

The Sixth Estate – The Rule of Algorithms

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On the basis of the analysis of numerous texts and social phenomena in which the hermeneutical method is applied, we would like to present the following article on a phenomenon that can be observed in new media. We have referred to the phenomenon as the Sixth Estate, the rule of algorithms. Nowadays, digital mechanisms applied for selecting contents, controlling consumer and political behaviour reach far beyond the limit of a marginal phenomenon, and they readily join the mainstream. With the appearance of the Sixth Estate, some other phenomena can be observed, such as mythologisation of abstruse digital mechanisms which interact with a human being, and network cyborgisation. “The rule of algorithms” emphasises the role, or to put it more precisely, the growing hegemony of new media organisations and software developers who work for them, and the will to conquer new fields which have so far seemed to be the bastions of human activities, as it is in the case of the “robo-recruiting” that has just appeared.

Keywords: the rule of algorithms, new media organisations, digital humanities in management.

Szósta władza – rządy algorytmów

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W artykule, na podstawie przeprowadzonych hermeneutyczną metodą analiz tekstów i fenomenów społecznych, przedstawiamy rodzące się zjawisko w nowych mediach, a mianowicie coś, co nazwaliśmy *The Sixth Estate* – władzę algorytmów. Stosowane dzisiaj cyfrowe mechanizmy doboru treści, sterowania zachowania konsumpcyjnymi i politycznymi ludźmi przekraczają granicę zjawiska marginalnego i wchodzą do mainstreamu. Równocześnie rodzeniu się *The Sixth Estate* towarzyszą takie zjawiska, jak mitologizowanie niezrozumiałych mechanizmów cyfrowych, które wchodzą w interakcje z człowiekiem, a także cyborgizacji sieci. „Władza algorytmów”, podkreśla rolę, a lepiej by powiedzieć coraz większą hegemonię organizacji nowomediowej i pracujących dla niej programistów, a także chęć zawłaszczania coraz to nowych obszarów, do niedawna wydawać się mogło, bastionów ludzkiej aktywności, jak ma to miejsce w przypadku rodzącego się właśnie „robo recruiting’u”.

Słowa kluczowe: rządy algorytmów, nowe organizacje medialne, humanistyka cyfrowa w zarządzaniu.

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1. Introduction

This article is theoretical in nature. Its purpose is to analyse the basic factors and elements that make up the concept of “the 6th power” proposed by the authors – the power of algorithms, a constitutive relation in the post media environment dominated by mythologised new media organisations.

The main research problem is the answer to the following questions: what technological or social phenomena and their rhetorical interpretations are unique to the digital media environment, i.e. were not present in the traditional environment of mass media? what are the characteristic, yet universal – given their commonness – features of relation of power between the new media organisation and men?

Research on the functioning of media urged us to formulate a hypothesis about the development of new post media relations: the 6th power founded on mythologisation of new media organisations, their potential, omnipotence and mystery.

The concept of media as the Fourth Estate is commonly recognised, and expert literature on this subject has been collected for over two hundred years (Schultz, 1998). The Fifth Estate is formed by public relation activities which affect the informational agenda, particularly, if we consider the growing demand for information caused by the appearance of 24-hour news services (Turner, Bonner and Marshall, 2000). However, it has become more popular to refer this term to social networking media (Cooper, 2006; Dutton, 2009; Newman, Dutton and Blank, 2012; Nimmo and Combs, 1992). They allow users to communicate in a direct way and to access alternative sources of information (Livingston, 2011). As William Dutton (2009) states, these are the networks individually developed by their users. This concept directly refers to Manuell Castells’ “space of flows” (1989). He observes that our times have been dominated by the culture which displaces the nature, and social interactions are of cultural character too. Social organisations are based on information and the flows of news and images among the networks come as its most important building material (Castells, 2009a).

The concept of the Sixth Estate that we wish to introduce here is based on the phenomena which occur in the contemporary world of media and communication:

- mythologisation (in a sense which has been assigned to this term by Roland Barthes, 1972) of new media organisations;
- the concept of IT algorithms which are “perfectly transparent”, that is namely: that users are truly convinced that they communicate with each other in a direct way, without any intermediaries such as invisible media organisations.
- exercising the rule – that is not realised by network users – by some invisible and abstruse algorithms;
- cyborgisation of the new media.

Indirectly, the concept of the Sixth Estate emphasises the limitations and the lack of precision pertaining to the concept of the Fifth Estate which is founded on the idea of user empowerment and media democratisation. “The rule of algorithms” stresses the role, or to put it more precisely, the growing hegemony of new media organisations and software developers who work for them.

The presence of users is an indispensable condition which is, however, insufficient to constitute the rule in the context of media. Nevertheless, it retains the appearances of freedom for users, which means the power to manage one’s own time, transactions or the selection of contents which users wish to learn. At the same time, the IT mechanisms of controlling such choices, suggested offers of products and services related to advertisements, news contents adjusted to the IT profile (e.g. Facebook) remain hidden.

2. Methodology

Hermeneutics – as propounded by Martin Heidegger (1927/2008) in his *Being and Time*, and later on by Hans Georg Gadamer (1960/2004) and Paul Ricoeur (1981) – defines a new ontological dimension in which *Dasein* (“being-there”) means an attempt to understand oneself and the world. Recognising is referred to by Heidegger as a way of existence, being-in-the-world, whereas understanding is determined by the openness of *Dasein*, which refers to the whole being-in-the-world. Such ontic recognising and understanding come as the source of hermeneutic revealing of social reality, which is a basic research method we have applied. While writing about hermeneutical awareness, Gadamer (1960/2004) indicates its most important feature: it allows us to notice problematic issues.

Applying the method of hermeneutic understanding towards organisations seen as texts and symbolic networks of signs and metaphors, we have aimed at a holistic approach to a new phenomenon which appears in the media (Gadamer, 1960/2004; Ricoeur, 1981, 1978). The basic research task we defined while working on the following article was discovering metaphors and symbols which characterise the world of media organisations, and which reveal latent intentions and mechanisms used by such organisations toward users. Such an approach is consistent with the assumptions of the symbolic method applied in the research on the organisation. As Antonio Strati (1998) states, the symbolic method is a process in which the social construction is revealed. The social construction is created in organisations by people, and it consists of symbols, values and beliefs. Symbols will not be present in an organisation as long as they are discovered or invented. To discover them, however, it is necessary to reveal the essence of an organisation by the hermeneutics of texts. Thanks to myths, which are of constitutive character for an organisation, we can subsequently remove complexity which hinders us from understanding the phenomenon. Then

we can reach the essence of the story. Myths also illuminate the aesthetic side in the life of an organisation with the use of language and poetry forms (Strati, 1998). The interpretation of texts was carried out with the use of the symbolic interactionism method (Symbolic Interactionism and Cultural Studies) (Denzin, 1992). It has allowed us to reach the mechanisms of forming conceptual structures by capturing the processes pertaining to the evolution of symbolic meanings which organise the structural order of our research subject. Our analysis of the source texts and the literature review have been carried out at several levels: at the most obvious informational level, at the philological, semiotic level of meaningful language and rhetoric figures, and at the metaphorical, symbolic and ideological level as well.

3. Media and Technology

The research on the mutual relations of technology and media management has been carried out for over fifty years. Among some modern concepts, the achievements of *Science and Technology Studies (STS)* (Hackett, Amsterdamska, Lynch and Wajcman, 2007; Jasanoff, Markle, Peterson and Pinch, 1995; Sismondo, 2009) deserve some particular attention. In a theory presented by Sylvia Chan-Olmsted (Albarran, Chan-Olmsted and Wirth, 2006), where internal and external factors affecting an organisation are presented, the author defines the internal factors as the traits of an organisation, traits of media technology, strategic relations, the perceived strategic value, available alternatives, market environment, competition, and regulations/policy. Among external factors which refer to the STS, the author describes the way of understanding the impact of technology as an amalgamate of social, technological and structural factors.

The specific relations which occur between a media organisation and media users are put into a concept of collective intelligence (Lévy, 1997). With the development of research on this subject, this concept is becoming more and more significant, and it has been added a new element, that is namely: computational intelligence (Poole, Mackworth and Goebel, 1998), which suggests that some cooperation between people and computers is involved. Collective intelligence does not refer just to people any longer – it also refers to the machines they use. It means that the notion of a network needs redefinition. It can be no longer defined as relations developed among people with the use of technology. Now technology must be treated as an outright participant, or to be more precise: an outright actant of such relations.

4. Rhetorics of Rule Replacement

The great change that comes from thoughtless media consumption to participation in their formation and distribution is accompanied by the evolution of rule exercising. Independent and organised into various alli-

ances, the Internet users bring life into the concept of participation in public life. The notions such as “pro-am” (a mixture of professional and amateur competition) allow us to understand the change even better (Bruns, 2013). The differences between media creation and consumption become blurred in the same way as the differences between work (understood as a form of enslavement and subordination) and culture (understood as an artistic form of expression in independent creation and social liberalisation). Relations between media organisations and users may come as a manifestation of a dialogue conducted by two equal parties, empowerment of users and the loss of monopoly held by media organisations to create and provide information.

Participation in creation and distribution of media becomes a catalyser of power and the level of the power share depends on the level of users’ involvement in creation and distribution of media products. It also means that the lack of users’ activity should be interpreted as the evident imbalance of power relations (Carpentier, 2011).

In the concept of the 2.0 media, the revolutionary character of the change, which affected the users’ role and made it central, is frequently emphasised. In 2005 Kevin Kelly made a statement in “Wired” magazine: “We are the Web... this is the rule of people” (Kelly, 2005). Thanks to modern technologies, declarations of the empowerment of the new rule and new roles in the society are widely applied in marketing, and they lead to some deterministic demands toward Web 2.0 as the empowerment of users, and formation of a more democratic society. The new media are supposed to be accompanied by the revival of the idea promoting civic participation. Such an image comes along with an equally attractive vision of an alternative public sphere, freedom of choice and social behaviour which constitutes almost ideal social governance which is supported by the possibilities offered by the new media.

The collective nature of the network relations in new media makes Kelly proclaim “the collective awareness”, work without any supervision, the Internet as the environment of common self-organisation in the whole social system of unlimited possibilities of human mind (Kelly, 1994). In such circumstances, empowered users naturally aim at common, joined activities, and they share their experience. The easiness of such sharing results in the fact that the pursuit of common experience leads to the independence of current consumers from any organisations and to conscious choices which have not been made so far, and which are based on users’ own experience – not only on the promises and experience taken from the mass media. It also allows consumers to take control over the formation of their own experience with media products and services (Reider and Voss, 2010).

Indeed, some significant cultural and social changes are related to the fact that the Internet and WWW appear more and more frequently as a construction system for various communities on such platforms as Face-

book, MySpace, YouTube, Google, Blogger, Rapidshare, Orkut, Twitter and many others, and less frequently as a system of information transfer. The Web 2.0 determines the advantages of the Internet, it makes the exchange of various contents possible, and it contributes to the achievement of a network effect – as Tim O’Reilly (2007) writes – through “the architecture of participation”. It becomes more socially oriented, it offers its users richer experience, greater cultural variety, it contributes to the disappearance of barriers that can hinder users from participating in culture.

The use of collective intelligence also enhances the potential of participating in democracy (Bruns, 2008). It contributes to “economic democracy” in which everyone plays the leading role, as Don Tapscott and Anthony D. Williams (2008) claim in their manifesto. In the light of such statements, participating in democracy is not limited to political choices only, but it also means active economic and cultural participation. The Internet has become the environment of quickly developing business. “The shift of rule” from media organisations to media users complements the opinion that an individual media creator equipped with the access to information may become a real competitor because such a person can individualise values in a way that was unimaginable two decades ago. Thanks to the Internet, the creator has the access to the same information as media organisations.

5. Literature Review

Among various analytical approaches which are useful in the research on the impact of algorithms, we may refer to the sociological reflection presented by Anthony Giddens (1984) on the concept of “structuration”. People’s actions and discourses influence social systems but they are also in turn influenced by social systems. Considering this point of view, algorithms as elements of technology may be perceived as a part of a system as well as social activity, which remain in a mutual dynamic relation. This concept is also referred to by Wiebe E. Bijker (1997), who writes about „technological frame”, and Wanda Orlikowski and Debra Gash (Orlikowski and Gash, 1994), who present the concept of „technological frame of reference”.

Algorithms can be analysed from a different point of view, which refers to the concept of actors – networks (also referred to as nonhumans sociology) (Latour, 2005), which discusses the self-agency of so-called actants, namely: also computers and machines. Its authors emphasise the significance of an unstable material and semiotic network – not only the objects. As Bruno Latour believes, network should be understood as a series of transformations/translations, and an actor is a person or an object (for instance, an aggregator or an algorithm) who/which acts. Since there may be some misunderstanding about the subjectivity of an actor, the notion of an actant is often applied.

Scott Lash (2002), in turn, states that humanities and social sciences have run out of their explanative abilities in the face of the IT revolution. He refers to the critical theory but with a stipulation that this theory also does not make it easier for us to understand the essence of changes in the face of the fact that various interpretations of the discourse, rule and manipulation are turning into cybernetic (and physical) phenomena. Therefore, the time has come to provide a critical theory of information and software studies with cultural decoding of the informational and communicative system. The critical tradition refers, first of all, to the media culture of pre-algorithmic era. When information and disinformation become two complementary states, the border between them becomes blurred.

Christopher Steiner (2012) provides an analysis of the significance pertaining to algorithmisation of various fields of human life, especially those which are connected with market relations or workplaces. The conclusions drawn from the analysis are similar: algorithms are able to shape life of communities and individuals, they are “actors” which interfere with cultural and communicative processes. The assessment of such impact, however, happens to be different and sometimes quite the opposite.

Scott Lash (2002) presents the concept of “the binary rule” based on which he constructs the idea of the rule as hegemony and domination through ideology and “the post-hegemonic era” in which the role of an external hegemon is gradually reduced. The change of the paradigm consists in the fact that the resistance to compulsion is replaced by domination of activity (users fill in the space in which the resistance previously developed). By the configuration of algorithms, informational organisations which apply algorithms urge their users to be constantly active. They have developed a perfect system of reminders.

The power of algorithms does not mean that they are omnipotent and ubiquitous. It means that they can affect the environment in a way and range which are difficult to verify. The rule of algorithms does not replace the current forms of the authority – it rather completes them. However, it does not change the fact that it takes the form of total common power, set in everyday, routine behaviour manifested in activities realised in social networks, for example. Characteristic for the Web 2.0, the profiles created in such social networks come as a place where the information about the users is collected. This is the universe of their activities, choices and preferences. Such information collects thousands of applications located, as Lash defines it, “inside” our everyday reality, providing routine communication.

In this context it is possible to analyse the way in which algorithms affect our everyday life, especially if we consider the fact that most of such communication is invisible. “In highly developed and networked societies ... human awareness comprises the tip of a huge pyramid of data flows, most of which occur between machines” (Hayles, 2006).

The concept of the Sixth Estate (the rule of algorithms) is embedded in the institutional theory. As Christian Katzenbach (2012) states, the algorithm may be treated as an institution in the light of this theory. In fact, an institution may be understood as an abstract, procedures, standards or guidelines. The division of institutions into regulative, normative and cultural and cognitive ones may be helpful in accepting such an intellectual construct (Scott, 2014). When an institution has a dimension of social standards and tasks, but also the means to realise them, our attention is concentrated on the values and beliefs presented by the community which creates this institution. The complementary cultural and cognitive dimension is focused on the mechanisms of creating common meanings and knowledge. An example of such an institution may be journalism which can be interpreted as a set of standards, procedures, knowledge, skills and practice (Langlois, Elmer, McKelvey and Devereaux, 2009). Media technologies with their algorithms can be also considered as institutions, because they have a regulative dimension (they affect communicative behaviour and preferences), they affect the volume of production, its scope and range, as well as its distribution. Considering the institutional theory, the limits of the decision making processes are important together with the scope in which the activity of algorithms limits human actions, for example the influence of the recommendation system on getting familiar with alternative opinions.

6. The Rule of Algorithms

Network users notice algorithms in action when they suggest getting acquainted with “friends”, when they select displayed information or recommend books and drama plays, when they remind us about our friends’ birthdays and about any other scheduled activities the traces of which have been left on the Internet. They are less visible or totally invisible when they construct our reality, they create articles and generate information, at the same time directing human activities, they control interactions, emphasise some contents and exclude others.

The basic function of algorithms is providing help in moving around more and more complex and fragmented environment. In this process, searching and systems of contents recommendation are of crucial significance, as in the face of rapidly growing offer all previous forms of searching proved to be inefficient. The influence of algorithms is however much wider. Algorithms create our social reality, common knowledge and systems of beliefs. It mainly refers to the search machines, the algorithms of which function as constructors and codifiers of knowledge. Here, the dominating role of Google is particularly distinctive in categorisation, organisation and presentation of information. It has made numerous researchers formulate an opinion about “googlisation of everything” (Vaidhyanathan, 2012).

Undergone the processes of mythologisation (Barthes, 1972), algorithms not only “rule the world”, the fact which itself drains all the metaphorical expectations related to exercising power, but they also act as guardians and agents of freedom/self-rule of network users as well as the control over such self-rule. They are useful, or indispensable actually, because they “set us free from the necessity of sorting irrelevant results” (Spring, 2011).

These general statements are followed by a modest scientific reflection. On one hand, we have a great number of pragmatic studies on application and, more widely, on computer science, whereas the research on social and political consequences of the algorithmisation phenomenon is rather scarce.

6.1. The Essence of the Algorithm Rule

Considering the analysis of texts and hermeneutic interpretation of the Internet contents, our research allowed us to define the features of power exercising performed by algorithms in new media. At the same time we were able to define a phenomenon which we refer to as the Sixth Estate – the rule of algorithms over the state of human awareness and the power to make judgements. It is significant that each of the characteristics presented below can be deemed paradoxical, in the sense that they can be considered friendly or hostile to a human being, depending on the intentionality related to the attitude toward such values as freedom and privacy of an interpreting person. Therefore, these characteristics are placed between the quotation marks to emphasise their aporetic nature.

Objectivity. The autonomy of decision making performed by algorithms. The objectivity of an algorithm is related to the image of digital environment – perceiving the Internet as the space which is detached from everyday relations of power referring to sex, sexuality, race, ethnicity or social class. Although these utopian assumptions are two decades old, and the online world is nowadays considered to be deeply rooted in our everyday social relations, the functioning of algorithms is still accompanied by mythical thinking which separates them from human interference and imperfectness. Although created by people, algorithms are supposed to be socially unadulterated: free from any prejudices, weaknesses, evil opinions and intentions. This, in turn, may provoke some questions about their neutrality, justice, and objectivity. The phenomenon of “objectivity” becomes clearly visible in generating algorithmic journalist contents. Articles are not created by educated journalists; they are only based on user search requests. While analysing normative commitment of algorithmic journalism, Chris Anderson (2011) indicates the fact that such a practice is based on very dispersed big data. During the process of gathering and translating data, the difference between the human being and the machine becomes blurred. In the collecting process such contents, created by people and by the machines are treated in the same way. Judgements are also mixed. Unlike aggrega-

tion journalism, algorithmic journalism does not aim at the improvement of individual knowledge level through better information or filtration of incorrect information. It is also related to the phenomenon of ignoring sets. For algorithms, databases (such as for example archives) come as a set of data which may, but do not have to, be found.

Invisibility. Limited visibility of the user (and contents) for other users of a network. In the context of mass media, visibility is presented with the use of such notions as framing and gatekeeping (Entman, 1993; Lewin, 1947; McCombs and Shaw, 1972). The influence of algorithms on the Internet is displayed in the concept of a filter bubble, which is supposed to deliver and match media contents with the taste of a particular Internet user (Pariser, 2011). Such a practice leads to a trap of separating information that is inconsistent with the opinions and beliefs, isolating users from the contents which do not match their previous Internet interests.

Invisible filters of algorithms, which function in the name of contents customisation, are supposed to be a new specific form of an old practice in which the contents considered – this time by an algorithm, not by a journalist, an editor or media owner – as inadequate for the user's profile are rejected, of course for the user's "good." Algorithms also perform the task of "social sorting", as David Lyon puts it (Lyon, 2013). Such a practice may be interpreted in the context of "governmentality" suggested by Michel Foucault (Foucault, 2009). It refers to the rational techniques and procedures of managing human behaviour, as well as to the access to knowledge, its internalisation, selection of values performed directly and indirectly by those who have constructed them. Thus, the Internet offers new forms of limitation and visibility correction. It may encourage an analysis of the influence of algorithms and, in general, a sociotechnical actor, in practice and experience of network users (Chun, 2011; Kitchin and Dodge, 2011). Such research is indispensable, because the Web 2.0 is regulated by various types of sorting and filtering performed by decisive algorithms which can be experienced on the Internet by its users (Beer, 2009). In such circumstances, it is possible to consider Wendy Chun's suggestion that we cannot "see the software" because it is a set of heterogeneous relations (Chun, 2011). As algorithms come as sets of too many elements, it is crucial to understand the "operational logic" of an algorithm. It is not necessary to know all the technical details of the system operation to learn its logic, its priorities, limitations and then to start a critical analysis at the theoretical level.

Persuasiveness. Encouraging "participation" and even hyperactivity when facing the danger of invisibility (Langlois, 2012), which can be referred to what Nicolas John describes as activity forced by the fear of "disappearance" (John, 2013). The main problem of users is the lack of their own visibility. Popularity, a status of celebrity and fame have become rare and desired values. The imperative, or tyranny of "sharing" media contents

and personal data in the name of participation in the universe of “friends” and “acquaintances”. Users adjust activities to their own images of how algorithms work. These images are presented with the use of metaphors employing “rivers” or “forces of nature” (also the flood metaphor) – neither “ways” nor any other infrastructures which could be changed by human interference (Nguyen, Hui, Harper, Terveen and Konstan, 2014).

Omniscience. Recommendation of contents selected by algorithms as “the most suitable” and meeting users’ needs and expectations (for example on Twitter) comes as arrangement of an everyday agenda setting. Facebook, Twitter, Google News, Yandex and many other Internet platforms become the basic information sources, and their algorithms decide about the selection and sequence of the displayed news, they have also significant influence on forming opinions.

Expertism. The support of recommendation systems. A disadvantage of these systems comes with the fact that they decrease creative abilities and possibilities of learning by supporting previous beliefs. Their adherents, however, emphasise that users cannot search for products they have never heard about, and therefore recommendation systems have an important informative value, and they balance awareness with newness. The research on such systems refer to, among others, MovieLens, and its results show that the systems reduce the effect of “a filter bubble” (Nguyen et al., 2014).

6.2. “Harnessing” the User

On one hand, the changes in the new media ecosystem contribute to democratisation, broadening the possibility of participation for particular users, of presentation of one’s own arguments and learning about other arguments. On the other hand, media organisations tend to increase their range by mergers, takeovers, synergies and the use of brands and copyrights in all the media distribution channels. Such tensions result in the concentration of power exercised by traditional gatekeepers and setting agendas, but also in the disintegration of the full control over culture (Jenkins and Deuze, 2008). The actors who take part in such a hybrid system remain in a symbiosis – they depend on each other, however they strive for independence. Users’ increasing participation and their growing power over distribution and creation of media contents are accompanied by the tendency presented by media organisations, in the conditions of convergence, to maintain or even to extend their range of control over these processes. Tiziana Terranova (2004) describes this situation from a critical point of view, as a tension between the rule of media corporations which offer the possibilities of participation and which at the same time try to tame the powers of the new cultures of knowledge. In this context, she applies the notion of “harness” which reflects media corporation striving for the rule/control over socially released forces.

6.3. Mythologisation of Algorithms

Operation of algorithms is so abstruse and cognitively incomprehensible for an average network user that a paradoxically rational choice is mythical thinking – attributing machines and software with features and properties which belong to the realm of myths, as Barthes understands it (Barthes, 1972). In the context of media organisation management, mythical thinking may accompany not only an organisation, but also its authorities, its representatives and its attributes: the size or the pioneering character of its activities. Myths define the criteria of organisation activities and they legitimise the results of its functioning – the transparent ones and those which an organisation wishes to hide (Boje, Fedor and Rowland, 1982). Considering new media, in practice these are, first of all, business targets: profits, shareholders' wealth or the market share reached by an organisation.

Myths in media environment bestow the sense, communicate the meanings, indicate the primary objectives, provide an appropriate language to communicate. They can directly refer to the functioning of an organisation, although they are rarely realised. The mythical language is usually absent, or consciously avoided as being inconsistent with the image of a predictable, rational organisation. However, when the functioning of an organisation diverges from such an ideal – the vision of a perfect organisation, which numerous organisations wish to fit in, becomes also mythical – then myths are able to explain anomalies and contradictions (Pondy, Frost, Morgan and Dandridge, 1983). In a broader understanding, myths give the meaning to human existence, they bring some order into the chaos of our reality; in a narrow understanding, however, mythical thinking about algorithms refers to their omnipotence in ordering the chaos of the Internet which has become overloaded with contents. Algorithms make sense to the presence on the Internet, they are to control the chaos, and their logic becomes a paramount value. Myths following algorithms combine real things with unimaginable ones; they create facts and they define the way of perceiving an organisation and its functioning, at the same time confirming the contents of collective awareness. They become a form of reality, they help us to understand things which are inscrutable (Mosco, 2004).

6.4. Customisation and the New Algorithmic Identity

An important element which determines the rule of algorithms is the fact that the platforms applying algorithms to collect and to interpret information about their users try to predict users' consumer and political behaviour in particular. Algorithms use the information about users, and they make it possible to predict particular users' behaviour in the network with a very high probability (Baker, 2008). Formal and analytical (behavioural) information as well as contextual and statistical information allows platforms

to create users' profiles, and it comes as a part of a process commonly referred to as personalisation, that is the exchange of information between the network and its users, with active participation of machines in communicating with users.

Although the profiles obtained in such a way are far from perfect, they are sufficient, considering their expected market role. They efficiently spread in IT systems, blurring the difference between the real user and "the predicted user" based on the algorithmic approximation (Gillespie, Boczowski and Foot, 2014). They are gradually generated from the blog entries, social networking profiles, aggregation of search terms entered into browsers, and any other digital traces left by people on the Internet.

Such new algorithmic identities function thanks to algorithms, following the statistical models which qualify them to particular groups. Based on the probability of the obtained data, their processing, identification and psychographic classification, new types of consumers emerge, so-called "databases of intentions", new trends are set and needs are identified. Suspended between the real and the estimated, they are the basis to draw some far-reaching conclusions, for example about the evolution of political and social views or consumer attitudes.

Constructing "quasi persons" may convince us that due to modelling, that is to obtaining new information through the analysis of the databases, scientists are able to construct models describing specific problems, such as, for example, mortality or obesity, without asking any particular questions as it is during standard market research. As Tufekci (2014) emphasises, such analyses come as significant elements of political campaigns. Data obtained from credit cards, magazine subscriptions, voter registers, etc., come as information databases collected for the requirements of political parties as well as of private organisations.

As a result, the same technologies which have instilled the conviction about the fact that interactivity of new media in public life could limit or help in healing some afflictions of the market and democracy can contribute to new problems. In a broader context, considering the social role of media, in such "democracy of algorithms" individual preferences must be considered in a fair and efficient way, and the voice of the majority should become a symbol of democratic practice. The role of people, including journalists, is only to correct the honesty of the information, and to determine the preferences of algorithms.

6.5. The Fifth and the Sixth Estate

All the findings presented above allow us to describe the relations between the Fifth and the Sixth Estate. Thanks to digitalisation, all media products may be distributed independently, regardless of geographical distances. For users it means more possibilities referring to the selection of devices and formats of media contents. Innovation combined with globalisa-

tion results in international integration, familiarisation and understanding of cultural contents. The dispersed architecture of the Internet, with the nodes joined all around the world, makes it possible for its users to contribute to the creation of media contents. Thus, on one hand, it offers an easy access to such contents, but on the other hand, it makes it difficult to remove such contents once for all.

The rule of users consists in the following:

- possibility to select media contents;
- change of one's own habits – with the use of technological innovations, users may choose and change their behaviour; they consume media contents from various sources;
- contribution to creation of media contents;
- free migration among media platforms;
- recommendation of contents to other users and recipients.

In these circumstances, while cooperating with their users, media organisations may at the same time limit their power. Therefore, the Sixth Estate of algorithms appears to be the most convenient solution: it sustains the myth of the Fifth Estate by curbing it in the market limits. The Fifth Estate does have significant limitations – they mainly refer to the ownership relations. Users are not entitled to exercise any control over social networking platforms and search machines; they do not have any ownership that could refer to their social relations. They also do not have any influence on the architecture of algorithms and the new media universe. They are non-negotiable and their operations are hidden behind the wall of trade secrets.

This wall is covered with the rhetoric of community, namely: with describing new market media as the world of “communities”, “democracy”, “passion of contributing to the processes of creation”, and “trust”. This is the world in which the products of such public limited companies as Google, Yahoo or Twitter become the places of meeting new friends and acquaintances, where the pursuit of balance and harmony in a society is materialised, in accordance with the theory of social governance (Kreft, 2015). Media users meet some limitations in selection options, access and share in creating media contents. Understanding such limitations in media participation and consumption allows us to provide further analysis of power relations; however, it should be stressed that it does not include all the factors, like for example, the debate on copyrights and legal regulative limitations which refer to public media in particular.

The Sixth Estate is apparently negotiable. The relations between algorithm users and algorithm suppliers may be described as the asymmetry of intentions, which follows the asymmetry of information, beliefs and knowledge about the mutual relations between users and media organisations. While media organisations aim at maximisation of their owners' (shareholders') wealth, non-transparent imbalance occurs in treating stakeholders of

media organisations. Following non-market motivation, users may accept or reject such conditions. The Sixth Estate is apparently negotiable, because the lack of acceptance would mean a decision about auto-exclusion from the social networking relations, and this, in fact, undermines the assumption referring to voluntary participation in the new media universe, and comes as an obvious limitation of users' power.

Users may be also unaware of market relations in which they participate, and they do not have to be interested in familiarising themselves with the character of such relations. One of the forms of rule exercising performed by algorithms is forced self-limitation of users by the fact that they give access to any digital traces they leave on the Internet. Such traces are commonly visible and accessible for entities which are able to interpret and use them for various, especially market, purposes. Accepting the terms of use presented by new media, users give new media owners the right to make use of so-called sensitive data, when they, for example, allow them to commoditise their digital identities. This statement corresponds to a newly established notion of "the death of privacy" (Garfinkel, 2001), in the face of common sharing of one's own personal data, a belief that numerous, and in some cases all, activities performed by the Internet users, interactions with social networking communities, shopping, etc., come as the result of the fact that marketing media organisations apply complicated mathematical formulas which are invisible, highly advanced and efficient in encouragement of desired or expected behaviour.

6.6. The Consequences of the Algorithm Rule

The concept of the rule of algorithms/the Sixth Estate presented here has significant social consequences which are mainly connected with the functioning of search machines and, generally, with interactions with the Internet:

- searching for information from other people is replaced by asking questions to machines; search machines are becoming a part of culture, indispensable omnibuses that know the answers to all possible questions (however, it does not mean that these answers are true or correct);
- limitation of human abilities to reflect (Carr, 2008);
- distortion of the reality – an image resulting from searching in Google is incomplete and non-systematic (Fuchs, 2011);
- stratification of attention – large economic entities are more visible in search results; this problem is referred to in such notions as „googlocracy" (Menczer, Fortunato, Flammini and Vespignani, 2006) and „googlearchy" (Hindman, Tsioutsouloukalis and Johnson, 2003);
- lack of transparency – algorithms of search machines and social networking media are kept secret, they are volatile, and it is not known

what results they promote and will promote in the future (it refers to, for example, PageRank, but also Google Scholar) (Jacsó, 2005);

- consolidation of digital exclusion – petrification of differences in skills which are indispensable for conscious, purposeful searching;
- promotion of ideology – the management style presented as a decentralised one, based on self-organisation, suggests that the new technology will solve social problems.

7. Conclusions

Location of the power centre in “the virtual reality”, in “the universe of autonomy” allows us to determine operations performed by algorithms outside market relations regulated by the states (by implication: in the universe of unlimited freedom). Thus, the rule of algorithms can be considered not only in the context of empowerment of users, but also in the context of the rule exercised by media organisations and the supervision of such rule. Referring to the concept of a network presented by Manuel Castells (2009b), it is possible to quote his statements concerning the evolution of power. Considering mass/individual communication, traditional forms of access control do not find any application: anyone can enter their videos into the Internet, write a blog or participate in a discussion forum. It should be, however, emphasised that the central filter which allows the interested parties to exercise control over the rule on the Internet is the ability to generate and attract attention. The agential factor here, which allows people to create and use such a filter, is not anonymous – namely, it is the mythologised algorithm, the tool of a media organisation. Thus, even if the rhetoric of empowerment is considered, the rule of a media organisation is not questioned directly by the rule of users. It remains only a potential rule, which is neither automatic nor indispensable. In the digital universe, its limitations are determined by algorithms applied by the largest new media organisations. Moreover, media organisations retain the authorisation to control such resources as money and possibility to make strategic decisions.

The problem referring to the rule of algorithms reaches far beyond, and its consequences are more serious than providing (or denying) access to particular contents. The problem becomes a basis of lawsuits which affect the selection of lawyers. In this way algorithms decide about employment, promotion and career paths. Here a reference to “robo-recruiting” is being made – as *The New York Times* defines it. In her article of June 2015, Claire Cain Miller poses the following question: “Can an Algorithm Hire Better Than a Human?” (Miller, 2015). She also presents an example of several start-ups which intensively work on such algorithmic “populating” of organisations in the future.

Future research should cover the basic elements of the 6th power concept and the identification of its new components. The post-media environment of human and non-human actors is constantly redefined – fluid not only in terms of technological impact but primarily regarding mythologisation of organisations and the relationship between them and men.

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