

# Chapter 12

## Public Governance of Digital Social Media



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**Abstract** The process of digitalization is an inherent part of modern world society. Social relations face long-term deep changes fuelled by the spread of network paradigm and infrastructure of digital social media. The scope and penetration of the digital network society is so powerful and dramatic that any advanced public governance must have a clear understanding of this phenomenon and even elaborate comprehensive system of interinfluence for the sake of the citizens' interests – we call it a phenomenon of digital social twin.

Post-pandemic social architecture will rely greatly on social media which helps to maintain governmental control, to support business value and to provide for common people communication. Digital communication networks are becoming major mean to offset the risks of social distancing and other unseen challenges in social, economic, political and personal terms. Therefore, in the following chapter, we focus on the very dialectic nature of social media in smart cities concept through the analysis of key pros and contras of technologies interfering into social life, assessment of the public governance role with regard to social media and synthesis of applied logic that smart cities may use to retrieve maximum public value from digital communication platforms.

**Keywords** Digital social media · Digital social twin · Public governance · Smart communities

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## Introduction

Digital social media in its essence become social digital twin representing therefore not just a virtual phenomenon, but rather a complex substance, which needs to be governed as closely and effectively as any natural (analogue, offline) social communities. In this chapter, we state that digital social media in the era of smart cities cannot be studied as an infrastructural or communicative matter, i.e. functionally. It cannot be detached from its origins – the community itself. Moreover, we insist that the discussion of the possibility and approaches to the governance of the social media by public authorities has for a long time already surpassed the limits of prosaic issue of censorship. Traditional types of regulations (i.e. licensing) do not suffice the complexity of the matter which appeals for a thoughtful policy providing to the citizens both the freedom of self-fulfilment and the security in wide meaning of this term.

Unlike other types of digital twins (smart grids, BIM, intellectual control centres), digital social media (DSM) carry a property of less degree of predictability, but much greater degree of return influence, placing the matter of digital social media governance to a particular agenda of smart communities and demanding a particularly new set of measures, tools and professional competences from the public authorities.

We start our analysis with the study of the dialectical nature of the social media phenomenon. The systematization of theoretical fundamentals of network society and quantitative and qualitative analysis of digital social media points to the fact that DSM evolve into a primary matter of public governance in smart communities. In the second part, we present actual data indicating the level of the pervasiveness, power and complexity of DSM and derive the double-edge approach to this phenomenon. We also elaborate the constructive side of the DSM – the concept of digital social twin as the meaningful core of connected societies. The outline of the forms and methods of the DSM public governance, presented in the algorithmic way, suitable for applied use by local or regional authorities concludes this chapter.

## Methods

The methodological basis of the study consists of paradigmatic, systemic, structural-functional and logical analysis methods, conceptualization and forecasting. When working with data, the method of content analysis and logical-linguistic analysis were used, followed by formalization of the obtained information.

## Results

The very concept of smart society is built on the principle of digitalization – the introduction of an increasing number of technological tools into everyday life. When an information and technology come to the force, a change in relations and interconnections between people and surrounding objects inevitably occurs. Nowadays, DSM have become an effective means of social interaction since they preserve the essence of people's relations and at the same time represent a product of technical progress.

Quantitative analysis of current tendencies in DSM evolution reflects the trend towards the ubiquitous dissemination of online platforms in the near future. Qualitative examination shows that DSM wide functional coverage contributes to social transformation into online communities. This phenomenon explains the dialectical nature of online interactive platforms, which, on the one hand, may serve as convenient tool for facilitating public services provision. On the other hand, the advantages of DSM are used for ill-intentioned purposes such as cultivation of anti-social sentiments. In order to respond to existing challenges, both traditional forms and alternative methods of public governance should be applied. As dominating legal forms of regulation are ultimately reduced to licensing (prohibitions and censorship per se), new approaches are developed which presuppose the equal presence of the public governance in DSM with other users.

Despite the extensive list of methodological approaches of public administration in the sphere of social media, the current political agenda is narrowed to locally focused actions rather than comprehensive policies. The results of the research let us assert that the development of digital social media as a society's digital twin at the applied level means the extensive development of recommender systems of public governance – which is the matter of a separate study.

## Theoretical Fundamentals

The world is now moving to a so-called network paradigm, which along with technical progress and digitalization of every sphere of life leads to emergence of smart community. The gradual shift towards a new paradigm is changing the very basic social processes including social interaction which is being performed through technologies serving as a mediator between people. The primary role of this mediator belongs to DSM that are an organic component of smart communities and are seen as a functional base in a knowledge and technology paradigm.

DSM are a multidimensional substance defined as online platforms, the content of which is formed in an interactive format by all its participants. Such platforms include social networks, online mass media, blogs, microblogs, thematic portals, instant messengers, video hosting and forums. Conceptually, our understanding of DSM is based on different assumptions:

- In terms of communication theory, DSM are determined as an ambiguous term that unites various online technologies on the Internet that allow users to communicate and interact with each other (Gillen 2009).
- Another approach highlights the principle of general participation, stating that DSM are any Internet projects in the web 2.0 format, the content of which is formed by the users themselves in social networks, blogs, podcasts, websites, Internet forums, Wiki, video hosting, print, online and mobile products (Chumikov 2014).
- From the point of social responsibility, the defining feature of DSM is so-called UGC – user generated content which is generated not by the creators of the platform but by its users which considerably changes the whole paradigm of social responsibility (Grygiel and Brown 2019).
- According to socio-cultural approach, DSM are communication technologies that allow maintaining connections between people, as well as personal and cultural networks to which they want to belong (Schejter and Tirosh 2012).

Basically, the discussion on DSM is built around their initial structure – network, which may be regarded from different scientific perspectives:

- In philosophical understanding, the concept of ‘network’ is examined in terms of ‘knowledge resource’, place, role and meaning of information flows in the social structures, considering them an important foundation of the ‘coming post-industrial society’ (Drucker 1993; Machlup 1962; Bell 2004). The considerable contribution to the issue were made by constructivists, who devoted their works to the problems of dissemination and perception of information, communication systems, self-organization, the principles of circularity and organizational isolation and autopoietic and cognitive systems (Tsokolov 2000).
- In the field of late cybernetics (or post-cybernetics), the concept of ‘networks’ is based on the postulate of information interaction and influence, where signs and information semantic systems play a crucial role (Solomatin 1989).
- The systemic approach argues that network is a technical phenomenon of new communication technologies, the morphology of which is associated with the idea of information as knowledge that generates constructive changes in the system, the characteristics of its capabilities and the probability of further events (Nazarchuk 2008).
- The idea of a network paradigm formed the basis of the network society theory (Van Dijk 1991; Castells 1999; Craven and Wellman 1973; Simmel 1996). The definitions and concepts described in the writings of these authors are vividly embodied in ‘digital life.’

Interactive social platforms are defined through their various features and given their vital role in terms of social interaction. The principal function of DSM as technical tool is to mediate social contacts in emerging smart society, which is theoretically founded on the network paradigm.

## Discussion

DSM are characterized through a number of quantitative and qualitative features. Quantitative parameters reflect the scale of DSM proliferation, population penetration and geographic distribution, as well as users' characteristics (time users spend on platforms, age of users). These figures help evaluate the significance of digital social media at different social levels (global, national, individual).

In qualitative terms digital social media may be classified according to their origins and consequently their aims. Furthermore, DSM as a social phenomenon is characterized by features usually inherent to traditional society including social involvement. Users of the platforms are being engaged in certain collective processes similar to how people are involved in real-life activities. One of the most controversial matters is the representation of different actors on the online platforms with their corresponding goals.

### *Quantitative Analysis of Digital Social Media*

Currently, there are hundreds of social media which account for over 4 billion users worldwide (Statista Global Consumer Survey 2020a, b). They range from local use applications and special solutions designed for particular company employees to global digital giants uniting nations across the world. The group of majors are represented by Facebook, YouTube, WhatsApp, WeChat, Instagram and TikTok with the first most popular having more than 2,7 billion active users every month (see Table 12.1). The second and the third leading places are split between YouTube and WhatsApp with 2 billion active users as of October 2020. The most of these companies were launched in the early 2000s and have been growing and gaining popularity since then. The exclusion has come from China, where TikTok was founded in 2016 getting almost 0,7 billion users for the past several years.

Every large DSM is operated in the web and has a mobile version. That is why the proliferation of social media is related to the availability of access to mobile Internet.

**Table 12.1** Most popular social networks worldwide as of October 2020, ranked by number of active users (in millions)

Nº	Name of DSM	Number of users (mln)	Initial release
1.	Facebook	2701	2004
2.	YouTube	2000	2005
3.	WhatsApp	2000	2009
4.	Weixin/WeChat	1206	2011
5.	Instagram	1158	2010
6.	TikTok	689	2016

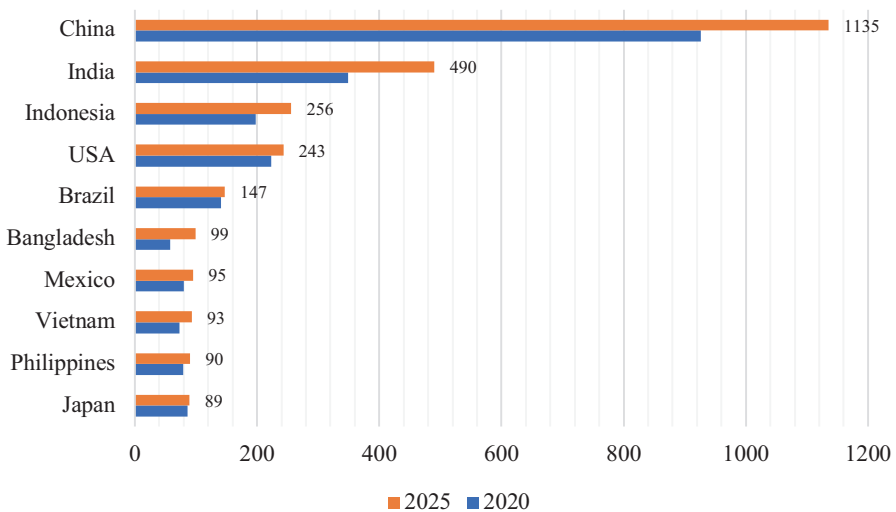
Open source: Statista Global Consumer Survey (2020a, b), Schejter and Tirosh (2015)

The most involved DSM users live in Asia (see Table 12.2). With about 926 million users from China in 2020, an estimated number in 2025 reaches 1,1 billion from this country alone and approximately 490 million from India. As for the other countries, the United States get the fourth position with 223 million in 2020 and 243 predicted in 2025.

Social networking is one of the most popular activities of citizens enabling them to keep in touch with friends as well as to catch up with the news. On average, Internet users spend over 140 min per day surfing social networks (Statista Global Consumer Survey 2020a, b).

In the recent years, Russia is one of the countries demonstrating high level of involvement in DSM. This country has the largest number of DSM users among all European countries that carry the following distinguished details: 78% of Russian Internet users have accounts on social networks, which is more than in the USA (75%), Germany (56%), Sweden (74%) and France (49%) (Lebedev 2018). In terms of demographic characteristics, the share of Internet users aged 12 to 24 in Russia amounted to 97,1% in February–November 2020. On average, 95, six million people, or 78,1% of the country's population over 12, used the Internet in Russia at least once a month. Daily, 87, 1 million people, or 71,1% of the Russian population, went online. Internet penetration in Russia among the younger population (up to 44 years old) in 2020 exceeded 90%, and among the youngest Russians (12–24 years old) approached 100%. Among the population 45–54 years old, 84.2% of Russians used the Internet at least once a month, and among the oldest residents of the country (55+ years old) only half – 49.7% use the Internet (Mediascope Web Index 2019).

**Table 12.2** Comparison of DSM users number predictions



Open source: Statista Global Consumer Survey (2020a, b), Simmel (1996)

## *Qualitative Analysis of DSM*

One of the core qualities of DSM is the establishing communicative and emotional connection among users. Online interactive platforms have considerable prerequisites for becoming the basis for lasting relations in the form of community. In fact, the scope and complexity of DSM structures, inter-influence that evolves between real and virtual communities, allow us to formulate a hypothesis of DSM as a digital twin of traditional societies.

Nowadays, social involvement as a phenomenon, which is a fundamental attribute of social media, is realized in a multidimensional system community. According to meso-level, a community consists of a certain number of individuals who are united by common interests. They also strive to achieve mutual goals and are to some extent willing to sacrifice their personal benefits (time, contacts) for the good of the group.

Interaction through DSM allows conversion of the physical contacts and meetings into a digital format. Nonetheless, everyone identifies the digital portrait (or digital twin) of a member with an original one. The definition of contacts is transforming and is currently understood as joint streaming, meetings and conferences in Zoom, Skype services, etc., whereas ‘likes’ and ‘reposts’ reflect and demonstrate group support and complicity in the life of an individual.

Similar to traditional reality, a community in virtual world has its boundaries and should be considered as a group: the so-called publics, channels and pages. Moreover, the access to these communities can be either closed or free, depending on the level of openness of the community to the ‘others’ and the ‘society’.

DSM have significantly changed not only interaction but also decision-making procedures, as this process is now often carried out in digital format. Today social involvement in smart communities is basically exercised through digital social media. The provision of public services via social networks, for example, the debates on traffic in a district or on the environmental issues both at the municipal and federal levels, proves the effectiveness and efficiency of decision-making process online. The coronavirus pandemic forced some governments even to hold elections via Internet. The DSM are recognized as a convenient means in decision-making process, and their role in this sphere is rising fast.

Digital social media include a broad array of technologies of a different morphology. Basically, they may be classified to four types according to the functionality:

- Messengers (e.g. WhatsApp, Facebook Messenger, WeChat)
- Social networks (such as Facebook, Vkontakte)
- Analogue media (converting into digital format and usually associated to the phenomenon of prosuming – simultaneous production and consumption of content)
- Special-purpose platforms (for music content sharing, professional local networks, electronic governments)

DSM may differ according to the actors or entities using them. The variety of stakeholders is important, since it predefines the purposes social media serve for. At the moment, the most influential groups of social-economic actors are citizens, businesses, NGOs and governments. Social media may enable the formation of the networks among these actors, yet their role in the process has received little attention. However, this is the DSM which play the role of transnational knowledge network providing organizations, authorities and people with information useful in addressing shared problems (Wukich et al. 2017). The groups of the actors presented in DSM pursuing diverse goals are systematized in Table 12.3 below.

The analysis of quantitative parameters demonstrates that DSM are a global phenomenon involving all the population of the world having access to the Internet. The cheaper the technical devices, the more people start social networking. DSM imply a wide range of technologies with different functional coverage, which contribute to social involvement reflected in communities built online. Social involvement is the highest level of social maturity represented by citizens' networking, which is defined or calculated by the number of people involved in decision-making. All the features mentioned above precondition the controversial position of DSM in modern reality. On the one hand, they are considered to be a convenient tool for mitigating problems and improving living standards of the society. On the other hand, global character of proliferation of these platforms seems scary as they are not restricted by anyone.

### *Destructive Essence*

Digital technology is identified as one of the major risks for the humanity (Global Risk Report 2021). This phenomenon embraces digital inequality, defense vulnerability, cyber security and socially dangerous behaviour promoted via DSM. Destructive behaviour of DSM users takes the roots in the digital format, crystalizes in digital communication, which eventually may lead certain people to

**Table 12.3** DSM goals and actors matrix

	Core goal	Social goal	Individual goal	Applied goal
Citizens	Self-realization and communication	Find 'soulmates'	Organize leisure time	Use for work and business
Business	Generate profit	Collect and monetize big data	Develop and scale business	Search for talents
NGOs	Social impact resolution	Search for activists	Create issue-related networks	Propagate the ideas
Government	Achieve common societal goals	Collect and research big data to adjust the policy	'Measure' social sentiment	Facilitate the provision of common services

Compiled by the authors



actions in real-life dimension. With almost unrestricted content flow, digital platforms are becoming a tool for unacceptable materials distribution that may directly or indirectly contribute to social instability.

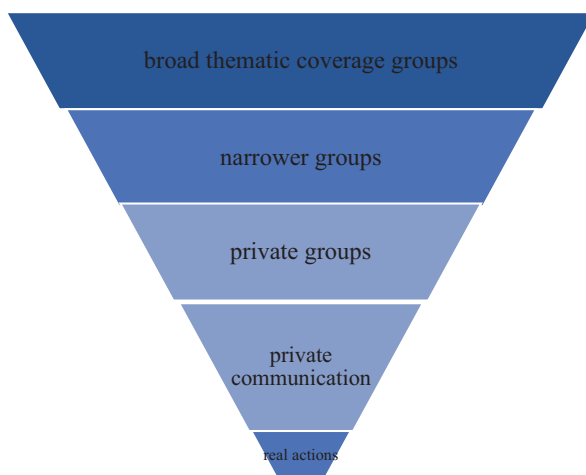
The so-called destructive content carries a negative message, implicitly pushing an individual towards generally dangerous actions or self-harm. It often starts in the form of rude humour – cruel jokes about death, murder and suicide. A targeted user can be exposed to the scenes of violence – physical, sexual, psychological – and images of illegal activities, such as drug use. Influenced by the destructive materials, the user becomes the object of direct psychological control by the distributors of these materials.

The involvement of users in socially destructive movements is a multi-phase process, and each of the stage may be examined separately. The primary impact on consciousness is carried out via certain techniques without a person noting that he or she is being involved in something extraordinary. At this moment, mental and psychological state of the individual is of vital importance. If a person favours an aggressive behaviour, he or she is more likely to pay attention to materials that are destructive in their essence and will be interested in membership in respective groups. Gradually, such person joins a number of violation-driven communities with the participants prone to deviant behaviour.

In marketing this method and mechanism is called ‘the funnel of engagement’ and reflects the sequence of stages of immersing a user in the environment of destructive content in virtual reality with the subsequent transition into objective, that is, demonstration of destructive behaviour in real life.

The graphic representation of the funnel of engagement is as follows (Fig. 12.1):

The level 1 of the funnel of engagement characterizes the stage at which a social media user joins groups of broad thematic coverage, publishing materials for the



**Fig. 12.1** The funnel of engaging in destructive behaviour in social media (Compiled by the authors)

widest possible audience. The content of such communities is usually accessible and understandable for everyone. However, among the jokes that seem harmless, materials with a destructive bias are concealed, for example, jokes about violence. Thus, the destructive content and the communities distributing it are attached with positive and attractive colouring. The share of such destructive messages may amount from 10% to 50% among in the total number of posts (Digital Hygiene 2019). There are no calls for any real action in these communities at this stage.

An interested user enters the second-level communities of engagement funnel. Such groups narrow the scope and plot of published content and focus on the preferences of their audience. Thus, they exert impact on the psyche of targeted audience. Each group is devoted to specific topics, and potential members join one of many according to the interests. The content is concentrated but has no direct calls to any actions yet.

After having been at the second level, gradually becoming the participants of the movement, users begin to perceive its culture and certain attitudes, follow the rules and understand a hierarchy established in such groups. They are considered ready to move to a new level, into private groups, where the regulation is more stringent and conducted by administrators. In addition, the procedure of joining implies the approval; it is not voluntary. Such groups heavily rely on recommender mechanism as they could potentially encourage users of open groups to explore relationships with unknown others by focusing on contact recommendation (Van Osch and Bulgurcu 2020). In order to remain a member of the community, it is necessary to demonstrate commitment on the regular basis participating in proposed activities, for example, challenges, voting, photo sharing, etc. Furthermore, there appear specific roles, hierarchy of power and signs of the subculture. The participants of such groups feel like being chosen; this impression is supported by different kinds of rewards.

The activities in these groups are organized with techniques and methods of manipulating users' minds to suggest specific ideas. The content is selected given the requests of participants and remains clear only to the 'dedicated' people. At this stage, it can be argued that users have propensity for destructive behaviour. There are also links to private chat rooms and channels in which participants are involved through various means of drawing attention and calling them to join private chats where instructions of real actions are distributed; most often dates and places of a crime-type action are recommended.

The fundamental difference between the funnel of engagement in destructive movements in social media from engaging in a destructive movement in objective reality is in the mechanism people get membered. In real life a person makes acquaintance with one of the participants and only then is accepted by the other members of the movement, whereas in virtual reality the user first adjoins a movement and then proceeds to personal interaction with followers.

This difference is important because new members are recruited faster and more effectively: the initial audience coverage is wider, which means that more people are likely to join as the large number of followers seems credible. Social media

appear an effective platform for involving people into destructive behaviour online that gradually passes on to offline.

The society faces the problem of destructive content distribution via DSM that results in dangerous actions of people in the real life. 'The funnel of engagement' scheme implies gradual immersion which starts with drawing attention to detrimental jokes and results in action dangerous for the person and his or her surroundings. In fact, this is the other side of the coin of social involvement which is opposite to the smart one. Instead of uniting in communities aimed at well-being enhancing, DSM may contribute to society devastation.

### *Constructive Essence*

Despite the risks accompanying DSM, they still must be regarded as opportunities especially in the frameworks of smart city concept. Digital social platforms are useful mechanisms of citizens' involvement in public problem detecting, agenda setting and participation in decision-making process. A profound approach towards DSM application suggests delegating a number of functions of the state to the platforms and even providing them with wider rights.

An interactive Internet space may serve as a thermometer of social wellbeing and tension for the government. The sentiments of citizens are broadcast on forums, blogs and social networks – on any platforms where involvement of the audience is available. Thus, the Internet reflects everything that happens in society (a concept of the so-called sociology one-to-one). Comprehensive monitoring systems of citizens' satisfaction (CMS) – smart systems of social networks monitoring and content analysing – serve for these goals (Kamolov and Smagina 2019). Such implementation is designed to show the correlation between local decisions and people's perception of them. CMS functionality includes:

- Measurement of the citizens' attitude towards the effectiveness of the implementation of public programs
- Classification of regions by level of satisfaction with the quality of public management
- Geo-tagging of problems within the implementation of public programs in the regions
- Automatic determination of responsible departments and the history of budget allocations related to specific geo-tag

As a result of the integration of social media and budget information within the CMS a universal tool for decision-making is shaped. Thus, clustering messages on a thematic and geographical basis allows focusing on relevant and important issues tied to their geographical location. The system allows decision-makers to determine the responsible authority and the causes for the citizens' dissatisfaction in real time. Analytical breakdown of the reviews into positive and negative lets identify a correlation between them and assess the quality of the implementation of decisions

taken. The thematic distribution of messages allows geo-localization of the problems revealed by Internet users and immediate actions to protect the legitimate interests of citizens. The rating system of local authorities implemented in the system enhances the effect of users' liability towards it as they are more likely to believe the rated or at least assessed information (Kim et al. 2019).

Another advantage provided by DSM for the smart communities' governments is an opportunity to transfer several functions to the online mode. A number of specific applications are already developed in order to improve citizens-government integration: online receptions, tele-consulting, online education and digital health. Nowadays, the concept of digital government is on the agenda that includes a full-fledged integration of DSM into the network of self-interacting neuro-computer systems and Internet of things. The basic principle of the digital government implies elimination of the intermediary, which allows citizens and enterprises to directly connect to government systems, thereby eliminating the asymmetric distribution of information and significantly reducing corruption risks in the provision of public services. The so-called Facebook assessment index shows that communication strategy of local authorities on social networks among other things determines its popularity and citizens' liability to them (Miranda et al. 2018). Thus, DSM have become one of web-integrated services, implying the integration of electronic cross-services with a high level of transparency for citizens.

DSM as a social twin per se is becoming a part of a broader concept of digital twin of a nation often referred as a private virtual state (Fountain 2020). Digital platforms let governments operate on a global scale even with limited resources. Moreover, they contribute to electronic services provision to the citizens across the whole globe. Since digital platforms are represented almost in each country although without having their physical office, they may serve as embassies or consulates. The absence of territorial binding gives them an opportunity to act globally irrespective of jurisdiction.

Thus, DSM at the global level provide people with significant opportunities that can be advantageous for different stakeholders. Among others, the government gets the most considerable benefits which when combined upgrade the state to a new quality level. It is gradually transforming to the digital form transferring its activities and services to the online mode. Nowadays, the era of digital state is coming with social networks as the core element organizing interaction between the government, citizens and business. The appropriate social media strategy applied by authorities contributes to higher interaction rate, engagement and awareness (Prasetya et al. 2019). DSM are playing a significant role in the emergence of the private virtual state free of physical boundaries and jurisdictions. In fact, they enhance globalization eliminating common barriers and facilitating the government functions performance.

## *Traditional Forms of DSM Governance*

From the moment DSM have emerged until developed into giants of the internet space, the state has been defining its attitude towards them. Against the backdrop of the growing platforms success, it seemed that they have stayed under control. Today the platform owners have at least technological capacity to dictate their own rules to the users (Isaak and Mina 2018), leaving the state without full-fledged immediate leverage to manage them.

The time lag between technological process and law-making has preconditioned the problem of lack of control. The speed of the Internet environment emergence has been outpacing the elaboration of corresponding regulatory frames. The platform owners have benefited from legal gaps and acted in the conditions of the absence of formal regulations. The faster the development of social media proceeded, the more the state 'lagged behind' in attempts to limit this development or at least influence it in some way.

The governance of the sphere of DSM is based on the set of forms and methods which are the subject of this part of the research. In the forms that are defined as external, typified expression of the practical activities of state bodies and officials in terms of formation and implementation of managerial goals and functions (Ohotskij 2016), there exist legal and organizational forms.

Currently, legal forms are dominating in the field of DSM governance. They may be divided into several categories depending on the sphere of regulation:

- Confidentiality
- Personal data protection
- Intellectual property rights
- Antitrust legislation
- Electronic public services
- Freedom of expression
- Public opinion shaping
- Political and electoral issues
- Protection for children on social media

A comprehensive legislation of supranational character aimed at the regulation of data collecting and operating has been actively developing during the past decade. The General Data Protection Regulation, often referred to as the GDPR, was adopted in 2018 based on the European Union Data Protection Directive 95/46/EU (1995) (General Data Protection Regulation 2018). The GDPR is regulating the activities of the companies established in the EU and processing personal data (i.e. subsidiaries located in the European Union). The GDPR is also applicable to organizations which activities is related to the provision of goods or services to EU personal data subjects. For example, websites available in the EU in the language of a member state are subject to this rule. The regulation is also applied to organizations related to monitoring the behaviour of personal data subjects.

However, the implementation of legal forms in the field of information security and personal data does not guarantee the comprehensive security. There is another sensitive problem which may be disclosed by all who once entered any social media. The GDPR and similar documents are aimed at protection of rather tangible matters as data, whereas the content of social media may impact directly on people. In the current conditions of unimpeded distribution of destructive content in the network, the security of users is challenged. Despite the number of different regulating acts, none of them may ensure that a user would not face uncomfortable posts logging in his or her account. The first steps in the regulation of the Internet space over the past two decades have already been taken by different countries. Awareness of the need to regulate human activity, as well as other actors in the open spaces of virtual reality, was developing gradually. This can be traced to the periods of the emergence of various legal acts in the jurisdictions of the countries of the world.

In the United States in 2000, the Children's Internet Protection Act 2000/ American Library Association Act (Children's Internet Protection Act (CIPA) 2020) was introduced to filter Internet content in schools; in the United Kingdom in 2003, the Law on Electronic Communications (Communications Act 2003) was implemented, which oversees the creation of an independent regulator of communication space; Japan passed the 'Act on Development of an Environment that Provides Safe and Secure Internet Use for Young People' (Act on Development of an Environment that Provides Safe and Secure Internet Use for Young People 2020), which controls providers of mobile Internet services to young people; the Russian Federation implemented the Federal Law 'On the Protection of Children from Information Harmful to their Health and Development' (Federal Law On the Protection of Children from Information Harmful to their Health and Development 2020), which provides for the categorization of information products and the ban on its dissemination among children; in South Korea in 2015 appeared the Enforcement Decree of the Amended Telecommunications Business Act (Enforcement Decree of the Amended Telecommunications Business Act 2020), obliging parents to install special Internet content filters on children's smart phones. In 2018, in a joint communiqué, the United Kingdom and France agreed on a joint action plan (United Kingdom – France Summit Communiqué) to increase the effectiveness of identifying and removing content that regarded as terrorist, radical or hateful.

The legal form of regulation is dominating; however, its shortcomings are getting clearer. The legal acts are reduced to censorship and mostly aimed at protecting content consumers rather than stopping destructive content production. An efficient management should be aimed at both reasons and consequences prevention. Thus, the legal form of regulation is to be complemented with institutional and organizational ones which will constitute a comprehensive approach of DSM governance.

### *Alternative Methods of DSM Governance*

Based on the concept of digital social twin of traditional society, the DSM governance mechanism may be exercised on the basis of techniques of power-control influence aimed at streamlining public relations within established boundaries.

In contrast to traditional society, its digital twin requires specific governance methods due to several reasons. Firstly, DSM are too large, ephemeral and dispersed to be managed by common regulatory instruments. Traditional regulating processes are not able to provide an adequate response to modern complex global matters such as DSM. Globalization has led to the point when it is not always possible to adopt national laws regulating the activities of social media effectively in all countries. The inability of nation states to manage social media on a global scale is sometimes called 'regulatory vacuum effect' (Weber and Newell 2014.).

Secondly, DSM are a complex global network with a large number of multi-level nodes, the size of which makes impossible to exercise governance simultaneously and almost everywhere. The essence of social media is an aggregate that may be managed only with the help of aggregated approach that would reach each element of the network.

Thirdly, a close dependence of political agenda on the activity of social media users. One of the most significant features of DSM is considered user-generated content (UGC). The unification of people sharing content launches certain collective processes which stimulate a political potential which is capable to challenge the public governance system in terms of scope, coverage and access to citizens. The speed of information distribution in the network and the synchronization of many processes may cause unexpected effects with the government unable to response all the challenges.

These distinguishing features of DSM cause the discussions on the alternative regulating methods which may not be attached to a certain common methods classification and based on the principle of state involvement in DSM, equitable participation in digital life with other users of social networks. Such approach comprises the methods of monitoring the processes occurring online, collecting, aggregating and interpreting data from DSM, forecasting and modelling users' behaviour and stimulating digital platforms to impose their internal rules and codes of conduct.

First of all, such strategy involves monitoring of communication and content sharing on social networks and transferring interaction with the citizens to the online mode. In an ideal scenario, the government does not only monitor the processes but also participate in them as an entitled member, thus staying tuned and taking measures locally if necessary.

An extended strategy also includes working with the obtained data, modelling users' behaviour as well as forecasting the agenda based on the analysis of opinions. However, this set of methods has its own disadvantages primarily related to the ethics issues. On the one hand, monitoring can help to adapt the political course in accordance with the needs and requirements of citizens. On the other hand, social



media monitoring involves analysing messages of individuals on virtual platforms that they can perceive as an intimate space (Bekkers et al. 2013).

In order to keep the processes occurring online under surveillance legally, the government has to come in to DSM. In the information society, the state transfers a part of its activities to the online mode, gradually converting into e-government. Some scientists insist on the new ontological understanding of this phenomenon, which they call web-ecology or ecosystem (Helmond 2013). The online government ecosystem also includes government social media account.

A 'self-regulation' mode of DSM is regarded as one of the effective methods to improve governance in this sphere. In this case, a digital platform acts as a legislator and compels everyone who wants to become its user to follow the rules. Such a prospect may be also beneficial for the platform. Firstly, it can build up its reputation and attract new users. Secondly, trust and loyalty to the platform will increase, and thirdly, it is likely to become a source of legalizing rules. It is especially important, since the policy changes implemented by a company may be potentially taken as a model at the national level. This seems to be significant advantage due to the differences in national legislations. At the same time, companies are able to determine the rules independently in accordance to the jurisdiction.

Another method is the principle of redistributive justice which facilitates the contribution of the public goods (Schejter and Tirosh 2015). Properties of social media should not be limited in any way; citizens must enjoy a wide access to the media. DSM become a source of the information never available before: for example, the population of remote regions or minority groups media can draw attention of the government to their problems through DSM. In this context, social networks sustain natural balance giving voice to those who have not been heard before the digital era.

In conclusion, traditional form of legal regulation adopted in DSM is applied: data protection, cybersecurity and prevention of sensitive content distribution. New approaches are developed which presuppose the equal presence of the state on DSM with other users: full-fledged participation of the government in the online life with the ultimate goal to forecast the agenda and to model people's behaviour based on the analysis of DSM content. Digital platforms themselves may be regarded as governing bodies since they are those who define the code of conduct and are able to force users to obey it. Finally, an approach based on redistributive justice theory presupposes the minimum control since it contradicts the very essence of information society nature. To conclude, it might be the system of check and balances that could be implemented for efficient governing of DSM, which is initially based on the legal form of regulation and would be further developed with the help of alternative governance methods.



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