i-call working paper

No. 2023/03

Fundamental rights protection in the context of recommender systems

Michael Fässler*

JUNE 2023

ABSTRACT

This paper showcases the need for fundamental rights protection for users on intermediaries in the case of recommender systems usage. After a short introduction of the technology, it will first cover several particularities of online intermediaries, namely their relation to public utilities, the way in which they exert control and finally what function RS serve. Each topic presents parallels to what states control, how they control it and by what means the enforcement takes place. The paper then follows the impact RS have on two user types, content consumers and content creators, which could benefit from different fundamental rights taken from the Swiss Constitution. Finally, it presents possible justifications for limiting fundamental rights in accordance with Article 36 Cst.

KEY WORDS

Recommender systems, recommendation systems, artificial intelligence, public utility, sovereignty, regulation, fundamental rights

*Michael Fässler, MLaw, is an academic assistant and PhD student at the chair of Prof. Dr. iur. Christoph Beat Graber at the University of Zurich. Comments are appreciated and welcome at michael.faessler@rwi.uzh.ch.

I-CALL WORKING PAPERS are the result of research that takes place at the Chair for Legal Sociology and Media Law (Professor C.B. Graber) at the University of Zurich. The papers have been peer-reviewed.

SUGGESTED CITATION: Michael Fässler, 'FUNDAMENTAL RIGHTS PROTECTION IN THE CONTEXT OF RECOMMENDER SYSTEMS', *i-call Working Paper No. 03 (2023)*, Zurich, Switzerland: University of Zurich.

Published by:
i-call, Information • Communication • Art • Law Lab at the University of Zurich
Professor Christoph B. Graber, PhD
Chair for Legal Sociology and Media Law
University of Zurich, Faculty of Law
Treichlerstrasse 10
8032 Zurich
Switzerland

ISSN 1664-0144

Fundamental rights protection in the context of recommender systems

1. INTRODUCTION

Showcasing the need for fundamental rights protections on social media platforms might instinctively be considered a tall order as intermediaries[1] are private corporations and not state actors.[2] However, they have real and far-reaching effects in the world that necessitate the discussion at hand.[3] To provide a through line for this discussion, I will focus on a technological aspect of content moderation: specialized algorithms called recommender systems (RS) that determine in large parts what users are seeing and what remains hidden from them.[4] Considering this, we could approach the fundamental rights question from an argument of *necessity*.[5] Fundamental rights are needed to ensure that users have equal access to information and the content of discussions in the online sphere is protected. However, the main focus of this paper is the argument of *suitability*. Intermediaries are not just needed to adhere to fundamental rights, their behavior predisposes them for a fundamental rights obligation. Most importantly, while fundamental rights are the reaction to the excesses of the nation-state in the 19th and 20th century,[6] there is, at least in principle, nothing stopping society from creating a new set of rights to counter the power that emerges from intermediaries. While they could consist of the already established fundamental rights, a new set of similar «Internet rights» could achieve the same goal.

The first chapter of this paper is dedicated to RS, as they constitute a base and a through line for different subjects and can showcase problems inherent to intermediaries. I then discuss similarities between the actions of states and intermediaries for the purpose of showing the need for further protections in the form of fundamental rights of users. In the second part, the focus lies on the discussion of such infringements from the perspective of content consumers and content creators within the legal framework of the Swiss Constitution (Cst.[7]), putting intermediaries in the role

---

1 There are many different kinds of intermediaries. This paper focuses solely on Internet-intermediaries in the form of social media platforms, a term which is shortened to just «intermediary» as there should be no ambiguity. Such platforms provide no or almost no content themselves but instead let users create content. Prominent examples that are mentioned in this paper are YouTube, Facebook, Instagram, and TikTok.

2 See CHRISTOPH B. GRABER, 'Internet Creativity, Communicative Freedom and a Constitutional Rights Theory Response to 'Code is Law'' (2010) *i-call working paper No. 03 (2010)*, pp. 1-26, at 5.

3 E.g., a recent charity stream by the YouTuber «Jacksepticeye» raised almost 10 million dollars for World Central Kitchen. Or when in 2021, large investment firms lost billions of dollars after a decentralized short squeeze was organized on social media platforms. Or, what might constitute one of the most sinister chapters in the history of social media platforms, when the military of Myanmar used Facebook to facilitate the Rohingya genocide: Tiltify, 'Jacksepticeye's Thankmas 2022 Campaign' (2022), available at https://tiltify.com/@jacksepticeye/thankmas-2022; The New York Times, 'Melvin Capital, hedge fund torpedoed by the GameStop frenzy, is shutting down.' (2022); The New York Times, 'A Genocide Incited on Facebook, With Posts From Myanmar's Military' (2018).

4 ABHINANDAN DAS, et al., 'Google News Personalization: Scalable Online Collaborative Filtering' (2007) *WWW '07: Proceedings of the 16th international conference on World Wide Web*, pp. 1-10, at 1; recommendations are a practice often marketed as a sole benefit to the user: see TikTok, 'How TikTok recommends videos #ForYou' (2020), available at https://newsroom.tiktok.com/en-us/how-tiktok-recommends-videos-for-you.

5 See, e.g., the right to free speech on the Internet: GRABER, 'Internet Creativity, Communicative Freedom and a Constitutional Rights Theory Response to 'Code is Law'', supra note 2, at p. 13.

6 For a brief history of fundamental rights, see REGINA KIENER, et al., *Grundrechte*, 3rd edn, Bern, 2018, at pp. 2–9.

7 As this paper only refers to the Swiss Constitution, the abbreviation of Cst. has no double meaning. The English version of the text can be found under the following link: https://www.fedlex.admin.ch/eli/cc/1999/404/en.

of the state. Finally, I will also expand on the notion that infractions of fundamental rights can be justified in the context of Article 36 Cst., taking a specific case concerning Facebook as an example.

2. CONTROLLING WHAT USERS SEE

Since I will take RS as a concrete example while discussing fundamental rights, let us first discuss their most basic function: how they sort content. This occurs on many different platforms like social media, shopping sites or search engines. Platforms are the most important places where users come into contact with RS.[8] Let us take the example of YouTube. There are two main ways in which the platform generates views. As a first option, users can search for specific content and the RS ranks the results by certain parameters. The second option exists for the case when users are not in search of specific content and scroll through propositions, called «feeds», that are shown in sidebars or separate pages. In 2010, it was estimated that the search function was responsible for the majority of the engagement but only marginally ahead of the video sidebar with both creating about 30% of the views.[9] Similar corroborating data has been provided since, as newer estimates by YouTube make the sidebar responsible for around 70% of total watch time stemming from non-subscribers.[10] RS achieve these impressive results by creating user profiles using different technological means, for example collaborative filtering and content-based filtering.[11] Collaborative filtering operates under the assumption that users will like similar things as other users with the same preferences.[12] Content-based filtering takes the opposite approach by comparing not the similarity of the user but of the item to other items.[13] RS have also benefited greatly from the recent advent of machine learning algorithms.[14] RS are undergoing rethinking as for example, the «matrix factorization»[15] used in collaborative filtering might be improved by neural networks. The goal is to profit from the non-linear architecture of AI to discover new

8 See RENJIE ZHOU, et al., 'The Impact of YouTube Recommendation System on Video Views' (2010) *IMC '10: Internet Measurement Conference*, pp. 404-410, at 404.

9 Ibid., at p. 406.

10 YouTube Official Blog, 'On YouTube's recommendation system' (2021), available at https://blog.youtube/inside-youtube/on-youtubes-recommendation-system.

11 With further references, see CHRISTIAN DJEFFAL, et al., 'Recommender Systems and Autonomy: A Role for Regulation of Design, Rights, and Transparency' (2021) *The Indian Journal of Law and Technology*, pp. 1-55, at 12; see also DIRK SPACEK, 'Personalisierte Medien und Unterhaltung' (2018) *sic!*, pp. 377-392, at 382–383.

12 See Knight First Amendment Institute at Columbia University, 'Understanding Social Media Recommendation Algorithms: Towards a better informed debate on the effects of social media' (2023), available at https://knightcolumbia.org/content/understanding-social-media-recommendation-algorithms.

13 DAS, et al., 'Google News Personalization: Scalable Online Collaborative Filtering', supra note 4, at pp. 272–273; MUSTANSAR A. GHAZANFAR, et al., 'Kernel-Mapping Recommender system algorithms' (2012) *Information Sciences*, pp. 81-104, at 82; see DAWEN LIANG, et al., 'Variational Autoencoders for Collaborative Filtering' (2018) *Proceedings of the 2018 World Wide Web Conference*, pp. 689-698, at 689.

14 See XUAN BI, et al., 'Multilayer tensor factorization with applications to recommender systems' (2017) *Annals of Statistics*, pp. 3308-3333, at 3308.

15 See Knight First Amendment Institute at Columbia University, 'Understanding Social Media Recommendation Algorithms: Towards a better informed debate on the effects of social media', supra note 12.

ways to predict a user's potential behaviour.[16] An interesting paradox forms though the process of sorting content by the means of an algorithm. RS work with no direct information about the individual; it exists solely in relationship to others. For example, when TikTok's recommended page is titled «For You», it really means «from users with the same behaviour as you».[17] In an effort to humanize the individual in a mass of users, RS reduce them to their behaviour in relation to others. This «digital person» is not a somewhat stable entity like its physical counterpart but a fluid amalgamation of different inputs that change as fast as users feed information into the algorithms of the RS.[18] This concept is not limited to apparent preferences but can also include assumptions over users' gender, ethnicity, or religion.[19] However, this method is currently the best option for intermediaries as it enables management at scale and simultaneously provides the power to influence user behaviour.

Also of interest for our purposes is the broader context surrounding RS, as they do not exist in a vacuum. They are part of a larger process that includes content creation, moderation, distribution, and monetization. On the one hand, intermediaries are interested in programming their RS in a way that creates the most amount of user engagement which in turn creates revenue through advertisements.[20] On the other hand, this also means that sorting a search or a feed for a user means ascribing value to the content in question relative to the user or the platform. Prioritizing content means that RS favour certain kinds of content over others, increasing their visibility. The opposite, «deprioritization», or «downranking» is the practice of slowing the spread of content by recommending it less to other users or even not at all.[21] Similarly, «shadow banning» is a term describing platform providers hiding the content of

16 See XIANGNAN HE, et al., 'Neural Collaborative Filtering' (2017) *2017 International World Wide Web Conference Committee*, pp. 173-182, at 173; see LIANG, et al., 'Variational Autoencoders for Collaborative Filtering', supra note 13, at p. 693; see also DJEFFAL, et al., 'Recommender Systems and Autonomy: A Role for Regulation of Design, Rights, and Transparency', supra note 11, at p. 13; critical MAURIZIO FERRARI DACREMA, et al., 'Are we really making much progress? A worrying analysis of recent neural recommendation approaches' (2019) *Proceedings of the 13th ACM Conference on Recommender Systems*, pp. 101-109, at 107–108; MALTE LUEDWIG, et al., 'Performance Comparison of Neural and Non-Neural Approaches to Session-based Recommendation' (2019) *RecSys '19: Proceedings of the 13th ACM Conference on Recommender Systems*, pp. 462-466, at 464–465.

17 See BETTINA HEINTZ, 'Big Observation – Ein Vergleich moderner Beobachtungsformate am Beispiel von amtlicher Statistik und Recommendersystemen' (2021) *Köln Z Soziol*, pp. 137-167, at 147–148; see Knight First Amendment Institute at Columbia University, 'Understanding Social Media Recommendation Algorithms: Towards a better informed debate on the effects of social media', supra note 12.

18 See HEINTZ, 'Big Observation – Ein Vergleich moderner Beobachtungsformate am Beispiel von amtlicher Statistik und Recommendersystemen', supra note 17, at pp. 159–161.

19 See ibid., at p. 146.

20 Technological tools on social media platforms that aim to increase user engagement are not new at all. One older example is the infinite scroll feature, created in 2006, that eliminated the need to manually load new pages, thus boosting user time on the site massively: Aza Raskin, 'No More More Pages?' (2006), available at https://web.archive.org/web/20120606053221/http://humanized.com/weblog/2006/04/25/no_more_more_pages.

21 Meta employs the system to «remove, reduce and inform» for different kinds of unwanted content, see Meta Platforms, Inc., 'People, Publishers, the Community' (2019), available at https://about.fb.com/news/2019/04/people-publishers-the-community; YouTube has the four R's approach: Remove, Raise, Reward, Reduce YouTube Official Blog, 'The Four Rs of Responsibility, Part 1: Removing harmful content' (2019), available at https://blog.youtube/inside-youtube/the-four-rs-of-responsibility-remove.

an account while the creator still thinks that it is fully publicly available.[22] For a period of time, there was contention over whether the practice was in fact real. For example, the head of Instagram, Adam Mosseri, denied that the platform engaged in shadow banning.[23] However, Instagram later acknowledged the practice in an effort to increase transparency on their platform.[24] Due to the nature of shadow banning, individual users need to detect themselves whether they are being restricted, which has proven to be difficult.[25] One way is to look at their statistic metadata to determine the drop in engagement with their content. A second tool is the use of specialized software to check for shadow banning.[26] Both prioritization practices and shadow banning are active decisions to alter the algorithm of the RS with the purpose of controlling the visibility of content. These practices have been used in recent years by major social media platforms.[27] It has to be noted that the developers of RS are neither all-knowing nor all-powerful. They struggle with the code, decisions about weighting parameters, and the «black box» phenomenon inherent in AI-generated results.[28] There is also an ongoing discussion over the extent to which RS are unintentionally biased and subsequently harmful to democratic discourse.[29] However, I will not engage in a discussion about side-effects of this technology but mostly on the intentional usage of RS to restrict unwanted content.

3. INTERNET PLATFORMS AND STATE FEATURES

Whether intermediaries are considered institutions of the state is a simple question with an easy answer: no. They describe themselves as private enterprises and are

22 Following the same assessment as the Center for Democracy and Technology, 'Shedding Light on Shadowbanning' (2022), at pp. 10–11, available at https://cdt.org/wp-content/uploads/2022/04/remediated-final-shadowbanning-final-050322-upd-ref.pdf.

23 Adam Mosseri, 'Shadowbanning. It's not a thing, right?' (2020), available at https://twitter.com/jackielerm/status/1231122961379340289.

24 Instagram, 'Helping you understand what's going on with your account' (2022), available at https://about.instagram.com/blog/announcements/instagram-outages-and-account-status.

25 See The New York Times, 'Leg Booty? Panoramic? Seggs? How TikTok Is Changing Language' (2022).

26 See Center for Democracy and Technology, 'Shedding Light on Shadowbanning', supra note 22, pp. 26–27.

27 See DJEFFAL, et al., 'Recommender Systems and Autonomy: A Role for Regulation of Design, Rights, and Transparency', supra note 11, at pp. 11–12.

28 See FRANK PASQUALE, 'The Automated Public Sphere' (2017) *University of Maryland Francis King Carey School of Law No. 2017-31*, pp. 1-27, at 8–9; see also SILVIA MILANO, et al., 'Recommender systems and their ethical challenges' (2020) *AI & Soc*, pp. 957-967, at 962–963; see CHRISTIAN DJEFFAL, et al., 'Reccomender Systems and Autonomy: A Role for Regulation of Design, Rights, and Transparency', supra note 11, at pp. 32-33 and 51; for the example of YouTube, see Mozilla, 'Does This Button Work? Investigating YouTube's ineffective user controls' (2022), at pp. 23–30, available at https://foundation.mozilla.org/en/research/library/user-controls/report.

29 See, e.g., a meta-analysis of 23 studies: MUHSIN YESILADA and STEPHAN LEWANDOWSKY, 'Systematic review: YouTube recommendations and problematic content' (2022) *Internet Policy Review,* pp. 1-22.

recognised as such by the law.[30] So, to establish the need for protective mechanisms in a comparable form to fundamental rights, we need to first consider the nature of intermediaries outside of their immediate legal description. We do this by comparing their digital conduct to its (physical) equivalent coming from states. This then leads to the discussion about how and which fundamental rights the actions of intermediaries can jeopardize similar to states. The argument that I want to bring forward is not that intermediaries are states but that their behaviour has comparable consequences, thus enabling the discussion around fundamental rights.[31] The first part is concerned with what kind of spaces intermediaries create when they allow users to engage on their platforms. The second is focussed on the similarities between the methods of achieving compliance by the state and by intermediaries. In the third part, we look at how RS can be understood in terms of relation and law.

3.1 CREATING PUBLIC SPACES

The first preliminary question regards the nature of the digital realm that intermediaries dominate. This virtual space consists of de-centralized physical infrastructure that is in the hands of private companies or the state.[32] This infrastructure is then used by private actors to create access to their social media platforms, with now large parts of public life taking place on such sites: politicians present their policies, activists try to garner support for their cause and users meet digitally over shared interests.[33] The reach that intermediaries have is massive, with Facebook alone having almost three billion active users.[34] Intermediaries set out to connect the world,[35] and they did; can the world demand that it now has a right to access intermediaries?

The discussion about the right to access the Internet in general began before today's social media sites were created.[36] Now, about two decades later, the stance that

30 For Switzerland: Google is a limited liability company: Central Business Name Index, 'Google Switzerland GmbH', available at https://www.zefix.ch/en/search/entity/list/firm/733113; so is Facebook: Central Business Name Index, 'Facebook Switzerland Sàrl', available at https://www.zefix.ch/en/search/entity/list/firm/1145660; TikTok (ByteDance) is a corporation registered in the Cayman Islands. Reuters, 'Beijing took stake and board seat in key ByteDance domestic entity this year' (2021), available at https://www.reuters.com/world/china/beijing-owns-stakes-bytedance-weibo-domestic-entities-records-show-2021-08-17.

31 See PAUL S. BERMAN, 'Cyberspace and the State Action Debate: The Cultural Value of Applying Constitutional Norms to "Private" Regulation' (2000) *University of Colorado Law Review*, pp. 1264-1310, at 1271; and CHRISTOPH B. GRABER and GUNTER TEUBNER, 'Art and Money: Constitutional Rights in the Private Sphere?' (1998) *Oxford Journal of Legal Studies*, pp. 61-73, at 70; GRABER, 'Internet Creativity, Communicative Freedom and a Constitutional Rights Theory Response to 'Code is Law'', supra note 2, at p. 18.

32 E.g., in Switzerland, the largest provider is Swisscom, which is controlled by the state. The second largest is Sunrise, which is private: ComCom, 'Marktanteile Breitbandmarkt' (2022), available at https://www.comcom.admin.ch/comcom/de/home/dokumentation/zahlen-und-fakten/breitbandmarkt/marktanteile.html.

33 See MICHAEL FÄSSLER, 'Google's Privacy Sandbox Initiative: Old wine in new skins' (2023) *i-call working paper*, pp. 1-25, at 21–22.

34 Meta Platforms, Inc., 'Meta Reports Fourth Quarter and Full Year 2022 Results' (2023), at p. 1, available at https://s21.q4cdn.com/399680738/files/doc_financials/2022/q4/Meta-12.31.2022-Exhibit-99.1-FINAL.pdf. It has to be noted, that a portion of accounts are not created by real people but consist of social bots. The exact amount on each social media platform is unknown.

35 See, e.g., Time, 'The Man Who Wired the World' (2014).

36 See GUNTER TEUBNER, 'Societal Constitutionalism: Alternatives to State-Centred Constitutional Theory?', in CHRISTIAN JOERGES, et al. (eds), *Constitutionalism and Transnational Governance*, Oxford, 2004, pp. 1-24, at 1–2.

intermediaries specifically provide a digital «public forum» or «public square» has found broad support.[37] I share this view, as it is reasonable to extrapolate, that online spaces, which are used by about a third of the entire planet, are not entirely a private matter. Furthermore, apart from their almost ubiquitous usage, the users also collectively fund the platforms by paying for them through the exposure to advertisements. To define intermediaries themselves as a part of the public would be too far of a reach, however. They are private actors who control the access to public spaces and the behaviour of on them.[38] We can narrow the nature of these spaces down further by comparing them to already established terms in the Swiss legal system: if a public utility is open to all, it is qualified as a public property in public use.[39] If the utility has a limited circle of users, it is considered an administrative asset. User limitations can be, for example, membership requirements or the payment of a fee. Since intermediaries are not entirely homogenous, they would differ slightly in their classification, depending on the specific platform. Some social media platforms technically have a mandatory membership, as they require creating an account to use the site.[40] However, creating accounts does not pose a significant hurdle, as there are no or minor requirements for doing so.[41] Google, being primarily a search engine, has no membership requirements at all for most of its core functions. Thus, it stands to reason that the online spaces provided by intermediaries could be considered public properties in public use, with the users subsequently having a right to access them. The argument that intermediaries are private owners of their platforms and therefore are not beholden to public law standards does not stand much scrutiny, as the legal qualification can be inadequate. [42] A better legal understanding would be to consider them private actors who act on behalf of the state by controlling access to public fori and are therefore bound by fundamental rights (see Article 35(2) Cst.).

---

37 DANIEL C. HOWE and HELEN NISSENBAUM, 'Trackmenot: Resisting Surveillance in Web Search', in Ian Kerr, et al. (eds), *Lessons from the Identity Trail: Anonymity, Privacy, and Identity in a Networked Society*, Oxford, 2009, pp. 1-23, at 3; with further references see GRABER, 'Internet Creativity, Communicative Freedom and a Constitutional Rights Theory Response to 'Code is Law'', supra note 2, at p. 14; CASS ROBERT SUNSTEIN, *#Republic: Divided Democracy in the Age of Social Media*, Princeton and Oxford, 2017, at pp. 41–44; see ELI PARISER, 'What obligation do social media platforms have to the greater good?' (2019), available at https://www.ted.com/talks/eli_pariser_what_obligation_do_social_media_platforms_have_to_the_greater_good/transcript; nuanced: JÜRGEN HABERMAS, 'Überlegungen und Hypothesen zu einem erneuten Strukturwandel der politischen Öffentlichkeit', in MARTIN SEELIGER and SEBASTIAN SEVIGNANI (eds), *Ein neuer Strukturwandel der Öffentlichkeit?*, Baden-Baden, 2021, pp. 470-500, at 496–497; see OTFRIED JARREN and RENATE FISCHER, 'Demokratische Öffentlichkeit: Eine medienpolitische Gestaltungsaufgabe', in Otto Brenner Stiftung (ed.), *Welche Öffentlichkeit brauchen wir?: Die Zukunft des Journalismus und demokratischer Medien*, Frankfurt am Main, 2022, pp. 9-20, at 18.

38 A similar example would be a private security firm that controls the access to a public park, while not being bound to fundamental rights.

39 See ULRICH HÄFELIN, et al., *Allgemeines Verwaltungsrecht*, 8th edn, Zürich/St. Gallen, 2020, at pp. 513–515; BGE 135 I 302 d. 3.2.

40 E.g., Twitter limits what a non-user can see while Instagram does not allow them to view content at all.

41 Usually, the requirements are name, e-mail address and phone number. Facebook requires a minimum age of 13, see Facebook, 'Create a Facebook account', available at https://www.facebook.com/help/188157731232424; see also Twitter, 'Signing up with Twitter', available at https://help.twitter.com/en/using-twitter/create-twitter-account; and YouTube Help, 'Create an account on YouTube', available at https://support.google.com/youtube/answer/161805.

42 Almost two decades ago, JACK BALKIN reached a similar conclusion regarding intellectual property rights: JACK M. BALKIN, 'Digital Speech and Democratic Culture: A Theory of Freedom of Expression for the Information Society' (2004) *New York University Law Review*, pp. 1-55, at 50.

3.2 SOVEREIGN POWER AND THE USE OF FORCE

The next question would be how intermediaries control the access to the public spaces they provide. Intermediaries control their platforms generally independently from outside influences, at least before the EU's latest legislative initiatives are implemented.[43] In absence of international actors creating robust laws, they currently are the primary authority that governs their platforms. One could argue that intermediaries only have a limited space to enact control over, with their influence over users confined to their direct participation on the platform. However, the amount of online space intermediaries control is a separate question from the quality of their conduct. In similar fashion, the population does usually not interact with the state as a whole in a practical sense but with one of its many extensions, like the health- and police department or the post office. These are all separate, limited, entities with different functions and powers. So, the fact that intermediaries control their platforms, is at least in principle, sufficient to establish sovereign power. In our case, RS then fulfil the legislative and executive role simultaneously by combining rule and enforcement in the form of code.[44] The quality of this control can be determined by consulting GEORG JELLINEK, who divides control into simple, non-dominating power of association and ruling power. The former can issue rules for the members of the association but cannot enforce them. The latter is an irresistible force, which binds members to the association, making them unable to leave it.[45] Only this last part creates the kind of sovereign control that is typical for states. For intermediaries, this distinction is not easy. While they create rules that users have to follow, the site does not directly force them to stay on their platform. However, it must be considered that intermediaries are in such a dominant market position that they find themselves in an oligopoly.[46] Leaving these platforms means not taking part of public life anymore, which is, depending on the user, not always a viable option.[47] I would argue that this constitutes ruling power over at least these types of users, as they are bound to the platforms.[48]

This brings us to a necessary part of enacting sovereignty, the use of force. With the state holding the monopoly over it, intermediaries cannot employ police or sen-

---

43 The EU is the first major power to take major steps to limit intermediaries in certain regards. E.g., Switzerland has only just now decided to follow suit: Swiss Federal Council, 'Medienmitteilung des Bundesrats: Grosse Kommunikationsplattformen: Bundesrat strebt Regulierung an' (2023), available at https://www.admin.ch/gov/de/start/dokumentation/medienmitteilungen/bundesrat.msg-id-94116.html. In the EU, the Digital Services Act (DSA) contains restrictions on a variety of issues regarding intermediaries. Regarding RS, it contains in Article 27 criteria for transparency while ordering large online platforms in Article 38 to provide a RS that is not based on profiling at all. Profiling, as laid out in Article 4(4) of the General Data Protection Regulation (GDPR) «means any form of automated processing of personal data […]». What this encompasses in practice remains to be seen.

44 See GRABER, 'Internet Creativity, Communicative Freedom and a Constitutional Rights Theory Response to 'Code is Law'', supra note 2, at pp. 5–6.

45 See GEORG JELLINEK, *Allgemeine Staatslehre,* 3rd edn, Berlin, 1914, at pp. 427–430.

46 See PASQUALE, 'The Automated Public Sphere', supra note 28, at p. 2.

47 Google AdSense alone has over 2 million users who depend on its revenue: Google AdSense, 'We value your content: Creating content takes time, making it profitable shouldn't', available at https://adsense.google.com/intl/en_us/start. Considering other reasons that bind users to intermediaries, like political messaging, online friendships, or other financial reasons apart from advertising; many users will de facto not be in a position to leave the sites.

48 It is no coincidence that deleting one's social media presence is referred to as «Digital Suicide»: Urban Dictionary, 'digital suicide' (2010), available at https://www.urbandictionary.com/define.php?term=digital%20suicide. Similarly, leaving a platform could also be compared to fleeing a state.

tence individuals to prison.[49] However, this is not necessary as they can act in their own way, unique to the digital sphere. There, automated and manual content moderation is aimed to detect and fight various sorts of harmful content, violations of terms of service (TOS) and protect copyright owners.[50] For these purposes, posts can be deleted, demonetized, or hidden and entire channels can be taken down.[51] There are sometimes early warning systems for content creators, for example, the use of «strikes» by platforms.[52] Ignoring warnings can amount to restrictions in the usage of an account or the reach of its posts.[53] Overall, as intermediaries are not acting in the physical world, there is no physical force involved and is not needed as users know that breaches of rules have negative consequences for them and behave accordingly. Furthermore, similar to police forces and prosecutors, the enforcers of such measures answer directly to the Internet platform and wield the sole ability to restrict divergent behaviour through technical means. RS specifically can also come with an additional problem as users might not know directly whether or not they are downranked by the algorithm and what specifically they can do to lift the restrictions.[54]

3.3 REGULATION AND LAW

Finally, after establishing that intermediaries create public spaces and control them with potentially sovereign authority, we should discuss at least one way they do it. As RS form the through line for the fundamental rights section, the discussion about their nature seems reasonable. Do intermediaries create regulations or even something approximating law when they employ RS? For the definition of regulation, JULIA BLACK takes a state-independent and decentred perspective:[55]

«regulation is the sustained and focused attempt to alter the behaviour of others according to defined standards or purposes with the intention of producing a broadly identified outcome or outcomes, which may involve mechanisms of standard-setting, information-gathering and behaviour-modification.»[56]

---

49 About the use of force and states, see MAX WEBER, *Politics as a Vocation*, translated, edited and with introduction by HANS H. GERTH and C. WRIGHT MILLS, New York, 1946, at pp. 3–4.

50 See Meta Platforms, Inc., 'Facebook Community Standards' (2023), available at https://transparency.fb.com/policies/community-standards; or TikTok, 'Community Guidelines' (2023), available at https://www.tiktok.com/community-guidelines?lang=en.

51 Which is in line with the state equivalent, where repressive and preventive measures can be taken to hinder or amend situations contrary to public good, see HÄFELIN, MÜLLER and UHLMANN, *Allgemeines Verwaltungsrecht*, supra note 39, at pp. 606–607.

52 YouTube Help, 'Community Guidelines strike basics on YouTube', available at https://support.google.com/youtube/answer/2802032; Meta Platforms, Inc., 'Restricting accounts' (2023), available at https://transparency.fb.com/enforcement/taking-action/restricting-accounts.

53 E.g., on Twitch, the temporary ban of a channel could reasonably be compared to the digital equivalent from a prison sentence. It temporarily removes the user from the broader digital society, protecting other users and punishing the offender.

54 See HEINTZ, 'Big Observation – Ein Vergleich moderner Beobachtungsformate am Beispiel von amtlicher Statistik und Recommendersystemen', supra note 17, at p. 147.

55 JULIA BLACK, 'Critical Reflections on Regulation' (2002) *Australian Journal of Legal Philosophy*, pp. 1-35, at 3; see also CHRISTOPH B. GRABER, 'The Future of Online Content Personalisation: Technology, Law and Digital Freedoms' (2016) *i-call working paper*, pp. 1-24, at 9–10.

56 BLACK, 'Critical Reflections on Regulation', supra note 55, at pp. 26-27.

How do RS hold up under this definition? RS are implemented over long periods of time and are used specifically to influence what content is produced and consumed. They also work towards a desired outcome, which is dependent on the financial and societal goals that the platform tries to achieve. For this purpose, RS employ numerous technical mechanisms to create advantages for following the standards and disadvantages for deviating from them. Following BLACK'S definition, I would argue that RS are tools of regulation.[57]

Going one step further, we should consider the difference between law and regulation when discussing the nature of RS. For MAX WEBER, a legitimate order can be called law «if it is externally guaranteed by the probability that physical or psychological coercion will be applied by a staff of people in order to bring about compliance or avenge violation».[58] RS do not only guarantee the probability, but certainty of coercion and the staff of people is now replaced by algorithms, which are even more efficient. Furthermore, as already discussed, in the digital space, physical or psychological coercion is applied but results through digital enforcement methods.[59] After substantially modifying WEBER'S definition, RS could potentially be seen as law. However, for the law to be a legitimate order in his understanding, it has to meet further criteria. It can achieve legitimacy through three ideal typical forms which create acceptance in the population: charismatic domination, traditional domination, and rational-legal domination.[60] Charismatic domination achieves legitimacy through a leader, traditional domination through customs, and rational-legal domination relies on conscious legal enactment. All forms of legitimacy aim at the general acceptance by the members of society, which is a recurring requirement in the definition of law.[61] RS, naturally, are created top-down, sometimes with and sometimes without consideration of user interests. They thus neither rely on rational-legal, traditional, or charismatic forms of domination to legitimize their actions. Without such a mechanism, the online community is not convinced of the functioning of RS, as studies clearly show.[62] Taking WEBER'S perspective, RS do not constitute a legitimate order as they are not subjectively accepted as binding. A similar problem can be found when discussing H.L.A. HART'S definition of law. He postulated that in order for (modern) law to exist, the combination of two kinds of norms is needed: primary rules and secondary rules.[63] Primary rules create obligations for the addressees. Here, HART distinguishes between being obliged and being under an obligation, with only the latter creating the internal conviction necessary for a primary rule. To be under

---

57 See a similar conclusion in GRABER, 'The Future of Online Content Personalisation: Technology, Law and Digital Freedoms', supra note 55, at p. 13.

58 MAX WEBER, *Economy and Society: An Outline of Interpretive Sociology*, edited by GUENTHER ROTH and CLAUS WITTICH, *Vol. 1*, California, 1978, at p. 34.

59 The means of coercion are irrelevant, making digital enforcement methods viable options under this definition: ibid., at p. 35.

60 Notably, for WEBER, a legitimate order is not necessarily democratic: Weber, *Politics as a Vocation*, supra note 49, at p. 5; WEBER, *Economy and Society: An Outline of Interpretive Sociology, Vol. 1*, supra note 58, at pp. 215–216.

61 See, e.g., EUGEN EHRLICH, *The Sociology of Law*, translated by NATHAN ISAACS, Cambridge, 1922, at p. 136.

62 Only about 25% of users think that the algorithms of RS show an accurate picture of society: Pew Research Center, 'Algorithms in action: The content people see on social media' (2018), available at https://www.pewresearch.org/internet/2018/11/16/algorithms-in-action-the-content-people-see-on-social-media.

63 Societies can also rely solely on primary rules but suffer issues with such a system: H.L.A. HART, *The Concept of Law*, London, 1961, at pp. 80-81 and 91.

an obligation means that the rule has normative content, or in other words is legitimized.[64] RS, fundamentally being code, only oblige users to act a certain way but lack legitimation for doing so, as they have no public deliberation or democratic decision behind them.[65] Still, let us go beyond primary rules and also consider the secondary rules, which monitor and control the functioning and development of primary norms.[66] Regarding the relationship to code, secondary rules currently only exist in the form of «civil constitutions», meaning self-imposed rules of corporations.[67] These «constitutions» have strong constitutive functions and weak limitative functions, meaning that while they provide (mostly internal) structure for the corporation, they lack restrictions on its power regarding the outside world. The protection of users is not generally in the interest of corporations and thus generally missing, much in contrast to state constitutions, in which fundamental rights are a core limitative function.[68] This, what GUNTER TEUBNER calls a «motivation-competence» dilemma, might be the reason that self-regulation is mostly insufficient to create sufficient secondary rules in cyberspace.[69] For the time being, RS lack substantial qualities of law, and thus broadly describing them in BLACK'S terms of regulation appears to be more precise, as they lack legitimacy for their coercive effects.

4. FUNDAMENTAL RIGHTS OF CONTENT CONSUMERS

In the next chapters, we will discuss various instances of how RS could jeopardize or violate Swiss fundamental rights to showcase the current lack of protection in this matter. This stems from the argument that if RS have comparable effects to state actions, intermediaries should adhere to comparable fundamental rights standards to protect user interests.[70] One has to only think about the controversies that would arise if the Swiss state employed RS to sort sections of the Internet: discussions about censorship and a general mistrust of state control over the online sphere would be rampant. Subsequently, RS would be objects of intense legal battles, as current fundamental rights would already guarantee effective protections from misuse. There are several fundamental rights that might be suitable for the discussion surrounding RS. However, I will put the focus on rights that have a direct or strong indirect connection to democratic values. In this chapter, we discuss the rights – or apparent lack thereof – of content consumers, specifically, the freedom of information (Article 16

64 See in the context of digital rights management CHRISTOPH B. GRABER, 'How the Law Learns in the Digital Society' (2021) *Law Tech Hum*, pp. 12-27, at 16.

65 See SANGEET KUMAR, 'The algorithmic dance: YouTube's Adpocalypse and the gatekeeping of cultural content on digital platforms' (2019) *Internet Policy Review*, pp. 1-21, at 11.

66 HART, *The Concept of Law,* supra note 63, at p. 81.

67 TEUBNER, 'Societal Constitutionalism: Alternatives to State-Centred Constitutional Theory?', supra note 36, at p. 23; GRABER, 'The Future of Online Content Personalisation: Technology, Law and Digital Freedoms', supra note 55, at pp. 19–20.

68 See CHRISTOPH B. GRABER, 'Bottom-up constitutionalism: the case of net neutrality' (2016) *Transnational Legal Theory*, pp. 1-29, at 7.

69 See GUNTER TEUBNER, Constitutional Fragments: Societal Constitutionalism in Globalization, Oxford, 2012, at pp. 92–93.

70 This approach aims to develop on the same concept that was discussed by GRABER, 'Internet Creativity, Communicative Freedom and a Constitutional Rights Theory Response to 'Code is Law'', supra note 2, at pp. 5–6.

Cst.), the freedom of assembly (Article 22 Cst.) and political rights (Article 34(2) Cst.). I will not take a comprehensive approach that tries to go step by step through all aspects of a given right but try to focus on some core issues deemed relevant to the discussion about RS specifically. It should be noted in advance that a restriction of a fundamental right can be justified, for example, with the remedies of Article 36 Cst. Many of the following examples could reasonably fall under such a justified infraction. I will explore this in more detail in the last part of this paper. For the following chapters, the focus remains on the question whether the use of RS restricts fundamental rights without arguing too much for or against the validity of such an action.

4.1 FREEDOM OF INFORMATION

RS can impact the freedom of information in various ways, most notably by hiding content without disclosing the underlying algorithm. As Article 16 Cst. grants a person the right to freely receive information and to gather it from generally accessible sources. The preliminary question is whether content on an intermediary originates from such a source. According to the Federal Supreme Court of Switzerland (FSC), what constitutes a generally accessible source is largely a question for the legislator to define.[71] Currently, public radio and television programs, movies for the cinema and the Internet are included in this definition.[72] People are free to access them by all kinds of searches and collections of data.[73] For intermediaries, this means searches on their pages, access to the results and free browsing would be protected as they are considered a public source of information. One way for the state to inhibit access to information is thus to block access to intermediaries.[74] This is in line with the general understanding of the freedom of information, as it is considered a positive right. From a fundamental rights perspective, the concern would be a similar behaviour from intermediaries themselves, as the use RS to omit information, be it in searches or in the general feed. However, there is also discussion over a second, negative right which would encompass the right *not* to receive information.[75] With regard to intermediaries, this split view of the freedom of information is cause for contention. On the one hand, what is hidden and what is promoted is a decision that intermediaries take unilaterally, possibly infringing upon the positive aspects of the right. On the other hand, RS filter what is deemed by the platform as unnecessary, offensive, or

---

71 BGE 127 I 145 d. 4c/aa; 137 I 8 d. 2.3.1.

72 Notably, the ECHR also tends to further expand on the notion of public access if the information in question is of public concern and is asked for by the media or an NGO: see ECHR, 14.04.2009, No. 37374/05, Társaság a Szabadságjogokért/Hungary, para. 26 ff; 28.11.2013, No. 39534/07, Österreichische Vereinigung zur Erhaltung, Stärkung und Schaffung eines wirtschaftlich gesunden land- und forstwirtschaftlichen Grundbesitzes/Österreich, para. 41; 2506.2013, No. 48135, Youth Initiative for Human Rights/Serbia, para. 24, see ANDREAS KLEY and ESTHER TOPHINKE, 'Art. 16: Meinungs- und Informationsfreiheit', in BERNHARD EHRENZELLER, et al. (eds), *Die Schweizerische Bundesverfassung: St. Galler Kommentar*, 3rd edn, Zürich/St. Gallen, 2014, at N 37; see MAYA HERTIG, 'Art. 16: Meinungs- und Informationsfreiheit', in BERNHARD WALDMANN, et al. (eds), *Basler Kommentar zur Bundesverfassung*, Basel, 2015, at N 26.

73 MAYA HERTIG, 'Art. 16: Meinungs- und Informationsfreiheit', in BERNHARD WALDMANN, et al. (eds), *Basler Kommentar zur Bundesverfassung*, Basel, 2015, at N 24.

74 ECHR, 18.12.2021, No. 3111/10, Yıldırım/Turkey.

75 JÖRG P. MÜLLER and MARKUS SCHEFER, *Grundrechte in der Schweiz: Im Rahmen der Bundesverfassung, der EMRK und der UNO-Pakte*, 4th edn, Bern, 2008, at p. 518; see HERTIG, 'Art. 16: Meinungs- und Informationsfreiheit', supra note 73, at N 21.

just plain boring in service of a cleaner search by the user.[76] This could be seen as a pursuit in favour of the negative right to information, the limitation of the amount of information. A counter to the negative rights argument could be that RS are in many ways opaque. As the employed algorithms are not made public, their inner workings remain unknown for the average user.[77] In most other contexts, like the choice of TV programs, this does not pose a comparable problem. Users largely know in general terms what is not shown to them before they access the product, thus being aware about the limitations of their consumption. In the case of RS, users have little insight into how search results or recommendations are created and are often not even aware that information is hidden from them.[78]

4.2 FREEDOM OF ASSEMBLY

Stopping recommendations for social media groups could infringe upon Article 22 Cst., specifically if it targets them because of their ingroup topics. The right guarantees the freedom of assembly as well as the right of a person to organize, participate and not participate in meetings.[79] A meeting or assembly is understood as any coming together of several people during a certain time with the purpose of pursuing a common goal.[80] The goal is not necessarily a political one and what is considered an association is, in general, relatively broad, requiring only a minimum of planning.[81] Whether virtual groups currently count as being included in the freedom of assembly is subject to discussion.[82] Opponents bring forward that for the protection of the meeting by means of Article 22 Cst., the physical presence of the participants is required for their «potential dynamics of collective expressivity».[83] Considering the global nature of the Internet and the subsequent potential reach of groups on intermediaries, I would argue that the social dynamics of such gatherings can match the impact of many physical meetings.[84] Consequently, gatherings in these (public)

---

76 See, e.g., TikTok, 'How TikTok recommends videos #ForYou', supra note 4.

77 The Knight Institute has tried to make a comprehensive summary on how RS work: Knight First Amendment Institute at Columbia University, 'Understanding Social Media Recommendation Algorithms: Towards a better informed debate on the effects of social media', supra note 12; also, at least some platforms have taken steps to make their algorithms more transparent to the average user: Meta Platforms, Inc., 'Why Am I Seeing This? We Have an Answer for You' (2019), available at https://about.fb.com/news/2019/03/why-am-i-seeing-this; Twitter, 'Twitter's Recommendation Algorithm' (2023), available at https://blog.twitter.com/engineering/en_us/topics/open-source/2023/twitter-recommendation-algorithm.

78 It has to be pointed out that lately, much thought has gone into creating AI that is explainable: e.g., P. J. PHILLIPS, et al., 'Four Principles of Explainable Artificial Intelligence' (2021) *National Institute of Standards and Technology,* pp. 1-36.

79 Notably, here, the negative right is already in the constitutional text itself.

80 BBl 1997 I, at p. 166; see CHRISTOPH ERRASS, 'Art. 22: Versammlungsfreiheit', in BERNHARD EHRENZELLER, et al. (eds), *Die Schweizerische Bundesverfassung: St. Galler Kommentar*, 3rd edn, Zürich/St. Gallen, 2014, at N 12-13.

81 ERRASS., 'Art. 22: Versammlungsfreiheit', supra note 80, at N 9–11; see KIENER, KÄLIN and WYTTENBACH, *Grundrechte,* supra note 6, at p. 262.

82 One for many, see KIENER, KÄLIN and WYTTENBACH, *Grundrechte,* supra note 6, at p. 263.

83 The author takes the example of video-calls or chatrooms but extrapolates to all virtual gatherings: ERRASS, 'Art. 22: Versammlungsfreiheit', supra note 80, at N 16.

84 As an example, the official Facebook group of the Gilets Jaunes has currently about 1.5 million members, making the group an extremely important vessel for gathering: Facebook, 'Compteur Officiel De Gilets Jaunes' (2023), available at https://www.facebook.com/groups/357767044781992.

places should qualify as an assembly, even if they are held in digital space.[85] The function of assemblies themselves is twofold:[86] on the one hand, they enable the creation and dissemination of opinions. On the other hand, assemblies are linked with the democratic deliberative process, as they provide the possibility to discuss political questions outside of political parties.[87] Stopping recommendations or hiding groups by the means of a RS limits their reach and essentially stops them from acquiring new members. This hinders the dissemination of opinions and the possibility of the members to participate in the political discourse.

There is precedent for this, as Facebook undertook multiple steps to limit the reach of groups engaging in fringe content.[88] It stopped recommendations, both in search and news feed for groups that are tied to violence.[89] This would be largely unproblematic under a fundamental rights perspective, as the FSC holds that with regard to public order, there is no room for manifestations of opinions associated with unlawful acts or having a violent purpose.[90] Discussions of and calls for violence could reasonably fall under the same category if they were of a higher intensity.[91] Thus, such groups would not be protected under Article 22 Cst. However, the situation becomes less clear when looking at the next kind of group Facebook targeted by means of RS. It stopped recommending all health groups in the wake of the Covid-19 pandemic. This is problematic because the measure was pre-emptive and concerned all groups alike, even if they had nothing to do with virology.[92] Still, an argument could be made that such a drastic measure was justified with regard to the seriousness of the public health crisis. The arguably most ambivalent case is that Facebook stopped recommending groups considered to share misinformation. To determine what is considered misinformation, Facebook now employs fact-checkers who verify or falsify content.[93] In regard to other fundamental rights, like the freedom of speech, it is highly problematic to demand «correct» topics as a precondition for an assembly. Assemblies are not required to engage in themes that are considered

85 For references to the broader discussion, see MAYA HERTIG, 'Art. 22: Versammlungsfreiheit', in BERNHARD WALDMANN, et al. (eds), *Basler Kommentar zur Bundesverfassung*, Basel, 2015, at N 6. Especially with the advent of mixed and virtual reality technology, the borders between the physical and virtual continue to vanish further, see, e.g., the process behind the creation of the Metaverse: The New York Times, 'To Build the Metaverse, Meta First Wants to Build Stores' (2021).

86 See KIENER, KÄLIN and WYTTENBACH, *Grundrechte,* supra note 6, at p. 261.

87 BGE 96 I 219 d. 4.

88 For the whole paragraph: Facebook, 'Our Latest Steps to Keep Facebook Groups Safe' (2020), available at https://about.fb.com/news/2020/09/keeping-facebook-groups-safe. There are different kinds of groups with different restrictions. To stay on topic, we look solely at the usage of RS and ignore other measures such as deletions.

89 As an example, it lists groups tied to QAnon and the boogaloo movement.

90 BGE 132 I 256 d. 3; see BGE 111 Ia 322 d. 6a.; see ERRASS, 'Art. 22: Versammlungsfreiheit', supra note 80, at N 19-22; see also KIENER, KÄLIN and WYTTENBACH, *Grundrechte,* supra note 6, at pp. 263–265.

91 It would likely depend on the context of the discussions in the groups. E.g., the ECHR does not consider expressions of dissatisfaction with a government to be calls for violence, even if violent language or imagery is used: see ECR 02.02.2010, No. 25196/04, Christian Democratic People's Party/Moldavia (No. 2), para. 27; see also HERTIG, 'Art. 22: Versammlungsfreiheit', supra note 85, at N 8.

92 See BGE 132 I 256 d. 4.4.2 f; see KIENER, KÄLIN and WYTTENBACH, *Grundrechte,* supra note 6, at pp. 264–269.

93 Meta Platforms, Inc., 'Meta's Third-Party Fact-Checking Program', available at https://www.facebook.com/formedia/mjp/programs/third-party-fact-checking; Mark Zuckerberg previously stated that Facebook should not be deciding what users post but he has since shifted away from this stance: The Guardian, 'Zuckerberg says Facebook won't be 'arbiters of truth' after Trump threat' (2020).

as valid by the state.[94] This is important as it guarantees independence from the subjective opinion of the administration, or in the case of virtual assemblies, intermediary.[95] As a compromise solution, a general obligation to allow assemblies by the means of permits, similar to the ones issued by the state, could also be argued for.[96] But even such permits are currently only necessary if the assembly is not compatible with the access of other users.[97] In the virtual space, there is generally no limitation on compatibility with others, making permits for these cases obsolete.

4.3 POLITICAL RIGHTS

Regarding elections or votes, intermediaries function as important platforms for political advertisements,[98] spaces for deliberation, and commentaries by content creators and politicians. Accordingly, RS also play a key role in informing the public in the political process and can result in the proliferation of misinformation spreading to potential voters. Article 34(2) Cst. protects citizens in their right to freely form a political opinion. The FSC argues in this respect that democracy trusts people to distinguish between various opposing views, to choose among opinions, to recognize exaggerations as such, and to decide rationally.[99] Concerning the role of the state, reactive corrections of false information or commenting on new developments are generally permitted.[100] Still, the state needs to act with restraint because the deliberative process should be helmed by social and political forces, not by the established power structure.[101] Intermediaries – the dominant powers on their platforms – constantly control the reach and availability of information through RS. Especially sensitive times for such control are before or during important political events, sometimes with undesirable outcomes.[102] One example to illustrate this issue are the recommendations on Facebook in the lead-up to the 2020 U.S. presidential election. During this time, about 360 million users were reached globally by troll-farm pages[103] every week. Around three-quarters of this reach was due to the RS of Facebook and not subscrip-

94 See HERTIG, 'Art. 22: Versammlungsfreiheit', supra note 85, at N 21.

95 See with further references BGE 127 I 164 d. 3b; see also ECHR, 12.06.2014, No 17391/06, Primov/Russia, para. 132 ff.; see also KLEY and TOPHINKE, 'Art. 16: Meinungs- und Informationsfreiheit', supra note 72, at N 31.

96 See HERTIG, 'Art. 22: Versammlungsfreiheit', supra note 85, at N 17.

97 See the discussion of different forms of public use in the next chapter and see a collection of cases that the FSC has considered to require a permit: KLEY and TOPHINKE, 'Art. 16: Meinungs- und Informationsfreiheit', supra note 72, at N 30; see also ERRASS, 'Art. 22: Versammlungsfreiheit', supra note 80, at N 33-35.

98 See FÄSSLER, 'Google's Privacy Sandbox Initiative: Old wine in new skins', supra note 33, at pp. 13–19.

99 BGE 98 Ia 73 d. 3b; 135 I 292 d. 4.1; 119 Ia d. 3c; 117 Ia d. 5a.; see also PIERRE TSCHANNEN, 'Art. 34: Politische Rechte', in BERNHARD WALDMANN, et al. (eds), *Basler Kommentar zur Bundesverfassung*, Basel, 2015, at N 31.

100 TSCHANNEN, 'Art. 34: Politische Rechte', supra note 99, at N 34.

101 GEROLD STEINMANN, 'Art. 34: Politische Rechte', in BERNHARD EHRENZELLER, et al. (eds), *Die Schweizerische Bundesverfassung: St. Galler Kommentar*, 3rd edn, Zürich/St. Gallen, 2014, at N 22 and 24.; BGE 129 I 232 d. 4.2.1.

102 See, e.g., the last Brazilian presidential election, where RS have promoted far-right conspiracies on Facebook and Instagram: Sum of Us, 'Stop the Steal 2.0: How Meta and TikTok are promoting a coup' (2022), at pp. 4–9, available at https://s3.amazonaws.com/s3.sumofus.org/images/SumOfUs_Brazil_Report_Final.pdf.

103 Troll farms are online groups that are operated by algorithms to create as much attention as possible. This is often achieved by re-posting offensive content, as RS generally push content with engagement of any kind. Out of the largest 20 American Christian groups, all but one were helmed by bots; similarly, 10 out of 15 African-American groups and 4 out of 12 Native American pages.

tions.[104] While it could be argued that this constitutes unintended side effects for Facebook, we should also consider that failing to act can have adverse effects on users as well. This is especially problematic, as the platform had previously known about this issue, promised to tackle it and failed.[105] Such problems with automated content moderation contribute to the formation of echo chambers and filter-bubbles, both phenomena which lock users in an informational feedback loop.[106] Influences on the political process by RS are in many ways similar to automated targeted political advertisements.[107] However, the main difference is that targeted advertisements largely stem from political actors or private individuals who want to influence voters. They are in a sense still acting within the constraints of the infrastructure that intermediaries provide for them. With RS, the intermediaries themselves are acting as the enablers of the information that is circulating on the platforms. Their decision to change the RS might not even be public knowledge and has to be found out by the trial-and-error method.[108] Considering their active role in content distribution, how much should social media platforms be able to retreat to their mission as neutral intermediaries?[109]

5. FUNDAMENTAL RIGHTS OF CONTENT CREATORS

In this chapter, we shift our focus to the second group of users affected by RS. Content creators play a central role on intermediaries since the platforms themselves generate very little to no content of their own. It is worth noting that content creators and content consumers are not entirely separate groups but rather overlap.[110] Most content creators are also content consumers, while the opposite is less common, depending on the platform. Accordingly, instead of reiterating rights that have already been discussed, I will concentrate on aspects of specific importance for creating content on intermediaries. In addition to discussing the freedom of expression (Article 16 Cst.), I will also expand on the right to economic freedom (Article 27 Cst.) and the guarantee of ownership (Article 26 Cst.).

---

104 MIT Technology Review, 'Troll farms reached 140 million Americans a month on Facebook before 2020 election, internal report shows' (2021), available at https://www.technologyreview.com/2021/09/16/1035851.

105 Meta Platforms, Inc., 'Helping to Protect the 2020 US Elections' (2019), available at https://about.fb.com/news/2019/10/update-on-election-integrity-efforts; Meta Platforms, Inc., 'New Steps to Protect the US Elections' (2020), available at https://about.fb.com/news/2020/09/additional-steps-to-protect-the-us-elections.

106 See CASS R. SUNSTEIN, *Republic.com 2.0*, Princeton, 2009, at p. 116; see ELI PARISER, *The Filter Bubble: What the Internet is hiding from you*, New York, 2011, at pp. 9–10; see CASS R. SUNSTEIN, *#Republic: Divided Democracy in the Age of Social Media*, Princeton and Oxford, 2017, at pp. 15–16; see CHRISTOPH B. GRABER, 'Personalisierung im Internet, Autonomie der Politik und Service public' (2017) *sic!*, pp. 1-22, at 260–261; see also MILANO, et al., 'Recommender systems and their ethical challenges', supra note 28, at p. 964; see JAN SCHILLMÖLLER, 'Die Informationsfreiheit in der Filterblase' (2020) *InTer*, pp. 150-153, at 151; CHRISTOPH B. GRABER, 'Legal Sociology', in MARC THOMMEN (ed.), *Introduction to Swiss Law*, Zürich, 2022, pp. 91-111, at 103–104.

107 See FÄSSLER, 'Google's Privacy Sandbox Initiative: Old wine in new skins', supra note 33, at pp. 16–17.

108 With varying degrees of success: Mozilla, 'Does This Button Work? Investigating YouTube's ineffective user controls', supra note 28, at pp. 11–17.

109 See PASQUALE, 'The Automated Public Sphere', supra note 28, at p. 7; see also The Guardian, 'Zuckerberg says Facebook won't be 'arbiters of truth' after Trump threat', supra note 93.

110 Content creation encompasses posts containing videos, pictures, or plain text but also comments or links to sources outside the platform.

5.1 FREEDOM OF EXPRESSION

For our purposes, the main focus of Article 16 Cst. lies on the censoring of speech through the usage of RS. Generally, every person has the right to impart their opinion freely, making the freedom of expression in many ways the inverse right to the already discussed freedom of information.[111] One way for this right to be hindered is due to a chilling effect[112], which is created traditionally through vaguely formulated laws.[113] Considering that a restriction in recommendations has monetary implications,[114] a chilling effect on certain aspects of discussion is inevitable, especially because content creators are usually active on different platforms, where the algorithms differ and knowledge about their functioning is not reliably spread.[115] A related example is that content creators cannot use certain words in the titles or descriptions of content without risking the algorithm to deem it non-recommendable or demonetize it altogether.[116] While fixes exist for most of the problems that come with automated content moderation, it remains an uphill battle for content creators. The Internet culture has subsequently developed its own slang on social media platforms, called «algospeak», to circumvent restrictions by the algorithm.[117] However, the fact that coded language has to be used on intermediaries is cause for further concern. While some of the changed words are not necessarily harmless, there are many others that should be available for open discussion. Among many other content restrictions, there is widespread automated censoring of LGBTQ+ issues reported on TikTok. This means that comments and posts were automatically shadow banned if they contained hashtags with words considered by TikTok to be unwanted. While such words, like «gay», were only restricted in specific languages, they were restricted independently from respective countries, affecting all users worldwide.[118] Adding to the problem of uncertainty, TikTok never provided a comprehensive list of banned words.[119]

This practice might even amount to censorship in the legal sense. While the prohibition of censorship is enshrined in Article 17(2) Cst., which covers the freedom of

---

111 The FSC considers content with a primarily economic goal as protected under the right to economic freedom, not the freedom of expression. While political content, like most content, has the aim to create revenue, it also serves an idealistic goal, on which we focus here: see BGE 128 I 295 d. 5.a; 139 II 173 d. 5.1.

112 «A "chilling effect" describes a situation in which speech or conduct is inhibited or discouraged by fear of penalization, promoting self-censorship and therefore hampering free speech»: with further references JOSHUA RISSMAN, 'Put it on Ice: Chilling Free Speech at National Conventions' (2007) *Minnesota Journal of Law & Inequality*, pp. 413-440, at 413.

113 See HERTIG, 'Art. 16: Meinungs- und Informationsfreiheit', supra note 72, at N 40; see MÜLLER and SCHEFER, *Grundrechte in der Schweiz: Im Rahmen der Bundesverfassung, der EMRK und der UNO-Pakte,* supra note 75, at pp. 376–377.

114 See the next chapters on economic freedom and guarantee of ownership.

115 Content creators have become cautious when interacting with algorithms: KUMAR, 'The algorithmic dance: YouTube's Adpocalypse and the gatekeeping of cultural content on digital platforms', supra note 65, at p. 9.

116 E.g., the algorithm fails to differentiate different usages of the same word, see ibid., at pp. 7–9.

117 See The New York Times, 'Leg Booty? Panoramic? Seggs? How TikTok Is Changing Language', supra note 25. The lingering question would be how long it will take for algorithms to become better in recognizing unwanted speech than content creators in circumventing the algorithm.

118 Australian Strategic Policy Institute, 'TikTok and WeChat: Curating and controlling global information flows' (2020), at pp. 4–5, available at https://ad-aspi.s3.ap-southeast-2.amazonaws.com/2020-09/TikTok%20and%20WeChat.pdf.

119 The Verge, 'TikTok says the repeat removal of the intersex hashtag was a mistake' (2021), available at https://www.theverge.com/2021/6/4/22519433.

the media, it encompasses the core content of the freedom of expression as well.[120] Banned is systematic, preventive censorship because it prohibits expressions from entering the «marketplace of ideas»[121] and subsequently stops the public from receiving the communication, no matter the nature of the censored content or how the restriction works.[122] Fundamentally, it only matters whether an expression is controlled by the state before being made public.[123] Whether this applies to intermediaries when deploying RS can be seen by taking a step-by-step example of an algorithm that does not recommend content based on words in the title. First, the content creator develops their opinion internally. Then, it is typed into an input box on the intermediary and is sent out by the content creator pressing the button to publish. At this moment, the algorithm of the RS registers a word that flags the content as non-recommendable and hides it from other users.[124] This way, the content is not distributed properly, and its ability to reach an audience is severely diminished. As this process is fully automated, it qualifies as simultaneously systematic and preventive, effectively creating censorship in the sense of Article 16 and 17(2) Cst.[125]

5.2 ECONOMIC FREEDOM

The right to economic freedom (Article 27 Cst.) is particularly interesting in relation to RS when viewed in the context of the right to use a public utility for commercial reasons. The economic freedom protects the exchange of goods in the private sector as well as the freedom to pursue a private economic activity.[126] Producing content on social media platforms has become a large and rapidly growing profession.[127] While the mechanisms by which content creators earn money differ from platform to platform, let us here take YouTube as an example. There, the classical way to earn money is to have automated advertisements playing before or during a video.[128] Then, the creator is paid by the number of clicks they receive.[129] Content creators can also obtain sponsorships from companies directly and include the advertisements in the

120 KLEY and TOPHINKE, 'Art. 16: Meinungs- und Informationsfreiheit', supra note 72, at N 19; see HERTIG, 'Art. 16: Meinungs- und Informationsfreiheit', supra note 72, at N 51.

121 For the term, see United States v. Rumely, 345 U.S. 41 (1953), at p. 56.

122 FRANZ ZELLER and REGINA KIENER, 'Art. 17: Medienfreiheit', in BERNHARD WALDMANN, et al. (eds), *Basler Kommentar zur Bundesverfassung*, Basel, 2015, at N 39.

123 See MÜLLER and SCHEFER, Grundrechte in der Schweiz: Im Rahmen der Bundesverfassung, der EMRK und der UNO-Pakte, supra note 75, at p. 352.

124 A similar concept applies also to algorithmic checks regarding intellectual property rights, see GRABER, 'Internet Creativity, Communicative Freedom and a Constitutional Rights Theory Response to 'Code is Law'', supra note 2, at p. 7.

125 See ibid., at p. 10.

126 BERNHARD WALDMANN, et al. (eds), *Basler Kommentar zur Bundesverfassung*, Basel, 2015, at N 3.

127 E.g., The Verge, 'YouTube says its Partner Program now has 2 million members' (2021), see, available at https://www.theverge.com/2021/8/23/22636827; it is also telling that as a dream job, (U.S.) teenagers rank being a content creator the highest, surpassing doctors, musicians or actors: see YouGovAmerica, 'Doctor, vet, esports star, influencer: Dream jobs among US teens' (2021), available at https://today.yougov.com/topics/technology/articles-reports/2021/12/14/influencer-dream-jobs-among-us-teens.

128 YouTube Advertising, 'Grow your business with YouTube Ads', available at https://www.youtube.com/intl/en_us/ads.

129 Google Ads Help, 'Cost-per-click (CPC): Definition', available at https://support.google.com/google-ads/answer/116495.

video itself.[130] Other ways to generate income off YouTube include the «join» function, paid links, Patreon subscriptions, super chats, or merchandise.[131] All methods have in common that they are dependent on views and user engagement. Thus, if a RS decreases the exposure a channel has, it decreases the capacity of the content creator to earn money. This applies especially to content creators that engage in difficult or disputed topics, making already touchy subjects like violence, drugs, or sex even harder to approach.[132] They are constantly under threat of having their content not being distributed properly, depriving them of income. Such a scenario happened in 2019, when after a series of controversies, YouTube stopped recommending political «borderline content» to non-subscribers and subsequently claimed a 70% drop in views for the affected videos.[133] Similarly, it restricted monetization for channels below a certain size.[134] The possibility to earn money with YouTube subsequently diminished massively for smaller content creators, thus benefitting established channels.[135] This shows how heavily dependent earning money on intermediaries is on automated processes that lift certain content over others, with RS controlling large parts of the financial aspects of content creation.[136]

If, as I would argue, the platforms intermediaries oversee should be considered public properties in public use, users accordingly should also have a general right to use them for monetary purposes.[137] In Swiss law, different kinds of uses are separated into three categories: simple public use, increased public use and special use.[138] Simple public use is defined as being in accordance with the intended purpose of the utility while being compatible with the other members of the public.[139] Regarding the first requirement, the FSC and legal doctrine distinguish among other factors, idealistic and economic motivations when making the determination whether a use qualifies as simple or increased.[140] This distinction cannot be applied directly to intermediaries due to their unique functioning. The core concept of intermediaries is that it needs users to create content that can be consumed by other users. Thus, content creators are incentivized with publicity and direct compensation for their work. One intended purpose of intermediaries is consequently the creation of at least a semi-

130 YouTube Help, 'Add paid product placements, sponsorships & endorsements', available at https://support.google.com/youtube/answer/154235?hl=en.

131 See the different options YouTube provides itself: YouTube Help, 'How to earn money on YouTube', available at https://support.google.com/youtube/answer/72857.

132 See KUMAR, 'The algorithmic dance: YouTube's Adpocalypse and the gatekeeping of cultural content on digital platforms', supra note 65, at pp. 6 and 9–10.

133 See YouTube Official Blog, 'On YouTube's recommendation system', supra note 10; see YouTube Official Blog, 'The Four Rs of Responsibility, Part 2: Raising authoritative content and reducing borderline content and harmful misinformation' (2019), available at https://blog.youtube/inside-youtube/the-four-rs-of-responsibility-raise-and-reduce.

134 YouTube Official Blog, 'Additional Changes to the YouTube Partner Program (YPP) to Better Protect Creators' (2018), available at https://blog.youtube/news-and-events/additional-changes-to-youtube-partner.

135 See KUMAR, 'The algorithmic dance: YouTube's Adpocalypse and the gatekeeping of cultural content on digital platforms', supra note 65, at p. 5.

136 See PASQUALE, 'The Automated Public Sphere', supra note 28, at pp. 4–5; KUMAR, 'The algorithmic dance: YouTube's Adpocalypse and the gatekeeping of cultural content on digital platforms', supra note 65, at p. 2.

137 See HÄFELIN, MÜLLER and UHLMANN, *Allgemeines Verwaltungsrecht*, supra note 39, at pp. 522–523.

138 See ibid., at p. 513.

139 See BGE 135 I 302 d. 3.2.

140 FELIX UHLMANN, 'Art. 27: Wirtschaftsfreiheit', in BERNHARD WALDMANN, et al. (eds), *Basler Kommentar zur Bundesverfassung*, Basel, 2015, at N 79.

professional sphere of content creators, who benefit from their work monetarily. In other words, content creation for money is a core purpose for intermediaries. Public compatibility is the second requirement of simple public use. This requires that other users are not overly hindered or disturbed in their public utility usage. While in the physical space, this is often ensured through an acceptable use policy and permits, its equivalent can be found online with TOS.[141] However, we must consider the differences between the digital space and physical infrastructure. Users hindering others from accessing intermediaries' services are an unlikely scenario in practice. This is because the digital makeup of social media platforms inhibits any excessive use unless illicit activities like hacking are involved. With both preconditions met users should have a general right to simple public use for economic activity on intermediaries.[142]

5.3 GUARANTEE OF OWNERSHIP

Finally, the guarantee of ownership can also be restricted through RS in the case of them leading decreasing the value of a social media channel, for example by hindering the recommendation of its content. The right in Article 26(1) Cst. is a foundational principle of the free market system, as it is a vital prerequisite of market forces and competition.[143] Protected are different kinds of pecuniary rights, including intellectual property.[144]

What could be considered the first line of defense by the guarantee of ownership is the guarantee of existence («Bestandesgarantie»). It grants the owners the right to keep, use and dispose of their property, shielding it against unjustified interference.[145] The problem for content creators is that while they enjoy the intellectual property of their content, they are not the owners of the infrastructure that contains and distributes it on the platform. If content creators are targeted by deprioritization, their channel loses significant revenue. This is significant, as the channels themselves have value going beyond new content, as they create revenue with the already existing content. Restricting the spread of content would thus infringe upon the guarantee of existence. The second line of defense consists of the guarantee of value («Wertgarantie»). Article 26(2) Cst. states that compulsory purchases and restrictions on ownership that are equal to them must be compensated in full. According to the FSC, the criteria for such restrictions are met «if the owner […] is restricted in a particularly serious way because the person concerned is deprived of an essential power of own-

141 See HÄFELIN, MÜLLER and UHLMANN, *Allgemeines Verwaltungsrecht,* supra note 39, at p. 515.

142 Even in the case of increased public use, there would still exist a conditional right, which would admittedly be harder to exercise but still protect the content creator sufficiently: UHLMANN, 'Art. 27: Wirtschaftsfreiheit', supra note 140, at N 72; see HÄFELIN, MÜLLER and UHLMANN, *Allgemeines Verwaltungsrecht,* supra note 39, at pp. 522–523.

143 See KLAUS A. VALLENDER and PETER HETTICH, 'Art. 26: Eigentumsgarantie', in BERNHARD EHRENZELLER, et al. (eds), *Die Schweizerische Bundesverfassung: St. Galler Kommentar*, 3rd edn, Zürich/St. Gallen, 2014, at N 88; see BERNHARD WALDMANN, 'Art. 26: Eigentumsgarantie', in BERNHARD WALDMANN, et al. (eds), *Basler Kommentar zur Bundesverfassung*, Basel, 2015, at N 13.

144 WALDMANN, 'Art. 26: Eigentumsgarantie', supra note 143, at N 19; VALLENDER and HETTICH, 'Art. 26: Eigentumsgarantie', supra note 143, at N 15.

145 WALDMANN, 'Art. 26: Eigentumsgarantie', supra note 143, at N 43.

ership».[146] To quantify this, it considers how feasible the continued economic usage of the property is, as not only the immanent worth of a commodity is relevant but also the gains that can arise through continued use.[147] While the FSC is rather restrictive and does not draw a clear line on what constitutes heavy damage, it has considered a 10% reduction in worth as meeting the criteria.[148] Similar to how real estate can generate revenue through its land, social media channels produce value from their past and present content which is stored on their accounts. Taking the example of YouTube, the affected channels experienced a drop of 70% in views by non-subscribers. We can reasonably assume that the total value of the videos or channels in question dropped by a significant enough margin to meet the FSC's criteria for heavy damage. Not only does this decrease views but also hinders channel growth significantly, warranting compensation.[149]

6. REMEDIES IN ARTICLE 36 OF THE SWISS CONSTITUTION

While this paper focussed on restrictions of fundamental rights, it has not yet made many statements over whether they are justified. In this last chapter, I want to address at least one way in which the conduct of intermediaries could be checked.[150] The Swiss Constitution creates a boundary for restrictions on fundamental rights of freedom through Article 36. As RS are in dire need of legitimacy, introducing an *ex-post* evaluation of their effects on fundamental rights might help. As presented in the chapters about content consumers and content creators, there are many different scenarios, in which RS are used to infringe upon fundamental rights of users. I will again not aim for a comprehensive approach concerning possibilities for every paragraph in Article 36 Cst. but take the example of Facebook stopping recommendations for health groups in the context of the Covid-19 pandemic.[151]

On the one hand, such a change concerns general-abstract rules that apply to all groups similarly in similar cases. However, due to the instant and self-executing properties of this technology, the change also instantly produces concrete cases of fundamental rights restrictions for the users. For a justification of these cases, the first requirement would be a legal norm to base this decision on (Article 36(1) Cst.). Intermediaries have relied on the law of the state or at least TOS for such measures, while TOS have far less legitimacy as they are not based on democratic deliberation.

---

146 BGE 123 II 481 d. 6a, translated from German; see also VALLENDER and HETTICH, 'Art. 26: Eigentumsgarantie', supra note 143, at N 67; and also WALDMANN, 'Art. 26: Eigentumsgarantie', supra note 143, at N 93.

147 This is mostly the case for farms, places for leisure activities or stores that might themselves have not a lot of worth but generate considerable income: see BGer from 10.08.2012, 1C_487/2009 d. 6.5; BGE 114 Ib 112 d. 6b; 112 Ib 263 d. 4; 111 Ib 257 d. 4a.; see WALDMANN, 'Art. 26: Eigentumsgarantie', supra note 143, at N 94.

148 BGE 134 II 49 d. 11; with further references HÄFELIN, MÜLLER and UHLMANN, *Allgemeines Verwaltungsrecht*, supra note 39, at p. 572.

149 It has to be noted, that, according to the FSC, no compensation is owed if a restriction is aimed at protecting certain police assets («Polizeigüter»), like public health. However, the FSC takes a restrictive approach and assumes a narrow concept of police assets which does not encompass all public goods: BGer from 09.11.0211, 2C_461/2011 d. 4 .2; BGE 135 I 209 d. 3.3.1; 106 Ib 330 d. 4; 106 Ib 336 d. 5.

150 PASQUALE, 'The Automated Public Sphere', supra note 28, at pp. 9–10.

151 Article 36 SC is applied directly when rights of freedom («Freiheitsrechte») are infringed, which most of the discussed fundamental rights are. For other rights, like the political rights, there are different requirements for a legitimate infraction, see TSCHANNEN, 'Art. 34: Politische Rechte', supra note 99, at N 51.

Regarding the heavy restrictions laid on groups concerning the Covid-19 pandemic, TOS are certainly not a sufficient base for this infraction.[152] The second requirement would be the protection of a public interest or of fundamental rights of others (Article 36(2) Cst.). Notable public interests include police assets like public security, public order, public health, and public decency.[153] In the case of Facebook stopping to recommend health groups, the question arises if it is justified to restrict all unrelated kinds of health-related subjects. Especially the self-executing nature of RS leaves little room for nuanced actions by the platform. It could, however, argue that it aims to preserve the health of other users, in line with the protection of fundamental rights of others. The third requirement in Article 36(3) Cst. would be the principle of proportionality (in the wider sense), which is split into three different requirements: is the restriction necessary, suitable, and proportional (in the narrow sense).[154] A restriction is necessary if it is the mildest remedy available to the state or, in our case, the intermediary. It is suitable if it can achieve the protected public interest and it is proportional if the interest of the public outweighs the individual interest. Regarding necessity, Facebook could argue that reducing the reach of groups is a milder interference than blocking content that they consider unwanted but not directly against their policy.[155] However, there are other, even less intrusive methods that could be employed. For example, YouTube put disclaimers under videos that referred to the Covid-19 pandemic in an effort to inform users of trusted sources.[156] Similarly, the suitability argument could become problematic if we consider that stopping all health groups from being recommended might be able to slow the spread of misinformation concerning the Covid-19 pandemic but also hinders correct information on Covid-19. Regarding the requirement of proportionality, the financial aspect of stopped recommendations might pose a significant problem for content creators engaged in this field. A channel is dependent on different methods of exposure, like groups, to survive and thus give professional voices a chance on the platform. While all in all, this specific use of RS in the case of the Covid-19 pandemic could face problems in regard to Article 36 Cst., it has to be noted that this is just one example of such a use, with many other scenarios being possible.

7. SUMMARY

The first part of this paper served to establish what RS are, how they are used, and how we should conceive of the effects this technology can have if applied top-down. RS are being used by intermediaries to create an incentive to engage in conforming behaviour. In the course of this, they limit the access of users to social media platforms, which themselves form new kinds of public spaces. The limitation itself is a sovereign decision coming from the intermediary, with users sometimes not even

152 Similarly, Article 36(1) Cst. requires law made by the legislative and not executive branch for heavy infractions.

153 KIENER, KÄLIN and WYTTENBACH, *Grundrechte,* supra note 6, at pp. 113–114.

154 See ibid., at pp. 118–122.

155 E.g., Facebook reduces the spread of content that «brushes right up against our policy line»: YouTube Official Blog, 'The Four Rs of Responsibility, Part 1: Removing harmful content', supra note 21.

156 YouTube Help, 'Information panel giving topical context', available at https://support.google.com/youtube/answer/9004474?hl=en.

knowing that it happened. Finally, RS are best defined as a means of regulation in the sense of JULIA BLACK, as they miss legitimating procedures to constitute law.

In the second part of this paper, we discussed different fundamental rights issues arising from the use of RS, as the behaviour of intermediaries is similar to states. Concerning the freedom of information, the usage of RS infringes upon the positive aspect of this right but could potentially be justified with the right of users not to receive information. Regarding the freedom of assembly, RS can be used to hinder online groups from effectively promoting their messages. Finally, regarding political rights, the formation of echo chambers and filter-bubbles is enhanced by RS selectively choosing what information to present to the user. For content creators, the freedom of expression is infringed when RS hinder the publication of content, meeting the requirement of censorship. The final two fundamental rights were concerned with the financial aspect of content creation. The right to economic freedom can be infringed when the decrease in reach due to RS results in monetary loss and the guarantee of ownership is threatened when an account or channel loses considerable amounts of its worth due to a drop in engagement. Most of the discussed fundamental rights are rights of freedom and their infringement can be justified by means of Article 36 Cst. While we discussed the case of Facebook groups during the Covid-19 pandemic, each use of RS creates its own, unique challenge under this Article, as it requires the existence of a norm, public interest, and necessity.

At the moment, intermediaries are not held to similar standards as state institutions and users are subsequently not protected by fundamental rights or comparable «Internet rights». However, suppose social media platforms should continue to serve as places for serious discussions and engaging uncomfortable subjects. In that case, users need to be protected by more than the goodwill of the companies in charge.