distinguished:

1) STS, which represents the most advanced sociology of technology
2) Sociological systems theory, which provides an accurate description of the complexity of present-day society and, arguably, makes it possible to conceptualise the relationship between law, technology and society
3) Legal sociology, which combines a sociological perspective on law with legal practice

Needless to say, this is a methodologically challenging undertaking, which requires us to make a clear distinction between a normative-prescriptive perspective and an empirical-descriptive one. The former is typical of legal practice (including legal doctrine), which deals with the form of law. It focuses on the systematic relationship between abstract principles, whose application in concrete cases leads to logically justified decisions. Legal sociology, in contrast, examines the social context of the law from an empirical-descriptive perspective, asking questions such as: Why is there a norm? What effect does it have? Is it socially accepted and respected? When it comes to the problem of freedom of expression and technology, the sociological perspective allows us to identify issues relating to the production of fundamental rights norms outside the legal (and political) system, in areas of society where legal doctrine would not typically expect to find them. However, sociology does not see *more* than the law, but merely something different. Every approach has its blind spot, because every observation uses a distinction to observe its object. The blind spot is precisely the initial distinction that guides the observation.[4] While an observer cannot see her own blind spot, she can see that of another observer. It is in order to overcome this predicament that the dual perspective of sociology and law is adopted throughout this book.

Chapter 2 begins the enquiry into free speech under the conditions of a globally networked digital environment by clarifying the meaning of

[4] Niklas Luhmann, *Theory of Society*, translated by Rhodes Barret, vol. 1, Stanford: Stanford University Press, 2012 (1997), at 35.

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the term 'constitution'. Under the banner of 'transnational constitutionalism', intense discussions have taken place in recent years about constitutional thinking that seeks to break free from statehood and formalism. The question of the constitutional subject is of great importance here. In the twenty-first century, nation-states remain the primary constitutional actors, as they have been since the revolutions of the eighteenth and nineteenth centuries. However, the modern era has also witnessed the emergence of transnational corporations, which have developed into powerful players within a globalised economy. As telecom service providers, equipment manufacturers and platform operators, they have a particularly strong influence over the conditions governing freedom of expression. This raises a number of questions: What does it mean, on the theoretical and practical level, to conceive of transnational corporations as constitutional subjects? How do concrete developments on the internet relate to processes of producing constitutional norms? How should the relationship between state-centred and societal constitutional legitimacy be conceptualised?

Chapter 3 then addresses the thesis that law has undergone a process of transnationalisation through the development of internet regulation in the wake of the invention of the World Wide Web in the 1990s. This chapter addresses questions such as: Is it true that a transnational law is developing that is largely free of state influence? What does a close analysis reveal about the relationship between non-state governance and state regulation in addressing pressing social problems related to the 'network of networks'? How do approaches to the regulation of content and technology differ between the United States and the European Union? Net neutrality is taken as a case study for an in-depth examination of the transnationalisation thesis in the context of the technological preconditions of free speech. In addition to the debates on net neutrality in the United States and the EU, this chapter also examines the debate in India, where the example of Meta Free Basics illustrates how the actions of large technology companies can lead to restrictions on freedom of expression. The question is then whether the history of net neutrality in these three jurisdictions, where regulatory solutions have been found along national territorial lines, reflects the spectre of the 'splinternet' and undermines the thesis of the transnationalisation of the law.

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Chapter 4 critically examines how the European Court of Human Rights (ECtHR) has conceptualised the technological requirements of freedom of expression in its case law on Article 10 of the European Convention on Human Rights (ECHR). Differences between the technical media used to express opinions (print media, broadcasting and the internet) are only superficially taken into account in the ECtHR's practice. The Court treats technology as a 'black box' rather than conducting an in-depth analysis of the interaction between the technical medium and the process of receiving and transmitting information. Such an instrumental understanding of technology may have been unproblematic in the age of print media and broadcasting, but now that the internet has become a leading medium, it needs to be revised. In order to do so, it is necessary to shift our point of observation from legal doctrine to the social sciences. This chapter correspondingly reviews two leading perspectives on the relationship between technology, society and law, namely media theory of law and STS. Media theory of law is remarkable for the general account it has developed to explain how the historically dominant means of information dissemination influence the law. However, it has two main drawbacks: 1) its uncritical perspective on the technology involved and 2) the fact that it underestimates the importance of normative social structures in the digital environment. In contrast, the strength of STS lies in its use of detailed case studies involving complex interactions between society and materiality/technology. The key concept of co-production helps us understand the interdependencies between technology developers and social responses. However, STS reaches its limits when it deals with the law, since its practitioners generally lack a solid legal background.

Chapter 5 proposes to address these weaknesses of STS with regard to the law by incorporating a perspective from legal sociology that is informed by Niklas Luhmann's theory of *autopoietic systems*. The claim made here is that such an approach can provide a theoretical framework that serves as a bridge between STS and law. On the theoretical level, this is a very ambitious undertaking, since although sociological systems theory is strong when it comes to understanding the role of law in society, critics have argued that it is blind to technology and therefore poorly suited to the digital age. Luhmann did indeed write very

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little about technology, but this does not mean that systems theory is unable to conceptualise the interface between the materiality of a distribution medium (e.g., the internet) and the sociality of communicative systems (e.g., law). It should not be overlooked that Luhmann distinguishes not only living systems, conscious systems and communicative systems but also machine systems.[5] All four types of systems are operatively closed, with structural coupling explaining how such operatively closed systems can relate to each other. 'Structural coupling' is the name given to the mechanism that allows a system to orient its own operations towards structures constructed as facts in its environment or towards the structures of other systems.[6] How can the coupling of different types of systems be explained in the case of computer-aided interactions? In opposition to the theoretically unsatisfactory conception of the internet as a social-material hybrid found in media theory, systems theory demands that a clear distinction be made between the sphere of technological materiality (the technosystem) and the sphere of communicative sociality (the social system and its sub-systems). This is the prerequisite for adopting a critical or normative position vis-à-vis technological media. The distinction between the material and the social makes it possible, at the next stage, to study with precision the diverse factual interrelations between the two spheres that exist in online communication. In order to do so, it is essential to understand technologies as artefacts possessing *affordances*, in the sense of possibilities and constraints. A key question is then that of how affordances enter into digital technologies. The final piece in this theoretical mosaic relates to the concept of normativity in the digital ecosphere and, in particular, the question of whether normative expectations about digital technologies can emerge. Since normative expectations constitute the structures of the legal system, the answer to this question will provide a micro-level explanation of how the structural coupling between law and technology works.

[5] Niklas Luhmann, *Social Systems*, translated by John Bednarz with Dirk Baecker, Stanford: Stanford University Press, 1995 (1984), at 40–41.

[6] Dirk Baecker, 'Digitalisierung als Kalkül', in Dirk Baecker, et al. (eds.), *Post-digitales Management*, Wiesbaden: Springer VS, 2023, pp. 23–37, at 26 (translation by the author).

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While the previous chapters focused on the sociological question of how a normative order adapts to technology-induced social change, Chapter 6 reconstructs the technology-specific normative-prescriptive contours of freedom of expression as a fundamental right in the internet age. The aim here is to gather evidence of the growing importance of the technological environment for freedom of expression at the national and global levels, with a specific focus on legal practice and regulation. Recognising that the trustworthiness of data-processing technology is a prerequisite for freedom of expression, privacy law is taken as the starting point for this enquiry. An important distinction ought to be made here between the integrity of the data and the integrity of the network. I also revisit the discussion of net neutrality and the open internet from Chapter 3. From a free-speech perspective, it is crucial that online data be distributed in a non-discriminatory way. The chapter therefore reconstructs the main steps in the development of net neutrality and open internet norms in the United States and the EU. While the United States originally set the tone, the EU has now taken the lead, with the European Court of Justice (ECJ) clearly defining the contours of the relevant provisions of the Open Internet Regulation (OIR). This chapter also examines the evidence found in the case law of the ECtHR on Article 10 ECHR of a tendency to recognise an independent right of transmission. Moreover, the activities of the Internet Corporation for Assigned Names and Numbers (ICANN) can be seen as producing technology-related standards that are relevant to freedom of expression. One of ICANN's tasks is to manage the internet's Domain Name System (DNS). Domain names play a central role when we surf the internet or send emails, but in order for the data packets exchanged between computers to reach their destination, the alphabetical domain names must be translated into numerical IP addresses. This translation work is carried out by a hierarchically organised system of so-called root servers, which is administered by ICANN within a multistakeholder legal structure. ICANN thus controls the 'master key' to the entire global internet and can influence the conditions under which freedom of communication is possible. Finally, the technical standards for the internet, which are developed by the Internet Architecture Board (IAB) and the Internet Engineering Task Force (IETF), are also important for freedom

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of expression. The technical documents produced by these bodies have a significant impact on how people use the internet to communicate. The IAB and IETF are organised on a global basis, and their operations are wholly or largely independent of the government.

Having thus identified the technological dynamics that are most likely to determine the direction in which the doctrine of freedom of expression will evolve, Chapter 7 addresses the broader issues of changes of fundamental rights within the framework of the tension between social evolution and constitutional stability. Telecom companies, equipment manufacturers and platform operators are new private actors who provide the hardware and software that can, in various ways, co-determine the conditions of freedom of expression on the internet. The emergence of such non-state actors poses a challenge to the doctrine of fundamental rights, which must be addressed. This leads us to ask: How is constitutional thinking responding to this challenge? What further developments are needed to take account of the increasing relevance of technological conditions for freedom of expression? These questions lie at the heart of the sociological view of fundamental rights as social institutions that have become differentiated in the course of modernisation. From this perspective, the focus is on how fundamental rights function, as well as the emergence, growth and impact of these norms. This view contrasts with the largely defensive, state-centred understanding of fundamental rights that prevails in legal practice. However, drawing on sociological insights within the framework of legal practice represents a methodological challenge. In order to avoid the famous is-ought problem, the sociological and legal perspectives must be clearly distinguished. From a legal perspective, questions concerning the enrichment of fundamental rights are discussed, taking the Swiss system of constitutional adjudication as a case study. The Swiss legal system is particularly interesting in this regard, because of its long, uninterrupted development of constitutional adjudication and its pioneering role at the international level.[7] In 1874, the Swiss Federal Constitution

[7] Giovanni Biaggini, 'Constitutional Adjudication in Switzerland', in Armin von Bogdandy, et al. (eds.), *The Max Planck Handbooks in European Public Law*, Oxford: Oxford University Press, 2020, pp. 779–840, at 781–782.

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(Bundesverfassung der Schweizerischen Eidgenossenschaft, BV) became the first constitution in the world to *explicitly* allow citizens to appeal to a supreme court in the event of the violation of their constitutional rights.[8] A special feature is that, since that time, the BV has provided for a *special legal remedy* to protect constitutional rights (constitutional complaint), which is also easily accessible and effective. The Federal Supreme Court is not limited to merely finding that a violation of constitutional rights has occurred, but can also annul the administrative or legislative act in question. At the end of the 1950s, the Federal Supreme Court began expanding the catalogue of constitutional rights guaranteed by the BV, recognising various unwritten fundamental rights in a manner unknown in other constitutional systems.[9] These fundamental rights include essential guarantees, such as the right to own property, freedom of expression, personal freedom, freedom of assembly, the freedom to use any language and the right to assistance and care.[10] During the complete revision of the BV in 1999, these rights were all formally incorporated into the revised constitutional document. The power of the Federal Supreme Court to recognise unwritten fundamental rights, where necessary, remains under the new constitution.[11] As highlighted throughout this book, the power of the courts to effectively protect freedom of expression is limited in the context of global digital networks and powerful private technology companies. It is therefore even more important to understand fundamental rights as positive obligations to protect objective constitutional value judgments which, under certain technical and social conditions, can only be implemented through legislation. This brings us full circle to the parliamentary initiatives to enrich freedom of expression mentioned at the beginning of this introduction and how the Swiss legislator intends to deal with them.

[8] Ibid., at 786. [9] Ibid., at 789.

[10] Christoph B. Graber, 'Bottom-Up Constitutionalism: The Case of Net Neutrality' (2016) *Transnational Legal Theory*, 7 (4), pp. 524–552, at 532.

[11] Regina Kiener, et al., *Grundrechte*, 4th edn, Bern: Stämpfli, 2024, at 21; Giovanni Biaggini, 'Grundrechtsinnovation im Bundesstaat – ein Streifzug durch 175 Jahre Verfassungsgeschichte', in Frédéric Bernard, et al. (eds.), *Le droit au service de l'humanité: Mélanges en l'honneur de Michel Hottelier*, Zurich: Schulthess, 2023, pp. 33–50, at 44.

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Writing this book was a long process. I benefited greatly from the conversations I have had over the past ten years with law students at the University of Zurich in my annual course 'Regulation without Law? Law and the Technologies of the Twenty-First Century', as well as in seminars on law and technology. Inspired by this experience, I have written this book for current and future law students and young academics from a variety of backgrounds who are interested in new technologies and their impact on free communication. They are called upon to make critical use of their knowledge of digital technologies and relate it to the fundamental question: How is normative order possible under the conditions of a digital society?

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