

Adam Mickiewicz University in Poznań

Between post-truth and (pseudo)-wisdom of the crowds. The digital media epistemic trap and the analog means of escape

ABSTRACT: Adam Pietrzykowski, *Between post-truth and (pseudo)-wisdom of the crowds. The digital media epistemic trap and the analog means of escape,* Interdisciplinary Contexts of Special Pedagogy, No. 23, Poznań 2018. Pp. 71–85. Adam Mickiewicz University Press. ISSN 2300-391X. DOI: https://doi.org/10.14746/ikps.2018.23.04

Today, Western society is facing an epistemic crisis. The main reason behind it is the process of mediatization. In the post-truth era we live in, media has become an instrument of power, generating arbitrarily mediated discourses in order to influence individuals and social groups. The Internet, which at the beginning was perceived as a means to diminish the old power structures - the government and the mainstream media - in favor of interconnected individuals, is by now increasingly controlled by hightech companies. They access, monitor, process, and exploit data gathered from millions of their users and create personalized realities that entrap those users within information bubbles, making the wisdom of the crowds concept obsolete. The situation is disquieting because social phenomena, such as secondary illiteracy, impoverishment of spoken and written language, and declining trust in science, are impairing the emancipatory potential of humans and their reasoning. In effect, Western society is facing an epistemic trap, where the distinction between the real and the fictitious becomes blurred. I am arguing that to address the outlined problem, the curricula of secondary and tertiary stages of education should encompass, next to the media literacy, core competencies derived from the philosophical domain. I am proposing also a bespoke curriculum of philosophical education that may become optimal in attenuating the effects of the epistemic trap, and in the long term, restoring the truth and reason within the domain of a public discourse.

KEY WORDS: media, epistemic crisis, media literacy, philosophy, education, post-truth, wisdom of crowds

Nearly 120 years ago the radio signal sent by Guglielmo Marconi crossed the Atlantic Ocean for the first time. This achievement, which preceded the information and communications revolution, became much more important than it had been initially expected. It greatly facilitated humanity's transition from the age of handwritten and printed media to the age of digital media. The transition was also symbolically important because it represented a big step in the evolution of the intelligent species on Earth; in other words, a manifestation of intelligent life that has been propagating throughout our galaxy. At the same time, the transition has ushered in a fundamental process of mediatization which can be described as knowledge acquisition through the means of media. In this paper I will argue that mediatization in the post-truth era implies hazardous consequences for the society at large. I will also propose steps that could be taken in order to mitigate them.

According to the information and communication theorists, the process of mediatization has been fundamental in the XX and XXI centuries. In Friedrich Krotz's opinion, it is one of the four fundamental metaprocesses, next to individualisation, commercialization and globalization, which have shaped the modern world¹. He defines it as "[...] a historical, ongoing, long-term process in which more and more media emerge and are institutionalized"². Consequently, as he argues, the "[...] media, in the long run, become increasingly relevant to the social construction of the everyday life, of

¹ See F. Krotz, Media connectivity: Concepts, conditions, and consequences, [in:] Network, Connectivity and Flow: Key concepts for Media and Cultural Studies, ed. A. Hepp, F. Krotz, S. Moores, Hampton Press, New York 2008.

² F. Krotz, Mediatization: a concept with which to grasp media and societal change, [in:] Mediatization: Concept, Changes, Consequences, ed. K. Lundby, Peter Lang, New York 2009, p. 24.

the society and of the culture as a whole"³. I am going to use the foregoing interpretation of mediatization for the purpose of analysis of the paradigms proposed by Teresa Sasińska-Klas, dubbed by her as "The media and the social change"⁴.

First, let us look at what the idea of media is. What is apparent even at a first glance, is that the media seems contradictory in its essence. Media both creates in the audience an illusion of becoming an ever closer eye-witness and, simultaneously, it distances us from the said reality due to absolutizing a particular point of view. As Stuart Hall states, all forms of communication (including natural languages) require a particular medium. In his Encoding/Decoding Model of Communication it consists of two acts: coding, i.e. the transposition of subjective experience into an intersubjective form, and decoding with accordance to culturally defined rules⁵. These two levels of interpretation, together with the limitations of the channel itself, make media communication epistemically imperfect. As a result, questioning its epistemic credibility and impartiality becomes appropriate and justified.

What, then, will happen if apart from the epistemic imperfection of the media, we are also dealing with a bad-willed agent? Such is the situation in the post-truth era.

The media and reality in the post-truth era

The post-truth era is a period during which social perception of the lie has dramatically changed. The lie has shifted from being seen

³ F. Krotz, Mediatization: a concept with which to grasp media and societal change, [in:] Mediatization: Concept, Changes, Consequences, ed. K. Lundby, Peter Lang, New York 2009, p. 24.

⁴ T. Sasińska-Klas, Mediatyzacja a medializacja sfery publicznej, "Zeszyty prasoznawcze" 2014, No 2 (218), pp. 164-165.

⁵ S. Hall, Encoding/decoding, [in:] Culture, Media, Language. Working Papers in Cultural Studies 1972-1979, Centre for Contemporary Cultural Studies, Routledge, London 1980, pp. 128-138.

as a taboo to an instrument to achieve one's own goals. In the book The Post-Truth Era: Dishonesty and Deception in Contemporary Life, Ralph Keys claims that the reason for the upsurge of the post-truth phenomenon lies in its acceptance as well as in the lack of the actual consequences⁶. The post-truth society could be rendered as a society affected by "[...] the loss of the stigma which characterized lying in the past [...]. Lying has basically become an inconsequential offence for which no one can be blamed"7. With no responsibility to truth and truthfulness, political elites began to engage in systematic disinformation of the members and groups of the society using the global mass-media complex. According to Hall, the political elites have privileged access to the mass-media, henceforth they influence the journalists to accept their "first definition" of problem within which the journalists become, subsequently, entrapped⁸. The foregoing is in line with research showing a strong, mutual interdependence between the mainstream mass-media and the political power centres9. In effect, this relationship has made it impossible for the media outlets to remain objective. As a result, we are dealing with a hegemonic reproduction of discourse.

Denis McQuail proposed six metaphors to describe systemic manipulation inside the mass-media structures¹⁰. He identified them, as follows: *Media as a window* is a "window" through which the recipient of the messages interprets the world oriented towards

⁶ Ł. Pawłowski, *Gdzie podziała się prawda?*, "Kultura Liberalna", 29.11.2016, https://kulturaliberalna.pl/2016/11/29/pawlowski-post-prawda-ralph-keyes [access: 11.08.2018].

⁷ Ł. Pawłowski, *Gdzie podziała się prawda?*, "Kultura Liberalna", 29.11.2016, https://kulturaliberalna.pl/2016/11/29/pawlowski-post-prawda-ralph-keyes [access: 11.08.2018].

⁸ S. Hall, *Policing the Crisis. Mugging, the State and Law and Order*, MacMillan, London 1978; cited after: E. Maigret, *Socjologia komunikacji i mediów*, transl. by Piechnik, Oficyna Naukowa, Warsaw 2012, p. 265.

⁹ E. Maigret, *Socjologia komunikacji i mediów*, transl. by Piechnik, Oficyna Naukowa, Warsaw 2012, p. 264.

 $^{^{10}\,\}mathrm{D.}$ McQuail, McQuails's Mass Communication Theory, Sage Publications, London 2010, p. 84.

a certain direction. *Media as a reflection* reflects the preferred by the recipient message(s) back to the recipient. *Media as a filter* selectively filters out and in specific (set of) message(s). *Media as a barrier* creates a barrier between the recipient and the "real" world. *Media as a signpost* clues the recipient towards a predetermined conclusion. *Media as a stage* creates a space within which only selected arguments and opinions of the few can be argued for or against.

The media interpreted through McQuail's metaphors leads to a highly worrying conclusion, whereby the mediated reality we become acquainted with is, in fact, a spectacle in service of diverse political agendas. Sheldon Wolin, a political theorist, claims that this spectacle has become an integral part of a guided democracy of the United States, a democracy which is a particular kind of inverted totalitarianism¹¹. The consequence of such a perversion of democracy is erosion of trust in political institutions responsible for "truth creation", the academic institutions, experts and expert knowledge, and the mass-media itself¹².

The emergence of new media fashioned an opportunity to restore the truth as a value in a public life. The Internet's anonymous, decentralised and pluralistic design was supposed to end the information monopoly of traditional media. The civic uprisings we have witnessed in recent years, and which were sparked and mediated by the Internet and social media technology, seemed to fulfil that promise. These included the presidential elections in 2002 in South Korea, the Arab Spring in 2011, or the protests against ACTA agreement in 2012. According to Manuel Castells, the Internet as the space for dialogue existing outside state control and characterised by interactivity, has become crucial for social resistance to all forms of injustice¹³.

¹¹ See S. Wolin, Democracy Incorporated: Managed Democracy and the Specter of Inverted Totalitarianism, Princeton University Press, 2008.

¹² See *Yes, I'd lie to you. The post-truth world, "*The Economist", 10.09.2016, https://www.economist.com/briefing/2016/09/10/yes-id-lie-to-you [access: 11.08.2018].

¹³ M. Castells, *Mobile Communication and Society. A Global Perspective*, MIT Press, Cambridge 2006, p. 211.

Unfortunately, post-truth's presence in the new, digital media is becoming more apparent. Today, the Internet space is under control of behemoth tech companies which access, monitor, process, and exploit vast quantities of data gathered from millions of their users. For example, the high tech companies built platforms which began to project targeted messages to influence the recipients' decisions, mostly to induce and influence consumption related decisions but increasingly also, electoral decisions. It is believed such a strategy might have contributed to the election of Donald Trump to the White House and then, the ensuing electoral manipulation under auspices of Cambridge Analytica with the help of the Facebook as a delivery platform¹⁴.

Such personalized virtual realities created a phenomenon called a *filter bubble*, in which the user has only access to the information corroborating their preconceptions, expectations and preferences. Increasingly, the *filter bubble* is filled with untrue or, downright false information – *fake news*, which is not infrequently made up by artificial intelligence technologies. A rough estimation suggests that one in five messages appearing on social media, such as Twitter and Facebook during presidential elections in the United States, has been generated by artificial intelligence bots¹⁵. Ralph Keyes put forward a suggestion that the anonymity of the Internet has created a fertile ground for a culture of fraud and insincerity¹⁶. Not only is the *filter bubble* a result of an algorithmic content selection but also

¹⁴ M. Rosenberg, N. Confessore, C. Cadwalladr, *How Trump Consultants Exploited the Facebook Data of Millions*, "New York Times", 17.03.2018, https://www.nytimes.com/2018/03/17/us/politics/cambridge-analytica-trump-campaign.html [access: 11.08.2018].

¹⁵ M. Czarnecki, *Co piątego tweeta o wyborach w USA stworzył bot. Fałszywe newsy zalaty Facebooka. Jak media społecznościowe wpłynęty na kampanię, "*Gazeta Wyborcza", 11.11.2016, http://wyborcza.pl/7,75248,20963144,co-piatego-tweeta-o-wyborach-w-usa-stworzyl-bot-falszywe-wsy.html [access:11.08.2018].

¹⁶ See Ł. Pawłowski, *Gdzie podziała się prawda?*, "Kultura Liberalna", 29.11.2016, https://kulturaliberalna.pl/2016/11/29/pawlowski-post-prawda-ralph-keyes [access: 11.08.2018].

of a sophisticated censorship called *stealth banning*. Stealth banning relies on a mechanism of filtering out content in such a way that a user becomes unaware of the existence of the filtering mechanism. Evidence suggests, such a mechanism has been used by Twitter and Instagram, however it is possible that *stealth banning* might have been applied at a much bigger scale¹⁷.

Moreover, anonymity of the Internet, paired up with the ease of creation of information, means the Internet is nowadays littered with pseudoscientific and antiscientific theories, unsubstantiated claims, all stemming from the fact the information producers are ignorant about the truthfulness of the content they create. This leads to a further blurring of boundaries between the truth and the falsehood, between the real and the fictitious.

In *The Perfect Crime* Jean Baudrillard, a French media theorist, wrote that the media has undoubtedly become the key culprit in the destruction of reality. As the title of his book indicates, the crime is perfect because we are not aware of the simulation of reality, the simulacrum – taking its place¹⁸.

Today, the new media and personalized filter bubbles have grown to such a degree that we are facing multiple simulacra of reality. This puts into question the so-called wisdom of the crowds, as the crowds themselves become increasingly fragmented and divided into increasingly smaller groups of like-minded users. As a result, we are dealing with an epistemic trap of digital media, which takes us to the next, deeper level of the Plato's Cave, a place of ever-dissolving reality. It is disturbing, especially since young newcomers to the Internet crowd are people who are a product of a new, post-literate era in which the *logos* began to give way to the *mythos*.

¹⁷ A. Ohlheiser, Tweets are disappearing on Twitter. Why?, "Washington Post", 30.10.2015, https://www.washingtonpost.com/news/the-intersect/wp/2015/10/30/a-guide-to-why-some-activists-believe-their-tweets-are-being-censored-in-the-u-s [access:11.08.2018].

¹⁸ See J. Boudrillard, Zbrodnia doskonata, transl. by S. Królak, Wydawnictwo Sic!, Warsaw 2008.

The immanent risks of secondary orality

Information and communication technologies reintroduced oral culture. However, its XXI century incarnation is a global oral culture mediated through audio-visual technologies. As technological advancement continues, participating in the new, secondary orality is becoming simpler and easier. Voice control and virtual assistants are examples of a technology which may soon absolve us from competencies in anything but the capacity to speak. As Walter Ong opined, "This new orality has striking resemblances to the old in its participatory mystique, its fostering of a communal sense, its concentration on the present moment, and even its use of formulas" 19. Amateur videos explosion, ubiquity of live broadcasting and internet-centred communities are all its current manifestations.

However, the new orality differs in some important aspects from the old one. Malwina Rolka wrote that the centuries-long domination of a printed and written culture has deeply impacted human mind, instilling the subject-object categorisation of scientific and philosophical discourse²⁰. Thus, written culture has left an imprint of *logos* in our psyche. Moreover, Jerzy Bobryk claims that "[...] if social and intellectual development depends on of self-reflection, if a fully developed personality is "an object for itself", then the written word is, without a doubt, an opportunity to learn about a different perspective than the one of one's own self"²¹.

However, the dominant position of *logos* is becoming weaker as audio-visual communication proliferates at a rapid pace. The most symptomatic sign is in the global decline in readership, the decline in read newspapers and the decline in read fiction books. The highly regarded periodicals try to keep apace by creation of attractive,

¹⁹ W. Ong, Orality and Literacy: The Technologizing of the Word, Routledge, London – New York 2002, p. 133.

²⁰ M. Rolka, Mit i oralność w świetle diagnoz kryzysu kultury nowoczesnej, "Hybris", No. 34 (2016), p. 120.

²¹ J. Bobryk, *Spadkobiercy Teuta. Ludzie i media*, Wydawnictwo Uniwersytetu Warszawskiego, Warsaw 2001, p. 6.

though shallow, audio-visual content. When it comes to bestselling titles, at the top we can find mostly publications full of entertainment. It seems, there is a correlation between the aforementioned phenomena and functional illiteracy. According to the 2016 survey conducted by the National Library of Poland, 63% of Poles do not read books at all²². As Zbigniew Kwieciński of Nicolaus Copernicus University pointed out, functional illiteracy affects some 70% of the population, including one in six Masters' degree holders²³.

Another worrying process is the impoverishment of both spoken and written language. To some extent, it is a result of decline in the readership mentioned above. However, this is also influenced by other reasons. On the one hand, communication technologies force us to abandon the principles of linguistic correctness for the purpose of efficiency. On the other hand, popular culture, by reducing the content to a common denominator has been significantly trivialised. This turn to banality seems to be a consequence of the principle of pleasure. The principle that, in Leszek Kołakowski's opinion, is the main component of present-day culture of analgesics²⁴. In his book, *The Presence of Myth*, he argues that people of modernity are willing to eschew all forms of suffering in order to remain inoculated from all kinds of existential dilemmas. Unfortunately, the efficacy of analgesics is temporary only, hence the search for better ones never ceases.

Thus, it seems that the world of a post-literate man is shaped more by emotions than by rationality. With a life driven by consumerism, people neither have time, nor will, nor competencies to

²² M. Widła, *Grozi nam wtórny analfabetyzm? Polacy czytają coraz mniej, "*Newsweek", 11.03.2016, http://www.newsweek.pl/polska/grozi-nam-wtorny-analfabetyzm-polacy-czytaja-coraz-mniej,artykuly,381658,1.html [access: 11.08.2018].

²³ MJ, *Nie rozumiemy informacji, instrukcji, ulotek. Kwitnie analfabetyzm wtórny, "*Nowa trybuna opolska", 8.09.2011, http://www.nto.pl/wiadomosci/opolskie/art/4452107, nie-rozumiemy-informacji-instrukcji-ulotek-kwitnie-analfabetyzm-wtorny,id,t.html [access: 11.08.2018].

²⁴ See L. Kolakowski, *The Presence of Myth*, trans. by A. Czerniawski, University of Chicago Press, Chicago 1989.

critically engage with the world. If, as Ludwig Wittgenstein claimed in *Tractatus Logico-Philosophicus*, the limits of language mean the limits of our world, then the ongoing impoverishment of language contributes to the reduction of emancipatory potential of its users. If this is the case, escaping the digital media epistemic entrapment is, likely, an impossible feat. We could, together with Edwin Benedyk, ask: "Is it still possible to regain the reason in the public space or is the only thing left to us to await the demons?"²⁵.

Analog remedy against the digital media epistemic trap

With all that I have articulated so far and the potential ramifications, it seems necessary to undertake appropriate educational counter-measures. Media education, proposed in this regard, focuses on acquiring appropriate skills, competencies, and development of media literacy. Literacy which will allow individuals to become autonomous and aware in a new digital communications environment. Henceforth, the media literacy models usually encompass the following: 1) critical analysis of media and media texts, 2) competence in media use and creation, 3) knowledge of the dangers of the media as well as the methods and techniques to avoid them²⁶.

With regard to the aforementioned epistemic threat, critical media literacy seems to be of the utmost importance. In fact, this area of interest, regarding the "truth of the media text" and the mechanisms of infosphere, is a part of a broader domain that is more fundamental and universal – namely, a domain of philosophy. I am arguing that philosophy has the broadest and the most adequate

²⁵ E. Bendyk, *Dyktatura kłamstwa, polityka i post-prawda,* https://antymatrix.blog.polityka.pl/2016/09/10/dyktatura-klamstwa-polityka-i-post-prawda/ [access: 11.08. 2018].

²⁶ P. Tornero, J. Manuel, *Study of the Current Trends and Approaches on Media Literacy in Europe*, European Commision, 2007, p. 10, http://www.gabinetecomunicacionyeducacion.com/sites/default/files/field/adjuntos/study_media_literacy_in_europe_0.pdf [access: 11.08.2018].

toolkit of interpretation and understanding because it provisions people with incorruptible analog competencies of reasoning, which is the perfect complement to media education.

The experience of educators shows that philosophy classes develop important competencies that address the needs of the surrounding world. It has been shown that philosophy contributes to improvement in critical, logical and creative thinking skills²⁷.

It also develops independence of thinking, a better understanding of the world, people and oneself, as well as helps shaping moral sensitivity. It is therefore satisfying that on 30 January 2018 the Minister of National Education Anna Zalewska signed a regulation on the core curriculum of general education, according to which philosophy will be introduced to the educational offer of secondary education²⁸. It has rarely appeared in the school curriculum beforehand. In 2014 only 214 schools out of more than 14,000 institutions offered philosophy as a part of curriculum, with just 18 schools offering it in an extended scope (240 hours)²⁹.

Currently, philosophy taught in majority of schools consists of philosophical curriculum comprising history of ancient philosophy only. Such a narrow scope does not truly realises full potential of philosophy in the development of a critically thinking individual. Fortunately, the extended curriculum looks more promising, as it consists of three complementary modules:

- 1. Logical culture elements of semiotics and argumentation theory,
- 2. History of philosophy with cultural orientation including thinkers and philosophical movements,

²⁷ Po co w szkole filozofia?, Portal Instytutu Badań Edukacyjnych, 18.6.2015, http://www.ibe.edu.pl/pl/biblioteka/11-media/aktualnosci-prasowe/498-po-co-w-szkole-filozofia [access: 11.08.2018].

²⁸ Podstawa programowa z filozofii i etyki dla szkót ponadpodstawowych, Filozofuj Portal, podpisanahttp://filozofuj.eu/podstawa-programowa-filozofii-etyki-dla-szkol-ponadpodstawowych-podpisana [access: 11.08.2018].

²⁹ Nauczanie filozofii na III i IV etapie edukacyjnym, Educational Research Institute, Warsaw 2015, p. 3, http://eduentuzjasci.pl/images/stories/publikacje/ibe-raport-nauczanie-filozofii.pdf [access: 11.08.2018].

3. Selected philosophical issues – an introduction to the main philosophical debates, ideas and positions³⁰.

I am of the opinion that the extended curriculum of philosophical education may require an inclusion of some extra material and a specific set of goals in order to be considered the best possible model addressing the titular predicament.

Module 1. certainly is a constitutive element because the language the media employs is often a language that is logically and semantically abused and as such, it can easily manipulate the audience with little experience in rhetoric, fallacious argumentation and sophistic conjectures. Therefore, training in eristic in order to understand fallacious and invalid reasoning would be useful as well, as it has been noticed by the creators of *Philosophy in Action* and *Everyday Philosophy* curricula³¹.

Nevertheless, the module focused on philosophical debates, ideas and positions seems the most important. In the context of media literacy, it looks that the most relevant is to focus on the nature of knowledge and the theories of knowledge. Except studying the classics like Plato, Hume, Descartes or Kant, it should also encompass the fundamentals of philosophy of media and the philosophy of technology. These additional elements are synergistic, such that taken together, they allow to grasp the *modus operandi* of the technological and mediatized world.

Focusing on the theory of knowledge is also important due to the crisis of trust in science, scientists and the academic institutions³². It is thus important to introduce methodological and sociological foundations of science as well. For this reason, philosophy of

³⁰ Podstawa programowa kształcenia ogólnego dla czteroletniego liceum ogólnokształcącego i pięcioletniego technikum z przedmiotu filozofia, http://filozofuj.eu/wp-content/uploads/2018/02/podstawa-programowa-z-filozofii.pdf [access: 11.08.2018].

³¹ Filozofia w szkołach, Warsaw University Portal, https://www.uw.edu.pl/filozofia-w-szkolach [access: 11.08.2018].

³² G. Tsipursky, (*Dis)trust in Science. Can we cure the scourge of misinformation?*, "Scientific American", 05.07.2018, https://blogs.scientificamerican.com/observa tions/dis-trust-in-science [access: 11.08.2018].

science, which explains the scientific method as well as social determinants of scientific practice, is indispensable.

Critical analysis of miscellaneous written, verbal, and audiovisual texts should also become a key element of philosophical education because they are carriers of meanings underlying social discourse. This analysis should cover especially those cultural texts that are mass-consumed by adolescents and young adults, such as amateur videos, TV series and computer games. It would allow pupils to see what values, ideologies or attitudes those texts introduce and disseminate, and, in effect, what kind of reality they try to shape around us. At the same time, it would gradually instil a critical attitude of healthy scepticism towards all the texts produced by the culture – especially, by the popular culture.

In order to bring about positive effects, all of the above listed areas would have to acknowledge the value of truth explicitly and bind it with the ethical imperative of social responsibility of the individual and of concern for the common good.

In summary, philosophical education in the proposed form, i.e., based on logic and critical thinking, emphasizing epistemic (digital) media problems, presenting the scientific method, critical analysis of media discourse and inculcation of the value of truth and truth-seeking, should altogether become a requisite component of modern education. Introduction of proposed curricula into secondary education, and continued at the tertiary, may be essential in contribution to the reversal of an impoverished public discourse. Consequently, those curricula would enable to liberate citizens from the digital media epistemic entrapment. Unfortunately, broad philosophical education such as the one I have outlined in the article, will take a long time in the making – if ever – before reaching adequate shape in the public school system.

Bibliography

Bendyk E., *Dyktatura kłamstwa, polityka i post-prawda*, https://antymatrix.blog.polityka.pl/2016/09/10/dyktatura-klamstwa-polityka-i-post-prawda/

Bobryk J., Spadkobiercy Teuta. Ludzie i media, Wydawnictwo Uniwersytetu Warszawskiego, Warsaw 2001.

- Boudrillard J., Zbrodnia doskonała, transl. by S. Królak, Wydawnictwo Sic!, Warsaw 2008.
- Castells M., Mobile Communication adn Society. A Global Perspective, MIT Press, Cambridge 2006.
- Czarnecki M., Co piątego tweeta o wyborach w USA stworzył bot. Fałszywe newsy zalały Facebooka. Jak media społecznościowe wpłynęty na kampanię, "Gazeta Wyborcza", 11.11.2016 http://wyborcza.pl/7,75248,20963144,co-piatego-tweeta-o-wyborachw-usa-stworzyl-bot-falszywe-wsy.html
- Kołakowski L., Obecność mitu, Prószyński i S-ka, Warsaw 2003.
- Krotz F., Mediatization: a concept with which to grasp media and societal change, [in:] Mediatization: Concept, Changes, Consequences, ed. K. Lundby, Peter Lang, New York 2009.
- Krotz F., Media connectivity: Concepts, conditions, and consequences, [in:] Network, Connectivity and Flow: Key concepts for Media and Cultural Studies, ed. A. Hepp, F. Krotz, S. Moores, Hampton Press, New York 2008.
- Nauczanie filozofii na III i IV etapie edukacyjnym, Educational Research Institute, Warsaw 2015, http://eduentuzjasci.pl/images/stories/publikacje/ibe-raport-naucza nie-filozofii.pdf
- Nie rozumiemy informacji, instrukcji, ulotek. Kwitnie analfabetyzm wtórny, "Nowa trybuna opolska", 8.09.2011, http://www.nto.pl/wiadomosci/opolskie/art/4452107, nie-rozumiemy-informacji-instrukcji-ulotek-kwitnie-analfabetyzm-wtorny,id,t.html
- Maigret E., Socjologia komunikacji i mediów, transl. by I. Piechnik, Oficyna Naukowa, Warsaw 2012.
- McQuail D., McQuails's Mass Communication Theory, Sage Publications, London 2010.
- Ohlheiser A., Tweets are disappearing on Twitter. Why?, "Washington Post", 30.10. 2015, https://www.washingtonpost.com/news/the-intersect/wp/2015/10/30/a-guide-to-why-some-activists-believe-their-tweets-are-being-censored-in-the-u-s
- Ong W. J., Oralność i piśmienność. Słowo poddane technologii, tranls. by J. Japola, Warsaw 2011, WUW.
- Pawłowski Ł., *Gdzie podziała się prawda?*, "Kultura Liberalna", 29.11.2016, https://kulturaliberalna.pl/2016/11/29/pawlowski-post-prawda-ralph-keyes
- Po co w szkole filozofia?, Portal Instytutu Badań Edukacyjnych, 18.6.2015, http://www.ibe.edu.pl/pl/biblioteka/11-media/aktualnosci-prasowe/498-po-co-w-szkole-filozofia
- Podstawa programowa kształcenia ogólnego dla czteroletniego liceum ogólnokształcącego i pięcioletniego technikum z przedmiotu filozofia, http://filozofuj.eu/wp-content/uploads/2018/02/podstawa-programowa-z-filozofii.pdf

- Podstawa programowa z filozofii i etyki dla szkół ponadpodstawowych, Portal Filozofuj, http://filozofuj.eu/podstawa-programowa-filozofii-etyki-dla-szkol-ponadpod stawowych-podpisana
- Rolka M., Mit i oralność w świetle diagnoz kryzysu kultury nowoczesnej, "Hybris", No. 34 (2016).
- Rosenberg M., Confessore N., Cadwalladr C., *How Trump Consultants Exploited the Facebook Data of Millions,* "New York Times", 17.03.2018, https://www.nytimes.com/2018/03/17/us/politics/cambridge-analytica-trump-campaign.html
- Sasińska-Klas T., Mediatyzacja a medializacja sfery publicznej, "Zeszyty prasoznawcze" 2014, No. 2 (218).
- Tornero P., Manuel J., Study of the Current Trends and Approaches on Media Literacy in Europe, European Commission, 2007, http://www.gabinetecomunicacionyedu cacion.com/sites/default/files/field/adjuntos/study_media_literacy_in_europe_0.pdf
- Tsipursky G., (Dis)trust in Science. Can we cure the scourge of misinformation?, "Scientific American", 05.07.2018, https://blogs.scientificamerican.com/observations/dis-trust-in-science
- Widła M., *Grozi nam wtórny analfabetyzm? Polacy czytają coraz mniej, "*Newsweek", 11.03.2016, http://www.newsweek.pl/polska/grozi-nam-wtorny-analfabetyzm-polacy-czytaja-coraz-mniej,artykuly,381658,1.html
- Wolin S., Democracy Incorporated: Managed Democracy and the Specter of Inverte