ACADEMIC FREEDOM

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DYNAMICS OF THE INTERACTION OF UNIVERSITY AUTONOMY AND MODERN MEDIA CULTURE

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CONTENT

The change in the role of the teacher from a traditional mentor to "influencer" and social media expert
The risks of simplifying scientific content: translating complex research into the language of "mass consumption"
The phenomenon of "academic populism" and the use of popularity to promote dubious ideas

2.3. The relationship between media culture and academic integrity
Plagiarism and fraud in the digital culture
The impact of media hyperpublication on the quality of research
The role of university publications and scientific journals in combating dishonesty

3. STRATEGIES FOR PRESERVING ACADEMIC FREEDOM IN THE DIGITAL ERA: INSTITUTIONAL AND PEDAGOGICAL DIMENSION

3.1. Institutional mechanisms for protecting university autonomy
International experience in legislative protection of academic freedom (comparative analysis)
Development and implementation of internal Anti-Crisis Media Protocol for universities
Mechanisms of rapid response to disinformation and media attacks

3.2. Media literacy as a key competence of the academic community
The concept of "critical media literacy" for teachers: training in recognizing manipulation and propaganda
Implementation of courses on academic communication and media ethics for students
The role of the teacher as a "digital facilitator": developing skills in information verification and reasoned discourse

3.3. Ways of forming a new academic media culture
The ethical code of the teacher's presence in the public and digital space: the balance between private and public
Strategies of high-quality scientific communication: how to popularize science without losing its essence and impartiality
Predicting and preventing future threats to academic freedom associated with the development of Artificial Intelligence and generative media

The monograph is devoted to a comprehensive analysis of the transformation of classical university values and academic freedom under the influence of modern digital media realities. The work examines how the processes of mediatization, content algorithmization and the spread of «clickbait» affect the scientific discourse and independence of universities. The publication highlights the relationship between media culture and academic integrity, and also proposes strategies and institutional mechanisms for protecting the academic community. The monograph analyses the development of anti-crisis media protocols and the implementation of the principles of critical media literacy.

For teachers, heads of educational institutions, students of higher education, as well as everyone who is interested in the problems of transformation of higher education and science in the era of global digitalization.

INTRODUCTION

The era of global digitalization and the dominance of network communications has radically changed the socio-cultural space in which modern institutions of higher education operate. The monograph *Academic Freedom. Dynamics of Interaction between University Autonomy and Modern Media Culture* is devoted to the analysis of complex processes of transformation of classical university values under the influence of new media realities. The relevance of the study is due to the fact that academic freedom, which is the cornerstone of intellectual independence, today finds itself at the epicentre of the tense interaction between academic standards and the logic of the digital public space.

By the concept of "media culture" within the framework of this work, we understand primarily the digital media reality – an interactive ecosystem, where the speed of information dissemination, content algorithmization and hyperpublicity become determining factors. In this environment, the traditional principles of freedom of research and teaching face new challenges: from the phenomenon of "clickbait" and media deformation of scientific knowledge to systemic pressure through mechanisms of cancellation culture. The dynamics of this interaction give rise to a number of critical contradictions. On the one hand, media culture opens up unprecedented opportunities for the popularization of science and open dialogue. On the other hand, it creates risks for university autonomy, making higher education institutions vulnerable to external political and economic pressure, manipulation of public opinion

and reputational attacks. The university in the field of media influences is forced to balance the requirement of publicity and preserving the ethos of scientific impartiality.

Traditionally, the issues of academic freedom and autonomy have been the subject of attention of the philosophy of education, law and sociology (W. von Humboldt, K. Jaspers, R. Hofstadter). However, a comprehensive analysis of how exactly modern media culture reconstructs these concepts remains fragmentary. In domestic science, attention is mainly focused on the legal aspects of autonomy within the framework of European integration, while the socio-cultural impact of the digital environment on academic freedom requires a deeper interdisciplinary understanding. The monograph is designed to fill the existing gap by offering a holistic view of the architecture of the relationship between the university and the digital society.

The work introduces into scientific circulation an updated understanding of academic freedom as a dynamic balance between institutional tradition and digital openness. The practical recommendations of the monograph can become the basis for the development of internal media communications strategies of universities, ethical codes of conduct for teachers on the network, and academic media literacy curricula.

The study is an attempt to protect the space of free "thought" from the pressure of sensationalism and populism, ensuring the resilience of the academic community to the challenges of the digital era.

CHAPTER 1

ACADEMIC FREEDOM AS THE BASIS OF LIBERAL KNOWLEDGE IN THE CONDITIONS OF THE INFORMATION SOCIETY

1.1. Evolution of the concept of academic freedom and its modern understanding

The concept of academic freedom is a cornerstone of modern higher education and research, ensuring the viability of the university as an institution that generates knowledge and critical thought. Its evolution reflects the historical path of development of universities – from medieval corporations to institutions accountable to society, but at the same time independent in their essential mission.

The historical roots of academic freedom reach back to the medieval universities of Bologna and Paris, where communities of teachers and students fought for autonomy from secular and church authorities. However, in the modern sense, the concept was formed under the influence of the Humboldtian model (19 th century), which established the idea of the unity of teaching and research and introduced two key principles: freedom of teaching and freedom of learning. The first principle guaranteed professors the right to independence in choosing the methods and content of teaching and research. The second ensured the right of students to freely choose their courses of study and form an individual educational trajectory.

In the twentieth century, academic freedom was clearly articulated as an individual right of a scientist. The classic definition, enshrined in particular in the American Declaration of Principles on Academic Freedom and Tenure [1940 Statement of Principles], covered three main areas: freedom of research and publication of results, freedom to teach a subject, and freedom of expression as a citizen. At this stage, academic freedom was seen primarily as a protective mechanism for the individual, protecting him from political or administrative interference and persecution, and as necessary one for the effective search for truth.

The evolution in the late 20th and early 21st centuries led to a significant expansion of the concept, integrating it with the notion of institutional autonomy and the duty of social responsibility. The International Association of Universities (IAU) [International Association of Universities] in its programmatic statement «Academic Freedom, Institutional Autonomy and Social Responsibility» (adopted in 2000 at the initiative of UNESCO) [Academic Freedom and University Autonomy] directly indicates this connection.

According to the IAU position, academic freedom and university autonomy are indispensable prerequisites for higher education institutions to fully fulfil their responsibilities to society. These principles strengthen the foundations of pluralism, tolerance and academic solidarity. Thus, the modern understanding of academic freedom goes beyond the mere protection of the individual right of a teacher or researcher and becomes a critical factor for the functioning of the entire institution and its ability to contribute to social progress.

Institutional autonomy is seen as a necessary condition for the realization of academic freedom. It means the right of the university to independently make decisions on personnel policy (hiring and dismissing staff), financial management (allocation of resources) and academic matters (definition of curricula and research priorities). However, this autonomy must be balanced with social responsibility. The IAU argues that freedom and autonomy are not ends in themselves, but means to achieve higher

goals. The university, enjoying freedom, is obliged to serve society, responding to its needs, carrying out a critical assessment of social processes and contributing to sustainable development.

One of the key elements of the current understanding, highlighted by the IAU, is the call for the development of a «new social contract» between the university and society. This contract involves reciprocal rights and obligations: society guarantees universities the necessary freedom and resources, and universities undertake to use them responsibly, maintaining high standards of quality, ethics and transparency. The IAU also called for the creation of an international charter to monitor the application of these principles.

In the context of globalization and digitalization, academic freedom faces new challenges: pressure from private donors or market interests that can distort the research strategy; interference by state or political forces aimed at restricting critical or objectionable research/expression; problems of censorship, disinformation and protection of intellectual property in the online space.

Modern academic freedom is not just a liberal right of the individual scholar, but a complex institutional principle that includes institutional autonomy and is inextricably linked to the university's social mandate. It is a dynamic balance between the right to freely seek truth and the duty to responsibly serve the public interest, strengthening democratic values and community resilience.

Historical models of academic freedom (German, American, European traditions)

The evolution of the concept of academic freedom was not linear, but was formed within the framework of several powerful institutional traditions, each of which gave this principle its unique meaning and functional content. The distinction between the main historical models – German, American and wider European – allows us to better understand both the nature of modern academic freedom and the challenges facing it.

The German (Humboldt) tradition:
Wissenschaft, Lehrfreiheit and Lernfreiheit

The German model, known as the Humboldtian ideal, was formed in the early 19th century with the founding of the University of Berlin (now the Humboldt University) [Кришко, 2014]. This model is the most fundamental and has influenced the development of universities around the world, including the United States [Humboldt Wilhelm von, 2002, pp. 25-33].

Wilhelm von Humboldt, the educational reformer, established two cornerstone principles that form the core of German academic freedom:

(1) Unity of research and teaching: the university should not simply be a place for the transmission of already known knowledge, but a centre for its continuous production (Wissenschaft – science, understanding of truth).
(2) Freedom to teach: the right of a professor to freely, without interference from state or church authorities, determine the content, methods, and directions of his research and teaching.
(3) Freedom to learn: the right of a student to freely choose courses, teachers, and to shape his individual educational trajectory.

In this tradition, academic freedom was seen as an institutional privilege necessary for achieving the higher goal of the search for truth. It was closely linked to the autonomy of the university, not just to the individual right of the teacher. The key difference was that freedom was a necessary condition for the fulfilment of the academic mission, and not simply a form of political freedom of speech. Today in Germany, freedom of science, research and teaching is enshrined at the constitutional level (Article 5 of the Basic Law of the Federal Republic of Germany) [Grundgesetz für…]:

Basic Law for the Federal Republic of Germany Art 5 (Article 5)

(1) Everyone shall have the right freely to express and disseminate their opinion in speech, writing, and pictures, and to obtain information without hindrance from generally accessible sources. Freedom of the press and freedom of reporting by means of broadcasts and films shall be guaranteed. There shall be no censorship.
(2) These rights shall find their limits in the provisions of the general laws, in statutory provisions for the protection of young people, and in the right to personal honour.
(3) Art and science, research and teaching shall be free. The freedom of teaching shall not release any person from loyalty to the constitution.

The American tradition: individual protection and social service

The American model of academic freedom was largely imported and adapted from the German Humboldtian tradition after American scholars who had studied in Germany in the 19th century returned home. However, unlike Germany, where freedom was built into the state university system, in the United States it was shaped as a means of protecting the individual professor in a decentralized system with a large number of private institutions.

The key moment was the founding of the American Association of University Professors (AAUP) and its landmark Declaration of 1915, amended in 1940. It defined academic freedom as the right:

(1) To conduct research and publish its results without restriction.
(2) To teach one's subject in the classroom without fear of interference, as long as it is in keeping with one's professional qualifications.
(3) To speak as a citizen outside the university, albeit with the caveat of professional responsibility.

The American model, in addition to the protective function, also emphasized social service. The university was understood as an institution that educates "intellectual pioneers" for social progress and actively responds to the demands of society. At the same time, academic freedom in the United States is protected mainly

through contractual obligations, institutional policies and partly through the First Amendment to the Constitution (regarding freedom of speech), and not as a separate constitutional right.

The broad European tradition: Libertas Scholastica and human rights

The European tradition is the oldest, originating in the medieval libertas scholastica – a system of legal privileges that guaranteed members of the university community a certain independence from local authorities (e.g., the right to their own courts, freedom of movement). These privileges concerned mainly institutional autonomy and were not directly related to freedom of research in the modern sense.

In the post-war period (after 1945) and especially at the end of the 20th century, the European tradition of academic freedom acquired a new, unified dimension, integrating into a general system of human rights protection. The Magna Charta Universitatum (1988), signed by European rectors, defined the university as an autonomous institution that «creates, studies, evaluates and transmits culture» through research and teaching. The Charter of Fundamental Rights of the European Union (2000) explicitly states in Article 13: «Art and scientific research shall be free from restrictions. Academic freedom shall be recognised» [Magna Charta Universitatum, 2020]. This has given the concept supranational legal status, elevating it to the level of a fundamental human right.

The modern European tradition views academic freedom as an essential condition of a democratic society, protecting the independence of knowledge production from political or economic capture. This model requires increased monitoring and protection in response to challenges of democratic backsliding in individual EU member states.

The difference between the models lies in the focus: the German tradition emphasizes institutional freedom for science (*Wissenschaft*); the American tradition emphasizes the individual right of the professor (*Individual Right*) and public responsibility; and

the modern European tradition emphasizes fundamental human rights and the need for supranational protection of these freedoms.

Legal consolidation of academic freedom (international and national instruments)

The legal consolidation of academic freedom reflects its evolution from an institutional privilege to a fundamental human right and an institutional guarantee necessary for the democratic development of society. This process has taken place at the international, regional and national levels, forming a multi-layered system of protection.

International legal principles

The international dimension of the protection of academic freedom is based on key United Nations (UN) documents that directly or indirectly recognize its components as part of universal human rights:

The Universal Declaration of Human Rights (UDHR) of 1948. Although it does not explicitly mention academic freedom, it lays down its foundations in Article 19 (freedom of opinion and expression) and Article 27 (the right to participate in scientific progress and to enjoy its benefits) [Universal Declaration of Human Rights].

The International Covenant on Civil and Political Rights (ICCPR) of 1966, which guarantees freedom of thought, conscience, religion (Art. 18) and freedom of expression (Art. 19), which are integral parts of individual academic freedom [International Covenant].

The International Covenant on Economic, Social and Cultural Rights (ICESCR) of 1966. Article 13 enshrines the right to education, and Article 15 – the right to participate in cultural life and to enjoy the benefits of scientific progress, as well as the right to freedom, necessary for scientific research and creative activity.

This provision is one of the most important direct legal provisions of research freedom at the global level [International Covenant].

Of particular importance is the Recommendation of UNESCO and ILO (International Labour Organization) "On the Status of Teaching Personnel in Higher Education Institutions" (1997), which has become the main international normative document in this area. The Recommendation provides a detailed definition, stating that academic freedom includes:

> Freedom to teach and discuss, freedom to conduct research and to disseminate and publish its results, freedom to express opinions on the higher education institution or the system in which teachers work, freedom from institutional censorship, and freedom to participate in professional organizations [Recommendation, 1997].

The European dimension

At the regional level, the protection of academic freedom in Europe is strengthened through legal instruments that are binding on the Member States.

The European Convention for the Protection of Human Rights and Fundamental Freedoms (ECHR) of 1950, although it does not explicitly contain an article on academic freedom, has often been interpreted by the European Court of Human Rights (ECHR) as deriving from the right to freedom of expression (Art. 10), particularly in the context of teaching and public criticism [European Convention on Human Rights].

The Charter of Fundamental Rights of the European Union (2000) is the clearest and most direct provision in European law. We noted above that Article 13 of the Charter guarantees: «Art and scientific research shall be free from restrictions. Academic freedom shall be recognised». This article became legally binding after the entry into force of the Treaty of Lisbon in 2009.

Magna Charta Universitatum 1988. This voluntary but influential document, signed by rectors of European universities, enshrines the basic principles of autonomy and academic freedom,

emphasizing their importance for cultural, scientific and socio-economic development.

National consolidation: Ukrainian context

At the national level, the legislation of states, including Ukraine, reflects the integration of international norms into the domestic legal system.

In Ukraine, academic freedom is a constitutional principle and is regulated in detail in the field of education. According to the Law of Ukraine «On Education» (2017), academic freedom is recognized as one of the principles of state policy in the field of education and one of the principles of educational activity (Art. 1). The law defines academic freedom as "the autonomy and independence of participants in the educational process when conducting pedagogical, scientific-pedagogical, scientific and/or innovative activities, carried out on the principles of freedom of speech, thought and creativity, dissemination of knowledge and information, free publication and use of scientific research results, taking into account the restrictions established by law" [Law of Ukraine on Education].

The key point is that national legislation closely links academic freedom with the organizational, personnel and financial autonomy of higher education institutions, emphasizing that individual freedom can be realized only in conditions of institutional independence. Also, Ukrainian practice, in particular, the Charter of Universities of Ukraine (Yalta, 2009), emphasizes the ethical dimension, defining academic freedom as activity «within the framework determined by the ethical rules of the academic community and international practices without any external pressure» [Хартія, 2009, p. 433; Derkach 2024].

Thus, the legal consolidation of academic freedom demonstrates its dual nature: as an individual right of a scientist/teacher to freely seek the truth and as an institutional guarantee for the

university, protected by a wide range of international pacts, regional charters and national laws.

Internal and external dimensions of academic freedom

The modern concept of academic freedom is multifaceted and is divided into two interdependent dimensions, which concern both the individual rights of academic staff and the independence of the educational institution. These dimensions are often distinguished as internal and external. The internal dimension involves freedoms within the university, and the external dimension involves relationships with society and the state, both of which are necessary for the full mission of the university.

Internal dimension

The internal dimension concerns the direct rights and freedoms that teachers, researchers, and students enjoy in their academic activities. According to the 1997 UNESCO Recommendation on the Status of Teaching Personnel in Higher Education and the Policy Statement of the Canadian Association of University Teachers (CAUT), the key components of this dimension are:

A. The right to teach

This fundamental right guarantees academic staff the freedom to teach and discuss their subject, without being constrained by prescribed doctrine. It includes the freedom to choose course content, teaching methods and materials, and protection from being forced to teach material that is against their own best knowledge and conscience.

The right to teach necessarily comes with professional responsibility and the requirement of intellectual rigour. This right also encompasses the significant role of teachers in defining curricula, which ensures the quality and relevance of education. It is important to note that while students have freedom of study – the right

to choose courses and programs – they do not have academic freedom in the sense of *Lehrfreiheit*, since it is the professor who determines the content of the course and assesses the knowledge.

B. The right to research and dissemination

This right is vital to the mission of the university as a centre for the creation of new knowledge. It guarantees academic staff the freedom to carry out research work in accordance with their professional responsibilities, the freedom to publish and communicate the conclusions of their research without interference or censorship, subject to ethical standards and scientific rigor, and the freedom to produce and perform creative work and to acquire, preserve and make available documentary materials in all formats.

External dimension

The external dimension of academic freedom concerns the relations of the university and its members with the outside world (state, business, society).

A. Institutional autonomy

Although institutional autonomy is often considered as a separate principle, it is a necessary prerequisite for the realization of individual academic freedom. UNESCO recognizes that higher education institutions should have the right to self-governance and to criticize the functioning of the higher education system and their own institution. Teachers have the right to participate in governing bodies and to have a majority of representatives in academic bodies. Academic staff should be free to express one's opinion about the administration of the institution and the system in which they work, without fear of administrative persecution (so-called intra-institutional academic freedom).

B. Freedom of expression as a citizen

This aspect of academic freedom protects the scholar outside the university walls. This is the right to exercise one's rights as a citizen, including the freedom to contribute to social change through free expression on matters of public interest and freedom from interference in the exercise of internationally recognized civil and political rights (freedom of thought, conscience, expression, assembly) [Завгородня, 2025].

This extra-institutional academic freedom is critically important because historically many cases of violations of academic freedom have concerned the political or social activism of faculty members, rather than their activities in the classroom or laboratory.

Thus, a full understanding of academic freedom requires the protection of both dimensions: ensuring individual rights to teach and research (the internal dimension) and guaranteeing institutional autonomy and the right to critical public expression (the external dimension).

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1.2. Media culture as a dominant environment for the formation of public consciousness

In the context of an information society characterized by the comprehensive penetration of digital technologies and network communications, media culture acquires the status of a dominant environment for the formation of public consciousness. It is not just a set of means of transmitting information, but also a complex cultural and communication space where social values, norms, ideologies and worldviews are constructed, transmitted and assimilated.

Modern media – from traditional to social networks – have an unprecedented ability to model and structure reality for the individual. They determine what is important, what deserves attention, and what remains on the periphery. In this sense, media culture turns into a kind of "filter" or "lens" through which society perceives and interprets political, economic and social events. This process is critically important for understanding academic freedom, since the ease of information manipulation and the speed of the spread of "clickbait" or fake news can undermine the rational foundations of public dialogue and trust in expert, university knowledge.

The consciousness of an individual in the era of total mediatization is formed in conditions of constant information overload, where attention becomes a scarce resource. This creates the ground for the dominance of the emotional and visual over the rational and textual. Thus, media culture, on the one hand, democratizes access to information, and on the other, poses serious challenges to citizens' ability to think critically and analyse in depth. That is why the interaction of university autonomy, as an institution designed to cultivate rational knowledge, and modern media culture becomes a key problem, presented for consideration in this monograph.

Characteristics of modern media culture: speed, visualization, emotionality, personalization

Modern media culture, which operates on the basis of digital communication platforms, demonstrates a number of fundamental transformations that radically change the patterns of production, distribution and consumption of content. These characteristics are not simply technological changes, but act as catalysts for sociocultural shifts that directly affect the formation of public consciousness and, accordingly, the space of academic communication.

Speed

The dominant characteristic of modern digital media culture is the speed of information dissemination, which reaches hyperflow. This concept is closely related to the works of sociologist Manuel Castells, who in his trilogy "The Information Age" describes in detail the transformation of society under the influence of network technologies. In "The Rise of the Network Society," Castells points to the change in temporal and spatial coordinates:

The space of flows is the material organization of time-sharing social practices that work through flows. By flows I understand purposeful, repetitive, programmable sequences of exchange and interaction between physically disjointed positions held by social actors in the economic, political, and symbolic structures of society» [Castells 2010-1, p. 442]. The quote, although it does not directly contain the term "hyperflow", describes a key mechanism – the "space of flows", which is the basis for the instantaneous, global and constant transmission of information. This is an environment where time is compressed and spatial barriers are destroyed, providing a real-time regime that has replaced the traditional cyclical nature of news releases. The traditional cyclical nature of news releases (daily, weekly) has been replaced by a real-time regime. The constant and instantaneous transmission of data leads to decontextualization. Ultra-speed often makes in-depth analysis and verification impossible, provoking the spread of raw, unverified

data. Information units become fragmented and decontextualized, which complicates the formation of a holistic and rational vision of events. The consequence of instant data transmission is also the dominance of the present. The constant flow actualizes only the latest events, reducing the significance of the historical background and long-term processes. This creates an information space where society's attention is short-term, which is a direct challenge to the fundamentality of academic knowledge.

Visualization

Digital media culture is a visual and iconic culture. There is a process that researchers call the pictographic turn [Mitchell, 1994], where images, videos and infographics are replacing complex textual content as the main means of communication. "Visualization eliminates the need for a complex logical chain, appealing directly to perceptual mechanisms of perception" [Debray 1996]. The central thesis of Debray's medialology states that technological means of communication are not neutral, they actively shape the content and influence the way information is perceived. The researcher analyses the transition from the logosphere – the culture of writing and logic to the videosphere – the culture of images and immediacy and concludes that in the videosphere images are able to communicate much faster and more directly than text, since they appeal to perceptual mechanisms, bypassing the need for verbal or logical deduction. This increases the influence of form over deep, rational content.

The dominance of visual content, especially on social media and video platforms, has a direct impact on the simplification of complex ideas. Postman argued that television (and now digital visual platforms) transforms serious public discourse into a form of entertainment, where complexity and rational argumentation are displaced by emotional and visual perception [Postman, 1985]. Stiegler emphasizes that the speed of digital flow and visual saturation lead to a «proletarianization» of the mind, where the capacity

for attention, reflection, and intellectual work is reduced [Stiegler, 2010]. This shift from verbal argumentation to visual perception poses a significant challenge to public discourse and intellectual depth. Complex scientific, economic, or political issues are often reduced to simple, easily digestible visual metaphors, infographics, or memes. This process, known as the «mediatization» of knowledge, forces complex ideas to adapt to formats that demand maximum brevity and visual impact [Livingstone, 2009]. Form – brightness, design, dynamics – becomes more important than content. The aesthetic appeal of content, even if it is manipulative or false, ensures its higher virality. In the digital economy of attention, content that evokes a strong emotional response, through design or metaphor, has a greater chance of spreading than rationally based but visually «dry» information.

Emotionality

The era of digital media is characterized by the dominance of affective communications over rational-critical ones. Modern media culture uses the emotional capital of the audience to maintain attention and increase engagement.

Digital platforms, in particular social networks, are built on algorithms that prioritize content that generates the most interaction. As Eli Pariser notes, these algorithms unconsciously amplify the effect of emotional contagion [Pariser, 2011]. It is known that emotionally charged messages spread much faster and more effectively than neutral or analytical information. Especially such messages that cause anger, fear, indignation or, conversely, excessive joy. Strong emotions stimulate immediate action – *like, share or comment* – which is an ideal metric for platforms. Instead of deep analysis of facts, the individual responds to an emotional impulse, which is faster and more energy-efficient for the brain. And this, in turn, leads to a lower threshold for critical evaluation of information.

Emotionally charged content often contributes to the polarization of society, as it usually appeals to clear binary oppositions and creates a narrative of «us» versus «them». Rage and indignation are easier to mobilize against an external «enemy» or «other». This radicalization of positions makes it difficult to find a compromise and requires a rejection of nuance. Such a mechanism contradicts the principles of academic discussion, which requires openness to a plurality of perspectives, rational argumentation, and scepticism about unambiguous answers.

The rapid spread of emotional narratives undermines trust in institutions that cultivate rational knowledge, such as universities, because their conclusions are too complex, slow, and often lack the necessary «emotional drive» to compete in conditions of attention.

Personalization

The most significant structural change is the transition to an algorithmic era, where content distribution is not determined by editorial policy but is determined by personalized algorithms. Platform algorithms (Facebook, YouTube, TikTok) operate on the principles of relevance and predictability – they show users the content they are likely to interact with the most, through clicks, likes, and comments. This gives rise to two critical phenomena: filter bubbles and echo chambers. As Eli Pariser [Pariser, 2011] has noted, algorithms create an individualized information world in which the user is shielded from information that contradicts their preconceived views or preferences, and limit the possibility of accidental encounters with alternative points of view:

> Your filter bubble is your own personal, unique universe of information that you live in online. What's in your filter bubble depends on who you are, and it depends on what you do. But you don't decide what gets in – and more importantly, you don't see what gets edited out.

Such personalization undermines the shared social agenda, turning public space into a collection of isolated microcosms.

If academic autonomy requires a shared rational basis for dialogue, the algorithmic era creates multiple, often incompatible "realities," making it difficult to achieve social consensus based on facts and expert knowledge.

Unlike filter bubbles, echo chambers are a social phenomenon where like-minded people voluntarily gather and reinforce their shared beliefs, completely rejecting external information. Inside the echo chamber, communication occurs according to the principle of multiple echoes. Shared beliefs are reinforced and radicalized through mechanisms of social comparison and group polarization [Sunstein, 2017; Isenberg, 1986]. Each new post that confirms a common opinion adds weight and authority to it, while information from the outside is perceived as hostile propaganda or *fake news*. In a situation where people who hold certain views discuss them only in a circle of like-minded people, their initial beliefs become even more extreme. This happens because they receive more arguments that confirm their position, and the lack of counterarguments prevents the need for rational revision of views. Thus, echo chambers not only isolate users, but also actively radicalize their views, creating an ever-widening gap between different social and political groups, which significantly complicates the achievement of public consensus.

The phenomenon of "information ideocracy"

The convergence of algorithmic personalization and the structural features of visual content, discussed in the previous sections, creates conditions for the formation of a new political and information regime, which can be defined as "information ideocracy".

In modern society, media culture has ceased to be simply a channel for broadcasting information, turning into a dominant environment where social reality is constructed. Information ideocracy is one of the most complex and at the same time dangerous manifestations of this process. This phenomenon is characterized by the fact that not only access to information, but also the

formation of reality itself and the legitimation of power increasingly depend on ideologically homogeneous information flows controlled by algorithms. A specific form of power is being formed, where domination is carried out not through direct coercion, but through the monopoly management of meanings, symbols and interpretations. Information ideocracy is a mode of functioning of the media space, in which ideological doctrines are integrated directly into the information product (news, entertainment content, social network algorithms), becoming invisible to the object of influence.

The term "ideocracy" traditionally describes a social order where power belongs to the bearers of a certain ideology (from the Greek idea – *Idea* and *kratos* – power). However, in the era of digitalization this phenomenon has been transformed. As researcher M. Castells notes in his work *Power of Identity*, in a network society fundamental power is concentrated in the management of cultural codes and information flows:

> The new power lies in the information codes and in the images of representation around which societies organize their institutions, and people build their lives, and decide their behavior. The sites of this power are people's minds [Castells 2010-2, p. 425].

Modern research identifies several key mechanisms that ensure the viability of information ideocracy.

1. Algorithmic censorship and selection. Researchers E. Pariser [Pariser, 2011] and S. Zuboff [Zuboff, 2019] prove that social platform algorithms are not neutral. They select content that reinforces the user's pre-existing biases, creating a closed ideological ecosystem. This is the digital embodiment of ideocracy: a person believes that he is free to choose, although his information field is strictly limited by code. Information ideocracy transfers this principle to the digital space: state or political authorities do not necessarily establish a single ideology by force, but use algorithmic structures to ensure the dominance of certain, often competing «information

ideologies». In this system, citizens' attention becomes the main political resource.

In his fundamental work, «The Theory of Democracy Revisited» [Sartori, 1992], Giovanni Sartori wrote about classical ideocracy, but his idea that ideocracy does not allow for competition of ideas is also relevant to the digital space, where competition is limited not by censorship but by algorithmic blocking of visibility. In the digital world, channels may seem independent, but if they are subject to the same sorting algorithms, autonomous public opinion disappears. When social media algorithms create «echo chambers» they actually perform the function that censorship performed in ideocracies – they eliminate the competition of opposing ideas, leaving the user in the field of «digital dogma». To support the thesis that ideocracy excludes the possibility of true competition of ideas, one can find the following key idea in Sartori:

> In an ideocracy the source of authority is a dogma, and the communication process is a top-down indoctrination. [...] In a democracy there are many sources of information and many channels of communication; but the crucial point is that they are independent and competing. Without competition, there is no such thing as an 'autonomous' public opinion [Sartori, 1992].

Sartori explains that in a democracy what is critical is not simply the 'availability' of opinions, but their free competition within an open market of ideas, which directly opposes ideocratic control.

If the ideology of the past was based on state power, then today's digital ideocracy can be based on the 'symbolic capital' of platforms that decide what is 'natural' and visible and what is not.

2. Symbolic domination. According to the theory of P. Bourdieu [Bourdieu, 1996], the media possess «symbolic capital», which allows them to impose a vision of social division as «natural». In the conditions of ideocracy, the media determine what is «important» and what is «non-existent» (the phenomenon of *agenda-setting*).

3. Post-truth as a tool. In the article «Post-truth as a Philosophical Phenomenon of the Modern Information Space», researchers

emphasize that in ideocratic models, truth gives way to emotional expediency. Ideology becomes more important than fact [Мошковський, 2025; Porpora, Sekalala, 2019].

The phenomenon of information ideocracy leads to total mediatization. As G. Debord states in the concept of «society of the spectacle», real social relations are replaced by the contemplation of images. In an ideocratic environment, a politician becomes a media image, and a political program becomes a set of clip slogans [Debord 1967].

Ukrainian researcher O. Zernetska, in her work on global communication, emphasizes that the mediatization of consciousness leads to the loss of critical thinking: society begins to reflect not on real events, but on their media interpretation. This creates the basis for manipulation of mass consciousness, where the «correct» information picture weighs more than the objective economic or social situation [Зернецька, 2017].

Information ideocracy within modern media culture plays the role of «soft power» that unifies public consciousness. It does not require a ban on alternative opinions – it simply makes them invisible or marginal in the general flow of content. Thus, media culture becomes not just a source of knowledge, but a tool for strategic management of mass behaviour through control over the ideological framework of information.

Under the dominance of information ideocracy, academic freedom ceases to be a purely intra-university prerogative and turns into a strategic condition for the survival of liberal knowledge. If media culture, through the mechanisms of «symbolic capital» and algorithmic selection, imposes ready-made interpretative schemes on society, then the role of the academic community is to deconstruct these schemes. Information ideocracy resists such deconstruction through the mechanism of epistemic alienation. When scientific knowledge, based on methodological verification and critical analysis, enters the digital environment, it is forced to submit to the logic of virality. As a result, complex scientific theories are either ignored by algorithms as unattractive content,

or are reduced to the level of emotional slogans that correspond to the current ideological dogma. This creates a threat of intellectual conformism, where a scientist, striving to be heard in the public space, involuntarily adapts his theses to the requirements of a mediatized ideocracy.

The phenomenon of «epistemic alienation» in the conditions of an information ideocracy manifests itself as a gap between the process of production of scientific knowledge and the mechanisms of its social legitimation. In an era when media culture becomes the dominant environment, the scientist ceases to be an autonomous subject of truth and turns into a content provider whose visibility depends on external algorithmic parameters.

Three key dimensions of this alienation can be distinguished:

(1) Within the framework of the problem under study, a conflict becomes particularly acute, which can be defined as the «dictatorship of virality over validity». Traditional scientific knowledge is inert by its nature: it requires a long time for verification, adherence to strict methodology and building complex discursive structures. In contrast, information ideocracy radically changes priorities, delegating power to «fast knowledge». In this context, a scientist inevitably experiences epistemic alienation, because his professional competence is levelled by algorithmic filters that promote not the most substantiated, but the most resonant thesis. Substantiating this mechanism, G. Pocheptsov rightly notes that in the modern media space «the emotional always turns out to be stronger than the rational, since emotion does not need verification, it is self-sufficient» [Почепцов, 2015, с. 112]. Thus, we witness a transition from logical persuasion to «visual-emotional contagion», where the speed of dissemination of an information product becomes a more important factor than its truthfulness. Moreover, the researcher emphasizes that in the conditions of information confrontations «complex information is cut off, since it requires intellectual efforts, while virtual war is

focused on simplification» [Почепцов, 2015, с. 148]. This conceptual setting of G. Pocheptsov allows us to argue that in a mediatized environment, the intellectual a priori finds himself in a losing position compared to the manipulator, since the latter appeals to instant emotional triggers, ignoring the criteria of scientific reliability. In this way, the scientific fact finally loses to the viral myth, which makes the protection of academic freedom not only a corporate issue of universities, but a global strategy for preserving rationality in the era of digital dogmas.

(2) Reduction of meanings and «clip» knowledge. Information ideocracy requires simplification (reduction). In order for a scientific idea to enter the information flow, it must be compressed to the size of a post on a social network or a short visual series. In this process, the context is lost – the foundation of academic freedom. A scientist is alienated from his own intellectual product, since in a mediatized environment his thought begins to live a separate life, often becoming a tool in the hands of manipulators («symbolic capital» according to P. Bourdieu).

(3) Epistemic self-censorship. Realizing the mechanisms of algorithmic selection, the subject of academic activity begins to subconsciously (or consciously) adapt his research to the «requests of the system». It is logical to assume that the mediatization of consciousness affects even scientific discourse, encouraging the choice of topics that guarantee citations and media presence. This creates a threat of internal destruction of academic freedom: the scientist loses the will to search for truth that goes beyond the ideological consensus.

A "parascientific space" of information ideocracy is formed, where truth is replaced by plausibility, and the authority of the scientific institution – by the number of subscribers. As a result, liberal knowledge loses its prognostic and critical function, turning into an element of G. Debord's «society of the spectacle», where the role of the intellectual is reduced to serving media simulacra [Debord, 1967].

The functioning of information ideocracy can be compared to a digital panopticon, where supervision is carried out not through physical restriction of will, but through management of the horizon of expectations. In this context, liberal knowledge, which was traditionally considered the basis of democracy, finds itself in a situation of «information ghettoization». Instead of J. Sartori's «open market of ideas» we observe the architecture of «filter bubbles» where ideological homogeneity is maintained at the level of program code. Thus, information ideocracy implements what J. Habermas called the «refeudalization of society» [Габермас, 2000, с. 286]: instead of rational discussion, there is a manipulative presentation of interests, disguised as the «natural» order of things. Academic freedom in such conditions requires not only the protection of the right to research, but also the creation of new, independent of commercial algorithms, channels for the transmission of knowledge, which would allow overcoming the monopoly of the «symbolic capital» of global platforms.

In the context of building information ideocracy, special attention should be paid to the concept of «virtualization of social space» which is actively being developed by Ukrainian researchers. An important aspect is that Ukrainian researchers go beyond the narrow technological understanding of virtualization. Thus, V. Cherniyenko emphasizes the immanent penetration of virtuality into the very fabric of social relations [Чернієнко, 2017]. Researcher L. Piddubna believes that the virtualization of social space radically changes the way a person perceives himself. Since the physical space is replaced by a virtual one, the social subject begins to function in the field of images-simulations [Піддубна, 2017].

Researcher N. Kostenko [Костенко, 2010], analysing the socio-cultural transformations of the media, points to the ambivalence of the digital environment: on the one hand, it declares freedom of access, and on the other, it creates new hierarchies through control over attention. In the conditions of information ideocracy, this «hierarchy of attention» becomes a tool for the marginalization of scientific knowledge. As S. Kvit notes, the reform of higher

education and the protection of academic autonomy in Ukraine should take place taking into account mass mediatization, since the university remains almost the only institution capable of producing verified knowledge outside the logic of media hype: «A university in the modern world is, first of all, an institution of critical analysis of media flows, which does not allow mass communication to absorb individual rationality» [Квіт, 2013].

Finally, the phenomenon of «information ideocracy» in Ukraine is closely related to the problem of information security. The research by L. Kompantseva [Компанцева, 2011] demonstrates how linguistic-cognitive manipulations in the network space can influence the user's subconscious without his explicit awareness. "Mediated identity," which is an artificial construct created for elections, has become the object of research by V. Dmitriev [Дмітрієв, 2022]. Since mediated identity is volatile and has no deep roots, it becomes an easy target for external manipulation, which poses a threat to the stability of the state. This supports the thesis that information ideocracy is not only an epistemic but also a security threat that undermines society's ability to self-organize on the basis of shared values.

Thus, information ideocracy is not a temporary distortion of communication, but a systemic characteristic of modern media culture. It integrates ideology directly into the technological infrastructure of society, making domination anonymous and ubiquitous. Defending academic freedom and restoring the status of objective truth is the only way to preserve the rational core of liberal knowledge in an era where reality increasingly resembles a mediatized spectacle.

Mediatization of politics, science and education

Mediatization is a two-way process of high modernity in which, on the one hand, the media emerge as an independent institution with its own logic, to which other social institutions are forced to adapt. On the other hand, the media become an integral part

of institutions such as politics, work, family, and religion, as more and more institutional activities are carried out through interactive and mass communication channels. Conceptually, mediatization should be distinguished from simple mediation as mediation. If mediation is the natural function of mass media to convey meaning, then mediatization involves a profound change in the nature, functions, and structure of social processes in response to the omnipresence of media [Hjarvard, 2008; Mazzoleni, 2008; Bennett and Entman, 2001]. The media logic that drives mediatization includes organizational, technological, and aesthetic determinants of media functioning. It determines the ways in which material and symbolic resources are distributed, as well as the use of formal and informal rules for the presentation of social experience. Winfried Schulz identifies four key processes by which media change human communication and interaction [Schulz, 2004; Strömbäck, 2008]:

- *Augmentation*: media expand the possibilities of human communication in time and space.
- *Replacement*: media replace social activities that previously took place face-to-face (e.g., online banking instead of physical visits to a bank).
- *Amalgamation*: the combination of face-to-face activities with media communication, leading to the penetration of media into everyday life.
- *Accommodation*: the adaptation of the behaviour of actors in different sectors to media evaluations, formats, and routines.

Mediatization of Politics

In the political sphere, mediatization has led to the fact that the political system has become dependent on the media not only for coverage of activities, but also for the decision-making and selection process itself. Politics has become a media-driven process, where the logic of the media often conflicts with the logic of traditional professional politics [Mazzoleni, 2007].

One of the most powerful consequences is the personalization of politics. This is a phenomenon in which individual politicians become the main anchor for the interpretation and evaluation of the political process, displacing collective bodies such as parties or cabinets of ministers. This is due to the symbolic nature of the mass media, which find it easier to focus on a specific person, a speaker, than on an abstract party platform [Atia, 2025]. Mediatization stimulates the transition from the «politics of ideas» to the «politics of personalities». According to recent studies, the media act as a powerful filter that cuts off complex collective structures (parliamentary committees, party congresses) in favour of individual actors. The media focus on the private life of a politician, his hobbies and family. This creates the illusion of closeness, but shifts the focus from state affairs to personal qualities. A complex party platform is reduced to short theses of one leader. The selection of personnel shifts from experienced apparatchiks to "telegenic" leaders who are able to work effectively in the frame, which often leads to a shortage of professional management competencies. This makes the political system vulnerable, because the discrediting of one person leads to a collapse in the rating of the entire institution.

The mediatization of politics is also manifested in the "spectacularisation" and fragmentation of discourse. Complex political arguments are replaced by short slogans, the duration of which on the air has decreased from a minute to several seconds in recent decades. The commercialization of the media dictates the need for an entertainment format that reduces political coverage to slogans, short quotes, and «horse racing»-style reports. Instead of analysing the essence of reforms, the media focuses on «who will win» (ratings, forecasts), turning the voter into a spectator of betting, rather than a conscious citizen. In the long term, this threatens democracy, as it simplifies complex issues and undermines trust in institutions, although in the short term it may contribute to the «humanization» of politicians and increased voter engagement.

Mediatization of Science

Historically, science functioned as a closed institution, an «ivory tower» where the legitimacy of knowledge was determined solely by internal expert assessment and academic freedom. However, the global transformation of higher education and the research space has led to the establishment of a «promotional culture» [Wernick 1991]. In the modern context, universities and research centres have ceased to be purely educational centres, turning into market entities that are forced to compete aggressively for limited resources: state funding, grants from private foundations, and the attention of applicants. As researchers note [Olesk, 2024; Väliverronen, 2021; Jonsson, 2022], scientific institutions are increasingly incorporating PR, marketing, and branding tools into their daily activities. This phenomenon of «mediatized visibility» means that the success of a scientist or laboratory is now measured not only by citation index, but also by media presence, press mentions, and social media activity.

The traditional model of science communication – the «information deficit model» [Thornton, 2025], which viewed the public as a passive audience in need of knowledge – has proven incompatible with the interactive nature of modern media. This linear model has proven ineffective in the era of post-truth and digital interactivity. It has been replaced by a model of «public engagement» [Kouper, 2010], where knowledge is produced and validated in the interaction between scientists, algorithms, and the audience [Laan, 2025]. Knowledge is not simply transmitted «top-down», but is validated and discussed in a complex environment where scientists, platform algorithms and active audiences interact as equals [Laan, 2025]. Science becomes an open system where the public has the right to ask questions and influence the ethical framework of research.

An important phenomenon of the mediatization of science is the emergence of the «scientific influencer». This is a hybrid actor who combines professional expertise with personal authenticity and affective engagement. However, the adaptation of science

to media logic carries specific risks, in particular the «lightness effect» [Salzmann, 2025]. This is a cognitive bias in which non-professionals overestimate their own competence after being exposed to simplified scientific content, such as videos or short abstracts. By receiving information effortlessly, they misinterpret it as a deep understanding of the topic. This leads to overestimation of one's own competence and ignoring the opinions of real experts.

Research shows that even the use of «debiasing» videos – materials that directly warn the viewer about the complexity of the topic and the limitations of his knowledge – is not always able to reduce this effect, since the feeling of confidence gained from easy assimilation of information is very persistent. The subjective feeling of confidence generated by media content turns out to be stronger than rational caution. This threatens academic autonomy, since scientists, striving for media visibility, can consciously or unconsciously distort research logic for the sake of sensationalism [Scharrer, 2017].

As a result, the mediatization of science creates a paradoxical situation: it makes knowledge more accessible to millions, but at the same time undermines the very foundations of critical thinking and academic autonomy, turning the search for truth into the production of attractive content.

Mediatization of education

Education in the context of media culture is transforming from a formal system of knowledge transfer into an open digital ecosystem. Digital media blur the boundaries between learning at school and everyday information consumption outside it. Modern education ceases to be a process limited by the physical space of the classroom or the time limits of the lesson. In the context of media culture, learning is transformed into an open digital ecosystem, where formal education (school/university) is closely intertwined with informal education (social networks, video hosting, podcasts).

Modern students, «digital natives» – live in an environment where media is not a tool, but a living space itself [Meier, 2024].

The traditional educational model was based on the hierarchical principle of «one-to-many» (teacher – audience). Mediatization introduces a networked model of «many-to-many» based on horizontal connections:

A key aspect of the mediatization of education is the transition from the «one-to-many» model to the «many-to-many» network model, which radically democratizes access to knowledge. Platforms such as YouTube, Coursera, or ePathshala allow students to access lectures by leading professors in the world regardless of their place of residence [Media and Society]. The mediatization of education requires a complete revision of the teaching profession, because in a world where any fact can be found in a second, the teacher loses his monopoly on knowledge. The main task of the teacher, the lecturer, becomes not the transfer of information, but teaching the critical selection, verification, and structuring of an endless stream of data. The teacher now competes for the student's attention with high-quality entertainment content. This forces pedagogy to borrow elements of media logic: storytelling, gamification and visualization.

A new aspect of mediatization is the introduction of artificial intelligence and algorithms into learning. Digital platforms create individual educational trajectories, adapting the complexity of the material to the pace of a particular student. However, there is a risk of «educational bubbles» here: algorithms can limit the student's horizons, offering only the content that he «likes», which contradicts the classical idea of all-round development.

We must understand that excessive dependence on technology poses a threat to academic standards. Ease of access to information often correlates with a decrease in the quality of its assimilation and the ability to deep concentration. Studies indicate negative effects, such as «perception disorder» and academic failures due to uncontrolled media use habits. Furthermore, the «digital divide» between those who have access to technology and those

who do not remains a serious barrier to equality of educational opportunities [Kazaz, 2022; Melo, 2024].

The role of expert in public sphere

The transformation of the public sphere in the context of the dominance of digital platforms has radically changed the conditions under which the academic expert interacts with society. The traditional hierarchy of knowledge, where universities acted as monopolists in the production and validation of truth, has given way to a network structure, where authority is determined not only by formal regalia, but also by the ability to affectively engage the audience and adapt to algorithmic logics. In the context of modern media culture, the role of the expert goes beyond the simple transmission of specialized data; it becomes a complex act of mediation between the institutional autonomy of the university and the demands of the public sphere, which is increasingly oriented towards simplification, sensationalism and emotional resonance.

Historically, the role of the public intellectual is rooted in the Renaissance and Enlightenment, where the educated person was seen as one who «sheds light» on the public sphere. Academics have traditionally held influential positions because of their cultural capital, acquired through degrees, publications, and professional credentials. However, in the contemporary context, there is some concern that academics are losing their intellectual leadership status, becoming irrelevant to the wider public through self-isolation in «esoteric» theories and publications in niche journals.

The ethical ideal of the academic leader as a public intellectual implies a responsibility to speak and act freely, broadly, and fearlessly. This requires a shift away from the model of the «isolated scholar» working alone on narrow topics, in favour of participating in shaping the guiding beliefs of a community or society. Today, the public intellectual is defined not only by his or her scholarship, but also by his or her ability to make ideas move through culture.

Digital media culture requires the formation of a new «academic persona» – a public «self» whose status is based on intellectual work, but is realized through presentational media. Previously, academic identity was mostly static – a digitized version of a CV that served the formal purpose of presenting qualifications. Today, a networked identity is emerging, which through blogs and social networks builds conversational relationships with the audience.

An interesting aspect of this transformation is that networked identity allows the private to mix with the public, creating a kind of «scaffolding» around academic status. This echoes the feminist slogan of the 1970s «the personal is political», which is now realized through the personalization of expert knowledge.

In the era of platforming, academic expertise is confronted with the concept of «digital cultural capital». Traditionally, cultural capital is institutionalized – it is based on diplomas and peer reviews. In contrast, «cultural capital from below» is formed through affective interaction, community validation, and relational visibility on online platforms.

When scholars share knowledge not for institutional prestige but to resonate with everyday users, they accumulate legitimacy through horizontal networks. This recognition depends on context, personal storytelling, accessibility, or even humour, and not just on disciplinary authority. However, such a system of recognition is unstable and informal, as it is mediated by platform algorithms that can marginalize less «visible» forms of knowledge, that is, knowledge that loses out in the competition for attention through the logic of the platforms. According to the researchers, these include, for example, unpopular truths, deep expertise, non-commercial knowledge, collective and shared knowledge. In other words, academic quality standards are replaced by popularity metrics [van Dijck, Poell, de Waa, 2018].

To successfully navigate the media landscape, experts are forced to translate complex concepts into a language that is understandable to both algorithms and the general public. This turns the expert into a mediator, who mobilizes knowledge through public

discourse. Such a «communication agent» is the ideal type of modern intellectual who is not afraid to «get his hands dirty» with mass culture or social media algorithms, because he understands that this is the only way to ensure the survival and spread of truth in the global media space. Carrigan argues that in modern academia, a scientist cannot simply «produce knowledge» in isolation, he must become an active participant in networks. Social media allows the scientist to be a «node» in a network that connects academic ideas with the wider community, politicians and practitioners. However, this process carries the danger of a «double bind»: the need to be visible forces scientists to submit to populist logics, which often requires the simplification of arguments to the level of emotionally charged content [Carrigan, 2020].

In this new hierarchy of knowledge, the individual, not the institution, becomes the channel through which information flows. Visibility and influence become entangled in the logic of platforms, where engagement metrics (likes, reposts) become a surrogate for scientific validation, leading to the emergence of the phenomenon of the «scientific influencer». The «scientific influencer» is a hybrid actor who combines professional expertise with personal authenticity, reframing knowledge as something relational and performative [Nichols, 2024].

Modern media culture, operating in the context of the attention economy, imposes a logic of «clickbait» on scientific knowledge. Clickbait is defined as sensational or misleading headlines designed to attract traffic at the expense of the value or truthfulness of the information. This strategy prioritizes engagement over accuracy, which directly threatens journalistic and scientific integrity.

Experimental evidence suggests that the use of sensational frames leads to heightened emotional responses, which increases the likelihood of content being shared on social media. For the expert, this creates a situation where their work can be distorted or taken out of context in order to create a «viral» moment [Berger, 2013]. Clickbait often exploits «curiosity gaps» [Loewenstein, 1994] or makes bold claims that are later not supported by the content of the article.

Often, scientists and scientific journals themselves become «conscious accomplices» of sensationalism, trying to gain recognition and funding in an environment of increasing competition. Scandals such as the Andrew Wakefield MMR vaccine case [Wakefield, 1998] or the Korean stem cell cloning of Hwang Woo-suk [У Південній…, 2005] highlight how the pursuit of media attention can lead to large-scale data falsification and the undermining of public trust in science as a whole.

The crisis of expert authority

In the «post-truth» era, objective facts are becoming less influential in shaping public opinion than appeals to emotions and personal beliefs. Populism and post-truth often go hand in hand, challenging the liberal-democratic concept of truth based on expert assertions. Populists argue that elites gain power through access to «truth» through advanced degrees, which creates an unfair distribution of power.

A phenomenon of «science-related populism» is emerging, which assumes an antagonism between ordinary people and academic elites. This concept is based on the idea that scientists are an immoral minority that ignores people's needs and encroaches on their common sense [Mede, 2020]. Populist epistemology often offers so-called «counterknowledge» [Thompson, 2008]. These are alternative authorities that are presented as more reliable than official science. This is different from the simple common sense of rural populism; modern right-wing populists often claim to possess truths achieved through independent investigations that contradict mainstream expertise. Such tendencies are reinforced by directional motivation and confirmation bias, where citizens seek out only evidence that supports their pre-existing beliefs. This creates significant difficulties for teaching controversial issues in schools and universities, as students may perceive any expert statement as simply another opinion.

To understand how scholars might navigate this complex environment, Roger Pilke Jr. offers a taxonomy of four idealized expert

roles. These roles depend on how the scientist views democracy and the role of science in society.

(1) The Pure Scientist focuses only on the facts and does not interact directly with decision-makers. This is a role that theoretically exists only for graduate students, since in the real-world grants require demonstration of impact and relevance.
(2) The Science Arbiter provides answers to questions that can be answered empirically using the tools of science. This role is best realized through expert committees (e.g., the FDA), where scientists remain within their field of expertise but help solve specific management problems.
(3) The Issue Advocate seeks to narrow the range of available options to a single desired outcome. Although advocacy is often looked down upon by the scientific community, Pilke emphasizes that scientists are also citizens and have the right to participate in public debate as experts in favour of certain solutions.
(4) The Honest Broker seeks to expand or clarify the range of choices by presenting the decision-maker with a range of options and their consequences. This role is crucial to a healthy democracy, especially on issues with high levels of value conflict.

Pielke argues that the roles of «pure scientist» and «arbitrator» only make sense when societal values are shared and scientific uncertainty is low (e.g., when a tornado is approaching). In situations of value conflict (e.g., abortion policy), the roles of «advocate» or «honest broker» are most appropriate. The greatest threat is «stealth advocacy» where an expert tries to hide his or her political preferences behind a facade of scientific neutrality, leading to the pathological politicization of science [Roger A. Pielke Jr., 2007].

Active participation in the public sphere makes academic experts vulnerable to online attacks. Surveys show that 30% of scientists and faculty have been victims of online harassment in the past six months alone. Senior faculty, minorities, and social

and humanities scholars are most often targeted. Online bullying often operates in a «mob» fashion, where anonymous users feel free from social norms and rules, resorting to death threats or mass cyberbullying. «Cancel culture» creates a «chilly climate» where researchers are afraid to express opinions that may be perceived as hostile, morally offensive, or simply factually unpopular. This leads to self-censorship and scientists refrain from authentic self-expression to avoid public humiliation, reputational damage, or even job loss [Kaufmann, 2021]. The psychological consequences for the scientist can be profound: increased anxiety, social isolation, and a loss of overall trust in the professional environment.

The role of the expert is inextricably linked to the status of the university as an institution. University autonomy – the ability of an institution to make independent decisions about its mission and the methods of its implementation – includes four dimensions: organizational, financial, personnel and academic. Without academic freedom, institutional autonomy risks turning into managerial tyranny. Experts often encounter the internal hierarchy of the university, where «autonomous» scientists compete with «managed» managers for the right to determine the research program. Changing sources of funding (for example, the transition to project funding) opens the door to external actors who can influence the results of the expertise.

The role of the expert in the modern public space has transformed from the position of the monopolist of truth to the position of a vulnerable but critically important participant in affective communication. The era of «clickbait» imposes rules of the game on scientists that contradict traditional academic values: speed instead of depth, emotion instead of logic, visibility instead of truth.

To preserve academic freedom and the effectiveness of expert knowledge, we must develop the digital literacy of scholars, teaching them to «code-switch» without losing intellectual integrity; protect university autonomy from populist demands for «popular sovereignty over truth» while making science more open and participatory; create institutional mechanisms to protect against

online harassment and «cancel culture» preventing destructive self-censorship.

The future of academic freedom depends on the ability of universities to remain living witnesses to the power of knowledge that positively infuses culture, and on the courage of individual experts to act as public intellectuals despite the risks of a mediatized world.

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1.3. Academic impartiality versus media bias as a theoretical basis for the conflict

"Clickbait" as a tool for deforming scientific discourse and its impact on scientific communication

In the modern digital era, scientific communication has ceased to be a closed process of knowledge exchange between specialists. It has turned into a complex, multi-level "social conversation around science", involving not only researchers, but also journalists, politicians, activists and the general public. This transition from a linear model of knowledge deficit to a network model of interaction is accompanied by a process of mediatization – a deep adaptation of the scientific system to the logic of the mass media [Mellor, 2025; Bucchi, 2025; Olesk, 2024].

Peter Weingart describes mediatization as a process in which scientific institutions and individual scientists begin to focus on criteria of media relevance, such as novelty, sensationalism, and drama, which often contradict traditional scientific values of accuracy and scepticism. In the conditions of the «attention economy» scientific discourse undergoes deformation, as visibility in the media space becomes a key factor in legitimization, obtaining funding, and building an academic reputation [Weingart, 2013; Rödder, 2012].

Clickbait in this context arises not as an accidental journalistic error, but as a strategic tool of mediatization. It is a product of the conflict between the need to democratize science – to make knowledge accessible to all – and the commercialization of scientific information. Rather than promoting scientific literacy, clickbait often creates the illusion of knowledge by exploiting the audience's cognitive vulnerabilities and distorting the very essence of the scientific message [Rathke, 2024; Zaharía, 2023; Supavich Fone Pengnate, 2021].

Clickbait is defined as a communication strategy aimed at luring the reader to a link by means of headlines that deliberately hide

key information or exaggerate its significance. In scientific communication, this phenomenon acquires specific features, where linguistic resources are used to overcome the barrier between the highly specialized language of science and the everyday experience of the lay public [Zaharía, 2023; Knauf, 2025; Weingart, 2013].

The functioning of clickbait is based on the concept of the «curiosity gap» proposed by J. Loewenstein. A clickbait headline provides enough information to arouse interest but delays the resolution, creating cognitive dissonance that can only be resolved with a click. This strategy exploits the human survival instinct that drives us to seek out information about our environment, especially that which is emotionally charged [Supavich Fone Pengnate, 2021; Zaharía, 2023] (Table 1.1).

Table 1.1. Mechanisms of clickbait's impact on scientific discourse

Characteristics of clickbait	Description of mechanism	Impact on discourse
Forward-referential narrative	Use of pronouns and indications of what will happen next ("This is a discovery...", "You won't believe...").	Draws attention to the process of consuming content, rather than its essence.
Emotional arousal	Use of "powerful words" that cause anger, fear, or admiration.	Reduces the ability to critically analyse research methodology.
Hyperbolization	Conversion of correlation into causality, use of superlatives ("the greatest", "shocking").	Creates a false idea of the speed and unambiguousness of scientific progress.
Simplification of complex systems	Models such as "One gene – one disease" (OGOD).	Levels the understanding of multifactoriality and stochasticity of natural processes.

Note: developed by the authors based on the analysis of Supavich Fone Pengnate 2021, Zaharía 2023; Vultee 2020, Jung 2022.

Linguistic studies show that clickbait is often accompanied by specific punctuation (excessive exclamation marks, question marks) and the use of Internet slang, which increases the level of

interaction on social networks, but reduces the perceived reliability of the source [Vultee, 2020; Jung, 2022].

One of the most destructive forms of clickbait influence is the systematic exaggeration of research results. Research by P. Sumner and colleagues [Sumner, 2014] has shown that the deformation of discourse often begins not in the editorial office of the newspaper, but within the walls of the university itself. An analysis of hundreds of press releases from leading British universities revealed a disturbing pattern: a significant part of the exaggerations in the news were directly borrowed from official messages of university press services. This phenomenon has been called «contamination at the source» [King, 2019].

Mediatization changes not only the form of presentation of knowledge, but also the very identity of the scientist. The traditional model of academic work as a «priestly mission» is giving way to a model of «digital academic work», where the scientist acts as an entrepreneur of his own brand [Thaiane, 2018].

In a mediatized environment, a new imperative arises – the need for constant visibility. Scientists feel the pressure of having to report to taxpayers and grantmakers through media channels. This leads to a convergence, or even a merger, of personal and professional spaces. How exactly does this happen? Researchers use social networks to publish both scientific results and personal content, which aims to humanize the image of science, but often leads to a loss of professional distance. And this, in turn, leads to an irreversible process: from the violation of autonomy to its erosion. Adaptation to media logic can distort the internal processes of science, where the choice of topics for research begins to depend on their potential to become viral.

Clickbait in science has far-reaching consequences for society. When the public is regularly exposed to contradictory or exaggerated headlines, a phenomenon called the «disinformation cycle» occurs. The cycle often begins with «fluffy» press releases from scientific institutions that exaggerate research findings to attract media attention. News aggregators and blogs turn these press

releases into even more sensational headlines. In today's society, where the «TLDR» culture prevails, such a headline often becomes the only source of information for the consumer. When the public finally discovers the discrepancy between the high-sounding promises and the real state of affairs (for example, a «cancer cure» that turned out to be only a preliminary test on mice), a feeling of being deceived arises. This undermines trust in the scientific community and makes people doubt the reliability of any scientific claims. The loss of trust in official sources leads audiences to turn to bloggers or unofficial media outlets that spread unverified or outright pseudoscientific material, further perpetuating disinformation. This cycle is not limited to information perception. It has a direct impact on political decision-making and government funding. Distorted understanding of scientific facts through clickbait can lead to unjustified legislative bans and the inhibition of technological development [Hutch, 2020].

The use of clickbait often eliminates statistical nuance. A study by the Harvard T.H. Chan School of Public Health found that 58% of media articles inaccurately report the results of academic studies, often turning weak associations into prescriptive advice [Findings in science, 2018]. This leads the public to perceive science as constantly contradicting itself (e.g., coffee is good today, almost deadly tomorrow), ultimately undermining the credibility of the scientific method [Hutch, 2020].

The technological infrastructure of the 21st century plays a key role in the deformation of scientific discourse. Social networks such as Facebook and Twitter (X) use algorithms that prioritize engagement over accuracy [Khawar, 2024].

The metrization of science. Altmetrics and clickbait stimuli

The introduction of altmetrics (Altmetric Attention Score – AAS) has created a new reward system in science. Now the impact of an article is measured not only by citations in peer-reviewed journals, but also by mentions in news, blogs and social networks [Priem,

2012; García-Villa, 2021]. The calculation of AAS is based on a weighted index, where different sources have different weights. This directly incentivizes scientists to create content that would be attractive to high-weight media [Llewellyn, 2022; Pamplona, 2022]. Such a system creates a «splash effect» – a short-term peak of attention that may have no relation to the long-term scientific value of the work. Scientists, aware of these mechanisms, may subconsciously (or consciously) formulate the titles of their articles in such a way that they are more easily transformed into clickbait news headlines, which is a direct deformation of the academic style [García-Villa, 2021; Llewellyn, 2022].

Comparing different readability indices demonstrates the gap between scientific news and general media content. When the text of an article is «impassable» for the average reader due to excessive jargon (for example, the low frequency of use of the terms «polygenic» or «interaction» with frequent use of «risk» and «gene»), the reader relies exclusively on the title. Clickbait in this case fills the vacuum of understanding, offering a simple but false answer to complex questions [Morosoli, 2024].

Clickbait in scientific communication is a symptom of a broader crisis – mediatization, which forces science to play by the rules of show business and the market. The distortion of scientific discourse through clickbait is not just a linguistic problem; the distortion has become a fundamental shift in the way knowledge is legitimized in society. The development of AI-based clickbait detection tools and the introduction of new quality metrics that take into account the accuracy and contextuality of the message can become technological solutions that will help balance the need for attention with the demand for truth. However, the decisive factor will remain the ethical position of the scientist himself as a guarantor of the reliability of information in digital chaos.

The crisis of «negative liberty» in university environment

Analysis of the contemporary crisis of the university environment requires a deep appeal to fundamental political and philosophical categories, among which Isaiah Berlin's concept of «negative liberty» occupies a central place. In his classic work «Two Concepts of Liberty», Berlin outlines negative liberty as the absence of external obstacles to individual action, defining it through the answer to the question: «What is the sphere within which a subject – a person or a group of persons – is allowed or should be allowed to do what he can do, or to be what he can be, without interference from other persons?» [Berlin, 1969]. For the university environment, this concept is transformed into the requirement for a protected intellectual space, free from state, ideological, or administrative coercion [Positive and Negative Liberty, 2021].

The crisis of negative freedom in the modern university arises when the boundaries of this protected sphere begin to blur, not through direct prohibition, but through more complex mechanisms of deliberate human intervention. Berlin makes a clear distinction between physical disability and political unfreedom, which is always the result of other people's actions aimed at limiting the agent's possibilities. In the academic context, this means that the lack of funding for a particular field of knowledge or the displacement of critical disciplines from the curriculum is not a natural inevitability, but is the product of conscious administrative decisions that narrow the space of the scholar's negative freedom. Berlin's dichotomy warns against the abuse of «positive freedom», which he defines as the desire to be the master of one's own life and the source of control. In universities, this desire is often disguised under the slogans of «collective self-government» or «fulfilment of the institution's mission». However, as Berlin points out, the concept of positive freedom has historically been vulnerable to becoming an instrument of tyranny, when a «higher self» (the state, nation, or university corporation) begins to coerce the individual into a certain way of life in the name of his own «true» freedom. In the modern academic environment, this manifests

itself in the demands on scholars to conform to certain ideological or methodological standards that the administration considers «progressive» or «effective», thereby stifling the individual negative freedom of the researcher. An important aspect of Berlin's analysis is the recognition of the pluralism of values that is organically inherent in university life. Negative freedom is a necessary condition for the existence of this pluralism, since it allows scholars to adhere to different, often incompatible, conceptions of truth. And the crisis comes when the university system tries to impose a monistic model of success – whether through ideological monopoly or through unified indicators of economic efficiency [Berlin, 2019]. Thus, the defence of negative freedom in the university is not simply a claim of professional privilege, but a defence of the very possibility of critical thinking that is not subject to a single external standard.

The transformation of universities within the model of «academic capitalism», conceptualized by Sheila Slaughter and Larry Leslie, marks a radical departure from traditional notions of academic autonomy. Academic capitalism is defined as a set of institutional practices aimed at attracting external resources through participation in knowledge markets. In this regime, knowledge ceases to be a universal public good and is transformed into a commodity subject to capitalization through patenting, licensing and the creation of commercial units [David, 2021].

Slaughter and Rhodes describe the emergence of «new knowledge chains» that directly link academic research to economic profitability. This leads to the formation of technology transfer centres, intellectual property offices and business incubators, which are becoming increasingly influential within the university structure [Slaughter, 2004]. These structures act as mechanisms for reorienting the research activity of scientists from fundamental, often «unprofitable» searches to applied developments that have a rapid market return. Thus, the negative freedom of the scientist – the right not to engage in commercially attractive but scientifically trivial tasks – is threatened by systemic economic pressures [Münch, 2020].

The consequence of academic capitalism is the emergence of what Sheila Slaughter calls the «administrative lattice» – a sprawling system of management that controls academic processes through the prism of financial efficiency [Slaughter, 2003]. Scientists are trapped in a state of «resource dependency», where access to labs, equipment, and even working hours depends on the ability to attract external funding. This creates a hierarchy within the university: «scientific leaders» who bring in millions of dollars in contracts are given maximum autonomy, while humanities and theorists become the «academic precariat», whose work is seen as secondary or even a burden on the institution's budget [Slaughter, 2004].

The case of Dr. Ignacio Chapella of the University of California, Berkeley, illustrates the extreme point of this crisis: a researcher was denied tenure after he publicly opposed the university's deal with Novartis, arguing that it threatened the independence of research. This example demonstrates how market logic directly intervenes in the sphere of negative freedom of a scientist, punishing the use of the right to criticism if it harms the commercial interests of the institution. The autonomy of the university as an organization in the conditions of academic capitalism is often bought at the price of the academic freedom of individual scientists, who become hostages of corporate contracts and confidentiality conditions [Münch, 2020].

The crisis of negative freedom in the university is deepened by the introduction of the ideology of managerialism, which postulates that the management of complex intellectual systems should be carried out according to the same principles as the management of commercial corporations. The central tool of managerialism is the «audit culture», which relies on Key Performance Indicators (KPI) and international rankings. This approach replaces the traditional trust in the professional judgment of the scientist with mechanistic control through quantitative indicators [Kairuz, 2016; Сбруєва, 2021].

Jakub Jirsa emphasizes that the introduction of metric assessment creates an atmosphere of mutual distrust: politicians and

society do not trust the «elitist» knowledge of scientists, and scientists do not trust administrators who measure their work with numbers. Metrics create the illusion of objectivity, but they inevitably lead to a distortion of the content of scientific activity. According to «Campbell's law», as soon as an indicator becomes a goal, it loses its informativeness and begins to corrupt the process. In universities, this is manifested in «publish or perish» strategies, when scientists are forced to fragment research in order to increase the number of articles or choose «safe» topics that are guaranteed to be reviewed in high-ranking journals [Jirsa, 2022].

Managerialism also radically changes the professional identity of a scientist. Julia Evetts distinguishes between «occupational professionalism», based on internal ethical standards and expertise, and «organizational professionalism», which requires loyalty to the goals of the institution and the fulfilment of formal indicators [Evetts, 2011]. In conditions of managerialism, academic freedom is perceived by the administration as an obstacle to efficiency that needs to be optimized.

Particularly disturbing is the evidence from neuroscientific studies that indicate that an environment overloaded with KPIs and constant evaluation causes chronic stress in scientists, which directly suppresses the cognitive functions necessary for creative and critical thinking. Thus, managerialism not only limits the external (negative) freedom of the scientist through administrative pressure, but also destroys the internal conditions for the realization of freedom as the ability to think independently. The university becomes a «machine for producing indicators», where the scientist is just a cog, whose autonomy is sacrificed for the institution's positions in global rankings, which are themselves instruments of cultural imperialism and the homogenization of knowledge [Lynch, 2014; Lloyd, 2021].

The process of mediatization of science adds a new dimension to the crisis of negative freedom in the university environment. Mediatization is defined not simply as an increase in the amount of scientific news in the press, but as a profound change in the logic

of scientific functioning, where orientation to the mass media becomes a condition of legitimacy and financial survival. Scientists and scientific institutions are forced to adapt to a media logic that values sensationalism, simplicity, emotionality and immediate relevance. Such adaptation creates the phenomenon of "visibility under the gun". On the one hand, media presence helps scientists attract grants and influence political decisions. On the other hand, it makes them vulnerable to public condemnation, ideological attacks and simplifications. Peters and other researchers note that mediatization leads to a blurring of the boundaries between science and its social context, which threatens the methodological autonomy of researchers. When research results are evaluated not by peer experts but by a mass audience or political activists, the scientist loses negative freedom – the right to be wrong, the right to be complex, and the right to be unpopular [Peters, 2008; Moorhead, 2023].

A particular challenge is mediatization in the digital age. Professional opinion expressed by a scientist can be taken out of context and disseminated among an audience that does not have the necessary tools for its critical perception. This situation creates an atmosphere of a "digital panopticon", where the possibility of constant surveillance by anonymous users or administration forces scientists to preventive self-restraint.

Mediatization also distorts the scientific agenda. Journalists and university press offices prioritize topics that are easy to visualize or that evoke strong emotions, ignoring fundamental but "boring" research. As a result, scientists find themselves in a situation where they are forced to become active partners in the production of news, adjusting their research agendas to the needs of the media cycle. Such subordination of the internal logic of science to external media standards is one of the most insidious forms of limiting negative freedom, because it often looks like a voluntary choice in favour of public relevance.

Mechanisms of self-censorship

In response to the pressures of academic capitalism, managerialism, and mediatization, the phenomenon of self-censorship is spreading in the university environment. It is not simply a lack of expression, but a complex act of preventive limitation of one's own activities in order to avoid the expected negative consequences – refusal of a grant, dismissal, reputational harassment, or legal prosecution. Self-censorship becomes a "survival strategy" in an environment where the risks associated with the search for truth become professionally unacceptable [deVos, 2025; Daruwala, 2025].

Research shows that scientists often tailor their proposals to match funding priorities, even if it requires disregarding more significant scientific questions. In politically polarized environments, researchers in public health, sociology, or gender studies shy away from certain topics or use "neutral" language to avoid angering political opponents or government sponsors. This leads to knowledge that "will never be produced" and questions that "will never be asked," which is disastrous for the future of science [Antin, 2025].

When authority structures (administrations or states) combine intense surveillance with severe punishment for deviations from the norm, the population (or academic community) moves into a state of near-total compliance. Self-censorship is dangerous because it is difficult to pin down: it is impossible to count the number of articles that have not been written or ideas that have been nipped in the bud. It creates an illusion of stability and agreement that hides intellectual exhaustion.

For many scientists, self-censorship becomes a way to preserve the sphere of privacy outside the official work, but in the conditions of digital transparency this becomes increasingly difficult. The professional voice of the scientist is dissolved in the demands of corporate loyalty. As Deuze notes, self-censorship may begin as a form of self-defence, but when it becomes the norm, it turns into the most powerful tool of social control that does not require the direct intervention of a censor. This is the highest point of

the crisis of negative freedom - a state when the subject himself builds walls around his activity, making external coercion unnecessary [Єрмоленко, 2017]. In the context of the crisis of negative freedom, it is important to turn to the classic experience of elite university management, in particular to the views of Henry Rozovsky, former dean of Harvard and author of the work "The University: A Guide for the Owner". Rozovsky saw the university as a unique institution that is "more than fact, like a library, more than faith, like a church, and more than emotion, like a club." His vision was based on six characteristics of quality: collegial governance, academic freedom, selection on merit, significant human contact, cultural preservation, and non-profit status. Rozovsky passionately defended the system of tenure as an economically and ethically sound guarantee of academic freedom. In his view, tenure allows a scholar to "think (or not work) in peace," while not being accountable to anyone but his own professional standards. This is the institutional embodiment of negative freedom according to Berlin – the creation of a sphere that is inaccessible to politicians, donors, and administrators. However, Rozovsky was also aware of the danger of "administrative bloat," noting that the quality of an institution is negatively correlated with the unlimited power of administrators [Rozovsky, 1990].

The current crisis demonstrates how Rozovsky's ideals are subject to change. Universities are increasingly abandoning the "shared governance" model in favour of corporate structures, where scholars are deprived of influence over budgets and development strategies. The meritocracy that Rozovsky considered the foundation of academia is being undermined by the pursuit of quantitative indicators, where "large volumes of mediocre results" are valued above single outstanding achievements. The university, which was supposed to be a moral force and a centre of ethical education, risks turning into another market player for whom ethics is only an element of a PR strategy [Jirsa, 2022; Scott, 2003].

Nevertheless, Rozovsky's experience suggests a way out of the crisis. He emphasized that academic freedom imposes on the

scholar the obligation of professionalism and commitment to the standards of truth. The restoration of negative freedom in the university is impossible without restoring the right to self-government to scientists and protecting the university from being transformed into a "commodity". The freedom of a scientist is not simply the absence of obstacles, it is a privilege that requires constant ethical substantiation and active protection from "market solutions to problems that the market cannot adequately cope with" [Scott, 2003, Савчин, 2019].

The crisis of negative freedom in the modern university environment is not an accidental failure, but is a systemic consequence of the collision of academic values with the logic of global capitalism and technological control. An analysis of Isaiah Berlin's concept allows us to see that modern coercion in the academy has become less visible, but more total. If censorship was previously an external act, now it is integrated into the very structure of funding, evaluation and public existence of a scientist. Academic capitalism has turned the autonomy of a scientist into a resource that can be exchanged for market preferences. Managerialism through the system of KPIs and ratings has created an "iron cage" of bureaucratic rationality that suppresses exactly what it is designed to stimulate – creative and critical thinking. Mediatization and digitalization of space have made the scientist a hostage of mass attention, where any statement can be used to discredit him, which inevitably leads to increased self-censorship.

Overcoming this crisis requires a review of the principles of academic policy. In the restoration of collegial management, where substantive criteria for assessing knowledge prevail over quantitative indicators, we see the beginning of overcoming the crisis of negative freedom. The academic community needs to develop new forms of solidarity that would allow scientists to jointly oppose administrative pressure and media harassment, transforming individual negative freedom into a collective force of resistance. Ultimately, the future of the university depends on its ability to remain a space where the rules of intellectual inquiry are established

by scholars themselves in the name of truth, rather than imposed from without in the name of profit or political expediency. The freedom of the scholar is a litmus test of the health of the entire society: where negative freedom in the academy dies, freedom as such soon disappears. Rebuilding the university as a "sphere of non-interference" is the most important task for intellectuals of the 21st century.

The impact of social networks on the formation of intra-academic barriers to freedom of speech

The transformation of academic discourse in the context of digital globalization has led to the emergence of complex socio-cultural, legal and ethical challenges that radically reformat traditional ideas about freedom of speech in the university environment. Social networks, acting as new platforms for intellectual interaction, at the same time become tools for the formation of specific intra-academic barriers that operate not through direct state censorship, but through diffuse mechanisms of horizontal pressure, a culture of cancellation and the phenomenon of deep self-censorship. This section analyses how the digitalization of communication modifies the hierarchical structures of the academy and creates new forms of restrictions that are often more effective and less noticeable than classic tools of state supervision.

Historically, academic discourse has been built on a certain separation from the wider public sphere, allowing scholars to discuss controversial ideas within a protected environment – an "ivory tower". Traditional mechanisms of knowledge verification, such as peer review and editorial control, served as filters separating scientific argumentation from emotional or politically biased statements. However, the emergence of social media has radically changed this architecture, rapidly destroying the boundary between the private opinion of a researcher, his professional activities and public image [Wilson, 2016]. The digital environment imposes new temporal and stylistic parameters on the academy. A scholar

who enters the space of social networks is forced to adapt complex theoretical constructs to the format of short messages, which often leads to simplification, radicalization and loss of context. In this context, the "virality" of information becomes a more important factor of influence than its scientific validity. Research shows that the ability to instantly disseminate thoughtless comments creates conditions in which scholars are vulnerable to immediate reactions not only from colleagues but also from the general public, political activists, and administrators [Wilson, 2016].

The changing media ecosystem has meant that academic freedom now faces threats that come not so much from government but from commercial pressures, government regulations, and, most importantly, from social forces within and outside the academy itself. The transformation of discourse is manifested in the change of the status of scientific expression. If earlier a lecture in the classroom was considered an intra-academic event, today, when recorded and posted online, it turns into a public statement for which the teacher can be held disciplinary liable regardless of how few people viewed it initially. Every digital trace can become a basis for professional discredit.

A key feature of modern barriers to freedom of speech in academia is the transition from vertical censorship, that is, state, to horizontal. Horizontal censorship in the scientific literature is understood as restrictions on the expression of views that are carried out not through public law, but through private powers – for example, through contractual relations between the university and the teacher or through pressure from equal community members [Orr, Wells, 2020].

Universities are increasingly viewed as corporate entities for which brand reputation is a priority, forcing administrations to use contractual instruments to restrict employees' sociopolitical expression if it threatens the institution's image. Horizontal censorship manifests itself in the form of "lawful and reasonable instructions," mandatory social media policies, and common law loyalty clauses. Horizontal censorship mechanisms often include disciplinary

sanctions for statements deemed "uncivilized" or damaging to the university's reputation. There may be pressure from student organizations or external activist groups to demand the dismissal or public condemnation of faculty members for their beliefs.

It is important to note that although an employee formally has the right to change their place of work, in practice economic dependence and professional specialization make these private-law restrictions no less strict than state prohibitions. Modern academia is witnessing the regeneration of status relations, where a teacher is obliged to subordinate his personal beliefs to the corporate ethics of the institution even during non-working hours.

One of the deepest internal barriers to freedom of speech is the psychological mechanism of the "spiral of silence", adapted to the realities of social media. According to this theory, individuals tend to hide their views if they perceive them as being in the minority or losing popularity [Dubois, Szwarc, 2018]. In the academic environment, this process becomes particularly acute due to the high value of social capital and professional recognition. Research shows that the "spiral of silence" works even more intensively in social networks than offline. Scientists constantly monitor the "climate of opinions" in their professional networks. If a researcher sees that a certain issue is likely to provoke an aggressive reaction from the majority, he or she is likely to resort to self-censorship to avoid social isolation or sanctions. This process leads to the fact that dominant views seem even more all-encompassing than they actually are, and alternative positions become invisible. It is important to distinguish between two types of fear of isolation that drive these processes: trait-based and state-based. These are the general tendencies of an individual to avoid conflict and to seek approval and emotional response to a specific situation in a particular online community, respectively. As the data show, it is the situational fear of isolation within a particular online group that has the greatest influence on the decision to remain silent or even express false support for the dominant opinion in order to "fit in" [Haug, 2025].

Self-censorship in academia is defined as an internally generated restriction of academic freedom, when scholars refrain from disseminating their ideas or research results due to expectations of disagreement or hostility. This leads to an erosion of the university's function as the "critical conscience" of society [Self-Censorship in Academia, 2025]. When scholars cease to discuss controversial issues, the quality of democratic discourse declines and scholarly inquiry is limited to safe but insignificant topics.

Cancel culture in the academic context is an organized practice of public shaming and boycotting aimed at excluding an individual from the professional space for statements that are perceived as offensive or ideologically unacceptable. Unlike traditional scholarly criticism, cancel culture focuses not on refuting ideas but on destroying the reputation and social connections of the bearer of these ideas. Cancel culture creates an atmosphere where the value of unrestricted freedom of expression is seen as less important than protecting certain groups from "morally offensive" content [Nisenson, 2025]. This leads to university administrations, often under pressure from social media, resorting to disciplinary action even in cases where a professor's statements are protected rights to academic freedom.

It is important to understand that cancel culture differs from traditional censorship in that it is carried out "from below" or "horizontally," using social pressure as its primary lever [Ketzl, 2025; Norris et al., 2023]. However, the result is often the same: the silencing of voices that deviate from the established consensus and the narrowing of the intellectual pluralism that is at the heart of scholarly inquiry.

One of the most pressing issues in contemporary academic freedom is the regulation of "extramural utterances" – public statements made by faculty members as citizens rather than as representatives of the university [Wilson, 2016]. Social media has made these utterances instantly accessible, leading to a series of high-profile dismissals and lawsuits.

Traditional standards (e.g., AAUP) [AAUP] hold that faculty should not be subject to disciplinary action for their words as citizens, except when those words demonstrate their "unfitness to serve" [Wilson, 2016]. However, in the age of digital transparency, universities are increasingly ignoring this standard, justifying sanctions as a need to maintain "civility" [Nisenson, 2025] or to protect students from discomfort.

The Ukrainian academic space is in a state of double transformation, in a state of overcoming the post-Soviet legacy and adapting to global digital challenges, burdened by the conditions of a full-scale war. The issue of academic freedom in Ukrainian universities increasingly intersects with issues of national security and the ethics of digital behaviour [Кришталь, 2023]. Ukrainian legislation guarantees academic freedom, but it also imposes on scientists the obligation to adhere to ethical norms and counteract the spread of false information.

The formation of intra-academic barriers in social networks has profound destructive consequences for the very essence of scientific activity. When free speech is limited by a fear of cancellation culture, science loses its ability to self-correct and innovate. Researchers begin to avoid "risky" topics, preferring safe mainstream directions. This leads to intellectual stagnation and the loss of science's predictive function [Norris I, 2023; Mysak, 2022].

The impact of social media on the formation of intra-academic barriers to free speech is a complex phenomenon that requires not only legal but also a deep cultural rethinking of the role of the scientist in the digital age. The transformation of academic discourse has led to the fact that the main threats to free speech are now horizontal and diffuse. A number of steps must be implemented to overcome these barriers. Universities should adopt clear policies that protect the extracurricular speech of faculty members and clearly limit the scope of disciplinary liability only to cases where direct professional incompetence is proven. In turn, the academic community should actively support the principle of pluralism of opinions, counteracting attempts to establish

an ideological monopoly under the guise of social justice. Any investigations into statements on social media should be carried out with the participation of independent ethics committees, respecting the presumption of innocence and the right to a defence. What else can universities do? For example, include courses on the ethics of digital communication and the legal foundations of free speech in faculty development programs to minimize the risks of unintentional conflicts. The university should remain a platform for discussing even the most unpleasant ideas, if they are scientifically substantiated.

Freedom of speech in academia is not a given; it is a process of constantly protecting intellectual space from the pressures of conformism. Social media can become a tool for the liberation of knowledge, but only if the academic community finds the strength to resist new forms of digital censorship and self-restriction.

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CHAPTER 2

UNIVERSITY IN THE FIELD OF MEDIA INFLUENCE. CHALLENGES OF AUTONOMY AND ETHICS

2.1. Political, economic and socio-cultural determinants of external influence on academic independence in the media space

The use of media resources for political pressure on universities and individual teachers

The transformation of higher education in the context of globalization and digitalization has turned universities into active subjects of socio-political life. However, this publicity has made the academic environment vulnerable to external manipulation. The use of media resources to pressure universities and teachers is a complex technology that combines state policy instruments, economic levers and direct media attacks. In modern democracies in transition, as well as in countries with a developed mediacracy, the media cease to be simply a channel of information, becoming a means of political censorship and coercion to conformism.

The mediatization of the educational space has led to the fact that the reputation of the university has become its main intangible asset. Political actors use the media to shape a specific agenda around educational institutions. As M. Castells notes, in a network society, power is based on the management of communication networks [Castells, 2009]. Therefore, an attack on a university through media resources is an attempt to disconnect it from the "network of trust" or force it to make certain political decisions.

External pressure on universities in the context of media resources can be classified according to three vectors:

- vertical (state) pressure: through official press releases, state media and regulatory bodies;
- horizontal (economic) pressure: through media holdings owned by financial and political groups (oligarchic influence);
- network (targeted) pressure: through social networks, bot farms and disinformation campaigns directed against specific teachers.

A specific example of such instrumentalization is the use of "rating wars". When the political elite seeks to change the leadership of a certain higher education institution, a series of materials about the sharp decline of the educational institution in international or national rankings appear in the controlled media [M. Moore, 2022]. For example, manipulation of data in the media regarding the citation rate of teachers or the employment rate of graduates is used as an "objective" argument for the implementation of external anti-crisis management.

It is important that the state remains a key player and determines the framework for the functioning of universities. Political pressure is often legitimized through media campaigns criticizing the "inefficiency" or "ideological inconsistency" of individual higher education institutions.

Ukrainian researchers emphasize that education is a strategic resource for national security, but its excessive politicization creates risks for academic freedom [Ivanenko, 2024]. When state policy shifts towards authoritarianism or strict ideological control, the media are used to:

- create the image of a "hostile university" or "centre of freethinking" that threatens state interests;
- broadcast the results of commissioned audits and inspections to prepare the ground for a change in the institution's leadership.

Unfortunately, this also happens when state policy shifts towards authoritarianism, and the media is used to broadcast the

results of commissioned audits. An example of international experience is the situation with the Central European University (CEU) in Hungary, where a government media campaign created an image of an "agent of influence" around the institution, which led to its de facto ouster from the country. That is, the Hungarian government, through a network of loyal media outlets, propagated the narrative throughout 2017–2018 that the university was a "foreign agent" that threatened national sovereignty. The media attack was based on the term "Soros network", which allowed the academic community to be marginalized in the eyes of the conservative electorate and to justify the legislative changes that forced the institution to move to Vienna [Enyedi, 2018]. This is a classic example of using media resources as a preparatory stage for legislative restrictions.

In the Ukrainian context, state pressure through the media often takes the form of "corruption accusations" during admission campaigns. State authorities, through controlled communication channels, can selectively cover violations in individual "rebellious" universities, creating an informational background for depriving them of licenses or reducing state orders. This demonstrates how the media resource becomes a "whip" that forces the administrations of higher education institutions to be loyal during electoral processes.

The economic model of modern universities (especially in Ukraine) involves a combination of state funding, contract training, and grant funds. This multi-vector nature creates points of vulnerability.

Thus, economic pressure through the media is implemented through:

- discrediting sources of funding. Media attacks can be directed at the university's patrons or grantors, accusing them of "financing anti-state activities";
- manipulation of ratings. The publication of dubious or commissioned anti-ratings in the media reduces the attractiveness of the institution for applicants, which directly affects the university budget.

Also, the elements of economic vulnerability include:

– the dependence of the educational institution on a special fund (contractual form). Any negative publication in the media during the period from June to August, when the admission campaign takes place, is directly converted into financial losses for the university. Political groups use media holdings to publish "investigations" about the terrible condition of dormitories or the low quality of education during this period in order to redirect the flow of applicants to loyal or their own educational business projects;
– grant dependence and media discrediting, when universities that actively attract Western grants become targets for media campaigns based on the rhetoric of "external management." This creates risks for academic communities, as public pressure forces university administrations to abandon "toxic" (from the media's perspective) partnerships.

In their theory of "academic capitalism," S. Slaughter and L. Leslie pointed out in the 20th century that universities, which are part of market relations, inevitably become objects of market pressure, where the media act as an instrument of unfair competition [Slaughter, 1997]. In Ukrainian realities, this is often manifested in the use of "black PR" against private higher education institutions or state universities competing for state contracts.

Also, in Ukraine, this is manifested in the use of the media as a tool for the raider seizure of university land or property. A media campaign about "misuse of property" often precedes attempts to alienate the territories of higher education institutions in favour of developers affiliated with political circles.

The most vulnerable link in the academic community is the individual teacher. Political pressure on a scientist through the media aims not only at his dismissal, but also at his professional destruction.

Let us consider the most common methods of media attacks on teachers, which are presented in Table 2.1.

Table 2.1. Methods of media attacks on teachers of educational institutions

No.	Methods	Characteristics of media attack
1	"Taking out of context"	Using quotes from lectures or scientific papers to accuse them of lack of patriotism, unprofessionalism, or violation of ethical norms
2	Cyberbullying and discrediting on social networks	Creating coordinated "waves of outrage" (astroturfing) that force the university administration to distance itself from the teacher
3	Disclosure of private information (doxing)	Pressure through personal life to stop a scientist's public or political activity

Note: developed by the authors based on the analysis of Remez O., 2020; Norris P., 2021; Altbach, 2016.

Let's consider an example of the "taking out of context" technology. Thus, in 2021-2023, there were cases when fragments of lectures by sociology or political science teachers, recorded by students on mobile phones, were edited and distributed via Telegram channels with an audience of millions. The goal of such actions is to provoke a wave of hate speech, accusing the teacher of violating ethical norms. Often, such attacks are commissioned and coordinated with the aim of eliminating opinion leaders from the academic environment who have an influence on student youth.

As for the phenomenon of "astroturfing" in the academic environment, these technologies are used to displace the opinions of real people on web forums, to simulate public support and organize fake campaigns on the Internet that create the impression that a large number of people are demanding something specific or opposing something, promoting the necessary discourse [Remez, 2020]. That is, the illusion of mass public outrage against a particular professor is created when a campaign is launched where thousands of Facebook bots demand his dismissal under university posts. The administration, fearing reputational losses, often makes concessions to the aggressive "digital crowd", ignoring the principles of academic freedom and the presumption of innocence.

Research by P. Norris shows that over 40% of social science researchers feel pressure from the media community to adhere

to a certain ideological line [Norris, 2021]. In Britain, the case of Professor Kathleen Stock (University of Sussex), who was forced to resign after a long media campaign and threats on social media because of her scientific views, has become a precedent that demonstrates that a media resource can neutralize any academic position, regardless of scientific merit.

The phenomenon of "cancel culture" in the academic environment in the West (in particular, in the USA and the UK) demonstrates how, due to media pressure, teachers lose their jobs for statements that are considered "politically incorrect" from the point of view of certain political groups [Norris, 2021]. This creates an atmosphere of self-censorship, which is detrimental to scientific research.

Thus, we can say that in the conditions of hybrid war, media resources become a weapon for destabilizing the intellectual elite. A teacher who has his own political position, which does not coincide with the line of the owners of media resources or the current government, automatically falls into the risk zone.

To protect against political pressure through the media, universities should develop their own communication security strategies. Among the strategies for countering and protecting academic freedom, the following can be highlighted:

- development of its own media subjectivity, when the university should not be an object, but a subject of communication, having powerful channels of communication with the public;
- legal protection, when funds are created to support teachers who have become victims of media attacks, and active judicial practice is used to protect their honour and dignity;
- academic solidarity. As European experts emphasize, university autonomy is impossible without the internal unity of the corporation [Altbach, 2016];
- the creation of reputation management departments, when there is a transition from classic press services to strategic communications centres;
- digital hygiene and legal protection, when in the event of a media attack, teachers are trained in methods of protection against cyberbullying and algorithms for action.

Thus, it is necessary to develop internal university statutes that would guarantee that no teacher can be dismissed solely on the basis of media resonance without the conclusion of the university's ethics commission.

Thus, we can say that the use of media resources as a tool for political pressure on universities is a challenge for modern democracy. The combination of state policy seeking control and economic groups seeking influence creates a toxic environment for education. Media attacks on individual teachers are a form of modern censorship that uses emotional manipulation and digital technologies instead of direct prohibition.

The impact of commercialization of education and dependence on grants on the independence of scientific research

In the 21st century, the system of higher education and scientific research is undergoing a profound transformation, driven by globalization, market mechanisms, and the growing role of external sources of funding. Modern higher education and science are in a state of fundamental transformation, which researchers often call the transition from "University 1.0" and "2.0" (the Humboldtian model) to "University 3.0" and "4.0", where the combination of education, research, and commercialization of knowledge becomes key. However, this transition is accompanied by growing risks to the independence of scientific research. The commercialization of education, on the one hand, opens up new opportunities for universities, contributes to the diversification of financial flows, and increases the competitiveness of scientific institutions. On the other hand, it creates risks for academic freedom, in particular through dependence on grants, private investors, government policy, and information pressure.

The influence of market mechanisms, the lack of state funding and the strengthening of the role of the media environment form a new architecture of pressure on the scientist. In this context, the

issue of the independence of scientific research becomes particularly relevant, because it is the autonomy of science that is the key condition for its ability to produce objective knowledge and ensure social development.

Commercialization of education involves the introduction of market principles into the activities of universities: competition for students, paid educational services, orientation to the needs of business and investors. Market models of higher education management change its mission, shifting the emphasis from public good to economic efficiency. Similar trends are observed in the European Union, where universities are increasingly dependent on contract research and private partners [Marginson, 2016].

The process of commercialization of education (academic capitalism) involves the integration of higher education institutions into the market economy as active subjects. According to Heather Slaughter, academic capitalism forces universities to focus on profitable areas, which often runs counter to basic science, which does not yield immediate dividends [Slaughter & Rhoades, 2004].

Thus, in such a system, scientific research becomes a commodity, and its value is determined not only by scientific novelty, but also by commercial attractiveness. This creates risks for basic science, which often does not have a quick economic effect, but is critically important for long-term development.

Academic freedom implies the right of the researcher to independently determine the subject, methodology and results of his work. However, commercialization can limit these opportunities. According to B. Readings, in the era of global capitalism, the university is transformed into a corporation, where scientists become "knowledge workers", and their activities are subordinated to the logic of the market [Readings, 1996].

But the profit orientation of universities can lead to a reduction in funding for the humanities and social sciences, which do not generate quick economic profit, but are key to the development of a democratic society. When a university begins to function as a corporation, the criteria for the success of a scientist shift from "the

search for truth" to "the efficiency of raising funds". This creates a situation where research topics are chosen not for their scientific relevance, but for their market potential. In Ukraine, this process is complicated by chronic underfunding, which makes higher education institutions excessively vulnerable to the demands of private customers.

As Ukrainian researchers note [Higher education reforms in Ukraine, 2023], the transformation of the education management system towards managerialism leads to the fact that the administrative apparatus gains more power over the research process than the scientists themselves. This creates a hierarchy where loyalty to the economic strategy of the institution becomes higher than academic honesty.

An important source of funding for science, especially in countries with insufficient state funding, are grants. They allow for the implementation of innovative projects, support young researchers, and facilitate integration into international scientific networks. However, the grant system also has a downside. The grant system, which was originally conceived as a tool to stimulate competition and quality, has turned into a source of specific pressure. "Grant-eating" as a phenomenon not only exhausts a scientist's time on bureaucratic work, but also dictates the agenda.

Grantors, which can be either state funds or private foundations, often have clearly defined ideological or economic goals. A scientist seeking funding subconsciously (or consciously) adjusts the hypothesis to the donor's expectations. Unfortunately, grant competition creates a situation where researchers are forced to adapt their projects to the requirements of donors, which can limit their scientific freedom. Donors, both public and private, often have their own strategic interests that influence the topics of research. Stefan Collini in his work "What Are Universities For?" emphasizes that the assessment of science by external indicators of the "impact factor" and the amount of funds raised undermines the very essence of intellectual search [Collini, 2012].

In the Ukrainian context, grant dependence is often manifested in the implementation of projects that aim only to test Western models without taking into account local specifics, which leads to "intellectual colonialism". S. Kurbatov's research [Курбатов, 2014] confirms that the pursuit of international rankings and grants sometimes forces Ukrainian scientists to ignore strategic national interests in favour of topics that are chosen for material benefit, not for science.

Dependence on grants can lead to the "conformity effect", when scientists choose topics that have a greater chance of being funded, rather than those that are scientifically important. This phenomenon was described by M. Merton in the 1970s as part of the concept of the "normative structure of science", where he emphasized the risks of external influence on scientific norms [Merton, 1973].

State policy can both support and limit scientific autonomy. In democratic countries, the state usually provides basic funding for science and guarantees academic freedom. However, even in such conditions, political priorities can influence the topics of research.

As for state programs, their funding is often directed at "politically advantageous" areas, which creates inequality between disciplines. In countries with an unstable political system, the risks are even higher: the authorities can use funding as a tool to control universities.

In the Ukrainian context, the issue of political influence on science is particularly relevant. Unfortunately, higher education reforms are often accompanied by political conflicts that affect the autonomy of universities. Economic dependence on external sources of funding, namely: business, international funds, private investors, creates additional risks for the independence of science.

In countries with a low level of state funding, which includes Ukraine, the economic dependence of universities is a systemic problem. The lack of budget funds forces universities to focus on commercial projects that do not always correspond to scientific priorities. Therefore, the state remains the largest stakeholder in education, but its role has changed from a "patron" to a "controller".

But the use of formula financing, which is based on quantitative indicators, forces universities to engage in "imitation of activity". For example, scientific research in the fields of history, sociology and political science is often subject to censorship or self-censorship due to the fear of losing a state order.

A leading specialist in higher education, Philip Altbach, points out that even in democratic countries, state pressure through accreditation mechanisms becomes a tool for restricting academic autonomy [Altbach, 2016]. In Ukraine, the reforms of the last decade, although aimed at European integration, in some places create excessive bureaucratic pressure, where formal compliance with the NAHEQA (National Agency for Higher Education Quality Assurance) criteria becomes more important than the content of the scientific product.

In the modern information society, the media play a significant role in shaping public opinion about science. Thus, media attacks can be aimed at discrediting individual researchers, universities, or scientific areas. This phenomenon is especially common in conditions of political polarization. As K. O'Neill notes, the media can manipulate scientific information, creating false ideas about research results or undermining trust in scientists [O'Neil, 2016]. In Ukraine, media attacks are often associated with political conflicts or the struggle for resources, which is confirmed by research by the Centre for Strategic Communications [KyivStratcom Forum, 2024].

The media influence not only how we perceive the world, but also the social processes and structures themselves. Regarding this concept, it can be noted that the media is an important factor in the formation of identity, way of thinking, values, and social norms. The idea of mediatization also lies in the fact that the media today have an impact on the scientific world. Thus, scientists whose conclusions contradict popular social narratives or the interests of large corporations become objects of organized media attacks. This is especially noticeable in such areas as:

- ecology and climate change, when there is pressure on scientists from industrial lobbies;
- pharmaceuticals, when discussions around vaccination and new drugs may take place;
- social transformations, during gender studies, or when migration policy is taking place.

Jonathan Haidt, in his work "The Coddling of the American Mind", describes how pressure from activists and the media forces professors to abandon difficult topics in order to avoid public condemnation and loss of their jobs [Haidt & Lukianoff, 2018]. In Ukraine, media attacks often have a political colour, when scientific expertise is replaced by propaganda, and scientists who criticize government decisions are branded as "unpatriotic" or "anti-reformers".

Direct funding of laboratories by corporations creates a direct conflict of interest. As early as 2003, research by Sheldon Krimsky showed that the results of clinical trials funded by pharmaceutical companies were much more likely to be positive for the customer than independent studies [Krimsky, 2003]. In technical sciences, this leads to the fact that scientists focus on improving existing products instead of developing breakthrough technologies that can harm current market leaders.

For Ukrainian science, the problem of commercialization has a specific nuance. Due to the low level of GDP allocated to science (less than 0,3%, compared to the legally established 1,7%), Ukrainian scientists are in a state of permanent search for resources for survival.

Reforming the funding system through the National Research Foundation of Ukraine (NRFU) was a step towards independence, but the amount of this funding cannot yet eliminate the general economic insecurity of a scientist. This creates an excuse for:

- brain drain, when the best specialists go to the corporate sector or emigrate;
- academic plagiarism and falsification, when there is pressure on academics to "publish or perish", which, combined with

low salaries, stimulates the demand for "trash" journals and imitation of scientific activity. Moreover, external pressure affects not only the choice of topic, but also the methodology itself. In the context of commercialization, preference is given to quantitative methods (Big Data, statistics), which look "more convincing" to investors, while qualitative methods, such as in-depth interviews, ethnography, philosophical reflection, are devalued as "subjective".

Commercialization and grant dependence can lead to a decrease in the quality of scientific research. When the priority is not scientific novelty, but compliance with donor requirements, researchers may avoid risky but potentially breakthrough topics. Back in the last century, Jürgen Habermas [Habermas, 1987] warned about the danger of "colonization of the lifeworld" by the system (market and state). In the context of science, this means that the logic of money and power displaces the logic of argument. When scientific discussion is replaced by marketing presentation, the independence of research is lost at the level of forming the conceptual apparatus.

External pressure can contribute to the violation of ethical norms: data falsification, manipulation, conflict of interest. As D. Resnik notes, ethical violations often arise in an environment of high competition and dependence on funding [Resnik, 2018]. Media attacks, political pressure and commercialization can undermine public trust in scientific institutions. This is especially dangerous in the context of global challenges, such as pandemics, climate change, information wars, when society needs reliable scientific knowledge.

To preserve the independence of science in market conditions, it is necessary to carry out a set of measures, such as:

– diversification of funding sources, as is done in leading US universities (Harvard, Stanford), when endowment funds are created according to the model, which allows higher education institutions to have a financial cushion independent of the mood of the government or individual sponsors;

- legislative protection, when a system of lifelong contracts for professors is introduced after achieving certain successes, which is a guarantee of their freedom of expression;
- ethical audit, when independent ethics commissions are created that have the right to veto grant agreements that threaten the objectivity of results;
- media literacy and solidarity, which will contribute to the development of intra-university mechanisms for protection against public pressure.

Universities should have real autonomy in determining scientific priorities, distributing funding and personnel policy. This is confirmed by the recommendations of the European University Association [EUA, 2020]. To avoid dependence on a single donor, universities should develop mixed funding models: state grants, private investments, international programs, endowments. It is also important to ensure transparency in research funding, declaring conflicts of interest and adhering to ethical standards. The state should guarantee stable funding for basic research that cannot be fully commercialized. Thus, we can say that commercialization and grant dependence are inevitable companions of modern science in the era of globalization. However, they should not become determinants of scientific results. External pressure, whether from the state, the media or corporations, requires the academic community to create new forms of self-organization. Scientific independence today is not an "ivory tower", but an active position of a subject capable of diversifying resources without losing ethical guidelines and methodological purity. The loss of scientific autonomy in exchange for commercial gain leads to stagnation of society in the long term, since science ceases to fulfil its main function – to be a source of objective knowledge about the world, independent of political manipulation or market conditions. To preserve academic freedom, systemic changes are necessary: strengthening the autonomy of universities, diversifying funding, developing ethical standards and supporting fundamental science. Only under these conditions will science be able to fulfil its key function

– to produce objective knowledge necessary for the development of a democratic society.

Inclusive dimensions of modern education in the face of digital barriers and media manipulation

Under the influence of digitalization, globalization, and the growing role of the media, modern education is undergoing revolutionary changes. In particular, this applies to education for people with disabilities, namely: people with visual and hearing impairments, people who use wheelchairs, and those with other disabilities. In the context of digital barriers and information challenges, the very concept of inclusion, which is traditionally associated with ensuring equal access to education for all social groups, is now changing. Unfortunately, opportunities and access to technology, as well as different skills and competencies among young people, are forming new lines of inequality and digital divides during the educational process. Therefore, inclusive education today must take into account not only physical and social barriers, but also media literacy, digital competence, and resistance to manipulation.

In other words, it can be said that inclusion, which was previously associated mainly with the integration of children with special educational needs, today covers a much wider range of issues: from digital equality to information security and resilience to external influences. Also, researcher Mel Ainscow argues that in the global context, inclusive education is seen as a key tool for ensuring social justice, democratic participation and equal access to opportunities [Ainscow, 2020; UNESCO, 2020].

Interestingly, in the 21st century, inclusion goes beyond the traditional understanding, which focused on supporting children and adolescents with special educational needs. Modern approaches interpret inclusion as creating conditions in which every student has equal access to quality education, regardless of social status, digital competence, cultural background or information vulnerability [Ainscow, 2020].

UNESCO (2020) research and generalizations prove that inclusion is not only access, but also participation, success and a sense of belonging. In the Ukrainian context, inclusion also encompasses information equality, digital accessibility and protection from manipulation [Kolupayeva & Taranchenko, 2016].

As scientists [Robinson, 2020] prove, the digital transformation of education has created new dimensions of inclusion, which are presented in Table 2.2.

Table 2.2. Characteristics of inclusion dimensions

No.	Name of inclusion dimension	Characteristic
1	Digital accessibility	The learner has equal access to the Internet, devices, platforms
2	Digital competence	The learner's ability to effectively use technology
3	Information security	The learner is protected from manipulation, fakes, disinformation
4	Algorithmic fairness	The absence of discrimination in digital systems

Note: developed by the authors based on the analysis of Robinson et al., 2020

Thus, it can be said that inclusion in the educational process is becoming an interdisciplinary category that combines pedagogy, sociology, information security and digital technologies. Public policy can both promote inclusion and create barriers. OECD research proves that economic instability often leads to a reduction in inclusive programs [OECD, 2020]. Public policy can also serve as a mechanism to counteract information manipulation through standards of reliability of educational materials and support for media literacy. Also, researcher Fullan emphasizes that political will is a key factor in the success of reforms, but its instability can destroy institutional stability [Fullan, 2021].

Digital barriers, as a factor of educational inequality, are also manifested in a complex of technical, economic, social and cognitive obstacles that limit participation in the digital society. In the field of education, they are manifested in [Education for digital transformation of society, 2024]: unequal access to the Internet and

devices; insufficient digital literacy of students and teachers; lack of adapted resources; uneven implementation of digital technologies.

Education is a strategic area; therefore, it becomes a target of information attacks. According to Detector Media [Bilousenko 2022], in 2022 the number of disinformation campaigns aimed at the education sector increased significantly. The purpose of such attacks is: discrediting reforms; undermining trust in state institutions; manipulating inclusion topics; creating panic among parents. IREX proves that a low level of media literacy increases vulnerability to manipulation through such influences as: fake news; manipulative headlines; emotional narratives; bot farms; deepfake technologies, etc [IREX, 2020].

In the era of "post-truth", inclusive education faces the challenge of media manipulation. Inclusion often becomes a target for disinformation campaigns aimed at dividing society. External actors can use the theme of "protecting traditional values" to discredit inclusive reforms, presenting them as externally imposed ideologies. Pupils and students from vulnerable groups become the most vulnerable to cyberbullying and manipulative technologies that use psychological influences. Media attacks on the education system also often aim to: discredit specialists working in the field of inclusion; spread myths about the "decrease in the quality of education" due to the presence of students with special educational needs in classrooms; create artificial conflict between parent communities, etc.

Thus, we can say that the digitalization of education has opened up new opportunities, but at the same time exacerbated inequalities in the educational process related to access to technologies, digital literacy and information security. The scale of digital inequality was already evident during the COVID-19 pandemic: a large number of education consumers around the world did not have access to distance learning [UNESCO, 2021]. In Ukraine, these challenges were exacerbated by war, economic instability, and information attacks aimed at undermining trust in state institutions, including educational ones [Bilousenko, 2022; Freedom House, 2022].

Significant differences between EU countries in the level of digital readiness are demonstrated by the European Digital Economy and Society Index (DESI) [European Commission, 2022]. According to the Institute of Educational Analytics, the following generalization was made regarding digital inequality:

- 27% of Ukrainian students do not have their own device for learning;
- in rural areas, only 62% of households have access to high-speed internet;
- the digital competence of teachers remains uneven [Institute of Educational Analytics, 2022].

These data indicate that digital inequality is a systemic problem that directly affects the inclusiveness of education.

Today, an inclusive space is also a cybersecurity space. In conditions of armed conflict and hybrid aggression, access to education can be blocked due to attacks on educational servers. For an autistic learner, for whom the routine and stability of an online platform are critically important, a technical failure due to a DDoS attack is not just an inconvenience, but a serious psychological trauma.

Media manipulation in education is often disguised as "expert opinion" that broadcasts destructive narratives about the inclusive model through social networks. This creates a hostile environment even before the learner enters the classroom.

To neutralize the negative impact of external factors on the learning process, a comprehensive strategy is needed, which should take into account the following components:

- technological sovereignty, which includes the development and implementation of Open Source solutions for inclusive learning, which reduces economic dependence;
- critical media literacy, which should be associated with the implementation of manipulation analysis courses as a mandatory component of inclusive education;
- digital accessibility, which includes the implementation of the EN 301549 standard at the state level for all educational resources.

Foreign experience, in particular from Scandinavian countries, shows that successful inclusion is possible only if there is high trust in state institutions, which is built through transparent communication and protection of the information space from manipulation [Haug, 2017].

As for economic factors, they affect access to technology and the quality of educational resources. Unfortunately, in today's conditions, low-income families have fewer opportunities to provide children with devices or stable Internet. This also applies to low-income regions, where educational institutions often have limited budgets for infrastructure modernization, teacher training, and access to modern digital platforms [Warschauer, 2003]. It all reinforces digital inequality and creates barriers to inclusiveness.

Economic dependence is also manifested in the influence of international corporations on the educational environment through commercial platforms, content and algorithmic solutions that can shape information agendas that are not always aligned with national interests.

As for media attacks and information pressure, in the context of geopolitical tension, media attacks become a tool for influencing public opinion and educational discourse, which in particular creates risks for integrative inclusive educational policies. Moreover, disinformation about political, historical or social topics related to inclusion can penetrate educational materials or influence the public through social networks, causing polarization and bias.

Inclusive education in such conditions must be ready not only to provide access to knowledge, but also to resist information attacks, protecting critical thinking and democratic values. That is, inclusive education in the digital age requires comprehensive strategies that encompass political, pedagogical, and technological approaches.

The study of inclusion in the context of digital barriers requires an interdisciplinary approach, that is, it is desirable to use a combination of systems analysis and critical educational theory. As M. Zgurovsky notes, modern education should be considered

as a complex socio-technical system, where any external pressure (economic or political) leads to nonlinear changes in the entire educational structure [Згуровський, 2022].

Unfortunately, economic pressure often forces educational institutions to choose between "cheap" and "inclusive". However, an analysis by Harvard Business School shows that inclusive environments are more cost-effective in the long run, as they reduce the costs of social isolation in the future [Porter & Kramer, 2019].

Thus, it can be summarized that the integration of digital literacy and media literacy training modules into educational programs is key. This should include practical skills in using technology, critical evaluation of information sources and understanding of the mechanisms of algorithmic content selection. Such skills contribute to greater autonomy of students in the digital environment.

State programs for inclusive education should direct funding to modernize infrastructure, ensure access to the Internet in rural areas, and improve the skills of teachers in the field of digital pedagogy and media. Sustainable development of digital resources and platforms that meet the principles of inclusiveness and ethics can only be ensured by cooperation between the state, the private sector, public organizations and educational institutions.

It can also be argued that for a high-quality educational process, it is necessary to form an inclusive ecosystem, which should have such components as: technological independence through the support of open standards and local adaptive developments; cognitive stability of participants in the educational process, achieved through systematic media literacy training; economic transparency, where the costs of inclusion are considered as strategic investments in human capital, and not as a burden on the budget.

Thus, it can be summarized that the inclusive dimensions of modern education are formed at the intersection of digital, social and political processes. Digital barriers, media manipulation and external pressure create complex challenges that require a systemic response. Inclusion in the modern sense is the ability of the

education system to provide equal opportunities for everyone in a digital society protected from information threats.

Inclusive education in the context of digital barriers and media manipulation is a complex set of problems that requires an interdisciplinary approach. Inclusion today goes beyond physical access to the educational process; it should include access to high-quality digital resources, the development of media literacy, resistance to external pressure and information attacks. Public policy, economic support and strategic partnerships play a key role in creating conditions for quality and inclusive education. Only a systematic, coordinated approach can reduce digital barriers and ensure true inclusion in the educational environment. The inclusive dimensions of modern education in the face of digital barriers and media manipulation require a transition from passive adaptation to active resistance. External pressure in the form of government policies that do not have adequate financial support, economic dependence on global corporations and targeted media attacks poses a threat to the very essence of inclusion.

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2.2. Internal dysfunctions: media behaviour of the academic community

The changing role of the teacher from traditional mentor to "influencer" and social media expert

In the 21st century, higher education institutions have found themselves under the influence of cross-border media forces that are transforming academic roles, communication channels, and ways of influencing student audiences. The university, which was traditionally seen as a centre of autonomous knowledge and mentoring, is now becoming a focal point of the intersection of academia with the media space and social networks, in particular [Sugimoto, 2017].

The spread of digital platforms, social networks, and new communication formats has given rise to the phenomenon of the "teacher-influencer" – an educator who not only teaches but also actively shapes public discourses, creates content, interacts with a wide audience, and influences educational practices through online resources. This role change is accompanied by both new opportunities and internal dysfunctions of the academic community related to ethics, autonomy and professional identity.

Media influences on the academic community not only open up new opportunities for the dissemination of scientific ideas and pedagogical practices, but also create internal dysfunctions – from challenges to autonomy to ethical dilemmas in educational communication. In this context, the teacher ceases to be just a "knowledge carrier" and becomes a nodal figure between the scientific community, the student audience and the wider social network.

In the classical sense, the teacher acts as a mentor, a specialist with scientific competence, a conductor of knowledge and values within the academic community. This role is based on traditional hierarchies, academic standards and discreet channels of knowledge dissemination (for example, through academic publications, lecture courses, conferences, etc.).

The modern Internet environment, in particular, social networks, have created new opportunities for teachers' professional activity outside the classroom and standard scientific communication channels. Teachers who actively use Internet resources, publish educational content, interact with the audience and form their own brand, have a significantly wider influence on public opinion and educational practice. Such changes lead to a combination of the roles of a teacher, a communicator and a content creator [Sun, 2025].

Thus, in the modern world, where digital platforms and social networks are becoming key channels of communication, the role of a teacher is undergoing significant changes.

In the speech of modern pedagogical science, the term edu-influencer has emerged – this is a teacher or educator who actively creates media content, acquires an audience in social networks and is able to significantly influence professional and educational discourses. Such figures combine the transmission of expert knowledge with popular communication skills, which opens up both new educational opportunities and risks for academic autonomy and scientific ethics. That is, the traditional model of mentoring, based on direct interaction in the classroom, is complemented, and sometimes replaced, by the new role of the teacher as an "influencer" and expert in the digital space. This transformation not only expands the possibilities for educational influence, but also generates internal dysfunctions in the academic community related to media behaviour, autonomy, and ethical challenges.

Research [Carpenter, 2023] shows that teachers are increasingly using social media not only for professional development but also to build a personal brand, which brings them closer to the "education influencer" model. In this context, a teacher becomes not only a carrier of knowledge, but also an active participant in the information market, where attention, reach, and recognition become new forms of academic capital.

In their empirical study of academic influencers, researchers [Sun, 2025] emphasize that social media allows such teachers

to expand their audience, monetize content, and shape new professional trajectories that go beyond traditional academic activities. This changes the balance between the pedagogical and public roles of teachers.

The university community faces a number of internal contradictions associated with the mediatization of professional activities. On the one hand, social networks encourage teachers to demonstrate their personal lives, emotions, and informal aspects of professionalism. But this creates risks of losing academic distance and professional autonomy. The mediatization of academic activity can lead to a "populist shift" in educational communication, when popularity begins to dominate the quality of content.

In the context of academic activity, the term "influencer" means the ability of a teacher to influence the thoughts and behaviour of the audience through the media space. But such a role requires teachers not only professional knowledge, but also the ability to adapt to social media algorithms, which often contradicts traditional academic values. For example, the desire for maximum involvement can lead to the simplification of complex scientific concepts or even to the manipulation of information.

The researchers [Carpenter, 2023] note that influencer teachers are often involved in advertising integrations, partnerships, and promotion of educational products, which creates a conflict of interest and questions academic impartiality.

Research on ethical risks and challenges to academic integrity was carried out by scientists [Martínez-Domingo, 2024], who in their systematic review proved that the influence of influencers on educational processes can be both positive (educational) and manipulative, especially when the content is created for commercial or political purposes.

The research by scientists [Sugimoto, 2017] shows that social networks are becoming an integral element of modern academic communication, a tool for disseminating scientific knowledge and an indicator of influence through altmetrics - alternative metrics that evaluate social interactions with research beyond traditional

academic citations. Alternative metrics, although they do not replace classical assessment tools, reveal additional effects of the professional activity of scientists in the public space.

At the same time, social platforms facilitate informal communication between scientists, expanding the boundaries of "invisible academic communities" (invisible colleges), which previously existed within narrow professional circles, and today are gaining digital expression, for example, in scientists' Twitter networks [Quan-Haase, 2015].

Teachers are increasingly using social networks not only to popularize science, interact with students, but also to form their own professional brand. However, such activity requires not only technical skills, but also an understanding of ethical boundaries, because the media space often blurs the boundaries between personal and professional, as well as between expert and populist discourse.

A study analysing the practices of academic influencers (edu-influencers) found that such educators in the media not only disseminate academic content, but also create psychosocial support, professional development, and self-identification in networks, which significantly affects their professional status and self-esteem [Sun, 2025].

Thus, we can say that for the modern teacher-influencer, social platforms perform three key functions:

- distribution of educational and scientific content to a wide range of people outside of official academic channels;
- social interaction with students and colleagues to create a sense of learning community and exchange of professional information;
- professional positioning and self-presentation to build a personal brand as an educational specialist.

These functions transform traditional channels of academic interaction towards more flexible, open and public formats.

Although the online activity of teachers opens up new opportunities, it also generates internal dysfunctions related to the autonomy of the academy, professional ethics and content control.

A modern teacher must possess not only subject knowledge, but also media literacy, digital communication skills, understanding of social platform algorithms and principles of building online communities. Researchers [Sun, 2025] note that edu-influencers actively use audience engagement strategies, analyse viewing statistics, and adapt content to the expectations of subscribers.

Ukrainian researchers, in particular, scientists [Mediapsychology, 2014], emphasize that teachers should form a critical attitude towards the media, understand the risks of information manipulation, and teach students to do so.

Algorithmic systems of social networks determine which content will be visible and which will not. This creates a new form of teacher dependence on commercial platforms, which can affect the content and style of presenting the material.

Teachers who actively work on social networks are forced to adapt to the logic of likes, reposts, and comments. This can lead to simplification of complex topics, emotional dramatization, or the use of provocative formats.

The teacher's publicity makes him vulnerable to criticism, hate, political pressure, and reputational attacks. This can limit freedom of expression and affect academic standing.

Thus, faculty influencers find themselves caught between two opposing pressures:

- on the one hand, there is the need to maintain academic autonomy, critically evaluate facts, base conclusions on evidence, and adhere to academic standards;
- on the other hand, there is the logic of social media, where emotions, virality, and simplicity of messages dominate.

This can lead to compromises in content, in particular, the simplification of scientific ideas or their adaptation to the audience, which potentially threatens high-quality academic standards.

The transformation of the role of the faculty member also generates internal conflicts within the academic community regarding the criteria of professional reputation, the assessment of public activity, and the place of non-traditional online channels in

academic life. Some scholars also sceptically perceive social media activity as superficial or unprofessional, which can exacerbate the division between the "academic elite" and the "audience in the digital environment."

Regarding transparency and accountability, researchers [Carpenter, 2023] emphasize the need for clear ethical standards regarding advertising, partnerships, and the promotion of educational products.

Teachers should avoid disseminating unverified information, manipulation, and content that contradicts scientific principles. It is also a violation of ethical norms and may have legal consequences if teachers publish photos, videos, or stories about students without their consent.

But the phenomenon of edu-influencers continues to develop. Research [Sun, 2025] shows that teachers who effectively use social networks can increase student motivation, promote the spread of innovative practices, and strengthen the connection between the university and society.

At the same time, researchers [Martínez-Domingo, 2024] emphasize the need to establish ethical frameworks and institutional support to avoid the risks of commercialization and manipulative influence.

The transformation of the role of a teacher in the context of digital mediatization is a complex and multidimensional process. The teacher-influencer becomes a new actor in the field of media influences, combining pedagogical, communication and public functions. This opens up new opportunities for the development of education, but at the same time creates risks of internal dysfunction of the academic community related to ethics, autonomy and professional identity.

Universities should develop media behaviour policies, support teachers in the formation of digital competencies and ensure a balance between freedom of expression and compliance with academic standards.

Rethinking the role of a teacher in the digital era is a dynamic process that forms new identities, communication practices and challenges for academic autonomy and ethics. Faculty who actively function as educational influencers emerge as interdisciplinary professional creators who combine pedagogical expertise, communication skills, and public presence in the media space. Existing research indicates the importance of further analysing the impact of such media roles on academic structures, student communities, and public expectations of universities.

The risks of simplifying scientific content: translating complex research into the language of "mass consumption"

The modern university is in a state of permanent transformation under the pressure of mediatization of the public space. The desire of the academic community to be heard outside the "ivory tower" leads to the emergence of a complex phenomenon – the need to translate highly specialized knowledge into the language of mass consumption. That is, in the modern media landscape, university research – from fundamental sciences to innovative applications – is increasingly "translated" for a wide audience through popularized texts, press releases or social media. Such a process, which aims to increase the accessibility of scientific knowledge, is accompanied by the risks of oversimplification and transformation of meaning, which can distort the essence of the original research and influence the cognitive behaviour of both non-specialists and the academic community. These challenges are particularly critical in the context of the autonomy of the university as an institution that is obliged to ensure accuracy, ethics and critical thinking in the transmission of academic knowledge.

The processes of adapting knowledge to a mass format are represented in media communication as a complex interaction between researchers, university press services, journalists and society. They carry with them the risks of loss of context, the emergence of information distortions, as well as an ethical conflict between

academic values and market communication requirements [Cormick, 2022; Wührl, 2024].

The risks of simplification are not limited to technical errors – they have epistemic consequences (distortion of knowledge), ethical dilemmas (manipulation of perception and trust), and internal dysfunctions of academic behaviour, in particular in relation to the media-strategic requirements of universities.

The main risks associated with "epistemic simplifications" include:

- decontextualization, which is associated with the removal of results from the methodological context;
- hyperbolization, which is associated with the transformation of hypotheses into established facts for the sake of sensational headlines;
- personalization, which is associated with the shift in focus from the collective work of a scientific group to the "genius" of a single spokesperson.

This creates an ethical dilemma: can a scientist remain objective if his social status and grant support depend on the approval of the general public, rather than the professional expert community? The works of European researchers [Bucchi & Trench, 2021] emphasize that the mediatization of science leads to a blurring of the boundaries between scientific fact and public opinion.

The concept of science communication encompasses the practices of communicating complex scientific ideas to a non-specialist audience through adapted information formats. It aims to increase scientific literacy and "demystify" science for society [Stekelenburg Aart van, 2026]. It serves the function of democratizing knowledge, but can be accompanied by losses of precision due to the adaptation of complex terminology for the general public [Kopanieva, 2023; Cormick, 2022]. This process has the potential for epistemic bias, where the message becomes as simple and attractive as possible, but loses critically important aspects of uncertainty or limitations [Cormick, 2022].

That is, scientists can adapt their results to the expectations of the media agenda. A phenomenon arises that some researchers call "media selection": priority is given to topics that are easily visualized or sensationalized, while fundamental but "boring" research for the general public remains on the periphery of funding and attention.

Ukrainian scientists, in particular O. Zernetska, emphasize that the global media space imposes the logic of show business on the academic community, where the "validity" of knowledge is replaced by its "popularity" [Зернецька, 2017]. This undermines academic autonomy, since the vector of research begins to be dictated not by the internal logic of science, but by external media requests.

In communication studies, the problem of the quality of content transmission is raised: from academic articles – through press releases of university communication departments – to the mass media. Communicators often reduce the complexity of terminology, remove limitations and uncertainties to make the text more attractive, but at the same time reduce accuracy [Fiona Fox, 2012].

This is consistent with the understanding of the so-called ease effect, according to which overly simple popular articles can stimulate epistemic overconfidence in the audience – the feeling that they understand the topic better than they actually do [Isa Freiling, 2021].

Therefore, it can be said that science communication is a set of practices aimed at communicating complex scientific ideas to non-specialist audiences, often through adapted information formats. In addition, it is important to distinguish between communication within the academic community and the communication of science to the public. In the first case, the message retains terminological clarity and formality, while in the second, it is simplified for cognitive accessibility, which can lead to a change in the meaning of the original conclusions [Wührl, 2024].

Scientific results often contain important limitations, uncertainties, and contextual details that are key to a correct understanding

of the conclusions. In simplified publications, these aspects may be omitted or presented incorrectly, leading to "misinterpretation" and distortion of the essence of conceptual boundaries [Isa Freiling, 2021].

According to the concept of the "fluency effect", the audience, reading simplified presentations of complex theories, tends to overestimate their own understanding of the subject. This creates an illusion of knowledge, which in the digital environment is transformed into the spread of pseudoscientific concepts. K. Schmoolson and colleagues [Schmoolson, 2020] note that mediatization often forces scientists to use metaphors that distort the essence of the discovery for the sake of "virality" of the content.

Such transformations affect how the audience perceives scientific uncertainty: instead of understanding scientific limitations, readers may interpret uncertain data as absolute facts or, conversely, as an argument against the scientific consensus (for example, in matters of climate change) [Isa Freiling, 2021].

Empirical studies indicate that when scientific texts are simplified, there is a tendency to unduly increase the level of confidence in the perception of conclusions, which does not always correspond to the original data. This phenomenon can create an illusion of complete understanding of the problem in society, although the actual level of knowledge is limited [Wührl, 2024]. Distortions can be represented in four main characteristics: causality, certainty, generalization, and sensationalism [Wührl, 2024].

The media environment of new media, in particular social platforms, creates information overload, when users regularly receive huge volumes of simplified scientific messages, abbreviated interpretations, which reduces the ability to critically analyse scientific claims [Kopanieva, 2023]. The cognitive guideline "cognitive miser" suggests that non-specialists choose the simplest, most accessible summaries, which potentially promotes the use of heuristic strategies instead of critical analysis [Isa Freiling, 2021].

Internal factors of the university communication environment also contribute to the risks of simplification. Among them, one can

highlight the priorities of university press services and marketing. The desire to provide "hype" and community attention forces university communicators to adapt data for attractive headlines, omitting complex scientific constraints [Cormick, 2022], as well as complex scientific results into forms that correspond to information algorithms and trends. This can contribute to the loss of important scientific nuances in the press release before the information reaches the media [Fiona Fox, 2012].

Requirements for the visibility of their own research in the media can encourage researchers to publicly disseminate distorted interpretations of their results as a quick way to increase citations or image. Internal mechanisms of university communications can create an internal conflict between academic standards and media goals, which requires ethical norms and practices that protect the authenticity of scientific messages, i.e., creates a potential conflict between ethical standards of publication and the requirements of "mass consumption". Analysis of such internal dynamics with the identification of ethical risks is the subject of current research.

The ethical component of the representation of science in the media should include transparency, honesty and responsibility for transmitting complex ideas in a way that does not manipulate their essence. This includes disclosing uncertainties, limitations, and the context of the research, aspects that are often omitted in popular publications [Cormick, 2022].

When information originating from university sources is often simplified to the point where key limitations or conditions are lost, the public can lose trust in the scientific community, especially when consumers identify discrepancies between popular messages and further developments in scientific data. This creates opportunities for pseudoscientific narratives and misinformation that undermine scientific authority.

That is, such processes contribute to the politicization of science and the emergence of information vacuums in which alternative or pseudoscientific narratives can fill the space of scientific discourse [Peters Uwe, 2023].

Universities, as autonomous scientific institutions, must maintain ethical responsibility for the accuracy and completeness of the representation of scientific knowledge. Oversimplification or the retransmission of "selective" narratives can threaten academic autonomy, as external pressure grows to align scholarly communication with strategic communicative goals rather than fundamental principles of scholarly integrity.

Successful scholarly communication requires a balance between accessibility and accuracy: it should neither be overly technical for non-specialists nor so simplified that it loses its scientific essence. The academic community and university communications departments should develop standards that ensure that context, uncertainties, and ethical constraints are preserved in public adaptations of scholarly results.

To minimize the risks of simplification of scholarly content, universities should develop systemic scholarly communication policies that combine accuracy, transparency, and accessibility. These include:

- methodologies for responsible simplification – where complex ideas are transformed into an accessible form without losing their essence [Cormick, 2022];
- training programs for scientists and communicators – improving skills in communicating complex results with a clear understanding of ethical and cognitive risks;
- policies for involving the researcher in communicating results – to preserve the academic context in media representations.

These approaches will contribute to the preservation of academic autonomy, ethics and public trust in science in the media space.

The phenomenon of "academic populism": media behaviour and the risks of legitimizing questionable ideas

The modern university is in a state of radical transformation, caused by the processes of "mediatization" of science and education, which forces the academic community to actively interact with a mass

audience. However, the openness of the communication process gives rise to a specific internal dysfunction – academic populism. This phenomenon is characterized by the use of scientific authority and university status to promote simplified, pseudoscientific or manipulative ideas in order to gain media popularity, political capital or commercial benefit.

Let us consider the conceptualization of academic populism in the context of mediatization. Traditionally, scientific communication was based on the principles of strict verification and peer review. However, the digital era has changed the hierarchy of authorities. As Stephen Fuller [Fuller, 2018] notes, post-truth in science often arises from the democratization of access to knowledge, where the "right to one's own opinion" replaces scientific expertise. Academic populism arises when a scientist deliberately ignores methodological complexity in favour of clickbait headlines.

The main signs of this dysfunction include such actions as:

- reductionism, when there is a process of reducing complex systemic problems to unambiguous "miraculous" solutions;
- exploitation of status, when a scientific degree is used to comment on topics that lie far beyond the boundaries of professional competence;
- appeal to the "people" against the "establishment", when rhetoric is used where official scientific institutions (academies, ethics committees) are accused of conservatism or concealment of the truth.

The media behaviour of the academic and expert community in the context of digitalization is formed at the intersection of two logics: educational and hype. On the one hand, media and social platforms expand the possibilities of public communication of knowledge, contributing to the popularization of science and attracting a wider audience. On the other hand, the algorithmic economy of attention stimulates the simplification of content, the personalization of expertise, and the reorientation from academic recognition to quantitative indicators of visibility. As a result, media presence is increasingly becoming an alternative source of

symbolic capital, which creates tension between the educational mission of the community and the logic of hype.

The problem of scientists' media behaviour lies in the conflict between the ethics of the scientist and the logic of the media. The media requires speed, sensationalism, and conflict. Science, on the other hand, requires doubt, time, and nuance. When university teachers become "influencers," they often fall into the trap of social media algorithms.

As for the promotion of dubious ideas, real cases and mechanisms, academic populism often becomes a tool for legitimizing ideas that have no evidence base, but have high public demand.

Let's consider several cases that show crisis situations during communication in the conditions of digitalization.

(1) The case of "Alternative medicine and psychosomatics". In recent years, there has been a dangerous trend when representatives of the academic medical community use their regalia to promote unproven treatment methods. An example of such communication in the digital environment is the active media activity of individual representatives of Ukrainian medical institutions of higher education, who in the Facebook space promote anti-scientific theses about the "memory of water" or the treatment of serious diseases exclusively through "psychological settings". Using the status of professor or associate professor in this context creates the illusion of scientificity (parascience), which misleads thousands of people.

(2) The case of "Historical revisionism and folk history". In the humanitarian sphere, populism manifests itself in the creation of mythologized concepts of history. Some researchers, striving for quick popularity, produce theories about the "ancientness of the nation", which are not supported by any archaeological or linguistic data. This is not just a scientific error, but a deliberate manipulation of public feelings to gain media weight.

(3) Case "Pseudo-expertise in politics". Foreign researchers, in particular Tom Nichols [Nichols, 2017] in his work "The Death of Expertise", describe in detail how academic staff become tools of political propaganda. In Ukraine, this is manifested in the activities of "university political scientists", who on TV instead of analysis are engaged in political PR, replacing the scientific method with subjective sympathy.

Thus, it can be said that the internal dysfunction of the academic community threatens university autonomy. If universities are unable to independently filter out populists and charlatans from their ranks, the state or donors may initiate mechanisms of external control, which will limit the freedom of research.

The ethical dilemma is the following:

(1) Does a university have the right to dismiss a teacher for media statements that contradict the scientific consensus?
(2) Where is the line between academic freedom and professional responsibility?

According to the provisions of the Magna Charta Universitatum, autonomy implies independence from political and economic pressure. However, academic populism is pressure "from below", from a mass audience, which turns out to be no less destructive.

Thus, academic populism is a product of a crisis of trust in institutions and the expansion of media logic into the scientific sphere. To overcome this dysfunction, universities should:

– develop internal codes of media ethics;
– introduce critical evaluation of not only publication activity, but also public activities of personnel for compliance with scientific ethics;
– develop a culture of science communication, which would be based on accuracy, not sensationalism.

University autonomy is possible only under the condition of high internal discipline and the ability of the community to self-purify from practices that discredit science as such.

Overcoming the phenomenon of academic populism requires the university administration to move from passive observation to active

formation of a media responsibility policy. Internal dysfunction, when popularity becomes more important than scientific validity, can be levelled through the implementation of comprehensive management decisions that balance between adhering to the principle of academic freedom and protecting the reputation of the institution.

The first step in countering populism is to create clear ethical guidelines. Traditional "Codes of Honour" often do not take into account the digital activity of scientists. A modern university needs internal regulations that would clearly distinguish:

- the private position of an employee as a citizen;
- the official position of a scientist speaking on behalf of a department or institute.

As British researcher Onora O'Neill notes in her works on trust, scientists should be accountable not only to colleagues, but also to the public [O'Neill, 2002]. The administration should implement a rule: when disseminating dubious or hypothetical ideas outside their narrow specialization, the scientist should note that these views do not reflect the position of the university.

One of the methods of countering academic populism is the monitoring of public activity carried out by Ethics Committees. This does not mean censorship, but provides for a mechanism of peer review after publication. If a teacher systematically promotes anti-scientific theses (for example, denying climate change without proper evidence or promoting pseudomedicine), the university community has the right to initiate a public discussion of these theses at the academic council.

Instead of leaving a scientist alone with the media market, the administration of a higher education institution should create professional structures that help transform complex research into popular content without losing quality. For example, media literacy training should be conducted, where researchers will be taught how to counteract the manipulations of journalists who seek sensationalism. Institutional channels for popularizing scientific research can also be created by creating the university's own media platforms, where information should undergo internal verification before being published.

Academic populism is often fuelled by the pursuit of quantitative indicators: the number of mentions in the media, views on social networks, etc. The university administration should change the approach to assessing the "social impact" of a scientist, namely:

- the emphasis should be on the quality of scientific material, that is, it is necessary to assess not the number of broadcasts, but the professionalism of the comments and their compliance with the profile of the teacher (scientist);
- expert review of public activity should be carried out. When filling positions or extending contracts, the professional community's feedback on the candidate's media activity should be taken into account.

The real experience of leading European universities (for example, the experience of the University of Zurich or the Catholic University of Leuven) shows that the administration's quick response to the spread of disinformation by an employee is critical. For example, if a biology professor begins to publicly deny the theory of evolution, the administration does not simply fire him (which can be interpreted as a violation of freedom of speech), but organizes an open scientific discussion or debate, where the expertise of the populist's arguments is broken by the scientific consensus. Thus, the university fulfils its educational function and defends the truth.

Thus, methods of countering academic populism should not be limited to repressive measures. The main task of the administration is to create an environment where scientific honesty is more profitable than instant popularity. This is achieved by developing a culture of critical thinking within the academic corporation and strengthening the connection between freedom of speech and intellectual responsibility.

For a deeper understanding of the internal dysfunction of the academic community, it is necessary to distinguish between the public understanding of science, which is aimed at enlightenment, and academic populism, which aims to exploit the media space (Table 2.3).

Table 2.3. Differentiation of science popularization and academic populism

Parameter of comparison	Public Understanding of Science	Academic Populism
Goal of communication	Explanation of complex concepts, attraction of interest in science, development of rational thinking.	Gaining personal influence, political capital or commercialization of "unique knowledge".
Attitude to facts	Strict adherence to scientific reliability; simplification of form without distorting the essence	Selective use of facts (cherry picking), manipulation of data to suit the emotional request of the audience
Role of scientific consensus	Orientation to the generally accepted evidence base; clear labelling of hypotheses as "unproven".	Conscious opposition to "official science"; legitimization of marginal or pseudoscientific theories.
Rhetorical techniques	Argumentation, references to sources, recognition of the limitations of current knowledge	Sensationalism, appeal to emotions (fear, pride), use of logical fallacies
Media platform	Popular science publications, lectures, profile blogs with professional moderation	Talk shows, tabloids, social networks with algorithms that encourage polarization (TikTok, Facebook).
Result for reputation	Strengthening the authority of the scientist and the institution in the long term	Rapid growth in recognition ("hype") with a gradual degradation of trust from the scientific community.
Attitude to criticism	Openness to discussion, willingness to admit mistakes in the light of new data	Aggressive rejection of criticism, accusations of opponents of "bias" or "envy".

Notes: table developed by authors based on Peters Uwe, (2023); Cormick, C. (2022); Schmoolson, K., et al. (2020).

As can be seen from the above comparison, the key watershed is intellectual honesty. The populariser acts as a "translator" from the complex language of science to the language of society, while maintaining fidelity to the methodology. The populist acts as a "merchant" who adapts the "goods" (knowledge) to the tastes of the consumer, even if this requires the destruction of the very essence of scientific knowledge.

For university management, this table can serve as the basis for developing criteria for evaluating the public activity of teachers. It is important to understand that media activity in itself is not negative; it becomes destructive only when the status of a scientist is used to legitimize ideas that have not received proper scientific substantiation and expert approval.

Within the framework of the internal dysfunction of the academic community, the effect of a "spiral of silence" often arises: fellow scientists see the populist activity of their employee, but do not dare to publicly criticize, so as not to be accused of "non-collegiality" or "attack on freedom of speech". However, rational discourse requires a critical examination of each thesis. The university, as a centre of truth, must cultivate an environment where professional criticism of populism is perceived as an act of defending academic standards, and not as a personal conflict.

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2.3. The relationship between media culture and academic integrity

Plagiarism and fraud in the context of digital culture

The modern university, as an institution traditionally based on the principles of autonomy, deep intellectual search and a stable hierarchy of knowledge, today finds itself at the epicentre of radical transformations caused by digital culture and the mediatization of social life. Academic freedom, which is the cornerstone of university existence, is currently being tested not only by external political or economic pressure, but also by internal changes in the very nature of scientific creativity and information consumption. The section of the monograph is devoted to a critical analysis of how digital culture has changed the landscape of academic integrity, making plagiarism and fraud not just occasional violations, but systemic challenges arising from the very architecture of the modern media space.

The digital age has brought with it what sociologist Zygmunt Bauman called "liquid modernity" [Bauman, 2000]. In this state, social forms, institutions, and norms no longer have time to become established; they are constantly transforming. For the academic environment, this means a blurring of the classical boundaries of authorship. And while copying a text used to require physical effort and a conscious act of rewriting, the modern practice of "copy-paste" has become so easy and automatic that it has become a basic technical reflex, often devoid of ethical consideration [Diniz, 2018]. Such ease creates the illusion of public access and the absence of information, where the boundary between the author's own thoughts and the knowledge circulating on the network becomes increasingly transparent.

Developing this idea through the prism of Manuel Castells' theory of the network society, it can be argued that the university is no longer a closed "temple of knowledge" [Castells, 2000]. The statement that the university is "no longer a closed temple" means that its walls have become permeable to the market and

global communications. Knowledge has ceased to be a sacred treasure guarded by scientists and has turned into a dynamic resource operating in real time. It is integrated into global information flows, where the speed of content distribution far outweighs the depth of its verification. In such conditions, academic integrity faces a fundamental contradiction: on the one hand, the ideology of open access and network collaboration encourages the free exchange of ideas; on the other, the institutional system of evaluating scientific work remains rigidly tied to individual authorship and quantitative citation indicators. It is in this gap that modern forms of plagiarism and fraud are born, which become a by-product of digital culture.

Digital culture has formed a specific environment where "lightness" is a defining characteristic. This ease has several dimensions: technical (access to billions of sources in seconds), cognitive (the ability to use algorithms to structure text), and psychological (lowering the threshold for guilt due to anonymity and the mass nature of such actions). Research shows that in the context of the digital transformation of education, the goal and principles of academic integrity often come into conflict with the desire for efficiency of students and scholars. Teachers are forced to explain in detail the rules of citation not because they have become more complex, but because the culture of writing itself has changed: from creating a text as a unique statement to constructing it as a compilation of found fragments [Eaton, 2023; Rane, 2024; Sunaina, 2024].

Modern academic plagiarism has ceased to be a monolithic phenomenon. It has differentiated into a number of complex forms that often try to disguise themselves as legitimate methods of scientific work. Forms of academic plagiarism are summarized in Table 2.4.

Table 2.4. Forms of academic plagiarism

Form of violation	Mechanism of implementation	Ethical and legal consequences
Direct academic plagiarism	Verbatim copying of text fragments without quotes and references	Loss of reputation, cancellation of degrees, legal claims for copyright infringement
Self-plagiarism	Republishing one's own results as new to artificially increase the number of publications	Distortion of scientific work, violation of agreements with publishers, loss of community trust
Mosaic plagiarism (Patchwriting))	Combining parts of different texts with minimal change in sentence structure to bypass detectors	Indicates a lack of one's own analysis; perceived as deliberate deception
Academic fraud (Contract Cheating)	Ordering work from third parties or through specialized services	The most serious violation, leading to disqualification and undermining the quality of diplomas
Data fabrication and falsification	Inventing or falsifying experimental results using digital modelling tools	Destruction of the foundation of scientific knowledge; a particular danger in medicine and technology

Source: developed by the authors based on the analysis (Levchenko M., Rakovich V., Huliaieva O. 2024)

Mosaic plagiarism, or "pitchwriting", often becomes a transitional form between learning and dishonesty. Students who have not yet fully mastered the scientific style use borrowed phrases as "building blocks" for their own works. However, in the conditions of digital culture, where this approach is encouraged by social media, the line between learning through imitation and theft of intellectual property becomes critical [Sobirova, 2024].

The greatest challenge to academic integrity in 2024-2025 was the emergence and mass distribution of generative artificial intelligence (GenAI), in particular such models as ChatGPT, Claude and Gemini. While traditional plagiarism was based on copying existing texts, GenAI creates new combinations of characters that have no direct analogues in databases, making them virtually invisible

to classic anti-plagiarism systems based on keyword comparison [Keith, 2023; Baron, 2024].

It is not news that students are using AI to complete assignments. As a result, a new reality is being created where the originality of a text is no longer a guarantee that it was written by a human. The use of AI is not limited to essay writing. It penetrates the deeper layers of the scientific process, thereby creating risks that people have not previously thought about. In particular, in the medical and technical sciences, AI can be used to fabricate entire abstracts and research reports.

One critical example is ChatGPT's ability to generate plausible, but completely fictional, scientific data. In tests in 2024, the model was found to be able to generate statistical reports by referencing databases it does not actually have access to, or extrapolating data from years that were not included in its training sample. Such "hallucinatory" plagiarism is much more dangerous than ordinary copying, as it litters the scientific community with fake facts that appear to be unique results [Elali, 2023]. To combat this phenomenon, universities are starting to implement new verification methods that analyse not only word matches, but also semantic structure and linguistic patterns characteristic of machine generation. Institutional responses to AI range from outright bans to integration. For example, some universities in the UK and Germany no longer recommend the use of automated AI detectors due to their unreliability and the risk of "false positive" results that can destroy trust between teacher and student. Instead, a transition to a "process-oriented" assessment is proposed, where not only the final text is important, but also drafts, the history of changes and the author's ability to defend their ideas in an oral format [Leong, 2025; Keith, 2023; Giray, 2025].

The legislative field of Ukraine in this area is based on the laws "On Education", "On Higher Education" and the law "On Academic Integrity", which clearly distinguishes the concepts of academic plagiarism, self-plagiarism, fabrication and falsification [Law of Ukraine on Education; Law of Ukraine on Higher Education;

Law of Ukraine on Academic Integrity]. Ukraine in 2022-2025 demonstrates active dynamics in the implementation of academic integrity standards, which is part of the broader process of integration into the European Higher Education Area [EHEA]. However, this path is complicated by both the legacy of the Soviet culture of plagiarism and the challenges of martial law, which force the education system to operate in the extreme conditions of digital learning [Must, 2024; National reforms, 2025; Horchynskyi, 2023].

The development of projects such as the EU-funded OPTIMA (Open Practices, Transparency and Integrity for Modern Academia) [OPTIMA] contributes to the implementation of open scientific practices that make plagiarism technically more difficult through transparency of all stages of research [Must, 2024].

The impact of media hyperpublication on research quality

The transformation of the academic environment under the influence of modern media culture has led to the emergence of a phenomenon that is defined in the scientific literature as media hyperpublication. This phenomenon is characterized not only by a quantitative increase in the volume of scientific content, but also by a radical change in the ontology of scientific research, where the speed of publication of results and their media weight become more priority than the depth of analysis and methodological rigor. In the conditions of an information society where the logic of "clickbait" prevails, university autonomy has found itself under unprecedented pressure from external metrics, which causes deformation of traditional standards of research quality.

The historical roots of this phenomenon date back to the middle of the 20th century. The aphorism "publish or perish," which first appeared in an academic context in 1928, came into widespread use after the publication of sociologist Logan Wilson's work "The Academic Man: A Study in the Sociology of the Profession" in 1942 [Wilson]. Over the decades, this principle has evolved from an incentive for scientific productivity to a tool for total control

and hierarchization of the academic community. In the modern digital era, this concept has been transformed into an even harsher form – "publish and perish," which reflects a situation where even an extremely high intensity of publication activity does not guarantee a scientist career stability, but leads to a possible burnout and loss of the quality and originality of scientific research: "Pressure to publish has been blamed for negatively affecting research quality and originality and even fuelling misconduct. In past issues of QS Insights Magazine, the publish or perish culture was highlighted as one of the causes behind the ongoing problem of predatory and unethical publishing, now exacerbated by Generative AI. » [Crace, 2025].

It is necessary to agree with the opinion that the relentless pressure of university rankings threatens to shift scientific research towards less rigorous standards: «The publication of research papers drives university rankings and career progression, yet the relentless pressure to publish has contributed to an increase in fraudulent data. Unless this changes, the entire research landscape may shift toward a less rigorous standard, hindering vital progress in fields such as medicine, technology and climate science». [Tran, 2024]. The mediatization of science forces researchers to adapt complex theoretical discourses to formats that meet the algorithms of social networks and the demands of mass consumption. This adaptation creates an environment of "information ideocracy," where the legitimacy of scientific knowledge increasingly depends on its virality and ability to generate media buzz, rather than on its objective truth or theoretical novelty [Crace 2025, Roeder 2025].

The modern system of evaluating academic work is largely based on quantitative indicators, such as the Journal Impact Factor, the Hirsch Index (h-index), and various altmetrics. These tools, despite their original purpose of objectifying the impact of research, have become hostages of a media culture that demands instant results and bright headlines.

University rankings, such as the Times Higher Education (THE) Index, force university administrations to impose unrealistic

publication activity plans on faculty. THE is one of the most influential and prestigious global university rankings in the world, published by the British magazine of the same name, Times Higher Education. Together with the QS World University Rankings and the Shanghai Ranking (ARWU), it forms the "big three" of ranking systems that are used by applicants, academics and governments. THE uses a complex methodology based on performance indicators grouped into five main areas:

(1) Teaching. The institution's reputation as an educational centre, the ratio of teachers to students (29,5% of the total score).
(2) Research Environment. Reputation in academia, research income and volume (29%).
(3) Research Quality. The impact of research, measured by the number of citations in publications (30%).
(4) International Outlook. The proportion of international students and faculty, as well as international co-authorship (7,5%).
(5) Industry Connections. Income from transfer of knowledge and patents (4%).

We see that almost 60% of the assessment directly depends on research indicators and publications (points 2 and 3). This creates certain consequences that cannot be ignored or silenced. The assessment of a scientist's work should be comprehensive, taking into account the specifics of the industry and the real contribution to the security and well-being of the country, and not just the number of references in the Scopus or Web of Science databases. "The problem of objectively assessing the quality of a researcher's work goes far beyond simplified scientometric indices. Despite all the attractiveness and, at first glance, the possibility of operating with a small number of scientometric indices built only on taking into account the citation of the researcher's works in journals with an impact factor, this method does not allow for a highly objective assessment of such a complex phenomenon as a scientific result," says Borys Malytskyi, director of the G. Dobrov Institute for

Research on Scientific and Technical Potential and the History of Science of the NAS of Ukraine [Малицький, 2017; Dobrov, 2023].

Administrative pressure and the requirement to "publish at any cost" are destroying domestic scientific publications, generating a number of systemic dysfunctions that directly affect the quality of the scientific product. Fundamental, long-term research is being displaced by short-term projects that guarantee the rapid release of articles in "hype" areas. Scientists are beginning to give preference, unfortunately, not to those issues that are important for the development of humanity, but to those that have a higher citation potential or are more easily transformed into media news.

One of the most common consequences of media hyperpublication is the practice of "salami slicing" – the artificial division of one complex study into several small, often content-incomplete publications. The purpose of such a strategy is to maximize the number of entries in the author's list of publications, which allows formally meeting the requirements of university reporting or grantors. However, from the point of view of scientific quality, "salami slicing" is a destructive phenomenon. It scatters the attention of the scientific community, makes it difficult to conduct systematic reviews, and can also lead to erroneous statistical conclusions. Instead of a holistic picture, the reader receives fragments that often repeat each other in terms of methodology or introduction, creating information noise. Editorial boards of leading journals are increasingly faced with the problem of identifying such "cut" works, since authors often disguise them as independent studies, without referring to their previous fragments of the same project. This practice also has an ethical dimension: it exploits the resources of reviewers and editors, who are forced to spend time analysing insignificant texts that do not bring new knowledge, but only duplicate what is already known with minimal modifications [Grant, 2018].

The most disturbing manifestation of the impact of media hyperpublication on science is the industrialization of fraud. The demand for publication in prestigious journals has created a market

for so-called "paper mills" – commercial organizations that produce falsified manuscripts on demand. These organizations use modern digital technologies, including generative artificial intelligence, to create texts that look like authentic research, but are based on fake data or manipulation of the results. Statistics indicate a large-scale crisis. Over the past decade, the number of retractions (withdrawals of published articles) has increased by 23% every year. In 2023, a sad record was set – more than 10,000 retracted works, which indicates that the peer-review system, which has been a guarantor of quality for decades, cannot withstand the pressure of hyper-publication. These data confirm that the vast majority of cases of scientific misconduct are not the result of random errors, but a conscious choice of researchers trapped by publication pressure [Tran, 2024].

Modern media culture has changed not only how scientific works are written, but also how they are perceived by society. Traditional methods of measuring impact, such as the number of citations in professional publications, are supplemented by the aforementioned altmetrics – indicators of activity in social networks, blogs, news portals and even in political documents [Жигалкіна, 2016]. On the one hand, altmetrics allow us to more quickly track the resonance of research and its applied significance. On the other hand, they increase the risks of media bias. Research, the results of which can easily be turned into a catchy headline or "clickbait" news item, receives much more attention (and, accordingly, higher altmetric indicators) than fundamental work, which requires extensive reading and in-depth preparation.

The problem of media hyperpublication is closely related to the general commercialization of higher education. Universities increasingly function as business corporations, where scientific knowledge is viewed as a commodity and scientists as production units. Dependence on short-term grants and private funding forces researchers to choose topics that meet the interests of sponsors or have a high potential for commercialization through media promotion.

In such conditions, academic freedom – the right to independently search for truth without fear of negative career consequences – becomes a luxury. Scientists who try to work within the traditional model of deep science find themselves on the periphery of funding and attention. Those who accept the rules of the game of media culture are often forced to compromise with their own conscience, silencing controversial results or adjusting conclusions to the expectations of the audience. Excessive pressure of publication activity has a destructive effect on the personality of a scientist. The "publish and die" phenomenon is reflected in high rates of depression, anxiety, and burnout among university faculty. A survey of media and communication scholars found that 62% of respondents had experienced mental health problems at some point in their careers. Once seen as a calling that required quiet and reflection, academia has become a marathon. Working on weekends and during vacations is seen as a prerequisite for success. This inevitably leads to a decrease in the cognitive resources needed to create complex and innovative theories, closing the circle of negative impacts on the quality of science [Crace, 2025].

In response to the destructive tendencies of "fast science," the "Slow Science" movement has emerged in academia. Its supporters claim that science is inherently a process that cannot be rushed. Similar to the Slow Food movement, this philosophy calls for a return to quality, depth, and ethics in scientific research: "… slow science prioritizes quality over speed and seeks to buck incentive structures that promote mass production" [Chin, 2025].

The key principles of Slow Science include the priority of quality over quantity. At the heart of this approach is the priority of content over volume: the scientific significance of a researcher should be determined by the qualitative characteristics of his key works, rather than the total number of publications. The value of one fundamental work is higher than an array of insignificant publications. Another key principle of Slow Science is the implementation of the Registered Reports model, which allows us to shift the emphasis from results to methodology. Since the research plan

and hypotheses are peer-reviewed before the data collection stage, guaranteed publication regardless of the final indicators eliminates the grounds for falsifications or selective presentation of results. In other words, this practice involves reviewing the study design and hypotheses before data collection begins. If the plan is approved, the journal guarantees publication regardless of whether the results are positive or negative. This radically reduces the incentive to manipulate data.

And another very important principle of Slow Science: academic freedom should include the right of a scientist not to publish anything for a certain period of time if he is working on a fundamental project [Salo, 2011].

Implementing these principles requires abandoning traditional scientometric rankings as the sole measure of success. The San Francisco Declaration on Research Assessment (DORA) was an important step in this direction, calling on institutions to stop using journal impact factors to evaluate individual scientists [San Francisco Declaration, 2020; Jawaid, 2016]. "The San Francisco Declaration on Research Assessment (DORA) calls for hiring, funding, and promotion decisions to prioritise the quality of individual contributions over the journals' prestige. Preprint servers such as PsyArXiv create spaces where scholarship can be seen and engaged on its merits, without waiting for gatekeepers to confer legitimacy" [Zaid, 2025].

Strengthening university autonomy must necessarily include the ability of the university to independently determine research priorities, regardless of the political situation or media trends. What does this mean for a particular university? Academic autonomy involves the creation of internal mechanisms for protecting academic integrity, which are not limited to formal plagiarism checks. It is in universities that a culture of responsibility is fostered, where the quality of research is a value in itself, and not a tool for improving rankings. An important element of such a culture is the development of media literacy among scientists themselves, which

allows them to critically assess external pressure and recognize attempts to manipulate their results by the media.

The impact of media hyperpublication on the quality of research is multifaceted and mostly destructive. The transformation of science into a content production industry undermines its fundamental mission - the search for objective knowledge. Preserving academic freedom requires a radical rethinking of the values of higher education. A transition from the model of "effective managerialism" to the model of "responsible autonomy" is necessary, where quality, ethics and social responsibility dominate over quantitative indicators. The Slow Science movement and initiatives like DORA give hope that the academic community can develop immunity against the viruses of "clickbait" and regain the right to slow, but deep and honest scientific research.

The university in the era of digital transformations must remain a space of critical thinking and long-term perspective, not succumbing to the temptation of instant media popularity. Only by restoring respect for the complexity and methodological purity of knowledge will science be able to maintain public trust and fulfil its role as an engine of true progress.

The role of university publications and scientific journals in combating dishonesty

The current state of the scientific and information space is characterized by a profound transformation of the role of academic periodicals. University publications and scientific journals are no longer just platforms for disseminating research results, transforming into key institutions for ensuring academic ethics and the quality of intellectual products. In the context of globalization of education and science, where competition for resources and authority is becoming increasingly fierce, it is editorial boards and university publishing centres that act as the first line of defence against the spread of falsified data, plagiarism, and other forms of dishonesty. Academic integrity in this context is considered as

the foundation of the quality of education and a guarantee of the formation of professional and moral competencies in students and scientists. This concept encompasses a set of ethical principles and legally defined rules that must be guided by all participants in the educational process in order to ensure trust in the results of scientific achievements [All European Academies, 2023; Foltynek, 2023; Кришталь, 2022].

Scientific journals and university publications play the role of fundamental regulators in the system of academic communications. Their activities are aimed not only at technical verification of manuscripts, but also at actively contributing to the preservation, development and popularization of the educational and scientific traditions of the higher education institution. An important aspect is the formation of a positive reputation of the university through high standards of publication ethics, which allows the institution to successfully integrate into the global scientific and information space.

A key reference point for modern scientific journals are the standards developed by the Committee on Publication Ethics (COPE) [COPE]. Founded in 1997 by a group of medical journal editors in response to the growing number of ethical violations, COPE now has over 12,500 members from over 100 countries, spanning all scientific disciplines. The evolution of COPE's guidelines demonstrates a gradual increase in demands for transparency and accountability for all parties in the publishing process. Starting with the "Guidelines for Good Publication Practice" in 1999, which covered basic issues of research design, authorship, and conflict of interest, the organization has gone on to create detailed "Codes of Conduct" (2004, 2007, 2011) and the current "Core Practices" introduced in 2017. Membership in COPE signals to authors, reviewers, and readers that the journal adheres to the highest ethical standards [History of the COPE].

To ensure academic integrity, university journals implement, or should implement, the principles of transparency developed jointly by COPE, DOAJ (Directory of Open Access Journals) [DOAJ],

OASPA (Open Access Scholarly Publishing Association) [OASPA], and WAME (World Association of Medical Editors) [WAME]. These principles require journals to clearly communicate their policies on their official websites. In particular, journals should provide comprehensive information about principles of transparency: the uniqueness of the journal title to avoid confusion with "predatory" publications; the review process, including the type of model (blind, double-blind) and the criteria for selecting experts; authorship and contributorship policies to avoid "guest" or "ghost" authorship; mechanisms for considering allegations of scientific misconduct, including clear algorithms for editorial actions when plagiarism or fabrication is detected; sources of funding and advertising policies to ensure that commercial interests do not influence editorial decisions.

The situation in Ukraine is currently in a phase of active transformation. The years 2025–2026 have become a "turning point" for university publications due to new legislative requirements of the Ministry of Education and Science. The aspects in which international principles are integrated into Ukrainian science are outlined. In December 2025, the Verkhovna Rada of Ukraine adopted the Law on Academic Integrity, which comes into force on July 31, 2026. The law, for the first time at the state level, establishes the obligations of publishers and editorial offices to adhere to the COPE principles. "The Ministry of Education and Science of Ukraine shall establish a commission on publication ethics and the formation of the List of Scientific Professional Publications of Ukraine (hereinafter referred to as the Commission), which is an advisory and consultative body of the Ministry of Education and Science of Ukraine, and shall approve the regulations on it. In its activities, the Commission shall be guided by the recommendations of the Scientific and Technical Committee of Ukraine on the formation of publication ethics and shall exercise its powers in accordance with the regulations on the Commission" [Наказ, 2026]. Violations (for example, falsification of review) now provide for real academic and disciplinary liability. The Ministry of

Education and Science of Ukraine has radically updated the rules for forming the list of scientific professional publications. Compliance with the principles of COPE, DOAJ, OASPA and WAME is not just a recommendation, but a condition for the operation of the journal. Entry into the DOAJ directory now gives additional points when rating journals and is critical for obtaining financial support from the state.

University publications are implementing a multi-level verification system that combines the human factor and automated means. Peer review remains the gold standard for quality assessment, although it was not originally designed to detect intentional fraud. Reviewers assess the appropriateness of the methodology, the novelty of the results, and the ethics of the research. Anonymity of reviewers is an important element, which allows to avoid conflicts and ensure objectivity, although open peer review models are becoming increasingly popular due to their transparency.

University publications and scientific journals remain an indispensable element of the ecosystem of modern science. Their ability to effectively counteract dishonesty directly affects the level of public trust in scientific knowledge and the prestige of higher education as a whole.

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CHAPTER 3

STRATEGIES FOR PRESERVING ACADEMIC FREEDOM IN THE DIGITAL ERA: INSTITUTIONAL AND PEDAGOGICAL DIMENSION

3.1. Institutional mechanisms for protecting university autonomy

International experience in the legislative protection of academic freedom (comparative analysis)

Academic freedom and university autonomy are the cornerstones of a higher education institution that provides quality educational services in a democratic society. University autonomy is the institutional capacity of any higher education institution to independently determine its internal policies, structure and methods of governance, while academic freedom refers to the freedom of teachers and students to teach, learn, research and disseminate knowledge without external pressure or censorship [UNESCO, 1997; Coimbra Group, 2012].

To explore international experience in the legislative protection of academic freedom, we will conduct a comparative analysis of countries that have a high level of such protection. The legislative consolidation of academic freedom and autonomy varies depending on the legal traditions of the countries, but what is common is the recognition of their constitutional or statutory importance.

Thus, in Germany, freedom of science, research and teaching is guaranteed by Article 5 of the Constitution as the basic law of the

Federal Republic of Germany, which states that "art and science, research and teaching shall be free". Universities have considerable institutional autonomy in resolving personnel, financial and educational issues, which is detailed in the state laws on higher education. Germany also has a State University Act – this is a law by which the federal states exercise their legislative sovereignty in the higher education sector. Each state has a higher education law for its universities. The law contains, among other things, general provisions on the personnel structure and internal organization of the university, as well as on the procedure for learning, teaching and research, including admission to the university and obtaining an educational degree [Landeshochschulgesetze, 2025].

The state of academic freedom in 2025 has changed somewhat. According to the Academic Freedom Index 2025, the level of freedom remains high, but there are risks due to the success of anti-pluralist parties. The European Parliament runs the Academic Freedom Monitor, which notes growing concerns about pressure on universities in the EU. In Germany, universities have a wide autonomy, but political debates (for example, on research topics or funding) can influence the practical implementation of freedom. Thus, formally academic freedom in Germany is the most strongly protected of the three countries, but political risks are increasing.

In the United States of America, the protection of academic freedom is based on the First Amendment to the Constitution, which deals with freedom of speech. In addition, the American Association of University Professors (AAUP) has developed key principles and statements, such as the Statement, which was adopted as early as 1940, on the Principles of Academic Freedom and Tenure. These principles serve as a de facto standard for most institutions of higher education, even if they are not legally binding [AAUP, 1940].

In the United States, academic freedom is under pressure in 2025 due to a wave of new state laws that limit university autonomy and the content of teaching. More than 70 bills in 26 states

have been passed to control universities, 22 of which have become law. Phrases such as "institutional neutrality" or "viewpoint diversity" are often used, which effectively limit academic programs and teaching freedom. Also in 2025, the Protect Economic and Academic Freedom Act of 2025 was introduced in Congress, but it is only in the review stage.

In summary, we can say that academic freedom in the US is under threat in 2025, namely, censorship and political control over universities is growing.

In the UK, in 1988, the Education Reform Act 1988 first established academic freedom as the right of teachers to express unpopular or controversial ideas without risking losing their jobs. In 2025, protection has been significantly strengthened: universities have an active duty to ensure freedom of speech and academic freedom for students, teachers and invited speakers, and control is exercised by a special regulator – the Office for Students [Free speech rules to protect academic freedom come into force, 2025].

Let's consider what changes have occurred since the first adoption of the Education Reform Act 1988, when academic freedom was first enshrined in British law. Thus, the Act states that universities must guarantee teachers the right to "question established truths, put forward new ideas and unpopular opinions without risk of losing their jobs or privileges" [University Centre Peterborough, 2025]. Interestingly, the main emphasis was on protecting teachers, not students or external speakers. The Act was more declarative in nature: it established principles, but did not create mechanisms for control or sanctions.

In 2023, certain changes were made to the Higher Education Act [Higher Education (Freedom of Speech) Act, 2023] and new rules were established, which came into force in August 2025, significantly expanding the protection of participants in the educational process [Free speech rules to protect academic freedom come into force, 2025].

Universities and colleges now have a legal obligation to actively promote freedom of speech and academic freedom. Protection

now extends to: students, faculty, and external invited speakers. Control mechanisms have been established, with the Office for Students given the authority to investigate violations and the ability to impose sanctions on institutions that do not ensure freedom of speech. An important emphasis is placed on preventing "cancel culture" and censorship of legitimate speech. That is, universities must ensure that discussions take place without fear of harassment or administrative restrictions.

In summary, the main differences that have occurred in the UK regarding the reform of the Education Act can be identified (Table 3.1).

Table 3.1. Key differences

Year	Nature of protection	Who is covered	Control mechanisms
1988	Declarative principle of freedom for teachers	Academic staff only	None
2025	Active legal obligation of universities	Teachers, students, external speakers	Office for Students, sanctions, regulation

Note: developed by the authors taking into account The House of Commons Library, 2025.

Thus, in 1988, academic freedom was established as a right of teachers within universities. In 2025, it turned into a comprehensive system of protection of freedom of speech and academic freedom, covering the entire university community and controlled by state authorities. This reflects the international trend: from declarative guarantees to real mechanisms of provision and responsibility.

Having considered the experience of legislative protection of academic freedom in Germany, the USA and the UK, a comparative analysis can be made of the main challenges that have occurred taking into account the reforms (Table 3.2).

Table 3.2. Key challenges to academic freedom in Germany, the United States, and the United Kingdom

Country	1988 (baseline)	2025	Key challenges
Germany	Constitutional guarantee (Art. 5 III)	High level of protection, but political risks	Anti-pluralist movements, funding
USA	Traditional autonomy of universities	State laws restrict freedom	Political censorship, "culture wars"
UK	Declarative protection of teachers	Active legal obligation of universities	Balance between freedom of speech and security

Note: developed by the authors taking into account Council of Europe. (2023).

Thus, the UK in 2025 demonstrates increased protection of academic freedom through regulatory mechanisms, while the US faces restrictions, and Germany retains strong constitutional protection but faces political challenges.

Consider the legal standards of the Council of Europe and the Bologna Process.

The Council of Europe protects academic freedom and university autonomy mainly through soft law standards, through recommendations, resolutions, standards of the Venice Commission and interpretations of the European Convention on Human Rights. The Bologna Process, on the other hand, through ministerial declarations and communiqués that establish these values as fundamental for the European Higher Education Area (EHEA).

The Council of Europe links academic freedom to guarantees of freedom of expression (Article 10 of the ECHR), the right to education and respect for research, and the European Court of Human Rights considers cases of violations of freedom of teaching and research precisely through the prism of these articles. The Council of Europe documents emphasize that the principles of academic freedom and institutional autonomy should be established in national legislation, "preferably in the constitution," and the absence of such guarantees is recognized as a source of threats

to university autonomy [The Council of Europe calls for stronger safeguards to defend academic freedom, 2025].

The Council of Europe Recommendation on the Protection of Academic Freedom and Institutional Autonomy, since 2012, formulates the obligation for states to ensure freedom of research, free expression of scientific views, participation of teachers and students in the management of universities and transparent mechanisms of autonomous governance. On the basis of these standards, guiding principles are developed for national authorities, in which academic freedom is directly linked to the quality of higher education, research integrity and the responsibility of the state to create legal guarantees [Academic freedom, institutional autonomy and academic integrity, 2024].

The Bologna Process establishes academic freedom and university autonomy as "fundamental values" of the European Higher Education Area, at the level of joint political commitments of the Ministers of Education of 48 countries. They do not create supranational law, but oblige states to implement these values in their own higher education legislation and policies, in particular through quality assurance mechanisms and the participation of universities in governance [Understanding the Bologna Process and the European Higher Education Area (EHEA), 2025].

The 2018 Paris Communiqué explicitly calls academic freedom, institutional autonomy, student and staff participation in governance, and public accountability for higher education the "framework" of the EHEA. The 2015 Yerevan Communiqué contains commitments by states to "support and protect" the right of students and teachers to academic freedom and to ensure their participation in the governance of autonomous universities, while the 2020 Rome Communiqué provides an agreed definition of academic freedom and is accompanied by a specific Statement on Academic Freedom [Academic Freedom Policymaking in the European Higher Education Area, 2024].

As for practical mechanisms of influence, the documents of the Council of Europe and the Bologna Process serve as a reference for

constitutional and legislative reforms: studies on academic freedom emphasize that states should explicitly protect these rights in their constitutions and laws on higher education, taking into account the standards of the Council of Europe and the EHEA. The Bologna Process uses monitoring and comparison tools – such as the European University Association's Autonomy Scorecard – which are used as a benchmark for the implementation of the definition of autonomy adopted in the EHEA [European Commission / EACEA / Eurydice, 2024].

The Council of Europe's Education Department can thus be said to have renewed its focus on the democratic mission of higher education in 2024, reinforcing its commitment to academic freedom as a fundamental pillar of democracy, human rights and the rule of law. This initiative is based on a number of policy instruments, including recommendations of the Committee of Ministers, resolutions of the Parliamentary Assembly and the 2019 Global Forum on Academic Freedom. The initiative aims to strengthen the legal and policy frameworks supporting academic freedom, strengthen monitoring mechanisms and take forward previous recommendations to address contemporary challenges [Academic Freedom in Action, 2024].

To summarize the material considered, it is proposed to present the main differences of the above approaches in Table 3.3.

Table 3.3. Comparison of the actions of the Council of Europe and within the framework of the Bologna Process for the EHEA

Aspects	Council of Europe	Bologna Process (for the EHEA)
Legal nature	International organization with the ECHR and recommendations; influence through case law and "soft law"	Intergovernmental process of coordination of higher education policy; "soft law" instruments (declarations, communiqués)
Sources of protection of freedom	ECHR (primarily Article 10) plus recommendations and standards on autonomy and freedom of research	Communiqué (Yerevan 2015, Paris 2018, Rome 2020) and the Declaration on Academic Freedom as fundamental values of the EHEA

Aspects	Council of Europe	Bologna Process (for the EHEA)
Implementation mechanism	Implementation in national constitutions and laws; control through the ECHR and expert bodies (Venice Commission, etc.)	Voluntary commitments of states, periodic monitoring, comparative indices of autonomy and political pressure from partners
Focus on universities	Emphasis on legal guarantees and judicial protection of academic freedom and autonomy	Emphasis on systemic reforms, participation of universities as partners and increasing their autonomy in the management and quality of education

Note: developed by the authors, taking into account Academic Freedom in Action, 2024; European Commission / EACEA / Eurydice, 2024.

Development and implementation of internal anti-crisis media protocol for universities

Modern universities operate in an environment of heightened publicity and information transparency. Any internal incident (academic misconduct, conflict, financial problem) or external challenge (natural disasters, martial law) can instantly gain media coverage, causing significant reputational and financial losses. Most higher education institutions respond to crisis situations post-factum, which leads to a loss of control over the narrative. Therefore, to ensure an effective, rapid, and coordinated university response to media crises, the structure of an internal Anti-Crisis Media Protocol (ACMP) should be modelled and developed in advance for its subsequent implementation.

In the digital era, when information spreads instantly, reputational risks and media attacks pose a direct threat to institutional autonomy and trust in academic outcomes. The implementation of the Anti-Crisis Media Protocol is a critically important institutional mechanism.

The ACMP should be an internal regulatory document that regulates communication in higher education institutions during crisis

situations, in particular those related to allegations of academic integrity violations, political pressure, or disinformation campaigns.

An effective Anti-Crisis Media Protocol should be based on proven theoretical models. Fundamental to crisis PR, or public relations, is the Situational Crisis Communication Theory (SCCT), which was developed at the beginning of the 20th century by the American researcher W. Timothy Coombs [Coombs W. Timothy, 2007].

According to the Situational Theory of Crisis Communication, the following steps should be proposed:

- a classification of crises based on organizational responsibility must be conducted, considering instances where a victim-centered crisis shifts toward a preventable category;
- set of response strategies should be developed according to the type of crisis (for example, denial, reduction, recovery, strengthening);
- use of empathy and compensation (for example, recovery strategies) should be applied in cases of high organizational responsibility.

Ukrainian scientist M. Zubareva emphasizes that the anti-crisis program should be aimed at identifying risk areas and preventing crises, as well as preparing for crisis situations [Зубарева, 2018]. This confirms that the ACMP is not a reactive, but, above all, a preventive tool.

Let's consider the structure and phases of the Anti-Crisis Media Protocol.

An effective Anti-Crisis Media Protocol is a system for preventing damage to reputation and trust, which, in turn, protects institutional autonomy. The protocol should be a preventive and operational tool, not just a reaction after the event. Therefore, the Anti-Crisis Media Protocol should have a clear three-phase structure that corresponds to the stages of crisis development.

The first stage is preventive, or preparatory, that is, at this stage it is desirable to minimize the likelihood of a crisis and ensure the readiness of the higher education institution to respond to a crisis situation.

At this stage, all necessary internal documents are developed and key internal procedures are carried out.

First, the higher education institution should conduct an audit of the risks that arise in the team in order to compile a comprehensive list of possible (potential) crises, for example, academic, ethical, security, financial, etc.

Secondly, a Crisis Communication Headquarters (CCH) should be formed, which should be approved by order of the rector. The Rector, Vice-Rector for Academic Affairs (Research), Head of Communications, Lawyer, IT Manager (for cybersecurity and monitoring), and Technical Specialist should be included in the CCH [Coombs & Holladay, 2010]. The CCH should also have a clear division of roles, namely, it should be fixed: who verifies the facts, who prepares the statement, and who communicates with the media [Law of Ukraine "On Higher Education", 2014]. The university should have a scale for assessing potential harm to determine the necessary level of response (Table 3.4).

Table 3.4. Actions by the responsible person regarding the level of response

Level	Description of the crisis situation	Actions and responsible person
Local	Error in an internal document; a single negative response on social networks	The press service responds to the message; the document is promptly corrected
Systemic	Publication of doubts about the quality of education in a regional media outlet; accusations of a group of students of plagiarism, public accusations of violation of academic freedom	The Crisis Communication Headquarters activates its work; an official comment is being developed
Institutional	Widespread disinformation campaign; direct accusations of violation of autonomy from the authorities; international scandal	An immediate meeting of the Crisis Communication Headquarters is held; a legal assessment of the crisis situation is given; an appeal is made to national and international partners

Note: developed by the authors, taking into account W. Timothy Coombs (2007); Coombs, W. (2007).

Also, as part of the first stage of developing the Anti-Crisis Media Protocol, speakers should be identified and trained, as well as a single authorized speaker who should provide official comments. This will prevent the spread of contradictory information, which is one of the main mistakes in crisis communications [Fearn-Banks, 2017]. That is, in a situation of media attack or disinformation, decentralized communication is the greatest threat, so the One Voice strategy should work.

The ACMP clearly states that only a person authorized by the Crisis Communications Headquarters (usually the Rector or the appointed Vice-Rector) has the right to provide official comments in the mass media. All other employees (teaching staff, administration) are strictly prohibited from giving comments to the media or publishing personal opinions on social networks regarding the situation until the crisis is resolved or public expression is allowed. This prevents the spread of unverified facts.

The university should focus on protecting its values (academic freedom, integrity), and not just on refuting accusations.

Also, at the preventive or preparatory stage, a bank of pre-prepared responses should be created. The presence of ready-made draft statements and fact-checking materials on typical threats (for example, explanations of academic integrity policies, dismissal procedures) allows you to significantly speed up the response to crisis situations. That is, the creation of pre-agreed template press releases, fact sheets, management biographies and infographics should take place.

The second stage is reactive, that is, it is the stage of implementing direct action, which is activated when the crisis becomes public. At this stage, rapid assessment, decision-making and communication control should take place.

After the crisis situation arises, the ACMP is activated and within 30-60 minutes, the Crisis Communication Headquarters meets, which quickly establishes the facts of the crisis situation (*What happened? Who is affected? What is the level of ZVO's responsibility?*)

to apply the necessary strategy in accordance with the Situational Theory of Crisis Communication.

Next, data verification and development of key messages take place. Messages should be honest, empathetic, brief and contain information about the measures being taken (even if the full details are not yet known). V. Kotelianets emphasizes the need for "interaction with different target audiences" [Котелянець, 2017].

The choice of communication channels should take into account the fact that the priority is to inform the internal audience: students and teachers, and then the external one, through the official website, social networks, media. To track the tone, reach and identify fakes in real time, it is proposed to use digital tools, for example, YouScan, LIGA: ZAKON.

A person authorized by the Crisis Communication Headquarters (as a rule, this is the Rector or the appointed Vice-Rector) has the right to provide an official comment in the mass media. This is how access to the media occurs.

The third stage is post-crisis, that is, this is the recovery stage, during which the effectiveness of the response and the restoration of trust are analysed.

As for the analysis of the media field after the crisis, such an analysis can be carried out using a sociological survey on the perception of the actions of the higher education institution. Reputational recovery should be carried out by conducting long-term communication campaigns aimed at correcting reputational losses and demonstrating positive changes that have occurred as a result of the crisis, for example, strengthening internal control, etc.

That is, in this way the Anti-Crisis Media Protocol is updated, namely, changes and adjustments are made to the Protocol based on the experience gained and changes in the external environment. Changes may be made to internal policies, for example, educational or ethical. If necessary, a final report may be published.

Thus, we can say that the development and implementation of the internal Anti-Crisis Media Protocol is not an optional, but a critically necessary investment in the reputational capital

of the university. AKMP, built on the principles of the Situational Theory of Crisis Communication and Ukrainian experience, ensures systematicity, speed and coordination of actions, which is the only effective response to the challenges of the modern information space.

The implementation of the Anti-Crisis Media Protocol transforms crisis management from a chaotic reaction to a systemic and institutional mechanism. This approach not only minimizes the harm of disinformation, but also strengthens an internal culture of accountability and transparency, which is fundamental to preserving academic freedom and autonomy in the face of constant information pressure.

Mechanisms of rapid response to disinformation and media attacks

University autonomy is a fundamental principle that ensures academic freedom, independent research and critical thinking [Dobbins, 2018]. This principle is critical for the production of knowledge and the training of competent professionals. However, in the context of information warfare and hybrid threats, universities are increasingly becoming targets of targeted disinformation campaigns and media attacks. These attacks may aim to undermine the credibility of scientific findings, discredit individual scientists or curricula, influence internal elections or governance, which ultimately violates the very essence of university autonomy [Sursock, 2010; Council of Europe, 2020; Altbach, 2016].

As part of the analysis and systematization of institutional rapid response mechanisms that can be effectively implemented by universities to protect their autonomy from disinformation and media attacks, it is proposed to consider three main groups of mechanisms: preventive (proactive), operational (reactive) and mechanisms for restoring trust, in particular in higher education institutions.

University autonomy encompasses financial, organizational and academic independence [Dobbins, 2018]. Academic freedom (freedom to teach and research) is a key element that makes universities a target for disinformation attacks that are aimed at creating public pressure, political interference or economic blackmail and are a direct encroachment on this independence [Boulton, 2018; Council of Europe, 2020].

Academic freedom is inextricably linked to freedom of expression, which makes universities a natural environment for critical debate, but at the same time makes them vulnerable to information attacks that seek to suppress unwanted discussions or scientific conclusions [Altbach, 2016].

Media attacks on universities can be classified according to the following features:

- discrediting scientific activity, for example, creating fakes around specific research (for example, in the field of economics or IT technologies) that contradict public or corporate interests [O'Meara, 2015];
- interference in internal management, for example, spreading false information about leadership, rector elections or financial activities with the aim of destabilizing or changing the management course;
- undermining trust in higher education, for example, by creating a general narrative about corruption, low levels of education or political involvement [European Parliament, 2021];
- cyberattacks with elements of disinformation, for example, hacking systems (for example, to manipulate the results of entrance or final exams) and further use of this fact in the media to increase panic and undermine trust.

The most effective protection against threats is preventive resilience, which reduces the likelihood of an attack succeeding.

The basic mechanism of protection is the institutionalization of media literacy and critical thinking [UNESCO, 2013]. The university should become a centre for the dissemination of media

literacy, which is a direct antidote to disinformation [Frau-Meigs, 2019]. Such measures may include the following:

- introducing mandatory or cross-faculty courses in digital and media literacy for all students. These courses should focus on identifying manipulative techniques, verifying sources, and understanding algorithmic biases [UNESCO, 2013];
- conducting regular training for teachers and administrative staff on recognizing, neutralizing, and reporting disinformation;
- creating university-based research centres that study the dynamics of disinformation and develop methods for its detection.

The main ally of disinformation is the information vacuum. A clear, transparent and proactive internal communication policy is a preventive barrier to disinformation [Coombs, 2014]. Clear communication channels should be established. For example, for the dissemination of internal news, it is necessary to identify a single official source of information (website, rector's newsletter, official social networks). To reduce the opportunities for speculation and corruption, there should be public transparency, i.e., ensuring open access to key financial and management documents (within the framework of applicable legislation). Clear rules should also be established for the exchange of internal information between employees and students to prevent leaks that can be used in attacks.

In contrast to fact-checking, there is another tool for countering disinformation – prebunking, which is a proactive strategy aimed at increasing the audience's cognitive resistance to future attacks [Van der Linden, 2017].

Prebunking is also considered to be "psychological vaccination" or debunking disinformation before it spreads [Малачинський, 2025].

Prebunking is based on the inoculation theory of media influence (the "vaccination" theory), which was developed in the 1960s by social psychologist William McGuire. According to this theory, the process of forming resistance to hostile messages can

be compared to the immunization of the body: just as the physical body reacts to a small dose of the virus by activating defence mechanisms, the information body can also protect itself from destructive influences [Cook, 2017].

An effective prebunking message, built on the basis of the inoculation theory, consists of three parts:

(1) Emotional warning – users receive a warning about possible attempts to manipulate them.
(2) Microdosing – examples of possible future manipulative messages are provided.
(3) Refutation – the audience learns to recognize and critically analyse such messages [Roozenbeek van der Linden, 2022].

There are two types of prebunking. The first type is about manipulation techniques ("technique-based" or "generic" prebunking), i.e. exposing and educating people about manipulative methods, which can teach the audience to identify and refute deceptive argumentation styles, rather than specific information. Technique-based prebunking should develop immunity to disinformation and fake news in the future. For example, educational videos can be distributed on how to combat some of the most common tactics used for manipulation on the Internet. The second type is related to manipulative content and narratives, which is why it is called narrative-based, "issue-based" or "specific" prebunking. This type of prebunking is used when the manipulation you are fighting requires an explanation of the topic and a preliminary refutation based on specific facts [Harjani, 2022].

As mentioned, prebunking is a proactive strategy that increases the audience's resistance to future manipulation attempts. In an academic environment, where critical thinking is the basis, prebunking is highly effective because it teaches not the content (refutation of a specific fake), but the tactics of manipulation.

Let's consider an example of a successful application of the prebunking mechanism in a university context.

Prebunking can be used to protect internal autonomy from external interference, often through the use of student or faculty

conflicts. For example, before the rector's elections or important institutional decisions, external actors can use fake accounts to spread internal disinformation about candidates, financial fraud, or political bias. The prebunking tool is used here as preventive communication, when university administration or student government bodies issue an appeal warning in advance about the possible use of external manipulative tactics during the electoral process. That is, an explanation is given of how fake accounts can exploit internal conflicts, exaggerate minor problems, and use "emotional spam" to undermine trust. Students and staff should be informed of where to turn if they suspect that they have been the object of manipulation or cyberattack.

The result of such "vaccination" is that the academic community, faced with manipulative information on social networks, is more likely to identify it as external aggression, which reduces internal destabilization and protects the integrity of electoral processes.

The success of prebunking lies in shifting the focus from the specific what (a specific fake) to the how (manipulative tactics). In the university context, this is not only the protection of the institution, but also an organic addition to the mission of higher education – teaching critical thinking. The implementation of prebunking through gamification, proactive communication and integration into the curriculum is a key institutional mechanism for protecting university autonomy.

Once an attack has already occurred, speed and coordination are crucial, i.e. operational (reactive) rapid response mechanisms are needed. It is proposed to create a permanent interdisciplinary team – the Institutional Crisis Response Centre (ICRC), which should be responsible for monitoring and operational response [Sursock, 2010].

The ICRC should include: the head of the communications department, a lawyer, an IT security specialist, a representative of the administration and an expert (scientist) in media analysis.

The team should monitor, namely: use professional social media and media monitoring tools to quickly detect anomalous spikes

in negative or false mentions (which allows identifying the beginning of a coordinated attack).

As for the mechanism for operational fact-checking and debunking of disinformation, the response should take place during the "golden hour" – the first 60 minutes after the attack is detected [Tufekci, 2017]. There should be rapid content production. Rapid production of clear, concise and visually appealing rebuttals for distribution through their own official channels. Moreover, templates of rebuttals and media materials should be prepared in advance. The rebuttal should be distributed simultaneously on all official platforms, including comments under the original fake content (if possible). During rebuttal, repetition and amplification of the fake should be avoided. The rebuttal should focus on the truth and briefly expose the manipulation, without giving additional airtime to the disinformation narrative.

Rapid response mechanisms to disinformation and media attacks also include legal and ethical mechanisms.

The legal department should have a clear plan of action to protect reputation and autonomy [Sursock, 2010]. Rapid legal assessment includes an immediate assessment of legal risks and opportunities. This may include demands for rebuttals, filing complaints with regulatory authorities (e.g., a media regulator), or filing lawsuits to protect business reputation.

Direct communication with the administration of social media platforms, e.g., Meta, X, YouTube, is necessary to expedite the removal or labelling of content that violates the platform's policies on disinformation or hate speech.

After neutralizing the attack, the key task is to restore the shaken trust and increase the overall resilience of the institution. That is, mechanisms for restoring trust and long-term resilience should be put in place.

Universities should position themselves as a reliable and independent source of expertise [Varghese, 2013]. Key speakers (including professors and administrators) should be appointed and trained who can quickly and competently comment on

socially important topics in the media, providing high-quality, independent and scientifically sound content. Formal partnerships should also be established with reputable, independent media and fact-checking organizations. This will provide a reliable channel for the dissemination of verified information and refutations. Each attack should be used as a learning experience to strengthen future resilience.

Detailed analysis of the sources, methods and success of the attack. Studying which internal processes were vulnerable and which communication channels were the weakest. Based on the analysis, the crisis response centre should regularly update internal response protocols, improving speed and efficiency.

Demonstrating openness and commitment to protecting the autonomy of the higher education institution, it is necessary to publish (or internally disseminate) reports on combating disinformation [Tufekci, 2017].

Protecting university autonomy in the digital age requires an institutionalized, multi-layered rapid response system. This system must be based on a balance between proactive measures (media literacy, transparency, prebunking) and reactive operational mechanisms (CRC, rapid fact-checking, legal countermeasures). Institutional resilience is achieved not only by technical means, but also by a culture of critical thinking and trust that is formed within the university. By strengthening these mechanisms, universities not only protect their own independence, but also fulfil their fundamental mission as bastions of truth and rationality in a society under constant information pressure.

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3.2. Media literacy as a key competency of the academic community

The concept of "critical media literacy" for teachers: training in recognizing manipulation and propaganda

The modern world is characterized by the phenomenon of information overload, which in conditions of hybrid conflicts and information wars turns into a strategic threat. The growth of the volume of digital content, the speed of its distribution through various Internet resources and social networks, and the emergence of synthetic media resources (deepfakes) require society to radically increase the level of information resilience. In this context, media literacy ceases to be an optional element of education, acquiring the status of a key competency of the academic community. Teachers, as conductors of knowledge and shapers of critical thinking of young people, bear a special responsibility for teaching effective recognition and counteraction to manipulative influences and propaganda.

The problem is particularly acute for Ukraine, where there is a direct confrontation with an aggressive disinformation campaign. This requires teachers not just to possess information, but to be able to critically decode its ideological, economic and political context.

The classical understanding of media literacy, popularized by UNESCO and early Western researchers, covered four main aspects: access, analysis, evaluation and creation of media content. Ukrainian scholar V. Ivanov [Іванов, 2011] defines media literacy as "a set of knowledge, skills and abilities that allow a person to effectively interact with information in the media environment".

However, the dynamics of the development of digital platforms and increased ideological pressure have caused a transition from media literacy to critical media literacy. As the pioneer of the concept of critical media literacy, Douglas Kellner [Kellner, 2007] notes, this concept goes beyond a simple understanding of the functioning of the media. It requires the consumer to "critically

evaluate media in the context of power relations, political economy, ideology, and societal influence."

Thus, critical media literacy is the ability not only to analyse content, but also to decode the hidden ideological and economic interests behind a media message.

Douglas Kellner also said that critical media literacy is considered the basis for critical pedagogy, which is aimed at revealing manipulative mechanisms and increasing civic engagement [Kellner, 2007].

Let us consider the role of critical media literacy in the academic environment. It should be noted that during teaching, attention should be paid to the possibility of considering critical media literacy in two aspects:

- from the standpoint of professional integrity, as the ability to identify pseudoscientific sources, manipulative statistics, and false research, maintaining high standards of academic integrity;
- as a pedagogical function, when students are taught not only to rely on facts, but also to know the methodologies of critical evaluation of information. As a result of training, students turn into responsible citizens and specialists.

The academic community, using critical media literacy, acts as an institutional filter that protects society from disinformation chaos, which is especially emphasized in the works of Ukrainian specialists, in particular B. Potiatynyk [Потятиник, 2005], in which they analyse media criticism in the context of hybrid war.

In academic education, the origins and general idea of the concept of critical media literacy were formed at the intersection of three components:

- media education,
- critical pedagogy,
- culturology and political economy of media.

Unlike instrumental media literacy (which focuses on skills in using media), the concept of critical media literacy is fundamentally oriented towards the analysis of power, ideology, manipulation

and propaganda in media communications [Kellner & Share, 2007]. In this aspect, the fundamental statement is that the media are not neutral, and that each media message is: constructed; ideologically conditioned; and has specific social and political consequences.

As for critical pedagogy, the Concept of Critical Media Literacy is directly based on the ideas of Paulo Freire (Freire, 1970), which were described back in the 20th century. The main messages of this theory are that education is perceived as a practice of freedom; the deconstruction of dominant discourses occurs; there is the development of "critical consciousness" (*conscientização*). In this context, the media are viewed as tools for the reproduction or transformation of social inequality, and critical reading of media texts is considered a form of emancipation.

The cultural and political-economic approaches are based on the research of Western theorists (Stuart Hall, Noam Chomsky, Edward Herman), who emphasize that:

- the media function within economic and political structures;
- content is shaped by owners, advertisers, and government policy;
- propaganda is structural, not just "deliberate lies."

These ideas have become the foundation of critical analysis of manipulation and propaganda within critical media literacy (Herman & Chomsky, 1988) and remain relevant today.

Critical media literacy should also be emphasized when combating manipulation and propaganda. The complexity of modern information warfare lies in the fact that its tools are constantly evolving, going beyond the boundaries of ordinary lies. To do this, it is necessary to distinguish between key terms:

- misinformation is false information that is spread unintentionally. That is, false or distorted information is spread without malicious intent, caused by mistake, haste, or an inaccurate understanding of the facts;

- disinformation is deliberately fabricated and disseminated false information that is intended to deceive, manipulate people, and cause harm;
- manipulation is a covert, psychological influence on a person to force them to act in a way that is beneficial to the manipulator, often using deception, emotional pressure, guilt, or fear, to achieve their own goals that do not coincide with the interests of the "victim". It is aimed at controlling the thoughts and behaviour of another person, doing it imperceptibly so that the victim considers it their decision;
- propaganda is the systematic, purposeful dissemination of ideology or doctrines, usually at the state level or major political actors, with the aim of shaping public opinion on a long-term basis, as N. Chomsky and E. Herman [Chomsky, 2021] highlighted in their research on propaganda models.

The phenomenon of post-truth occupies a special place, when objective facts have less influence on the formation of public opinion than emotions and personal beliefs. This requires the teacher to teach students to distinguish emotional reactions from rational analysis.

Let's consider the pedagogical tools of critical media literacy, which will be useful when teaching how to recognize propaganda methods.

Critical media literacy provides teachers with specific analytical tools for deconstructing media messages. The main task is not just to expose fakes, but to understand the mechanism of their creation.

Key techniques that should be the focus of educational programs are:

- framing is the choice of a certain perspective (frame) of presenting information, which affects the perception of the event. For example, the same rally can be a "protest of teachers and employees dissatisfied with the management of the educational institution" (negative frame) or a "constructive dialogue between the management of the educational institution and employees" (positive frame). The teacher should

teach students to ask the right questions, for example: "What part of reality was hidden or brought to the forefront?";

- spinning and selective quoting are biased interpretations of facts or events, presenting them in the most favourable light for the customer. This is often achieved through selective quoting or presenting statistics without context. For example, manipulating averages or percentages. To counteract this, critical media literacy requires checking the original source and the full context of the quote;
- emotional appeal. Propaganda often operates on strong emotions: fear, indignation, patriotic fervour or hatred. Language clichés, metaphors and images are used that bypass the rational part of perception. Critical media literacy teaches the recipient self-reflection. The student must learn to ask the right questions, for example: "What emotion does this message evoke in me and is it not an attempt to bypass my critical assessment?";
- identification of the source and target audience. Critical media literacy teaches to apply the "five keys method" (or similar models), which include five questions. The essence is that each media message is considered through five mandatory questions that help identify authorship, influence techniques, audience, values, and purpose [Волошенюк, 2020]:
  - Who created this message?
  - What creative means were used to attract my attention?
  - Why do different people perceive messages differently?
  - What values, ideas, and views are presented or omitted in this message?
  - Why was this message disseminated?

Critical assessment of these aspects, according to R. Kubey, allows the teacher to teach students to "read the media between the lines" and understand that each media product is a construction, not a mirror image of reality [Kubey, 1997].

An equally important aspect is the integration of critical media literacy into the educational process for teachers. Effective

implementation of critical media literacy in the higher education system requires not just adding a separate course, but horizontal integration of critical analysis into all disciplines.

Teachers already have formed knowledge and cognitive attitudes, so the training should be:

- problem-oriented, when real, complex cases from the current information situation should be used (for example, analysis of recent information operations);
- reflective, when teachers should be stimulated to self-analyse their own biases and information habits;
- dialogic, when a space is created for the exchange of experience in recognizing manipulations in different professional fields.

Teachers who possess critical media literacy must demonstrate a set of competencies covering the three levels listed in Table 3.5.

Table 3.5. Content and functions of competency levels

Level name	Content and functions
I. Analytical-decoding	The ability to quickly and reliably identify the original source of information (conducting a reverse image search, checking domains), distinguishing fake accounts and botnets; identification of the most common manipulation techniques based on violating formal logic (for example, Ad hominem (switching to personalities), "Straw Man" – distortion of the opponent's argument for easier refutation, "False Dilemma" – presenting only two options where there are more); Distinguishing between fact, judgment and evaluation in the text. The teacher should be able to demonstrate to students how emotionally charged nouns and adjectives turn a neutral fact into a propaganda message
II. Contextual-systemic	Understanding the ownership structure of media holdings (Who owns? What political/economic interests does it represent?). This allows students to explain why certain topics are covered and others are silenced (Agenda-setting); the ability to identify the hidden ideological position from which information is presented. For example, how the media construct images of "friends" and "strangers", "enemy" and "hero". The teacher must understand how these frames affect the perception of historical, social and political events; an assessment of how different cultural, ethnic and social groups can interpret the same media message differently, which is a key element of Kellner's concept

III. Pedagogical-transformational	The ability to create educational materials based on real examples of manipulation and disinformation, adapting them to different disciplines (for example, analysis of statistical manipulation in economics, analysis of hate speech in philology); using interactive methods (e.g., role-playing games "editorial staff – propagandist – consumer") to develop students' practical skills; teaching students not only to consume, but also to create their own media products (analytical reviews, blogs, podcasts) that would critically confront disinformation. This turns the teacher into a mentor in the process of forming an active civic position

Note: developed by the authors, taking into account Frau-Meigs, D., 2019; Tandoc, E. C., Lim, Z. W., & Ling, R. (2018); Tandoc, E. C., Lim, Z. W., & Ling, R. (2018).

International experience in implementing critical media literacy demonstrates both a diversity of approaches and a common understanding of its critical importance, especially in response to the rise of digital threats.

In the EU, critical media literacy is integrated mainly at the policy and regulatory level. The European Commission actively supports initiatives aimed at improving citizens' media literacy as part of a strategy to combat disinformation. Key aspects:

UNESCO, whose principles are actively implemented in EU Member States, considers critical media literacy as a cross-cutting competence.

Finland and Sweden are world leaders, having integrated critical thinking and information evaluation skills into school curricula since the 1970s. Their approach demonstrates that resistance to propaganda is not the result of a separate course, but of systemic pedagogy at all levels of education.

The institutionalization of critical media literacy in Ukraine has gained particular momentum since 2014, when the state and civil society were confronted with an unprecedented scale of external propaganda and disinformation. Unlike Western countries, where critical media literacy has often developed as an academic discipline, in Ukraine it has acquired the character of a critically

important national security competence. A leading role in this process has been played by civil society organizations such as "Detector Media" and international partners (e.g. IREX), which have developed practical manuals and training programs focused on identifying specific Russian narratives and technologies [Analytical reports of Ukrainian civil society organizations].

In this regard, the Ukrainian experience is unique: it demonstrates a successful model of rapid adaptation of critical media literacy pedagogy to ensure the resilience of society in the conditions of hybrid warfare. The task of the academic community is to integrate this practical experience into fundamental university courses, transforming situational skills into sustainable elements of critical thinking.

Foreign experience confirms that it is necessary for the Ukrainian academic community to combine the best global practices, namely:

- embedding critical media literacy not only in specialized, but also in all general education and professional courses;
- focusing on the political economy of the media and identifying ideological manipulations, which is vital in countering hybrid threats.

Thus, critical media literacy is a necessary condition for the formation of intellectual sustainability of the academic community and society as a whole. For teachers, critical media literacy is not just a skill, but a methodological basis for their professional activities, which allows not only to transmit knowledge, but also to teach students how to effectively counter disinformation threats.

The analysis confirms that the Concept of Critical Media Literacy is not just a desirable, but a fundamental element of the professional competence of a modern teacher. In the conditions of information warfare and the dominance of "post-truth", the teacher must act as an expert decoder, capable not only of transferring knowledge, but also of teaching students' algorithms of verification and critical analysis.

Critical media literacy requires the teacher to develop three key levels of competence: analytical-decoding (recognition techniques),

contextual-systemic (understanding of ideological and economic foundations) and pedagogical-transformational (the ability to teach these skills to others). The successful implementation of critical media literacy in higher education in Ukraine should be based on an interdisciplinary approach and the use of practical cases in countering disinformation, taking into account both the unique Ukrainian experience and the achievements of global critical pedagogy, and be based on a practical analysis of real cases of manipulation and propaganda.

Introducing courses on academic communication and media ethics for students

Media literacy is now not just an auxiliary skill, but a key competency of the academic community.

Modern higher education is at the epicentre of transformation caused by the excessive flow of information (infodemic) and the rapid development of artificial intelligence. In these conditions, the academic community – from first-year students to experienced professors – faces the challenges of data verification, protection of intellectual property and maintenance of ethical standards of communication.

Media literacy is no longer the prerogative of journalists alone. Today it is a meta-competence that determines the success of scientific activity and the quality of higher education. Introducing courses on academic communication and media ethics is a strategic step towards building a sustainable educational environment.

In the 21st century, the academic community finds itself in a situation of intensive communication interaction: scientific results are published in electronic journals, discussed through social networks, covered in the media, shape public opinion and influence political decisions. In such conditions, academic communication and media ethics become not only components of academic activity, but also a critical competence, without which the effectiveness

of educational programs, scientific activity and social responsibility of universities is called into question.

Media literacy is also considered the ability to critically analyse, evaluate, create and effectively transmit information through all types of media, which is gradually becoming an important element of the educational process. This is not only the skill of critical consumption of information, but also the active ability to produce content, analyse its ethics and influence different audiences. Such competences are especially important for students as future specialists or scientists, educators, journalists, managers, who must be not only consumers of knowledge, but also its responsible creators.

Media literacy in the 21st century encompasses not only the ability to critically consume information, but also the skills to create, evaluate, and use media messages. It is a set of skills that include analysing sources, recognizing manipulation, understanding the structure of media messages, and the roles of communication participants. For example, research highlights that media literacy helps improve media understanding, develops self-awareness and resilience to manipulation, and forms responsible participation in digital communities [Media Literacy: A Critical Skill for the 21st Century. (2025)].

Modern approaches to media literacy, including international UNESCO recommendations and examples of educational programs, demonstrate that knowledge about the media, skills in their analysis and production are necessary for the formation of critical thinking, the ability to distinguish facts from assessments, and to understand the commercial and political interests behind media messages.

The main goal of media education is to develop students' ability to apply critical thinking and understand the mechanisms of media influence on the individual and society. Such an approach allows them not only to analyse content, but also to be effective creators of professional, ethical and responsible messages in academic and professional environments.

Academic communication is a system of communication skills necessary for effective information exchange in educational and scientific environments. It includes oral and written communication, presentation of research results, participation in scientific discussions, publication in peer-reviewed journals, and presentation at conferences.

One of the basic concepts related to academic communication is scientific integrity, which includes the truthfulness of results, transparency, and avoidance of plagiarism and manipulation. Academic integrity is the ethical foundation of scientific communication and is an integral part of media ethics in the academic context.

It is important for the academic community to understand how the human psyche processes information, since the intellectual level does not guarantee protection against cognitive errors. That is, in the context of global digitalization and intensification of information flows, media literacy ceases to be considered only as a set of technical skills for searching for information. The modern scientific paradigm shifts the focus to the psychology of perception, since it is at the stage of primary cognitive processing of the message that the individual's vulnerability to manipulative influences occurs. Research into the cognitive mechanisms of media literacy is critically important for understanding the processes of forming social attitudes and decision-making mechanisms in post-truth discourse.

The psychological aspect of an individual's interaction with mass communications is thoroughly analysed in the works of R. Harris [Harris, 2019]. The author proves that the perception of media reality is mediated by existing cognitive schemes and the experience of the individual, which makes the process of decoding messages subjective and prone to distortions. The issue of media literacy as a multi-level cognitive structure that requires the active involvement of mental resources is revealed in detail in the studies of J. Potter [Potter, 2018].

Let's consider several mechanisms of media literacy.

The first mechanism is related to cognitive biases, when the consumer of information has a tendency to confirm it (Confirmation Bias). This is a mechanism for "filtering" reality. The brain works as an energy-efficient manager: instead of analysing new information from scratch every time, it tries to fit it into an existing belief system.

From a psychological point of view, when a person encounters information that confirms his opinion, he feels a dopamine reward. That is, information that contradicts our views is perceived by the brain as a threat to identity and the amygdala, responsible for stress, is activated.

From the perspective of media literacy, this can be explained by the phenomenon of "echo chambers". Users subscribe to resources that broadcast their own opinions, which leads to the radicalization of views. That is, people tend to look only for supporting evidence for their hypotheses, completely ignoring refuting ones.

The second mechanism is called the Availability Heuristic. Heuristics are cognitive "shortcuts" when, instead of deep statistical analysis, a person relies on what comes to mind first. If an event is easily remembered because it was vivid, scary, or recently covered, the brain believes that such events occur frequently. For example, a person may be more afraid of plane crashes than road accidents simply because news about plane crashes is much more vivid and frequent in the media. As for media literacy, media manipulators use vivid, emotionally charged images (video of explosions, crying, screaming) to create the illusion of the mass nature of a certain problem, even if statistically it is isolated. That is, scientists have found that ease of recall directly affects the assessment of the probability of events.

The next mechanism of media literacy is the Illusory Truth Effect. This is a mechanism based on cognitive fluency.

The psychological essence of this mechanism is manifested in the fact that the brain has the property of confusing the "feeling of familiarity" with the "feeling of truth". If a person hears a certain thesis for the third or fifth time, the neural pathways responsible for

its processing become "trampled". It becomes easy for information consumers to perceive this sentence, and the brain subconsciously interprets the ease of perception as a signal that "it is true".

From the point of view of media literacy, this is the basis for propaganda and multi-channel dissemination of disinformation. Even if a person is initially sceptical of a fake, after the tenth repetition from different sources, his cognitive resistance weakens.

Thus, it can be said that repeated repetition of statements leads to the fact that subjects begin to evaluate them as more likely.

Also, among the mechanisms of media literacy, the theory of dual processes can be distinguished. The foundation for understanding the mechanisms of perception of media content is the theory of dual processes, developed by D. Kahneman [Kahneman, 2017] and which explains why we are vulnerable. D. Kahneman proved the existence of two systems:

System 1 (fast), which is automatic in terms of perception of information, emotional, which works on the basis of heuristics and illusory truth. In this case, information (news) is consumed instantly;

System 2 (slow), which is logical in terms of perception of information, analytical, which is able to recognize bias. But it is lazy and requires a lot of energy.

According to this concept, most media messages are processed by "System 1", when fast, automatic thinking occurs, which minimizes the critical distance between the consumer and the content. This creates favourable conditions for the emergence of cognitive biases, in particular the "illusionary truth effect", when the frequency of repetition of information replaces its validity.

Thus, a modern media-literate person must develop the skills of consciously activating the slow System 2 at times when System 1 tries to give us a quick but wrong solution.

Modern experimental studies by G. Pennycook and D. Rand [Pennycook, 2019] indicate that susceptibility to fake news is primarily due to "cognitive laziness" – a deficit in analytical thinking, and not only ideological bias. In addition, the works

of S. Lewandowsky [Lewandowsky, 2012] demonstrate the existence of a "long-term impact effect", in which disinformation continues to determine the behaviour of an individual even after its verified refutation, which emphasizes the inertia of cognitive processes of perception.

The study of psychological mechanisms of media literacy allows us to go beyond the instrumental approach. The priority direction is the study of cognitive resistance – the ability of the psyche to counteract algorithmic manipulations and emotional framing. Thus, the cognitive psychology of perception serves as a methodological basis for the development of effective strategies for the information security of the individual, based on the stimulation of the analytical apparatus ("System 2") and the development of metacognitive skills.

Also, within the framework of media literacy, it is necessary to consider the importance of media ethics in the university environment.

Substantiating the importance of media ethics in the university environment requires a comprehensive approach that combines philosophical foundations, professional standards and challenges of the digital age. The university is not only a place for acquiring knowledge, but also a space for forming value orientations of future opinion leaders.

Media ethics encompasses ethical norms and principles that regulate the creation, distribution and interpretation of media content. For the academic community, this includes responsibility for truthfulness, respect for copyright, avoiding harm to the reader/audience, transparency of sources and a balance between freedom of expression and responsibility.

The ethical component of media literacy is especially important in the digital information ecosystem, where the dissemination of unverified or manipulative information can lead to serious social consequences – from the spread of fakes to undermining trust in science.

In the university environment, media ethics is transformed from a theoretical discipline into a tool for regulating academic communication. As noted by the Ukrainian researcher B. Potiatynyk in his work "Media: Keys to Understanding" [Потятиник, 2004], media ethics in the era of the "global village" (according to McLuhan) becomes a means of ecology of the information space. For the student and the teacher, this means not only compliance with ethical laws, but also a conscious choice in favour of high-quality, verified content.

The introduction of media ethics courses in higher education institutions aims to solve three critical tasks, which are presented in Table. 3.6.

Table 3.6. Critical tasks for implementing media ethics courses in higher education

No.	Task formulation	Substantiation of conditions for implementing the task
1	Creating a culture of academic integrity	Media ethics is a safeguard against plagiarism and manipulation. According to research by Donald McCabe (2012), students often violate ethical norms not because of malicious intent, but because of the blurring of the boundaries of authorship in the digital environment. Media ethics teaches respect for intellectual property in any form – from a text quote to code or an image generated by artificial intelligence. In the digital age, the line between "reposting" and "stealing content" becomes thin, so understanding copyright is part of media ethics literacy.
2	Responsibility in social networks (Digital Citizenship)	The university community is public. Every post by a student or teacher affects the reputation of the institution. Stephen J. A. Ward (2015) in his work "Radical Media Ethics" points out that digital ethics requires "open objectivity". Students should be aware that the dissemination of unverified information or participation in cyberbullying is a direct violation of academic standards. Students often act as "citizen journalists". Knowledge of ethical standards (fact-checking, non-interference in private life) helps to avoid the spread of disinformation

No.	Task formulation	Substantiation of conditions for implementing the task
3	Countering information manipulation	Media ethics teaches how to recognize "hate speech" and propaganda. The manual "Media Literacy and Critical Thinking" (ed. by V. Ivanov and O. Volosheniuk, 2021) emphasizes that an ethical approach to information allows a student to maintain scientific impartiality, avoiding the emotional traps created by the mass media. Universities are platforms for debate. Media ethics teaches us to distinguish freedom of expression from manipulation, defamation (slander), and discrimination.

Note: developed by the authors, taking into account Potyatynyk B. V., 2004; Stephen J. A. Ward, 2015; Donald McCabe, 2012; V. Ivanov, O. Volosheniuk, 2021.

For students of the humanities (journalists, public relations specialists, political scientists), media ethics are a safeguard against the instrumentalization of the profession. Stephen Ward [Ward, 2010] emphasizes the importance of "global media ethics," which requires journalists to realize that their messages are instantly accessible to a global audience with different cultural codes.

In the Ukrainian context, the ethics of conflict coverage acquires particular importance. Working with sensitive topics, respecting the victims of tragedies, and avoiding sensationalism are key markers of professionalism that are established specifically at the university.

Today, media ethics at the university faces the challenge of "algorithmic ethics." UNESCO's recommendations on the ethics of artificial intelligence [UNESCO, 2021] state that transparency is a key value. The university environment should be a platform where the rules for the use of artificial intelligence are established: from labelling generated texts to critically examining algorithmic decisions for bias.

The integration of artificial intelligence into the educational process creates unprecedented challenges for media ethics and academic communication. According to the UNESCO document "Guidance for generative AI in education and research" [UNESCO, 2023], the use of artificial intelligence should be based on the principles of transparency and accountability (Table 3.7).

Table 3.7. Ethical principles for the use of artificial intelligence

Name of principle	Characteristics of the principle
Human-centricity	Artificial intelligence is a tool, not a subject of creativity. The student is fully responsible for the content created with the help of artificial intelligence
Transparency	Mandatory labelling of the use of artificial intelligence algorithms in scientific works
Fighting algorithmic bias	Understanding that artificial intelligence can reproduce stereotypes embedded in its educational data

Note: developed by the authors, taking into account UNESCO, 2021; UNESCO, 2023

The main ethical dilemma lies in the so-called "hallucinations" of artificial intelligence – the ability to generate non-existent facts or bibliographic references.

This issue is also considered in the Ukrainian context by specialists from the National Agency for Higher Education Quality Assurance (Ukraine), who emphasize the need to update the Codes of Academic Ethics taking into account the capabilities of Generative AI.

The use of active learning methods – cases, analysis of real media texts, simulations of crisis communication situations, group projects – stimulates a deeper understanding of the theory and practice of media ethics.

Integrating elements of academic communication and media ethics into other subjects (e.g., academic English, journalism, social sciences) allows students to apply this knowledge in different contexts. The introduction of such courses contributes to the formation of a scientific culture, where students understand the role of evidence, transparency, and ethics in their communication. Universities that develop media literacy prepare students for the responsible use of digital platforms, which reduces the risk of spreading misinformation and improves the quality of scientific discussion.

Strategies for introducing courses in academic communication and media ethics are becoming a logical and necessary step in the modernization of university education. Modern reality requires

students not only professional knowledge, but also competencies in the field of media, critical thinking, and ethical communication. Such courses not only increase the academic level of students, but also form responsible participants in the socio-information space.

The role of the teacher as a "digital facilitator": developing skills in information verification and reasoned discourse.

In the conditions of a hyper-information society and permanent hybrid threats, media literacy is becoming not just an applied skill, but a fundamental competence of the academic community. The traditional "teacher-centred" learning model is insufficient to counteract disinformation and manipulation.

In the modern pedagogical paradigm, the role of the teacher is evolving from a classical lecturer as a translator of knowledge to a digital facilitator who becomes a moderator of intellectual search. The etymology of the term "facilitation" (from the Latin *Facilis* – easy) indicates the main function of the teacher: not to burden the student with an excessive amount of data, but to facilitate the process of independent assimilation and critical rethinking of information. But such a teacher does not provide ready-made answers, but creates conditions for critical understanding of content, verification of sources and building a constructive dialogue.

The foundation of digital facilitation is the theory of connectivism, substantiated by G. Siemens [Siemens, 2005] and S. Downes [Downes, 2012]. Within the framework of this theory, knowledge is distributed in networks (human and technological), and learning consists in the ability to construct these networks and navigate them. The teacher as a facilitator plays the role of an "expert node" who helps students: consciously choose sources from among information noise; establish connections between disparate concepts; adapt the acquired knowledge to a changing context.

Digital facilitation in the context of media education involves moderating the learning process, where the teacher guides the student through the labyrinths of digital platforms. As noted

by Ukrainian researcher G. Dehtiarova, the media educational component of a teacher's professional activity aims to form critical thinking, which allows them to resist information pressure [Дегтярьова, 2016]. Also, Dehtiarova emphasizes that facilitation in media education is primarily the creation of an "environment of trust" where the student is not afraid to question authoritative sources [Дегтярьова, 2017]. This echoes the ideas of Carl Rogers, who considered facilitation a means of stimulating internal curiosity. In the digital space, this is transformed into the teacher's ability to moderate online discussions so that they do not turn into destructive disputes, but remain within the framework of reasoned discourse.

The skill of fact-checking is a key element of media literacy. The scientific works of O. Volosheniuk and V. Ivanov emphasize that in the era of "post-truth" the academic community must have the tools to verify the reliability of data [Волошенюк, 2021].

Let's consider the functional responsibilities of a digital facilitator, which include:

- content curation, i.e., instead of fixed textbooks, the facilitator offers dynamic selections of resources, demonstrating the principles of academic integrity by his own example;
- technological mediation, when the teacher helps students master verification tools (from plugin detectors to image verification services), making technology a "transparent" tool of cognition;
- moderation of cognitive dissonance, when the facilitator deliberately introduces contradictory media messages into the discourse, stimulating students to independently search for the truth and deconstruct fakes.

As noted by O. Taranenko, a teacher-facilitator in higher education should shift the emphasis from "what to think" to "how to think." [Тараненко, 2019]. This requires a high level of media literacy from the teacher, as he becomes a role model of a critical consumer of content. Thus, digital facilitation becomes not just

a teaching method, but a strategy for protecting the academic environment from cognitive manipulation.

As for international experience, the teacher-facilitator implements such methods as:

- Lateral Reading – these are techniques developed by specialists from the Stanford History Education Group, which involves checking the source not within the site itself, but through external resources [Wineburg S, 2017];
- SIFT-method [M. Caulfield, 2026], which includes the following sequence of actions: stop, investigate the source, find better coverage, trace claims to the original context.

Digital facilitation aims to overcome "echo chambers" and "filter bubbles" that limit the worldview of education seekers. Creating platforms for reasoned discourse allows students to practice the skills of scientific polemics.

Foreign researchers, in particular E. Zuckerman (2021), emphasize the importance of the "digital public sphere", where the teacher models ethical standards of discussion. The facilitator teaches to distinguish between logical fallacies, emotional manipulations and propaganda narratives, which is critically important for academic integrity.

That is, the transformation of the role of the teacher into a "digital facilitator" is a necessary condition for the survival of academic standards in the digital age. Through media literacy tools, the teacher contributes to the formation of the student's intellectual autonomy, which is the key to the resilience of society to information threats.

To provide your scientific substantiation with greater conceptual clarity, below is a comparative analysis demonstrating the paradigm shift in higher education.

The transition in the educational process to facilitation is not just a change of name, but a fundamental reorientation of the professional identity of the teacher. To visualize the functional transformation of the teacher, let us consider a comparative

characteristic of the roles of the teacher in the information environment (Table 3.8).

Table 3.8. Comparative characteristics of the roles of a teacher and a facilitator

Comparison criteria	Traditional lecturer	Digital facilitator
Source of knowledge	Acts as the main (sometimes the only) translator of knowledge	Acts as a navigator in a multidimensional information space
Learning goal	Assimilation of a certain number of facts and memory check	Formation of search, filtering and verification skills (fact-checking)
Attitude towards media	Uses media only as illustrative material	Uses media as an object of research and deconstruction
Working with errors	Corrects students' errors, focusing on the correct answer	Analyses the causes of errors (cognitive biases) together with students
Type of communication	Monological, vertical (Teacher-to-Student)	Dialogical, horizontal (Peer-to-Peer, discussion moderation)
Assessment	Control of compliance with the studied material	Assessment of argumentative capacity, critical analysis and discourse ethics

Note: developed by the authors, taking into account Zuckerman E., 2021; M. Caulfield, 2026; Wineburg S., McGrew S., 2017.

As S. Shvachko notes, in the digital age the "architectonics" of learning are changing [Швачко, 2019]. The traditional model was based on limited access to information, so the teacher had a monopoly on the truth. A digital facilitator works in conditions of information overload, where the main challenge is not to find information, but to weed out unreliable information.

Ukrainian researcher O. Zhyzhko emphasizes that the facilitator must have the skills of "pedagogical support", which involves flexibility in the choice of digital tools [Жижко, 2018]. This correlates with the principles of andragogy (adult education), where the teacher becomes a partner in research.

In the context of forming an argumentative discourse, the role of the facilitator is to create "conflict cognitive situations". This means that the teacher intentionally invites students to analyse polar points of view on the same problem (for example, controversial scientific publications), stimulating them to use media literacy tools to detect manipulations.

The digital facilitator does not simply point out errors, but provides students with algorithms for independent deconstruction of content. To deepen the scientific substantiation of the teacher's role as a digital facilitator, below is a description of specific tool complexes (checklists) that the facilitator integrates into the educational process (Table 3.9). These tools allow you to transform theoretical knowledge about media literacy into applied research skills.

Table 3.9. Verification and argumentation checklists

Checklist	Brief description	Substantiation of the learning process
1. CRAAP checklist (University of California)	This classic tool is basic for the academic environment when selecting sources for scientific papers.	The facilitator teaches students to evaluate the source according to five criteria: Currency, when the answer is formed to the question: when was the information published? Has it been updated? Relevance, when the answer is formed to the question: does the information correspond to the topic of the study? Who is the target audience? Authority, when the answer is formed to the question: who is the author/publisher? What are their qualifications? Accuracy, when the answer is formed to the question: where does the information come from? Is it supported by evidence? Purpose, when the answer is formed to the question: what is the purpose of creating content (informing, persuading, selling, entertaining)?

Checklist	Brief description	Substantiation of the learning process
2. Checklist "5 Questions for a Media Message" (Center for Media Literacy, CML)	To develop argumentative discourse skills, the teacher uses deconstruction according to a methodology that is actively popularized in Ukraine, in particular by specialists of the AUP (Media Education and Media Literacy, 2012)	Five questions about the quality of content: 1. Authorship questions. Who created this message? 2. Format questions. What creative methods were used to attract my attention? 3. Audience questions. How can different people understand this message differently than I do? 4. Content questions. What values and points of view are presented or omitted? 5. Purpose/benefit questions. Why was this message sent?
3. SIFT algorithm (Mike Caulfield's "four-step" method [Caulfield M. A., 2026])	The facilitator implements this method for quick real-time verification during discussions	Four steps for content verification: Stop, awareness of emotional reaction to content; Investigate, checking the reputation of the author and resource; Find, searching for the original source or better coverage of the topic; Trace, returning to the context of the quote or image
4. Checklist for reasoned discourse (based on the principles of critical thinking)	To moderate scientific debates, the facilitator uses criteria for evaluating arguments (based on the method of R. Paul and L. Elder (Paul R., Elder L., 2020))	Criteria for evaluating arguments: Clarity. – Are the theses not blurred? Logical – Does the conclusion follow from the evidence presented? Depth – Does the argument take into account the complexity of the issue, or is it superficial? Fairness – Are alternative points of view considered?

Note: developed by the authors, taking into account Paul R., Elder L., 2020; Caulfield M. A., 2026; Media Education and Media Literacy, 2012.

Using these checklists in the facilitation process minimizes the impact of cognitive biases and fosters a culture of evidence-based academic communication.

Thus, the role of the teacher as a digital facilitator is critical for the survival of academic integrity in an information overload environment. By using verification checklists and critical media deconstruction techniques, the facilitator develops an intellectually autonomous personality capable of constructive dialogue and reasoned defence of his or her position.

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3.3. Ways of forming a new academic media culture

Ethical code of the teacher's presence in the public and digital space: the balance between private and public

Understanding the ethical presence of the teacher in the public and digital space requires a comprehensive methodological approach that combines normative, axiological and media-cultural dimensions. Such methodological synergy allows us to consider the presence of the teacher in the digital environment not only as a technical or communication phenomenon, but as a socio-cultural and professional-ethical construct that is formed in the interaction of individual practices of teachers and institutional norms of higher education.

The normative approach in this context provides an analysis of ethical codes, social media policies, rules of academic integrity and other regulations as tools for institutional management of the behaviour of teachers in the digital environment. It allows us to trace how universities seek to formalize the balance between academic freedom and responsibility in the public space.

The axiological approach focuses on the value principles of the academic community – integrity, autonomy, responsibility, respect for human dignity and trust. It is these values that determine the ethical guidelines for the behaviour of a teacher in the digital environment and legitimize the need for ethical self-regulation beyond the formal norms.

The media-cultural approach makes it possible to interpret the presence of a teacher in the digital environment as an element of a new academic media culture, which is formed in the conditions of platformization of education, hybrid learning formats and the growth of the role of visual and interactive communication. In this dimension, the code of ethics acts as a mechanism for the cultural adaptation of the academic community to digital transformations.

The combination of these approaches allows us to consider the code of ethics of the presence of a teacher in the digital environment not as a system of restrictions, but as a value-normative

model of the professional identity of a teacher in the hybrid space of offline and online communication.

The public representation of a teacher in the digital environment is related not only to the academic reputation of a higher education institution, but also to the protection of privacy, the formation of a responsible media culture and compliance with professional standards of behaviour in the digital environment. That is, a fairly large number of ethical issues arise that can be conditionally grouped in a certain way.

To take into account the boundaries of private and public, it is desirable to have answers to the following questions: Where is the boundary between the teacher's personal life and his professional role? Does a teacher have the right to express personal, political or ideological views on social networks if they may affect the perception of his professional activities?

To form responsibility for the digital, it is desirable to have answers to the following questions: How to avoid conflicts associated with the publication of content that may be perceived as discriminatory, biased or inconsistent with academic standards?

For interaction in the digital environment with students, it is desirable to have answers to the following questions: What communication norms should teachers follow when communicating with students in messengers, social networks or on educational platforms?

Academic ethics in the digital environment is associated with the principles of integrity, professional responsibility and respect for the subjects of the educational process. In the context of digital communications, teachers face issues not only of scientific honesty, but also of ethical behaviour in online meetings, social networks, blogs and public accounts [Доложевська, 2025].

The digital space poses a number of challenges to classical notions of private and public. A teacher's professional activities often intersect with his personal life in social networks, where the boundaries between professional and private publications are blurred. This creates risks for individual reputation, student confidentiality

and academic integrity. For example, uncontrolled use of social media can lead to breaches of student data or the use of educational materials without proper permissions [Forbes Dianne, 2025].

Modern digital platforms often create conditions where private information becomes publicly available. Teachers who are actively present on social media should be aware of the risks of crossing professional boundaries and conflicts of interest. The lack of a clear distinction can lead to ethical dilemmas related to personal statements in a professional context and the impact on the student audience [Forbes Dianne, 2025].

Social media and educational platforms open up new opportunities for pedagogical practice, but also raise questions about the separation of roles and responsibilities. For example, the role of "tutor-influencer" can carry the risk of compromising professional standards or violating confidentiality [Forbes Dianne, 2025].

Online harassment, hate campaigns, or targeted attacks can have a significant impact on a teacher's well-being and professional activities, jeopardizing academic freedom and personal safety. Such aspects require attention within the framework of ethical codes and practices for supporting the academic community [Doerfler, 2021].

Summarizing the above, we can say that the ethical code of a teacher's presence in public and digital spaces should become a key element of a new academic media culture that ensures a balance between the private and the public. The modern challenges of the digital environment require updating traditional ideas about academic ethics, including issues of transparency, protection of privacy, responsible use of media platforms, and respect for all participants in the educational process.

The ethical code of a teacher's presence in the digital environment should be based on principles that meet the modern requirements of the digital society and the academic community. Below are the key principles that should form the basis of a code of ethics for a teacher's presence in the digital environment, with a justification for the importance of their implementation.

The principle of professionalism and integrity is a principle that involves the responsible reflection of one's professional activities in the digital space, refraining from actions that may jeopardize the academic reputation or trust in the teaching profession. Adherence to academic integrity in digital interactions includes honesty in publications, avoiding plagiarism, manipulation or disinformation [Доложевська, 2025]. The teacher should also be aware that his public statements (even in private accounts) may be perceived as reflecting the position of the university. Therefore, it is important to adhere to neutrality and respect for diversity of opinions, avoiding extremist, discriminatory or offensive statements.

The principle of transparency and honesty in communication is based on the fact that a teacher should be open and honest in communicating with the audience, clearly distinguishing between professional and personal positions in the online space. In the digital space, a teacher should share their professional achievements, avoiding plagiarism, manipulation and false information. This applies to both publications on social networks and participation in online discussions. This includes a full and correct presentation of their own roles, job responsibilities and academic achievements. Such transparency promotes trust between the teacher, students and colleagues [Forbes Dianne, 2025].

The principle of protecting the privacy of information (digital security) is that a teacher has the right to a private life, but must take into account that the publication of personal information may affect their professional image. It is recommended to distinguish between personal and professional accounts, as well as to limit access to private content. The privacy of participants in the educational process should also be respected. That is, it is necessary to avoid public dissemination of personal data of students without their consent, and to respect the confidentiality of educational materials and communications. Teachers should be aware that digital content can easily be distributed beyond the initial audience [Forbes Dianne, 2025].

The principle of balance between private and public should be based on the fact that higher education teachers, as public figures, should consciously approach the publication of personal information on social networks and professional platforms. The ethical challenges of a digital presence require teachers to avoid conflicts of interest, adhere to professional standards even in personal accounts, and be critical of the publication of materials that can be perceived as an expression of the personal position of the higher education institution. Within the framework of this principle, there should be a distinction between private and professional, which requires conscious management of one's own digital identity, clear labelling of personal positions, and avoidance of situations in which private statements can be perceived as the official position of the educational institution.

The principle of professional responsibility and respect for colleagues requires a higher education teacher to adhere to the norms of professional conduct, in particular, avoiding public criticism of colleagues, respecting intellectual property, and maintaining confidentiality. This rule also applies to the digital space, where public comments, posts, or messages can have a much wider resonance and negative consequences for the reputation of both individual teachers and the entire institution.

The principle of respect, inclusion, and tolerance is that it is important to ensure respectful and constructive communication with different groups of users in the digital environment, avoiding hate speech, discriminatory statements, and aggressive behaviour. This principle contributes to the formation of an inclusive academic media culture [Кравченко, 2025].

The principle of continuous professional improvement, which emphasizes that the digital space is changing rapidly, so the teacher must actively develop his or her competencies in the field of information literacy, digital ethics and media culture. This allows for an adequate response to technological changes and new ethical challenges [Пискун, 2025].

The proposed principles of the code of ethics create a scientifically sound basis for the development of practical recommendations and policies of universities and other educational institutions in the field of the presence of teachers in the digital space.

An important stage in the formation of the code of ethics of the presence of a teacher in the public and digital space is the analysis of the institutional practices of universities that have already developed and implemented the relevant policies. Such documents specify abstract ethical principles, turning them into normative guidelines for daily professional behaviour in the digital environment. Analysis of international and Ukrainian experience allows us to identify universal approaches to the balance between private and public within the framework of the new academic media culture.

Let us consider foreign university policies on the presence of a teacher in public and digital space.

Universities in the United States and Western Europe were among the first to institutionalize ethical norms for the presence of teachers in the digital environment through special social media policies. In particular, the University of Florida emphasizes in its Social Media Policy that even personal accounts of employees can have professional consequences if the content is associated with the university. The document emphasizes the need to adhere to professionalism, respect, and responsibility as key components of teacher behaviour in the digital environment [University of Florida, 2023].

A similar approach is implemented at Virginia Polytechnic Institute and State University (Virginia Tech), where social networks are considered a tool for professional communication, but only on condition of a clear distinction between official and private roles. The policy provides for the registration of official accounts and compliance of public content with the university values of inclusivity and respect [Virginia Tech, 2022].

At George Washington University, a particular emphasis is placed on combining academic freedom with ethical responsibility. Faculty members have the right to express their views freely in

the digital space, but they are obliged to avoid content that could be interpreted as discriminatory, offensive, or that undermines the credibility of the academic institution [George Washington University, 2023].

At the same time, the University of Chicago emphasizes that a faculty member's digital presence is an extension of their professional identity. The university recommends avoiding the publication of confidential information and clearly stating that personal views do not represent the official position of the institution, which directly contributes to maintaining a balance between private and public [University of Chicago, 2022].

The University of Maryland (USA) emphasizes in its social media guidelines the importance of responsible behaviour in the digital space, protecting privacy, and understanding and respecting diversity of opinions. The policy calls on all members of the academic community to respect the rights of other users and protect their privacy by demonstrating transparency and goodwill in online communication [University of Maryland, 2022].

In Ukrainian universities, the issue of a teacher's presence in the digital environment is mostly regulated through general codes of ethics and academic integrity. Thus, the Ukrainian Catholic University in its Code of Ethics defines responsibility for professional reputation, respect for the dignity of others, and integrity as universal principles that apply to all forms of communication, including in the digital environment [Ukrainian Catholic University, 2021].

At the National Aerospace University "KHAI" the Code of Ethical Conduct emphasizes the observance of honesty, responsibility, and respect in the educational and scientific environment. Although the digital space is not separately highlighted, these principles actually form the normative basis for the ethical online presence of teachers and their interaction with students and colleagues [KHAI, 2020].

A comparative analysis of university policies allows us to identify common features that can be used as the basis for a national

code of ethics for teachers' presence in the digital environment: a clear distinction between personal and professional identity; a priority for protecting the privacy of students and colleagues; a combination of academic freedom with ethical responsibility; and a focus on inclusive and respectful communication. Thus, institutional examples confirm that a code of ethics for teachers' presence in the digital environment is not a restriction of freedom, but a mechanism for supporting a new academic media culture based on trust, responsibility, and professionalism.

Thus, there is a need to integrate digital ethics issues into teacher training programs in order to form a culture of responsible presence in the digital space from the early stages of professional development.

The code of ethics for teachers' presence in public and digital spaces should become not only a set of rules, but also part of a new academic media culture that will contribute to improving the quality of education, protecting professional reputations, and building trust between teachers, students, and society. It is important that this code evolves with technology, taking into account new challenges and opportunities in the digital world.

Strategies for high-quality scientific communication: how to popularize science without losing its essence and impartiality

The formation of a new academic media culture in Ukraine and the world requires a rethinking of the interaction between the scientific community and society. The traditional model of "knowledge deficit", where a scientist only broadcasts facts to a passive listener, is giving way to a model of dialogue and socio-cultural engagement. The key challenge of our time is the popularization of science without the risk of deforming its essence, which requires the development of clear strategies for high-quality communication.

Scientific communication in the context of digital transformation ceases to be a hermetic process. It turns into a tool for the

democratization of knowledge, where a scientist acts not only as a researcher, but also as a public intellectual. However, according to B. Trench and M. Bucchi, the transition from academic to media discourse is inevitably accompanied by a "loss of context", which can lead to the simplification of complex concepts to the level of pseudoscientific statements [Bucchi & Trench, 2021].

Bridging the gap between academia and society requires the implementation of strategies based on transparency, ethics and cognitive safety.

The transformation of the linear model of "knowledge deficit" into a dialogic model of "public engagement" actualizes three fundamental principles on which the qualitative interaction of science and the media is based:

methodological Transparency. Within the concept of Open Science, transparency of the path of obtaining data is critical. As M. Bucchi and B. Trench point out, transparency allows the audience to verify data and minimizes the risks of manipulation, since the openness of protocols is the best safeguard against pseudoscientific falsifications [Bucchi & Trench, 2021]. In Ukraine, this principle is implemented through the development of open university repositories and digital platforms for publishing research results;

contextualization. Scientific discovery does not exist in isolation. Contextualization involves explaining how a specific fact is embedded in the existing scientific paradigm. B. Fischhoff emphasizes that scientific communication should "build bridges" between new knowledge and the social context in order to avoid misinterpretations [Fischhoff & Scheufele, 2013]. An example in Ukraine is the "Science Days" project, where scientists explain fundamental research through their impact on global challenges;

ethical responsibility. In the digital age, a scientist acts as a public expert. Ethical responsibility includes the rejection of sensationalism and a clear declaration of the boundaries of competence. The main asset in the fight against disinformation is the reputational capital of a scientist, and violation of ethical norms leads to a long-term delegitimization of a specialist.

Table 3.10. Fundamental principles that ensure the preservation of high-quality scientific communication

Fundamental principles	Characteristics	Essence	Meaning	Ukrainian context
Transparency	In the new media culture, trust in the result of research directly depends on the transparency of the way it was obtained. Digital platforms allow for the implementation of the principle of Open Science, where the object of communication is not only the final article, but also raw data, protocols, and analysis algorithms.	The communicator must explain the "kitchen" of the research: how the sample was selected, what tools were used, and what were the limitations of the method.	As M. Bucchi and B. Trench argue, transparency minimizes the risks of manipulation, as it allows other members of the academic community and the educated public to verify the data in real time (Bucchi & Trench, 2021).	The introduction of institutional repositories and open databases in Ukrainian universities (for example, the "Science and Innovation" system) is a practical step towards ensuring methodological transparency.
Contextualization	Scientific facts taken out of context often become tools of disinformation. Contextualization involves considering a specific discovery within the framework of a broad scientific paradigm and social needs	Explaining whose work the research is based on, what place it occupies in modern science, and what real consequences (rather than hypothetical sensations) it will have.	According to B. Fischhoff, high-quality communication should "build bridges" between new knowledge and the audience's existing cognitive baggage, while avoiding distortion of the essence (Fischhoff & Scheufele, 2013).	Popular science projects such as "Science Days" demonstrate the importance of contextualization, when scientists explain local discoveries through the prism of global world challenges (ecology, energy independence).
Ethical responsibility in the digital ecosystem	Digital transformation has increased the speed of information dissemination, which increases ethical risks. Academic media culture requires scientists to maintain a balance between the attractiveness of content and its reliability.	Refusal of "clickbait" headlines, declaration of conflict of interest, and absence of a custom nature of data interpretation.	The reputational capital of a scientist in the digital age becomes the main asset, and ethical violations in communication lead to the long-term delegitimization of a specialist in the professional environment.	In Ukraine, the issue of ethical responsibility has become acute in the context of the "infodemic". Scientists who adhere to ethical standards (for example, experts from the "Dovkola" network) consciously avoid categorical forecasts where scientific data is limited, which strengthens the long-term trust of society in academic institutions.

Note: developed by the authors, taking into account Fischhoff & Scheufele, 2013; Bucchi & Trench, 2021.

Digital transformation has changed the architecture of interaction between science and society, turning the linear transmission of knowledge into a complex multi-vector system. In this context, high-quality scientific communication is based on three fundamental principles that ensure the preservation of its essence and impartiality (Table 3.10).

The fundamental problem of scientific communication is to resolve the contradiction between academic accuracy and media accessibility. In the pursuit of audience attention, there is a risk of falling into the trap of "scientific populism", where the complexity of the phenomenon is ignored for the sake of a bright headline.

The problems of high-quality scientific communication include simplification in scientific text. Each simplification of a scientific term is a conscious loss of part of its meaning. The main challenge is to determine the limit beyond which simplification of a scientific text turns into disinformation. According to the research of M. Dahlstrom, the use of narratives (stories) facilitates perception, but can create the illusion of completeness of knowledge where there are significant gaps [Dahlstrom, 2014].

The "oversimplification effect" occurs when trying to adapt complex scientific data for the mass consumer, when the loss of nuance leads to cognitive distortion. As M. Bucchi and B. Trench note, the transition from academic to media discourse is often accompanied by ignoring the variability of results for the sake of sensationalism [Bucchi & Trench, 2021].

To overcome the oversimplification effect, the method of "hierarchical detailing" is used. The message is built from a simple conclusion to the gradual disclosure of methodological limitations. In the Ukrainian context, this approach is used by the "Kunsht" platform, where complex genetic studies are explained through multi-level long reads.

The next problem of high-quality scientific communication can be considered sensationalism and evidence. Media culture is prone to hyperbolization ("breakthrough", "revolutionary discovery", "scientists changed the world"). However, science is a process

of gradual accumulation of data. The audience's expectations for quick and final results contradict the nature of scientific research, which is based on doubt and verification. A scientist should talk not only about the final, but also about intermediate stages, unsuccessful experiments and revision of hypotheses. This creates a realistic image of science as a living system.

As for the strategy of "informed scepticism", then, unlike the complete denial of knowledge, informed scepticism is the basis of the scientific method. This strategy in media culture is aimed at fostering in the audience the ability to analyse the source, sample and method of data interpretation. The communicator does not just provide a fact, but demonstrates a way of checking it, which forms the consumer's «immunity» to emotional manipulation.

The next problem of high-quality scientific communication can be considered the "confirmation effect". This cognitive distortion forces the audience to perceive only that information that is consistent with their stereotypes. S. Lewandowsky's research proves that simply providing facts often does not work if they contradict a person's identity [Lewandowsky & van der Linden, 2021]. The application of the "confirmation effect" involves the use of "two-sided argumentation", when a scientist openly voices possible counterarguments and consistently refutes them. In Ukraine, this technique is actively used by the VoxCheck project in analysing anti-scientific theses in political discourse.

The use of the "preventive refutation" strategy (Prebunking) also improves the quality of scientific communication. This strategy is based on the theory of inoculation (vaccination). Instead of fighting an already widespread fake, the scientist explains the mechanism of manipulation in advance [Cook, 2017]. Explaining the logical fallacy "after this – therefore, because of this" (post hoc ergo propter hoc) protects the audience from misinterpretations of side effects of vaccination even before the appearance of disinformation campaigns.

The next problem of high-quality scientific communication can be considered the use of the strategy of "radical transparency

of uncertainty". Traditionally, scientists are afraid to demonstrate uncertainty, believing that this will undermine authority. However, as B. Fischhoff argues, hiding gaps in knowledge is the main reason for the decline in trust in institutions [Fischhoff & Scheufele, 2013]. A scientist must clearly define the boundaries of what is known. In Ukrainian practice, this is critically important when covering the environmental or medical consequences of war, where the lack of data should be articulated as an incentive for further research, and not hidden behind general phrases.

In the Ukrainian context, a particular challenge is the lack of a professional institute of scientific PR officers in most academic institutions. This forces a scientist to independently combine the roles of a researcher, copywriter and SMM specialist.

Initiatives such as "Scientific Picnics" and the media "My Science" demonstrate a successful search for balance. They attract young scientists who are fluent in modern visual language, but maintain strict peer review of content before publication.

To ensure high quality scientific content in the public space, it is necessary to implement methodological tools that take into account both the vulnerabilities of the audience and the ethical responsibility of the communicator.

In conditions of information overload, data visualization becomes not just an auxiliary tool, but a central element of cognitive assimilation of information. However, in the new media culture, the phenomenon of "decorative visualization" arises, which can distort the essence of data for the sake of aesthetic effect (Table 3.11).

The specificity of Ukrainian media culture is the opposition to targeted scientific manipulations used within the framework of hybrid warfare. The "BezBrekhni (Without Lies)" project and the scientific direction of the VoxCheck analytical platform demonstrate the effectiveness of using "scientific fact-checking". They involve specialized experts to analyse populist statements based on pseudoscientific arguments.

Table 3.11. Quality visualization tools

No.	Name of tools	Characteristics
1	Interactive dashboards	Allow the user to independently change parameters and see the dynamics of processes, which contributes to a deeper understanding of the logic of the study
2	Infographics of conceptual connections	Instead of isolated numbers, the focus shifts to demonstrating the ecosystem of the problem
3	Explainer video (Scriber video)	A combination of a visual sequence and a scientist's voice-over explanation, which eliminates the effect of "alienation" of science

Note: Bali, C., Tasdelen, B., Bandi, S. et al. (2026); Li, N., Brossard, D., Scheufele, D. A., Wilson, P. H. and Rose, K. M. (2018).

An important case is the fight against "academic plagiarism" and pseudoscience through the network initiative "Dissergate". This is an example of how the scientific community, through media tools (social networks, blogs on "Ukrainian Truth. Life"), carries out self-purification and forms standards of reputational responsibility. This directly affects the impartiality of science, since publicity becomes a safeguard against falsifications.

The "truth sandwich" algorithm, which is associated with the traditional method of refuting fakes, when a scientist first quotes a myth and then denies it, can be attributed to the tool of academic media culture. When misinformation is repeated repeatedly (even to refute it), it becomes more "familiar" to the audience. Cognitive psychology claims that people tend to perceive familiar information as true (the illusory truth effect). The "sandwich" algorithm minimizes this risk, since it begins and ends with a true statement, pushing the fake to the periphery of perception.

Consider the structure of the "truth sandwich":

– the top layer (fact) includes a message that begins with a statement of scientifically proven truth. This creates a "first impression" and focuses attention on reality, not fiction. We fill the listener's mental space with verified information before he hears the lie;

– the middle, when the warning and deconstruction of the myth occur. Only at this stage is the fake mentioned, but with the obligatory warning that it is a manipulation. It is important not only to name the fake, but also to explain the mechanism of manipulation (why this lie was created). This activates critical thinking and "inoculates" the audience against similar attacks in the future [Cook, 2017];
– the bottom layer, when the fact is confirmed, that is, the initial fact is repeated and its consequences are explained. According to the primacy and recency effects, people remember the beginning and end of the message best. By fixing the truth at the end, the scientist ensures that it will remain in the audience's long-term memory.

Disinformation often fills gaps in the understanding of the world. If a scientist simply says "that's not true," a void remains in the listener's mind, which he can again fill with a fake. The "sandwich" algorithm provides a complete alternative model of explanation that is logically complete and evidence-based, making it more attractive to the human brain than chaotic disinformation (Lewandowsky, 2020).

In the context of hybrid warfare, where scientific topics (medicine, energy, history) often become objects of hostile PSYOPS, the use of the "truth sandwich" allows the scientist not to become a repeater of hostile narratives. Instead of entering into debates around a fictional thesis, the scientist imposes his own agenda based on evidence.

The formation of a new academic media culture is a necessary condition for the survival of science in the era of "post-truth". High-quality scientific communication is based on a balance between the accessibility of presentation and methodological rigor. The use of the strategies of "informed scepticism", "preventive refutation" and "radical transparency" allows scientists not only to popularize knowledge, but also to perform the function of an intellectual filter of society. The Ukrainian academic community, integrating these global practices, lays the foundation for

a democratic society, where evidence and critical thinking are priority values.

Summing up the analysis of strategies for high-quality scientific communication within the new academic media culture, the following conclusions can be drawn.

Modern scientific communication has evolved from a one-way transmission of knowledge to an interactive model of public engagement. In the context of digital transformation, the success of popularizing science depends not on simplifying facts, but on adhering to the principles of transparency of methodology, contextualization and ethical responsibility. These principles allow us to maintain the impartiality of research even in a highly competitive media space.

A key challenge for a scientist is the cognitive distortions of the audience, in particular the "confirmation effect" and the "illusionary truth effect". Using strategies of informed scepticism and radical transparency of uncertainty allows us to convert the audience's distrust into a constructive dialogue. Recognizing the limits of scientific knowledge paradoxically strengthens the authority of academic institutions, demonstrating their intellectual honesty.

In the fight against post-truth and manipulation, the transition from reactive fact-checking to proactive prebunking is critically important. The use of the "truth sandwich" algorithm is justified as the most cognitively effective method: it allows the scientist to impose his own evidentiary agenda, avoiding the retransmission of false narratives. This ensures reliable consolidation of true information in the long-term memory of the consumer.

For the domestic academic environment, the formation of a new media culture is a strategic security task. The introduction of quality communication tools (such as cognitive visualization and academic fact-checking) by initiatives such as "Kunst", VoxCheck, and "Dissergate" indicates the viability of the Ukrainian scientific community. Further development requires the institutionalization of these practices in the system of training scientific personnel.

Therefore, quality scientific communication today is not just the popularization of knowledge, but the creation of an intellectual ecosystem, where the scientific essence and impartiality are protected by proven communication algorithms. This is the only way to form a society capable of critical perception of information and support for scientific progress as a strategic priority of the state.

Forecasting and preventing future threats to academic freedom related to the development of Artificial Intelligence and generative media

Academic freedom as a fundamental component of modern university culture defines the right of scientists to freely research, teach, disseminate knowledge and critically evaluate socially significant issues without fear of censorship or repression. According to classical definitions, it encompasses the freedom of teaching, research and exchange of ideas necessary for quality science and education. The protection of academic freedom is traditionally associated with the mechanisms of university autonomy, academic care and independence of intellectual activity from external political and commercial influences.

With the rapid development of artificial intelligence (AI) and generative media, new challenges are emerging that threaten academic freedom. These technologies can be used to manipulate information, create fake scientific publications, deepfakes, and also to limit freedom of expression in the scientific environment. Current threats to academic freedom associated with the development of AI and generative media are threats to the formation of a new academic media culture. That is, in the current era of digital technologies and generative artificial intelligence, new challenges arise not only in the technical plane, but also in the sphere of values, ethics and culture of scientific knowledge. Generative models become universal "media tools" that form texts, images, videos and sounds, create an information field that affects the way knowledge is created and disseminated [Клозе Ронні, 2025].

Generative models can create texts and media content that appear plausible but contain false or distorted information. According to research, the ability of these systems to produce "plausible falsehoods" potentially undermines the credibility of scientific content and can create new forms of misinformation. This is particularly dangerous for academic freedom because it creates an environment in which truth and factuality become contested through algorithmic generation rather than scientific argumentation.

In a wide information field, the spread of false "scientific" texts or AI-generated pseudo-evidence can make scientists wary of publicly expressing new ideas if they risk being falsely interpreted or distorted in the media space. This phenomenon is already considered as part of the discussion about informational threats related to AI, including deepfakes and disinformation [Glynn, 2024].

The use of AI in the creation of scholarly texts without proper disclosure or documentation can blur the lines between academic plagiarism and integrity. Analytical studies of modern literature indicate cases of undetected use of AI in scientific works, which undermines the standards of authorship and reliability of scientific results [Glynn, 2024].

Undeclared use of AI in literature reviews, methodological sections or conclusion statements can lead to a loss of credibility in academic publications, which is a key element of academic freedom. Adding to this problem is the potential self-selection of scientists who will avoid risky topics or open criticism in the expectation that their utterances may be distorted by automatic generative systems.

In the conditions of armed conflict and information war in Ukraine, there is an increase in self-censorship among scientists and journalists. Research by the Foundation «Democratic Initiatives» [Фонд «Демократичні ініціативи», 2019] shows that 48% of journalists face self-censorship, and 74% fear losing their jobs because of criticism of the government or media owners. This trend also extends to the academic environment, where academics

may avoid publishing research that may be perceived as critical of authority or societal norms.

Self-censorship is particularly dangerous in the context of AI development, as scientists may refrain from conducting research related to ethical or political issues due to fear of repercussions. For example, research in the field of bioethics, genetic engineering, or military technologies may be limited due to fear of possible repression or public criticism. This limits the development of science and innovation, and also threatens academic freedom as the basis of scientific progress.

Academic freedom can also be limited due to political influence on educational and scientific institutions. For example, governments can use AI to monitor and censor scientific publications, especially in areas considered politically sensitive. Research by S. Zayets [Заєць, 2023] shows that Ukraine has seen a decline in academic freedom over the past decade, which requires the introduction of effective mechanisms for monitoring and protecting the rights of scientists.

Political influence can also manifest itself through the funding of scientific research. For example, if governments or corporations fund certain research, they may demand that the results be censored or altered to suit their interests. This is especially true in the context of AI development, where technologies can be used to create fake data or manipulate research results.

Generative media can foster a passive attitude among students and scholars if the use of AI is primarily aimed at automatic "problem solving" rather than understanding, critical analysis, and creative search for solutions. In the field of education, this can reduce the requirements for independent work and the depth of academic thinking, which ultimately affects the cultural norms of the academic community.

The growing dominance of large technology corporations in the field of generative media creates a situation in which access to the production tools of knowledge is subject to commercial or political interests. This potentially undermines the autonomy of academic

institutions, since some of the critical research – from algorithmic optimization to data interpretation – depends on platforms that are not always transparent in their mechanisms and policies.

To counter the threats associated with the use of AI and generative media, it is necessary to form a new academic media culture that includes critical thinking, the ability to analyse and verify information, as well as an understanding of the ethical norms of using AI. Research by O. Konevshchynska emphasizes the importance of introducing media education into the educational process to prepare participants in the academic environment for safe and effective interaction with modern media, including AI [Коневщинська, 2016].

Media literacy involves developing skills in critical analysis of information, recognizing fakes and deepfakes, and understanding how AI can be used for manipulation. For example, scientists must be able to verify sources of information, analyse the context of publications, and recognize signs of manipulative content. This is especially important in the context of information warfare, where fake news and deepfakes can be used to discredit scientists and their research.

An important component of the new academic media culture is the development of institutional mechanisms for protecting academic freedom. This includes transparent procedures for assessing the quality of educational programs, protection from censorship and political influence, and the creation of independent ethics commissions that would monitor the use of AI in scientific activities.

Institutional mechanisms may include the creation of special commissions that would analyse the use of AI in scientific research and publications, as well as the development of ethical codes that would regulate the use of generative media. For example, universities can implement systems for checking scientific publications for fake data or deepfakes, as well as conduct training for scientists on the ethical use of AI.

Digital literacy involves the ability to use digital technologies to search, analyse, and present information, as well as understanding

how these technologies can affect academic freedom. For example, scientists should be able to use tools to verify the authenticity of data, analyse the metadata of digital materials, and recognize signs of manipulation. This will help prevent the use of fake data in scientific publications and protect academic integrity [Бутиріна, 2020].

To predict threats to academic freedom, it is necessary to conduct regular monitoring and analysis of the information space, in particular regarding the use of AI for disinformation and manipulation. Research by the National Institute for Strategic Studies and the National Academy of Legal Sciences of Ukraine offers methods for detecting and preventing hybrid threats, including information attacks using AI.

Monitoring may include analysing social networks, scientific publications, and media for the presence of fake materials, as well as tracking the use of AI to create deepfakes or manipulate data. For example, universities can create special monitoring centres that would analyse the information space for threats to academic freedom and develop countermeasure strategies.

To prevent threats, it is necessary to develop digital and media literacy among scientists, teachers, and students. This includes training in critical analysis of information, recognizing fakes and deepfakes, and the ethical use of AI in scientific activities. Research by Ivan Franko LNU and V. N. Karazin Kharkiv National University emphasizes the importance of popularizing science and developing media education for the formation of a sustainable academic community [Бутиріна, 2020].

Programs for the development of digital and media literacy can include training in critical thinking, data analysis, and the use of tools for checking the authenticity of information. For example, universities can organize media literacy courses for students and teachers, as well as hold seminars on the ethical use of AI in scientific activities.

To prevent threats to academic freedom, it is necessary to develop ethical norms and standards for the use of AI in scientific activities. This includes the creation of codes of ethics that would

regulate the use of generative media, as well as the development of standards for checking scientific publications for the presence of fake data or deepfakes.

Artificial intelligence and generative media open up wide opportunities for the creation of high-quality content, including texts, images, video and audio. However, these technologies can also be used to create fake scientific publications, deepfakes and the manipulation of public opinion. For example, research by UNESCO and the organization "Women in Media" shows that AI is already being used to create gender-based threats against female journalists and scientists, in particular through deepfakes and online attacks [Детектор медіа, 2026]. This may have an adverse impact on freedom of expression in Ukraine and globally, as scientists and journalists may feel fear of possible repression or discredit due to fake materials.

Ethical norms may include requirements for transparency in the use of AI in scientific research, as well as a ban on the use of generative media to create fake data or manipulate results. For example, scientists must necessarily indicate in publications whether AI was used to process data or create content, as well as provide information about the sources of data and methods for their verification.

Thus, it can be said that the development of AI and generative media creates new challenges for academic freedom, in particular the threats of disinformation, self-censorship and political influence. To prevent these threats, it is necessary to form a new academic media culture, which would include the development of media literacy, the creation of institutional mechanisms for protecting academic freedom, as well as the development of ethical norms for the use of AI in scientific activities. Regular monitoring and analysis of threats, as well as the development of digital literacy among scientists, students and teachers, will help protect academic freedom and ensure the sustainable development of science in the conditions of digital transformation.

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SUMMARY

The study of the evolution of the concept of academic freedom has shown that it has ceased to be exclusively an intra-corporate prerogative of the university. In the conditions of information society, academic freedom has transformed from "negative freedom" into a complex system of interaction with the public space. Modern media culture, which we define as digital media reality, is not just an external background, but a dominant environment that forms new boundaries and challenges for scientific knowledge. The phenomenon of "information ideocracy" and the rapid mediatization of science create a conflict between academic impartiality and media engagement, where scientific discourse is deformed under the influence of "clickbait" tools.

An analysis of external and internal influences on university autonomy has revealed that media resources are increasingly used as tools of political and economic pressure on higher education institutions. It has been established that financial dependence on grants and commercialization of education, combined with the need to maintain a high media image, force universities to self-censor. Particular attention is paid to the internal dysfunctions of the academic community. We have recorded a change in the role of the teacher. There has been a transition from traditional mentoring to the status of a digital influencer, which carries the risks of academic populism. The desire for mass popularity often leads to the simplification of scientific content and the loss of depth of

research, which directly threatens the quality of higher education and intellectual honesty.

Digital media culture has created a specific environment for the spread of dishonesty. Hyperpublication, the pursuit of citation metrics, and the ease of copying information on the Internet are eroding ethical standards. It has been established that the fight against plagiarism and fraud in the digital age requires not only technical means of verification, but also the formation of a new ethics of scientific communication, where university publications should become quality filters, and not just tools for fixing priority.

To overcome the identified threats, a transition from passive protection of autonomy to active formation of a new academic media culture is proposed. A key element of this process is the introduction of the concept of critical media literacy for scientific and pedagogical staff. A teacher in the digital era must play the role of a digital facilitator who not only possesses knowledge, but also is able to verify information, recognize manipulations and conduct reasoned discourse in a toxic media environment. We have substantiated the need to develop Anti-Crisis Media Protocols and Ethical Codes of Online Presence at universities, which would clearly distinguish between the private and public spheres, while protecting the right of a scientist to freedom of speech.

A separate conclusion of the study is that real university autonomy in a mediatized world is impossible without financial independence. The development of endowment funds and diversification of funding sources are critically important for universities to withstand the pressure of the "cancel culture" or political blackmail through the media. Endowments create the kind of financial armour that allows the academic community to ignore short-term media waves in favour of long-term fundamental truths.

Predicting the development of the situation, we argue that the emergence of generative AI will become, or has already become, the next challenge to academic freedom. The risks of automated disinformation and the devaluation of authorship require an immediate renewal of legal guarantees of autonomy. Academic freedom

tomorrow is the freedom to think outside the algorithms, preserving human subjectivity in a world of total digitalization.

Academic freedom in the era of media culture is not a static right, but a dynamic process of constant verification of truth. The future of the university depends on the ability of the academic community to maintain intellectual sovereignty, without isolating itself from the media world, but without dissolving into it either. The university is called to remain a centre of rationality, where evidence always prevails over clickbait, and truth must prevail over popularity. The implementation of the institutional and pedagogical strategies proposed in the work will allow higher education institutions not only to survive in conditions of media attacks, but also to become leaders in the formation of a critical and responsible information society.