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Approaching Social Media Governance

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Abstract

In this working paper, we address the new forms of governance emerging within the technological and social spaces of Social Media. The overall aim of the underlying research project is to identify and examine the governance factors that regulate the user´s behaviour in Social Media, to discover the governance structure formed by these factors, to analyse the normative intensity of the factors concerning the user's behaviour in Social Media, and, thereby, to uncover the interplay and interdependencies of the factors among each other. In doing so, the governance background of user behaviour in Social Media shall be revealed. As a first step, we approach this task with a pilot case study on the governance background of a certain user behaviour ("uploading a photo") in a certain Social Networking Service (Facebook) whose theoretical foundations, methods, and initial findings we present in this working paper.

Keywords

Social Media, Governance, Regulation, Code, Law, Contract, Social Norms, User Behaviour, Facebook

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1. Research Interest

During the past years, Social Media such as Facebook, Twitter, YouTube, or Blogs have not only gained widespread popularity among users but have also become objects of extensive research from many different academic perspectives (for an overview, see e.g. Meikle/Young, 2012; Fuchs, 2013). Despite their variety, many disciplines share the question on how to understand and explain user behaviour on such online environments.

While it is usually acknowledged that user behaviour is influenced by a complex combination of factors, including technological, situational, legal, and cultural contexts, there has been no attempt yet to synthesise them into one transdisciplinary theoretical framework to explain the "regulating power" of these different factors and their interdependencies (cf. Grande, 2012: p. 578).

This paper proposes such a theoretical framework (which is understood to be modelling a specific form of governance) and exemplifies its usefulness through an empirical test case focussing on "regulating picture upload on Facebook". We start with a discussion on the general concept of governance and its application to Social Media (ch. 2), followed by the introduction of our own model (ch. 3). Subsequently, we present the design and results of the case study (ch. 4), then we summarise the findings and reflect on further research (ch. 5).

2. The Concept of Governance

Governance has become one of the most discussed concepts in the debates on (social) regulation of human behaviour. In the following sub-chapters, we will provide a short introduction into the ongoing debate on governance in general (ch. 2.1) as well as into governance in digital networked media in particular (ch. 2.2).

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2.1 The Ongoing Discussion on Governance

The concept of governance has gained prominence in political science and regulation research during the last decades. Its starting point is the assumption that the government, as the central agent, tries to achieve regulative goals by setting binding rules (cf. Einig, 2011: p. 187). This traditional hierarchical "governance of government" model has been modified and expanded by other models, such as "governance with government" (cf. Weiler, 2002; Krahmann, 2003), in which the government works together with collective actors from economy and civil society such as businesses, unions, or voluntary associations. In contrast, "governance without government" focuses just on control only by these civil collective actors (cf. Rhodes, 1996). In all these concepts, however, the "government" remains in a central role, either by inclusion or by contrast.

Thus, in a first view, governance is understood to be a counter concept to simple hierarchical control not exclusively performed by the state (although the state is still a powerful player in this context) (cf. Schuppert, 2011: p. 33). Private entities, institutions dealing with research and development, nongovernmental organizations, and citizens all play an important role in shaping and maintaining governance in general (cf. van Eeten/Mueller, 2012; Grande, 2012: p. 566f.). Furthermore, the understanding of these actors and their relations is not unitary and unidimensional anymore. Instead, governance is seen as a differentiated nexus of players embedded in a multi-level governance system not necessarily being connected hierarchically (e.g. Mayntz, 2004: p. 6).

However, this actor-centered perspective is just one dimension in the discussion on governance: Arthur Benz defines governance, in general, as "the sum of all forms of collective regulation of societal circumstances existing in parallel" (cf. Benz, 2003: p. 21; see also Trute/Kühlers/Pilniok, 2008; Schuppert, 2008: p. 24). Thereby, the concept of governance relates to both the structure and the process of regulation. It refers to a system of norms, rules, laws, and factual restrictions of similar effect that guide and restrain the activities in society (based on Keohane/Nye, 2001) for reasons of interests or social values.

Although there are differences in the existing concepts of governance, they all have a structural view in common: In the past years, the focus has shifted from the

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subject who regulates ("the regulator") to the object being regulated as well as the object of regulation itself (the governance structure). After that twist, the concept cannot provide answers to questions about the intentions of the regulator(s) in regulating something in this or that manner, but it can provide a framework to get insights on the structures (cf. Grande, 2012: p. 580 et seq.; Haus, 2010: pp. 459, 464). While it remains to be seen whether these concepts also constitute a paradigm shift in regulatory theory in general, governance seems to have a different understanding of the concept of control by seeing regulatory structures as an institutional framework influencing the actors.

2.2 Governance in Digital Networked Media

Over the past 20 years, digital networked communication and information technologies have introduced new practices of communication and information dissemination – transforming many aspects of social life from personal interaction and group organization to political systems and social structure. The initial idea of "Internet exceptionalism" that digital networked media constitute a "cyberspace" or "virtual reality" (e.g. Rheingold, 1993; Turkle, 1995) that is separated or even detached from "real life" has been rejected in various studies (e.g. Baym, 2010; Rainie/Wellman, 2012). Nevertheless, this discussion has drawn attention to an important additional element of governance in digital networked media: Their technological structures and affordances, on which social action is based, exert particular influence on practices as well as on social formations. Thus, scholars like Lessig (1999a; 2006), Post (2000), and Zittrain (2008) have famously called on addressing an additional factor of governance – *code*, the sum of hardware and software that constitutes the technological infrastructure of digital networked media.[1]

Of particular interest to this paper is a subset of digital networked media, which is commonly referred to as "Social Media" (other terms that, despite their nuances, might be used interchangeably include "web 2.0", "social software", or "social web"). There is no clear-cut definition of Social Media, so such diverse platforms, such as Facebook, YouTube, Twitter, Foursquare, Whatsapp, Wikipedia, or blogs,

[1] For our own definition of "code" and the underlying model of governance, see 3.1.1, 3.2.1.

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can be labelled as "Social Media". More specifically, this paper focuses on "social network sites" (SNS), a genre of online-based platforms in which "participants:

1) have uniquely identifiable profiles consisted of user-supplied content, content provided by other users, and/or system-provided data;
2) can publicly articulate connections that can be viewed and traversed by others; and
3) can consume, produce, and/or interact with streams of user-generated content provided by their connections on the site" (Ellison/Boyd, 2013: p. 158; see also Meikle/Young, 2012: pp. 59 et seq.). [2]

Less technically, social network sites allow people to share ideas, experiences, opinions, and information with their extended social network.

Social network sites have become central to many users' everyday communications and interactions. According to a Pew Research Center report based on 2012 data, in the U.S., 67 percent of adults who use the Internet also use social network sites (Duggan/Brenner, 2013). Among those users, significantly higher shares are reported for women (71%), 18-29–year-olds (83%), and 30-49–year-olds (77%) as well as for urban population (70%).

Currently, the most common (and most debated and researched) social network site is Facebook, which claims to have 1.23 billion active users worldwide. It is reported that 67% of US-American adult Internet users are also Facebook users (Rainie/Smith/Duggan, 2013). In Germany, the percentage is slightly lower: 64% of adult Internet users have a Facebook account, with 56% active Facebook users (cf. BITKOM, 2013: p. 9). Due to this popularity, as well as to the diverse body of existing research on practices, structures, and consequences of Facebook use for individuals, groups, and social life, we choose Facebook for the case study to apply our model of governance.

When reflecting on the literature on both governance and digital networked media (cf. Katzenbach, 2013; Katzenbach, 2012; Ziewitz/Pentzold, 2014; Schulz, 2014), a multidimensional gap in theoretical reasoning as well as in empirical research is obvious: In most cases, governance research is focused only on

[2] This definition is an updated and refined version of the definition given by the same authors in their influential paper on the definition, history, and scholarship of SNS (Boyd/Ellison 2007).

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governance of collective actors (Internet access and service providers, intermediaries), so there are almost no insights on governance of user behaviour. This is especially true with regard to Social Media, which are still very reliant on successful user-user interaction. This working paper aims to contribute in giving light to that blind spot in governance research.

3. The Theoretical Model of Governance in Social Media

Our governance model is based on the fundamental sociological insight that social action – communication, exchange, interaction, competition, conflict, etc. – is performed in situations bound to time and space, but always situated within broader social structures that transcend this particular situation. It is outside the scope of this paper to reconstruct the diverse (and ongoing) debates on the connection between the micro level of individual action and the macro level of social structures (see among others Giddens, 1984; Alexander et al., 1987; Coleman, 1990). However, for our analysis of governance structure in Social Media, we borrow from these debates the analytical separation of micro level ("user behaviour") and macro level ("factors of governance"). The latter frames the former, so individual episodes of interaction and communication on a platform, such as Facebook, will be influenced by aspects that are "outside" of the action itself. We first discuss these framing structures pre-set by those governance factors as "regulatory structures", that is, through the lens of their normativity (ch. 3.1). The following sub-chapters discuss an analytical model to assess these influencing aspects, starting with descriptions of four factors of governance in Social Media (ch. 3.2), including discussions on their structural commonalities and differences (ch. 3.2.5) and on the different elements of these factors (ch. 3.3).

3.1 Approaching Governance through the Analysis of Regulatory Structures Formed by Normative Factors

The relation between macro-level aspects that influence micro-level behaviour is a problematic one from a theoretical point of view. There are different analytical

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positions and logical procedures from which we can approach this relation. At first, we could empirically observe the factual human behaviour on micro level, analyse those observations, and induce assumptions about the influence of respective macro-level factors afterwards and, thereby, about the governance structures formed by those factors.

In contrast to this inductive approach, we decided to conceptualise a theoretical model of governance by deducing from existing scientific insights. In doing so, we can use the findings on macro-level social structures, which state that those structures formed by certain factors actually frame human behaviour (Alexander et al., 1987: p. 19 et seq.; Giddens, 1984: p. 16 et seq.; Coleman, 1990: p. 15 et seq.).

Thus, in this regard, the factors used in this model share a common quality: They all own a *normative* dimension, or in other words, they inhere *norms* that address ontological entities. This leads us to the slippery ground of the discussion on norms and normativity, which is one of the most difficult and disputed topics not just in social sciences but also in humanities and philosophy. In the context of this paper, we are just able to throw a glance at the discussion among sociologists and legal theorists.

In sociology, the term "norm" is used with two different meanings: Firstly, it is used to describe a social average in a descriptive way, and secondly, it is used in the sense of a regulative rule, as a "guideline" ("what one should do") (on this differentiation, cf. Simmel, 1964: p. 68 and Lautmann, 1971: p. 54). Concerning the second, normative meaning, there exists a flood of attempts to find an applicable definition, which is difficult to track: Norms are often described as rules or standards that regulate the interaction between individuals in social formations (cf. Lautmann, 1971: p. 54 et seq.). They can either be "prescriptive", expressing what should be done, or "proscriptive", expressing what should not be done. In either case, they signify certain behaviours that individuals ought to follow, and they can be expressed as statements about and how "members of social groups under certain circumstances are expected to behave" (Adler, 1956: p. 277; cf. Lautmann: p. 57 f.). Another characteristic of norms is their universality: They express generalised rules and expectations that are not erratic, random, or applicable only to some people sometimes, but rather to be followed by all members of the social formation sharing the norm (cf. Rommetveit, 1968: pp. 18 et seq., 26). Finally, norms are connected to consequences that can either be positive (if norms are

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followed) or negative (if norms are broken) and transmit the normative statement of the norm to social reality (cf. Rommetveit, 1968: pp. 27 et seq.).

Legal theory differentiates between norms and the "sentence" or "phrase" of a norm (Alexy, 1986: p. 42, cf. Geiger, 1970: p. 62 et seq.). This "sentence" functions as a "linguistic shell" of the norm (Geiger, 1970: p. 63). In this sense, Kelsen understands a norm as an objective "meaning of an act, demanding, permitting or especially authorising certain behaviour" (Kelsen, 1960: p. 5). At the same time, a norm also gives a scheme for the interpretation of facts (Kelsen, 1934: p. 5). This insight can be generalised with regard to other forms of normative texts: It has to be distinguished between the norm text and the norm in itself. The norm, which is represented in the norm text, can be unveiled by analysing the norm text (cf. Oermann/Ziebarth 2015). To put it in a nutshell, a "norm" is the meaning of a statement in the imperative mode (deontic level), directed on a specific condition or a special behaviour (ontological level). Thus, this type of statement is "normative". Entities involve a "normative dimension" if an analytical examination unveils statements in the imperative mode (cf. Oermann/Ziebarth 2014: p. 257).

If the normative dimension of the factors of the governance structure is firstly the object of further investigation on a structural level of analysis, we have to reveal its regulative assertion or meaning with regard to human behaviour.

Independent from the existing scientific positions mentioned above, this common ground outlined in our working definitions provides a sufficient basis for the development of the theoretical model of governance in Social Media as discussed in the following sub-chapters.

3.2 Factors of Governance

To examine the governance structure of Social Media use, we propose to analytically distinguish four aspects: *Code*, *law*, *contract*, and *social norms*.

In contrast to other factors and conditions that generally influence human behaviour, the factors covered in our model should cause an immediate governance effect with substantial intensity. In our opinion, this immediate effect is especially given for *code*, *law* (beyond competition law, cf. Döhler/Wegrich, 2010:

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p. 36), *contract*, and *social norms* when considering the behaviour of Social Media users.

Scholars dealing with governance of online services, in general, also stressed "market" as one of the relevant governance factors (Lessig, 2006). However, if the focus is on governance structure itself, it is not reasonable to take into account "market" as a factor: The market for Social Media does not inhere normative quality with regard to user behaviour. In this market, different services or different service providers compete for the attention of users or – to be more precise ¬– their usage of the service that produces digestible personal data. These data are the commodity on which the business model of the service providers of Social Media is regularly based on. They collect, aggregate, analyse, and finally monetise these data on the advertising market. In doing so, service providers are often able to offer their services for free (cf. Hoofnagle et al., 2012).

Thus, the advertising market as a regulating factor is located on another level with regard to user behaviour compared with the four factors of our model, as this market only has an indirect governance effect on the users of a certain Social Media service: Providers adapt their behaviour on the competition on the advertising market.[3] In consequence, *code* and *contract* will be modified by the provider, and this finally results in an adaption of user behaviour. Thus, the relation between "market" and user behaviour in this regard is mediated by *code* and *contract*, which we both cover separately.

The competition of the service provider on user attention directly affects user behaviour, but just in situations when users decide on which service to use. Once they have decided for a certain service, the "lock-in effects" of closed networked communication platforms come into play, which link a switch of services or providers to high perceived costs for the user (Draisbach et al., 2012).Therefore, "market" is not an essential regulating factor with regard to typical forms of usage of Social Media, as the user does not perceive functional substitutable services as a possible alternative to realise his or her intentions while he or she is using a certain service (cf. Mayer-Schönberger, 2008).

Thus, as the governance structure itself and its relation to user behaviour in Social Media are the analytical focus, our adapted model seems to be more

[3] Thus, "market" can be a relevant governance factor with regard to provider behaviour.

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suitable because it focuses on factors that immediately affect this special human practice.[4]

3.2.1 Code

Social Media use is a form of computer-mediated (inter-) action. It is structured by technological "*code*" in a very fundamental way: It relies on a combination of hardware and software, which forms a digital media technology, system, or artifact. We can understand *code* in this very broad sense as the technical means for the behaviour to happen.

The *code* of Social Media, in general, as well as of particular platforms and services is emerging out of a very diverse set of actors (e.g. hardware producers, software companies, open source communities, hackers, users, etc.) that develop, produce, modify, (re-)arrange, and re-purpose hardware and software in usually very complex and dynamic networks. In this paper, we focus on **providers**, that is, those social formations[5] that inscribe meaning into the combination of hardware and software in the process of developing and maintaining certain platforms, applications, or services. The structuring effect of code results from its textual quality: During use, code offers certain meanings to the user perceived as "potential actions" or "affordances" (cf. Gibson, 1986). By using a platform or service (i.e. by interacting with a running version of software code), the user realises these inscribed meanings – sometimes in line with what the providers intended them to do; sometimes in opposition to it (think: hacking); or sometimes in new, unexpected, creative ways. It is important to stress that users are not fully determined through code, but rather "channelled" or "framed" in their behaviour as the code provides them **affordances** to obtain certain gratifications (i.e. being able to communicate, performing a transaction, finding and retrieving information, etc.). In this respect, *code* has a normative dimension: The clearer the *code* pre-structures certain patterns or sequences of human behaviour, the higher is the

[4] Indirect influences and interdependencies between the covered factors should be examined afterwards in a second step of analysis; see 5.2.

[5] Of course, "provider" is in itself an umbrella term for a very heterogeneous set of organizations and individuals who participate in the process of technical development.

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intensity of its normativity. Due to the textual quality of *code*, an interpretative approach can be used to analyse its normative dimension.[6]

To assess the normativity of *code*, we suggest analytically differentiating four types of *code* elements that vary in their normative intensity:

The first type consists of **informational elements** of *code*. Their normative intensity is relatively low, as these code elements usually provide context information regarding attributes of the system or in relation to certain actions of the user. As such, they are "by-products" of the user's interaction with the system, but not the gratification sought in itself. Examples include (textual, visual, and/or audio) instructions and descriptions, tooltips, seals, etc.

A second category is formed by **interactive elements** of *code*. They have a higher normative intensity, as they "react" to user behaviour by triggering certain consequences. Typically, users will interact with these elements to obtain gratifications, for example, to upload and post a picture, to edit a text, or to rate a video with one to five stars. Interactive elements might also offer feedback by the technological system (e.g. by expressing the technical quality of a picture) or by other users (e.g. by aggregating "likes" or other reviews).

The third category consists of **pre-setting elements**. Their normative intensity is higher than with informational or interactive elements, as pre-setting elements do result in certain behaviour unless the user actively makes an effort to choose or enable a different setting or parameter than the pre-set one. Examples are default privacy settings or autocomplete suggestions.

The last category is **forcing elements**. They have the highest normative intensity because they define strict conditions for user behaviour by setting high burdens for acting not in accordance with them. In fact, a user who wants to circumvent them would have to manipulate ("hack") the technical system or its components. Examples are mandatory field types (e.g. when the user is unable to enter letters in a "number" field) and file standards such as restricting upload and display to .txt and .rtf documents.

By introducing the technical components and the continuum from low to high normative intensity, we do not want to suggest that this is the only possible

[6] Cf. Oermann/Ziebarth 2015: p. 259.

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classification of *code* elements or to claim that these different levels correspond directly with certain effects on user behaviour in each single empirical case. On the contrary, the project is based on the premise that it is rather the configuration and interplay of *code* elements with the three other regulating factors, as well as with the individual user and situational circumstances, that results in a situation played out in a certain way. We propose these categorizations as a suggestion for a finer-grained theoretical categorization of *code*, which will have to prove its usefulness in empirical studies.

3.2.2 Law

The second factor in our governance model is *law*, which we understand in this context as formed by legal norms set by the **legislator**.[7] By laying down binding rules and being enforced in case of violation, legal norms link certain forms of human behaviour to **legal sanctions**, prescribe or permit them. Thus, *law*, just like *code*, has a normative dimension. By being internalised and followed by the addressees, legal norms affect human behaviour. Due to the textual quality of legal norms, an interpretative approach can be used to analyse the normative dimension of *law* (cf. Oermann/Ziebarth 2014: p. 259).

Single legal norms cannot be interpreted independently of their embedding in the respective legal framework. To achieve any regulatory goal, a legislator uses complex sets or combinations of norms working together to cause the intended regulatory effect with regard to an actual regulatory problem. In such sets or combinations of legal norms, a regulator uses different regulatory instruments to achieve certain public interests or to protect fundamental individual rights.

It is a central insight of regulation science that certain types of regulatory instruments can be differentiated by means of their intensity of intervention, which is in itself related to their functional logic (cf. Ogus, 2004: p. 5). According to *Ogus*, examples for regulatory instruments with lower intensity of intervention are "information regulation", "private regulation", and "incentive regulation", whereas regulation through "command and control" is associated with a higher intensity of regulation. Finally, regulation through "prior approval" is associated with having

[7] Having in mind that "legislator" here is an umbrella term covering an eventually very complex structured network of (individual and institutional) actors.

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the strongest regulatory influence. As regulatory instruments with a higher degree of intensity of intervention should also have a stronger effect on individual behaviour, we deduce that these instruments also inhere different levels of normative intensity.

Thus, the strongest form of regulation in terms of intensity of intervention is **regulation through prior approval**. This type of regulation covers all situations in which someone, as the one who is regulated, must seek permission from agencies or authorities to undertake certain activities (see Ogus, 2004: p. 214). The fact that certain behaviour is prohibited in principle has a high intensity of intervention, so we can label those legal norms as having the highest level of normative intensity.

In contrast to regulation through prior approval, in a situation covered by **command and control regulation**, no permission for a certain behaviour is needed. Instead, legal norms define prohibited and permitted forms of conduct and, thereby, impose legal standards (cf. Baldwin et al., 2012: p. 106). Their compliance is being ensured through (criminal) sanctions, which are imposed by an authority.

Incentive regulation (or economic regulation) uses positive or negative incentives to influence individual behaviour. Instead of setting legally binding standards, incentive regulation offers certain economic advantages (e.g. subsidies or emission rights) or disadvantages (like charges or taxes) to influence the object of regulation (see Baldwin et al., 2012: p. 111 et seq.; Ogus, 2004: p. 245 et seq.). Thus, regulatory goals can be achieved without permitting certain forms of behaviour by increasing the likelihood of autonomous decisions being in accordance with the intended regulatory goal.

By applying **private regulation**, a legislator can achieve public interest goals by modifying private law. Instead of directly targeting certain conduct by the use of public directive law, a legislator changes private law (see Ogus, 2004: p. 257 et seq.). So the legal grounds for contractual agreements between private parties are changing. Examples of using private regulation are the introductions of (stricter) liability rights or new property rights.

As a form of social regulation, **information or transparency regulation** is generally used by legislators to compensate for deficits of information between

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private parties (see Ogus, 2004: pp. 121 et seq.). It is mainly used to enable an informed decision of certain actors; therefore, its intensity of intervention is not so high. For example, in the field of consumer protection, information regulation is often applied to oblige producers or service providers to provide certain information to the consumer. From a Social Media user's perspective, we can record a categorical distinction between this and the other regulatory instruments. While all other instruments shall have a direct effect on users, information regulation needs to be executed by the provider. This regulatory program does not directly target the intended subject of regulation but obligates a third party to mediate this effect instead.

3.2.3 Contract

In general, contractual arrangements determine rights and obligations between private parties. In the registration process to online services, users usually have to agree to terms of service (ToS). These terms, in deviation from the contractual model of negotiating (cf. Kröll/Mistelis/Perales/*Ferrari*, CISG, 1. Ed. 2011, Intr. to Art. 14-24, para 4), in fact, are set only by the provider[8] and contain – like legal norms – binding rules and procedures for possible violation of these rules. In doing so, contractual norms link certain forms of human behaviour to liabilities, prescribe or permit them. Thus, *contract* as a factor inheres – like the factors described above – a normative dimension. By being internalised and followed by the addressees, contractual norms affect human behaviour. Due to the textual quality of contractual norms, an interpretative approach can be used to analyse the normative dimension of *contract*.

The process of juridification of social relations by contracts is generally based on the ideal concept that bargaining power of the parties involved is equal and, therefore, both parties can equally influence the outcome of the negotiation processes. However, for some reasons, there are also cases in which this balance is not given. Looking at the relation between providers of Social Media and their users, we can observe a structural comparability to the relation between the regulating state and regulated actors: In both cases, the relation between the two parties involved is shaped by an imbalance regarding the influence on their legal

[8] Concerning the underlying concept of "provider", cf. Fn. 6.

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basis. From the perspective of classic hierarchical regulation, both actors, regulating states and providers, are able to form the legal relation between themselves and the regulated actors (through laws) or users (through ToS) as long as their respective object of regulation is within their reach of power. Based on this observation, we assume that the regulatory instruments of *law* can analogously be adaptable for sets of contractual norms together forming contractual instruments of regulation. Although *contract* is always a private regulation from the perspective of regulatory science, we can identify analogous types of norm sets in contracts used identically like the above-mentioned types of regulatory instruments in laws and can deduce that their levels of normative intensity correspond.

As mentioned above, one of the strongest forms of regulation in terms of the intensity of intervention is regulation through prior approval. This kind of contractual regulation in online environments seems to be rather unlikely to be used, as the intended effects can be achieved more effectively by designing code respectively configuring the technical system. However, it would be conceivable to lay down contractual norms prohibiting certain behaviour without explicit **prior approval** of the provider.

Similar to regulation through **command and control** in *law*, providers lay down certain standards in their ToS and enforce them. Providers enforce codified **community standards**, for instance, by **taking down** violating content. Server violations of ToS norms might be even sanctioned with account deletion. Hereby, contractual norms define prohibited and permitted forms of conduct and, thereby, impose legal standards just like legal norms.

Additionally, **incentives** can be used as instruments for governance of individual behaviour in contractual relations. In contractual norms, there are various examples for this kind of regulation (e.g. early payment discounts or contractual penalties). In Social Media, contracts might stipulate certain functions to be reserved for those users giving more detailed information to the provider.

Through the use of **community standards with monitoring by users** in ToS, binding standards for user behaviour in the respective community are laid down. These standards form the basis for the relation both between providers and single users as well as the relations between users. As in state regulation where new regulatory goals are achieved by changing private law, regulatory goals of the

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provider could be achieved by modifying these standards. However, in contrast to other regulatory instruments like command and control regulation, compliance with community standards is **monitored by the users' community** and not by the provider in most cases. Therefore, this instrument is comparable to **private regulation** by the state.

As there is direct contractual and factual relation between provider and user, information regulation is rather unlikely to be used as a contractual regulatory instrument. **Information regulation** is primarily used to make one party inform another. Nevertheless, theoretically, the use of this regulatory instrument is also possible through contractual obligations.

3.2.4 Social Norms

Social norms are generalised expectations about behaviour. They consist of ideas and beliefs about the "right" behaviour that are shared within a **social formation** (which can range from small groups or organizations to subcultures or societies). People learn social norms in processes of socialization, in which they internalise the expectations about behaviour, often connected to certain roles within particular social formations (e.g. norms regarding behaviour as a student, as a parent, as a professional, or as member of a certain subculture). Social norms might be codified, that is, explicitly stated like laws, religious codices, or books collecting the etiquette of their times, but oftentimes, they remain implicit and emerge only through social action that either conforms to them or deviates from them. Social norms are part of shared scripts or schemata for social situations, often condensed in particular social roles and connected to **social sanctions** attached to them – either positive sanctions (e.g. rewards) or negative sanctions (e.g. punishment). Social norms differ in their prescriptiveness, as the expectations can be more or less broad, articulated, valid, etc., and the sanctions can be more or less strict, severe, etc. Thus, social norms structure interaction by making certain behaviour "expectable" or "legitimate", while behaviour not adhering to them might be considered unexpected, strange, or even deviant.

As "social norms" is a key concept in sociology, there is a broad body of literature discussing types and formations of social norms as well as their connection to other key concepts of sociology such as roles or social integration

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(e.g. Gibbs, 1965; Homans, 1974; Hechter/Opp, 2001). For the purpose of this paper, it is of particular interest that social norms differ in their normative intensity – a common classification distinguishes between "can", "should", and "must" norms (cf. Dahrendorf, 2006: pp. 40-46). This varying intensity is not a quality of the norm per se; for example, wearing a tie for work might be a "can" norm in some workplaces, a prescriptive "should" norm in others, and a "must" norm in yet others (it might even be a proscriptive "should not" norm in some workplaces). Rather, the normative intensity is a function of (a) the expectations shared in certain social formations, (b) the social sanctions connected to the behaviour (including their severity and the probability of them being executed), and (c) the individual internalization of these expectations as part of a particular role.

A second difference relevant to this paper is that between "actual" and "injunctive" norms, which is loosely connected, but not equivalent, to the difference between internalization of expectations and expectations by others. On the one hand, "actual norms" consist of rules and expectations from the actor's perspective: Which behaviour do I think is ok, which rules and expectations do I follow? "Injunctive norms", on the other hand, consist of those rules and expectations that are shared in the actor's social environment: Which behaviour do my friends, my colleagues, or any other reference group apply? Injunctive norms might become actual norms when an individual adopts expectations and rules from their social environment; in fact, this is a central aspect of socialization in any social formation. However, actual norms might also differ from the injunctive norms when an individual holds different views and values than the rest of the social formation.

3.2.5 Structural Commonalities and Differences

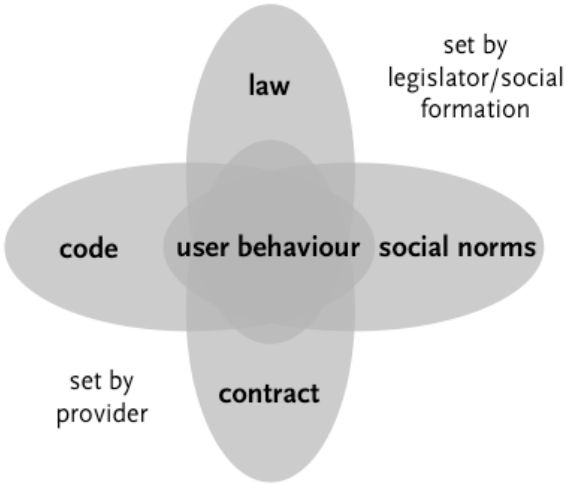
Summing up the discussion so far, we can state the following assumptions of our model (see Fig. 1 and Tab. 1): Law, contract, code, and social norms govern user behaviour in Social Media. All four factors rely on specific "transmitter mechanisms" to exert their normativity: affordances, legal sanctions, contractual liability, and social sanction. Additionally, we can identify particular "regulators" that shape the particular form of each factor: In the cases of *code* and *contract*, it is

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the platform provider, in the case of *law*, it is the legislator, and in the case of *social norms*, it is the social formation.

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Fig. 1: The Theoretical Model of Governance in Social Media



Tab. 1: Structural Commonalities and Differences of the Four Governance Factors

Factor	Transmitter	Regulator
code	affordances	provider
law	legal sanctions	legislator
contract	contractual liability	provider
social norms	social sanctions	social formation

4. *Case Studies: Approaching the Structure and Frontiers of Governance in Social Media*

To test the model and to demonstrate its usefulness for empirical research, we conducted a pilot study on the governance of privacy on Facebook. We first present the test case (ch. 4.1) as well as details on the methodological design of the different sub-studies (ch. 4.2), followed by a summary of the findings (ch. 4.3).

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4.1 Test Case

To apply the analytical framework, we first had to specify the empirical object by selecting a Social Media service and a specific practice of behaviour conducted on that service. We decided to analyse picture upload (practice) on Facebook (service) as object for the case study.[9] The test case was then further specified to include different **scenarios** of "uploading a picture with other people on it on Facebook" to identify aspects that influence how one or more of the regulating factors will structure actual behaviour.

First, we distinguished four different **variants** of uploading a picture:

A. Uploading, but not sharing, a picture with other people on it

B. Uploading and tagging the picture with the profile of the people on it (adding information)

C. Uploading a photo, adding information, and sharing it with friends

D. Uploading photo, adding information, and sharing it publicly

Each of these four variants was additionally investigated in two alternative **conditions**:

1. The user uploading the photo has not asked the people on it beforehand;

2. The photo has not been taken by the user, and the photographer has not given a licence for use.

To introduce additional variation, we selected four photos, which differ in the subject or scene motive depicted (neutral situation, alcohol visible) as well as the identifiability of the people pictured (see table 2 for the pictures).[10] The photos

[9] Current research shows that using Facebook for picture sharing is a widespread practice: According to a recent survey by BITKOM, uploading and sharing content like photos are typical acts of usage for German Facebook users (57% and 58%, respectively) besides individual communication (77%) and the reception of information about upcoming events (58 %; BITKOM 2013: 24).

[10] The selection of photos was made as shown in table 2 to increase the chance that the study will at least show up variance with regards to two of the analysed factors: Identifiability of people leads to certain legal consequences in German law. Therefore, each of the situations illustrated at the photos was given in two different versions: One of them with identifiable person on it, another one in a blurred version. Secondly, the distinction between a neutral scene and a second scene showing excessive alcohol consumption in public is based on the assumption that social norms will differ. In Germany, the consumption of alcohol in public is generally permitted. In this respect, legal consequences are not depending on the different situations shown on the photos like in this experimental setup.

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were produced for the empirical analysis and have been used in .jpg format and were less than 500 kb in size.

Tab. 2: Pictures included for the test case

	identifiable	not identifiable
neutral situation	a. 	b. 
alcohol visible	c. 	d. 

Overall, there are 4 x 2 x 4 = 32 possible combinations of photos, conditions and variants, which were examined in the empirical analysis.

4.2 Methodology

The four governance factors differ not only in their mechanisms, elements, and normative intensity on theoretical level (see ch. 2 and ch. 3) but also in the way

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they can be analysed. Thus, this case study had to employ different methodological approaches.

4.2.1 Code

Currently, there is no established methodology to analyse the normative dimension of *code* in the proposed understanding. Thus, we developed an interpretative approach, which aims to reconstruct the normative quality of *code* by executing certain forms of behaviour ourselves, recording the *code* in the process, and interpreting that material.[11] To reduce the material that we have to analyse, we held the technological components of the basic hardware and software setting constant during the analysis.[12] In our interpretative procedure, no additional information (e.g. about the (possible) intentions of the provider, which is Facebook Inc. in our case) were gathered or included.

To identify and interpret the relevant code elements for uploading a picture in Facebook, we went through the process of uploading a picture and recorded any changes in the user interface that resulted from user input (clicking a button, entering text, etc.) by doing screenshots. These screenshots were then analysed with respect to their characteristics as elements of *code* (forcing, presetting, interactive, and informational elements; see above 3.2.1).[13] For coding, we used the software MAXQDA. The codebook is based on the theoretical differentiation between different elements of *code* (for details on the code system we used, see Annex 1).

4.2.2 Law

We approached *law* as a second factor of governance with the traditional interpretative juridical methods due to the textual quality of our object of investigation. These methods differ in the extent, as they also took – beside the

[11] Cf. Oermann/Ziebarth 2015.

[12] We accessed the Facebook website (http://www.facebook.com) from a stable German IP on a PC with MS Windows XP and the Firefox web browser (version 23.0.1), with Java (version 10.21.2) and the Flash player (version 11.6.602.180) activated. We used a simple "Facebook user account" with standard settings (German version, record date: 10-28-2013).

[13] For detailed descriptions on a comparable methodological approach of online content analysis, see: Herbers/Friedemann 2010: 240 et seq.; Welker et al. 2010: 10 et seq.

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interpretation of the wording of single legal norms – different types of context information into account (cf. Oermann/Ziebarth 2015: p. 261).

By applying all these methods, we tried to uncover the normative meaning of *law* with regard to the defined test case. Due to the narrow focus on governance of user behaviour in SNS at this stage of our research, we just covered legal norms that directly address the user. Thus, as a first step, we sorted out all the norms that address providers and, thereby, just indirectly affect the user.[14] As we were doing our analyses in Germany, we had to analyse all relevant legal norms of the current German law. We took the current version of these norms on record date 12-01-2013.

4.2.3 Contract

To analyse the factor contract, we also applied interpretative juridical methods because of the textual quality of Facebook's ToS, their community standards (CS), and their declaration on data use policy (DUP) as objects of investigation concerning the contractual relation between the provider and the user in our test case. We took the current version of these norms from our account on record date 10-28-2013.

4.2.4 Social Norms

As mentioned above, what distinguishes *social norms* from other regulating factors is that they are usually not codified, but remain rather implicit. Thus, there is no textual material that could be analysed with an interpretative approach to reveal the meaning and normative quality of social norms regarding Social Media use. One way to deal with this problem is to observe user behaviour and to deduct from these observations the "norm" in the studied population, that is, the average and/or most frequent form of behaviour. This approach will not, however, reveal much information about the reasoning behind the behaviour, nor will it account for rather subtle differences in the intensity or prescriptiveness of a norm. For

[14] That's the reason why there could be no cases of information regulation in our sample, because this instrument requires an eternal triangle between the legislator and two addressees, see above 3.2.2.

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example, empirical observation might reveal that 75% of Facebook users refrain from posting holiday pictures, but not why they do so (e.g. because they do not want to share personal information, because they do not want to bore other people, etc.).

Thus, social norms can be analysed by interviewing users directly, asking them to give reasons for their behaviour or to rate to what degree they follow or uphold certain norms and expectations. This approach, which can rely on standardised, quantitative research as well as on more open, qualitative inquiries, promises a more nuanced photo than mere observation of behaviour. However, it requires a certain amount of reflectivity on the respondent's part to answer questions about behaviour, values, norms, and expectations that are (by definition) deeply ingrained in ordinary routines and practices of everyday life.[15]

To analyse social norms, we decided to rely on a quantitative, standardised survey, rather than, for example, experimental observation and/or qualitative interviews of users. We were able to include some questions in a larger survey focussing on privacy-related attitudes and practices on Facebook among 18- to 35-year-olds. Field time of this survey, which was conducted in cooperation with Haifa University (Israel), was from October 25 to December 4, 2013. The link to the survey was spread via mailing lists (e.g. of students at Hamburg University) and via Facebook. The final sample size was 310 respondents.

For pragmatic reasons and to reduce the chance of respondent drop-out, not all 32 possible combinations of behaviour, conditions, and photo types were covered in the survey. Rather, the survey only included three different questions.

4.2.4.1 Injunctive Norms

Respondents were presented with a list of 12 items describing Facebook situations (e.g. "you sharing personal romantic experiences in a status update"). The question wording was: "*Please just think of those people among your Facebook contacts you consider close friends. How many of them (would) agree to or think positively of you doing the following actions on Facebook (no matter if you actually do them or not)?*"

[15] In Giddens' (1984) terminology, social norms are part of the respondents' practical consciousness, which have to be transferred to the discursive consciousness during the interview.

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Respondents were presented with 12 different actions and were asked to answer on a 5-point Likert scale (All of them (1); Most of them (2); About half (3); Few of them (4); None (5); and an "I don`t know" option (6)).

We interpret this question as an indicator for the normative intensity: The fewer close friends approve of a certain behaviour, the greater the chance that the user will refrain from this behaviour for fears of social sanctions.

4.2.4.2 Actual Norms

This question included the same list of 12 items as in question #1, but this time, the wording was: "Thinking about yourself: Do you think that it is ok to do the following activities on Facebook (no matter if you actually do them or not)?". Respondents were asked to answer on a 5-point Likert scale (Absolutely ok (1); Ok most of the time (2); Sometimes ok (3); Only rarely ok (4); Never ok (5)).

We interpret this question as an indicator for the proscriptiveness of a norm: The higher the score is, the less the user thinks a behaviour is ok for him/her to do.

To control for bias that might result from the order of these two questions, respondents were randomly presented either first #1, then #2, or vice versa.

Among the 12 items included in these two questions, three referred to specific combinations of behaviour and conditions (picture types were not varied in these questions):

"How many of your close friends on Facebook think positively of..."/"Thinking about yourself, do you think it is ok ..."

- ... you uploading a picture with another person on it to Facebook without asking him/her first but not publishing it. (A-1)
- ... you tagging a friend in a picture without asking him/her first. (B-1)
- ... you uploading and sharing a picture with another person on it on Facebook without asking him/her first. (C-1/D-1)
- ... you uploading and sharing a picture you did n't take yourself on Facebook. (C-2/D-2)

For reasons of comparison, we also include a "benchmark norm", which refers to publishing a status update about one's state of mind. This behaviour is not

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covered by our tested combinations, but might be considered a "regular" behaviour on Facebook.

4.2.4.3 Behaviour

To complement for the questions on injunctive and actual norms, the survey also included a question in which the content of the picture varied. Respondents were randomly shown one of the five pictures (a. to e.) from the test case and were asked:

"*Imagine you took this picture of your friends. Would you share the picture on Facebook without asking them first?*" Answers were in a 4-point Likert scale (Definitely yes (1); Probably yes (2); Probably not (3); Definitely not (4)).

With this question, we account for the combinations C/D-2-a to C/D-2-e, with the caveat that we did not include "tagging the people" in this question.

For all three questions, we suppose that the prevalence of social norms is mediated by different characteristics on the individual level, that is, gender, age, or general values. To take these differences into account, we also conducted an explorative analysis of possible differences between sub-groups according to three dichotomous variables:

- gender (male/female)
- age (27 years old and younger/older than 27 years)
- years on Facebook (four years and less/more than four years)

Further analysis will look into the individual factors influencing norms and behaviour in more detail.

4.3 Findings

We were able to draw insights on the governance background of such forms of user behaviour on Facebook as we defined it in our test case for all four factors.

4.3.1 Code

By analysing the factor *code* in our test case, we became aware that the *code* offers different ways or streams for uploading a picture and provides certain

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possibilities to realise our test case scenarios thereby.[16] By providing those certain possibilities, Facebook's *code* sets a framework for user behaviour by forcing *code elements* that structure the usage and channel it in certain streams of action.

In interpretative reflection of these streams of action, we identified four distinct action units or parts of the general practice of "uploading and sharing a picture on Facebook" that recurred – not always in the same order, but every time we processed this practice: First, the user had to bring the photo into the system of Facebook. Second, the code offered us the possibility to add information to the picture. Third, the user had to select the audience. Fourth, the user had to initiate the final release of the photo. These units structure the streams of action on Facebook to upload a picture in a very basic sense. The concerned elements of *code* can, therefore, be described as forcing, as they set a modularised, but coercive framework.

For further analysis of the *code*, we limited the scope to only two of all possible streams of action Facebook offers to upload and share pictures. We chose two streams of action starting at the account homepage. During these processes of uploading a picture in Facebook, we identified 70 code elements on the user interface: In terms of our differentiation of different types of *code elements*, we found eight pre-setting elements, 37 interactive elements, and 25 informational elements. Thus, pre-setting elements are, compared to interactive and informational elements, in a minority. Besides the modularised framework mentioned above, no additional forcing elements could be identified. Informational elements are mostly found in form of texts on buttons. Six out of the eight pre-setting elements suggest an action to the user by selected buttons or blinking cursors in text fields. The other two pre-setting elements are referring to privacy settings.

The privacy default setting for all our posts was "public".[17] Unless the user changes this setting, all posts will be available publicly. Considering the relatively high normative intensity of pre-setting elements, users are confronted with a rather strong influence towards public communication.

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[16] The material function of code of providing technical means for practice is also the reason why we report the results of our analysis of code at first, cf. 3.2.1.

[17] The Facebook account we used for the analysis was opened 10-17-2012. Therefore, the default privacy settings for any kind of posts were "public" unless the user changes the privacy settings. Nowadays, Facebook asks its users during their first post to define the default for the audience (see: http://www.theguardian.com/technology/2014/may/22/facebook-privacy-settings-changes-users).

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In addition, legal standards in the context of uploading and sharing pictures are not reflected in Facebook's *code* itself. We could not find any code elements referring to intellectual property rights or personality rights of third parties, although the consent of a third may be necessary from a legal perspective.

The *code* allowed us to upload a picture without any queries; there are no long instructions to be read. As far as we could see, there are no ex ante mechanisms for analysing (and possibly blocking, linking to third person, or any other kind of further processing) content in our test case. Neither the picture itself nor the textual elements given were somehow restricted.[18] Thus, in fact, the differentiation of scenarios did not lead to any consequences for our analysis results concerning *code* in this regard. Although Facebook gives a 25 MB size limit for the upload of files, we were even able to upload larger pictures. The range of possible file types that can be uploaded is quite broad. Overall, the *code* of Facebook "guides" users quite smoothly through the stream of action.

4.3.2 Law

Our analysis of the legal material showed us that three branches of German *law* are relevant to the test case.

The first one is data protection law provided by the German Data Protection Act ("Bundesdatenschutzgesetz", BDSG). The BDSG covers the processing of personal data (§ 3 Nr. 1 BDSG), which generally applies to the production and copying of photos of identifiable third person by uploading it (sce. A.), as well as tagging it (sce. B.), adding some more information to it (sce. C.), and sharing it on Facebook (see § 3 IV BDSG). However, there is a special exemption with regard to the scope of the law for exclusively personal (or family) activities. Such activities are exempted from the regulations of the BDSG (§ 1 II Nr. 3 BDSG). Thus, in the observed test case, the regulations of the BDSG do not come into play when we talk of law as a factor regulating user behaviour.

The second branch of law is the legal protection of personality rights by the German Author of Arts Protection Act ("Kunsturhebergesetz", KUG), the German

[18] Nevertheless, Facebook is working on a technology for automatic face recognition (cf. Effron 2011, Singer 2014); although some internal documents became public and gave some insights into Facebook's ex post content moderation (cf. Arthur 2012).

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Civil Code ("BürgerlichesGesetzbuch", BGB), and the German Penal Code ("Strafgesetzbuch", StGB). Certain regulations in these laws protect the rights of person shown on photos being used on Facebook.

According to § 22 KUG, consent of the person who is identifiable on photo is required in case of publication (sce. C-1/2-a/c; D-1/2-a/c). A publication without consent causes civil liability, whose scope is further defined by the tort law norms of the BGB. Taking the results of the code analyses into account, the legal consequences are triggered when the final decision on publication manifests itself, that is, in pressing the button "Post" in the photo uploader unit.

This is supplemented by civil liability (e.g. claim on omission and compensation) based on general tort regulation of the BGB (§§ 823, 826, 1004) for breaching the personality right of the person in his or her own picture by just taking the photo without consent (sce. A/B/C/D-1-a/c).

Furthermore, there are regulations in the StGB that sanction insult (§ 185, but see also § 194) and defamation (§§ 186 et seq.) with punishments from fine up to five years imprisonment, which could be triggered by the photo itself and especially by the addition of information like offending comments.[19] In combination with the general tort norms of the BGB mentioned above, such behaviour could also cause civil liability.

The third branch of *law* is intellectual property law. The German Copyright Act ("Urheberrechtsgesetz", UrhG) prohibits copying a creative work – like photos, § 2 UrhG – without being licensed by the author or original producer, § 16 UrhG (sce. A/B-2). It applies to the test case the moment the photo is uploaded on the Facebook server because this generates a copy of the original file. Furthermore, it prohibits publishing a creative work (§ 17 UrhG) especially via wireless technologies (§ 19a UrhG) without a license. These norms are relevant for the test case scenario C/D-2 at the moment the photo is finally posted.[20] The norms also trigger civil liability (e.g. § 97 I UrhG: omission and compensation, § 98 II UrhG:

[19] The photos exemplary shown in the description of the test case and used in the survey do not fulfil the legal facts of the §§ 185 et seq. StGB.

[20] In scenario D-1, the fulfilment of these norms depends on the size of the user's list of friends. The leading opinion assumes a publication in terms of § 17 UrhG in case of a publication, intended to the public, that means to an open number of persons and not only to a private group of people or in the space of a company; cf: BGH, GRUR 1982, 102, 103 – Masterbänder; BGH GRUR 1991, 316, 317 – Einzelangebot; Schulze , in: Dreier/Schulze, UrhG, § 17, 4. Auflage 2013, Rn. 7 et seq.

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erasure of the photo) and could also cause penal sanction of up to three years of imprisonment (§ 106 UrhG).

A deeper analysis shows that the branch of law of legal personality right protection aims at serving this right, which is also protected as a basic right in the German constitution (Art. 2 I, 1 I GG) by putting concerned behaviour under reservation of consent by the person who is concerned. In our test case, these are the persons shown on the photo. By combining violations of this legal default with civil liability, *law* uses the regulatory instrument of private regulation.

In several cases of violation of the general personality right, *law* provides penal sanctions and, thereby, uses the instrument of authoritarian command and control regulation, which has a higher normative intensity.

Intellectual property law aims at serving, on the one hand ,the personality rights of authors and producers in their creative works that are based on their personal relation to the creations[21] and, on the other hand, the intellectual property of the authors and the connected right to exploit their works.[22]

These regulatory objectives are addressed both by private regulation, as violations trigger civil liability, and by command and control regulation, as they cause penal sanctions.

4.3.3 Contract

At the beginning of the analysis of the factor *contract*, we identified all the contractual norms, first, in the ToS and, then, in the supplemental CS and DUP of Facebook, which address the forms of user behaviour defined by our test case. An in-depth analysis of these contractual norms showed us that the normative structure of this factor is much less complex than the one of the factor *law*.

All the basic variants A/B/C/D of the test case are generally covered by two general clauses of the ToS: Its Section 5.1 prohibits the user to "post content or

[21] As a further dimension of the constitutional protected general personality right (Art. 2 I, 1 I GG), this aspect finds its expression in the rights of the author to control the publication of his/her works in the UrhG; see BGHZ 13, 334 (339); Dietz/Peukert in: Löwenheim, Handbuch des Urheberrechts, paragraph 8 et seq.

[22] Intellectual property is also constitutionally protected (Art. 14 GG). This aspect finds its expression in the right of the author to control the publication of his/her works in the UrhG; see BVerfGE 31, 229 = GRUR 1972, 481 (481 et seq.); BVerfGE 49, 382 = GRUR 1980, 44 (44 et seq.); Schricker/Katzenberger 1985, 87 (94).

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take any action on Facebook that infringes or violates someone else's rights or otherwise violates the law". Section 5.2 states that Facebook could "remove any content or information you post on Facebook if we believe that it violates this Statement or [Facebook's] policies". By this reference on "policies", the second general clause also takes Facebook's CS and DUD into account and enables the consequences of the ToS also for breaches of these policies.[23]

A breach of sec. 5.1 and 5.2 of the ToS is observed in case scenarios C/D-1-a/c (no consent of the person shown on the photo) because these forms of behaviour do not comply, on the one hand, with legal requirements (see 4.3.3) and, on the other hand, with the community standards that ask for consent in case of publishing personal information of a third person (sec. on "Identity and Privacy").[24] If the photo itself is taken without consent of the person shown on it, all the variants of the test case (A/B/C/D) cause a breach of sec. 5.1 because they do not comply with the law (see. 4.3.3).

A violation of sec. 5.1 and 5.2 of Facebook's ToS is seen in all cases of the second alternative of the case study (A/B/C/D-2). As intellectual property law demands a license by the author or producer (see above 4.3.3), in these alternatives, law is always violated, and thereby sec. 5.1 is breached. Additionally, Facebook's CS (see section on intellectual property) expects the user to ensure that the user has the right to upload the content; thus, sec. 5.2 is automatically affected, too.

Facebook's ToS only foresee two forms of consequences: Firstly, Facebook will remove content in case of violations of the ToS and other policies (sec. 5.2) as well as violations of legal norms (sec. 5.1, 5.2). Secondly, in cases of repeated infringement of intellectual property rights, Facebook will disable the user's account (sec. 5.5). At the end of the CS, it is pointed out that any user is allowed and encouraged to report breaches by other users to Facebook ("Notice&TakeDown").

In summary, only two different types of contractual instruments could be found in an analysis of the contractual norms: Private regulation in case of breaching behavioural standards sanctioned by notice (by other users) and take down (by the

[23] Scenario B in particular is also covered by sec. 5.9.

[24] Tagging without consent (sce. B-1) also causes a breach of sec. 5.9, independent from the fact if someone is identifiable on the photo itself.

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provider) and command and control regulation in case of breaching behavioural standards that are controlled and sanctioned only by the provider itself.

4.3.4 Social Norms

Considering the injunctive norms first, the survey shows that the respondents judge the different scenarios differently. To recap: We measured injunctive norms by asking about how many close friends of the respondent would think positively about a certain behaviour, and we interpret agreement among fewer friends as an indicator of a stronger normative intensity.

Table 3 shows that for all three scenarios of uploading a picture and/or tagging a friend without asking them first, answers tend to (on average) be less than half of the close friends. This indicates moderate normative intensity, but with a tendency to be higher, the more one's behaviour infringes on another person's informational rights by adding information and/or making information accessible to others. In comparison, injunctive norms about sharing a picture produced by someone else seem to be less intense, as people (on average) responded that most of their close friends would think this is acceptable. With respect to the "benchmark norm", the respondents report an even lesser normative intensity.

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Tab. 3: Injunctive norms

Scenario	Now, please just think of those people among your Facebook contacts you consider close friends. How many of them (would) agree to or think positively of you doing the following actions on Facebook (no matter if you actually do them or not)? (n=303-305)	Mean	Std. Dev.
A-1	... you uploading, but not sharing, a picture with another person on it to Facebook without asking him/her first.	3,17	1,202
B-1	... you tagging a friend in pictures without asking him/her first.	3,23	1,112
C-1/D-1	... you uploading and sharing a picture with another person on it on Facebook without asking him/her first.	3,36	1,144
C-2/D-2	... you uploading and sharing a picture you didn't take yourself on Facebook.	2,66	1,262
---	... you writing a status update about your state of mind.	2,37	1,127

5-point-likert-scale from 1="all of them" to 5="None"; means calculated without 6="I do not know"; n=305.

When testing for differences between sub-groups of the sample, we found some statistically significant differences for the different "test case norms" (but not for the benchmark norm). The following groups do (on average) report that fewer of their close friends approve of ...

- A-1 (uploading, but not sharing, a picture with another person on it to Facebook without asking him/her first): people older than 27 years

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- B-1 (tagging a friend in pictures without asking him/her first): Women; people older than 27 years
- C-1/D-1 (uploading and sharing a picture with another person on it on Facebook without asking him/her first): people older than 27 years
- C-2/D-2 (uploading and sharing a picture you did not take yourself on Facebook.): people older than 27 years

There were no significant differences in injunctive norms between people with less than 4 years and those more than four years of Facebook experience.

On **actual norms**, we see a similar pattern (table 4): On average, respondents tend to find it rather not ok to upload pictures and/or add information about friends without asking them first. Regarding the uploading and sharing of a picture taken by someone else, the proscriptiveness is somewhat less, but still answers, on average, tend to be "rather not ok". In comparison, writing a status update about the current state of mind is (on average) considered to be ok by more people.

Tab. 4: Actual norms

Scenario	Thinking about yourself: do you think that it is ok to do the following activities on Facebook (no matter if you actually do them or not)?	Mean	Std. Dev.
A-1	... uploading, but not sharing, a picture with another person on it to Facebook without asking him/her first.	3.61	1.146
B-1	... tagging a friend in pictures without asking him/her first.	3.65	1.188
C-1/D-1	... uploading and sharing a picture with another person on it on Facebook without asking him/her first.	3.76	1.122
C-2/D-2	... uploading and sharing a picture you didn't take yourself on Facebook.	3.22	1.289
---	... writing a status update about your state of mind.	2.85	1.160

5-point-likert-scale from 1="Absolutely ok" to 5="Never ok"; n=305.

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Tests for significance of differences between sub-groups for the actual norms found that for all different forms of behaviour, women and people older than 27 years tend to, on average, think that the behaviour is not ok. Similar to injunctive norms, there were no significant differences between the number of years of Facebook experience (less than four years vs. more than four years of Facebook experience). There was also no significant difference in any of the sub-groups for the benchmark norm.

The third question provides information regarding the inclination to share a picture without asking people on it, depending on what is pictured. Table 5 reports the data from the experimental setting where respondents were randomly assigned one of the five pictures used as test cases. In all cases, people tend to think it is not ok to share the picture (as all mean scores are larger than the average score of 2.5 on the 4-point-scale). However, there are interesting differences: Regarding the neutral situation, the mean score is lower where people are identifiable than where they are not. If alcohol is pictured, people tend more to thinking it is not ok, with no difference between identifiable and non-identifiable people.

Tab. 5: Publishing a picture without asking

Scenario	"Imagine you took this picture of your friends. Would you share the picture on Facebook without asking them first?"	Mean	Std. Dev.
C/D-2-a	neutral situation - identifiable	2,85	,875
C/D-2-b	neutral situation - not identifiable	3,04	,849
C/D-2-c	alcohol visible - identifiable	3,52	,720
C/D-2-d	alcohol visible - not identifiable	3,53	,684

4-point-likert-scale from 1="Definitely yes" to 4="Definitely not"; n= 250.

There are only few (and small) significant differences between sub-groups. Women tend to be significantly more restrictive with respect to pictures b, c, and e, while people older than 27 years tend to be more restrictive with respect to picture a.

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5. Conclusions

In this last section, we provide a summary of the results of our pilot study, critically reflect on them, and condense the insights we have gathered (ch. 5.1) before we roughly draw out what we like to find out next (ch. 5.2).

5.1 Summary

Our analysis of *code* as a governance factor showed us that by the code of Facebook, a coercive frame is defined for the reviewed practice by offering only a limited number of ways to realise the defined case of usage. The resulting streams of action are also pre-structured by the code in themselves. Four repeating action units in those streams can be distinguished. Furthermore, the *code* regulates user behaviour with its "normative softer" elements in the direction to post many publications of photos to bigger audiences, that is, by setting the default of the selection of the audience as "public" and by not establishing any technical boundary concerning size for the upload of files.

Furthermore, we could not find any indication that the system distinguishes photos on the basis of content. Thus, the differentiation of scenarios of the test case does not lead to consequences in our consideration of *code*.

Contrastingly, the results of the analysis of the three other factors were completely different. These factors inhere in the scenarios of the test case of very differentiated regulative contents.

Law regulates the distribution of information on the basis of its meaning. In doing so, the relevant legal norms are partly using definitional elements that accord with the criteria based on how we defined the scenarios of the test case, that is, identification is possible y/n, consent y/n, and authorship. Furthermore, *law* differentiates on the basis of types of informational or communicative behaviour of its addressees, such as producing a copy alongside with uploading a picture, distributing the content to other users, or adding context information. In doing so, the normative meaning of *law* is dependent from time to time on facts

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and processes that are not part of the relation between the users and the Social Media service provider.

Contract as a governance factor also differentiates based on the meaning of the communication and the shape of communicative behaviour. ToS partly relate to provisions of statute laws, and the statements of the factors *law* and *contract* correspond widely, especially concerning copyrights and personality rights.

Code is reflecting on the specifics of *law* and *contract* when it provides reporting systems to the users to report copyright and personality right infringements. However, these systems are not incorporated in the streams of action that the code provides to upload and distribute a photo on Facebook.[25] Further differentiations in *law* and *contract* are not reflected in the code structure. There is no established technical review that checks whether the user holds the right to copy and publish a picture, for example.

As there is no explicit, textual form of *social norms* governing picture uploads on Facebook, we had to rely on indirect measurement via an online survey to analyse this factor. Results show that, in general, both injunctive and actual social norms suggest that uploading a picture of someone else without asking is not acceptable (among the surveyed German Facebook users aged 18 to 35 years). The normative intensity of this prescriptive norm is higher, if identifiable information is attached to the picture and/or the picture is shared with other people. In contrast, the normative intensity of the norm governing possible copyright infringements is somewhat less among the Facebook users surveyed. Apparently, these different legal norms translate to different degrees of actual and injunctive social norms.

The experiment provided another interesting insight on the (in-)congruence of social and legal norms: As expected, the social norm of "do not share a picture on Facebook without asking people on it first" is more proscriptive if there is alcohol visible, regardless of whether the people are identifiable or not. While it is not against the law to drink alcohol in public in Germany, it is part of the general discourse on privacy and self-disclosure that such pictures might harm you (e.g. if applying for a future job). In case of the "neutral" scene, however, social norms are

[25] However, there are such preventive technical check-up systems incorporated in the distribution process itself concerning textual contributions on Facebook, which are based on blacklists (cf. https://www.facebook.com/help/131671940241729). In contrast to that, there is no such differentiation based on the content when it comes to the distribution or publication of pictures on Facebook.

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in contrast to legal norms: Respondents tend to rather post the picture with identifiable than with unidentifiable people on it, while legal norms prohibit sharing a picture without their permission only as long as they are identifiable. Possible explanations for this contradiction might be rivalling social norms, such as "Do not post a blurred picture", grounded either in aesthetic reasons or in the assumption that a blurred picture might be regarded as suspicious. It is, however, beyond the scope of this empirical study to answer this question.

Furthermore, we identified breaking points in the sequences that the *code* provides for the realisation of our test case scenarios, where the user is forced to make relevant decisions during the action units like the selection of the audience or the final distribution. On these breaking points, relevant governance elements of the four factors tend, from time to time, to be in the same direction concerning the intended user behaviour, and sometimes they tend to be in different or opposite directions (e.g. the code of the "Photo Uploader" and the KUG norms).

5.2 Critical Reflection and Outlook

With our test case examination of the four factors *law, contract, code*, and *social norms*, we have been able to unveil a complex governance structure for "uploading a picture of a third person" on Facebook (with the standardised technical setting, on 10-28-2013, cf. fn. 13). The analysis and its reflection showed us that, firstly, *code* sets a framework by its forcing elements in which the scenarios that we defined as test case can be realised. However, *code* not just set a framework by providing only certain opportunities for behaviour but also governs behaviour in a much more subtle manner by interactive, pre-setting, and informational elements.

When it comes to *law,* we found that instruments of private regulation through liability rules are dominant in our test case and that command and control regulation just come into play in cases of severe violations of constitutionally protected rights. An explanation for this result could be that such severe violations trigger not just a private interest of the person affected but also common interest in sanctioning these types of violations.

Regarding *contract*, we have also found that only two regulatory instruments of private regulation and command and control regulation are realised in the ToS and

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CS of Facebook. Furthermore, the ToS only foresee two different forms of consequences. Thus, this factor can be qualified as structured in itself rather incomplex. That could be explained by the relation between *contract* and *code:* With its power to set the code, the provider has a functional equivalent right at hand to realise regulatory goals, which is far more effective than changing ToS when it comes to reaching those goals through adapted user behaviour.

However, the picture would not be complete if we would disregard *social norms*: In fact, this factor limits user behaviour that is technically possible, and the social norms are not completely in line with legal rules.

From the perspective of a public regulator, this insight raises in particular the question, whether of not and how *code* as a factor (or its creation process) can be approached by the regulatory means of *law* to shape this factor in a way that a better balanced governance structure will be established with regard to the regulatory goals of law, also reflecting the knowledge on the differentiated statements of social norms. But, when thinking about legal tools and measures to do so, we always have to keep in mind that a transfer of regulation from *law* to *code* always goes alongside with risks, as the process of creation and application of *code* is far less transparent and controlled by public observation and is also not organised democratically in most cases. Furthermore, users enjoy different freedoms like free speech and freedom of information while using Social Media, so certain measures of *code* regulation might be problematic with regard to those freedoms, such as preventive technical censorship in *code* via automated semantic picture analysis just to avoid any legal conflicts. Thus, to realise a balanced relation between *law* and *code* is a really tough task.

Besides those questions of governance in practice, a number of possible links to and question for further empirical research have been detected.

A natural next step would be to test the categorizations of elements of *code*, *law*, and *contract,* which we gained through deductive theoretical consideration based on the literature about governance and Social Media. This could be done in an analysis of the big sets of user data representing actual user behaviour, which are produced daily by Social Media services. Such an analysis would also provide

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insights on the factual governance effect of the four factors and on how the interplay and interdependencies of the four factors look like on the practical level.[26]

Based on that, we could then proceed to a second step, further approaching the central question of how the general governance structure of Social Media looks like by rolling out the proposed approach on different services and (therein) on different typical practices.

[26] Hypothesis for this empirical examination on practical level could be derived by taking in consideration the theoretical assumptions about the effectiveness of the different types of elements of the four factors.

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