Overcoming Post-truth Challenges: Is journalism education successful in Ukraine?

Abstract
The article discusses the response efficiency of the journalism education system to the post-truth challenges. The aim of our research is to find out whether the higher education system of Ukraine is able to provide the media system with quality professional staff ready for political participation, responsibility and upholding democratic values in the conditions of post-truth and aggressive external information influence. The experiment covered three groups: journalism students with general professional training, journalism students, who additionally participated in fact-checking trainings and economics students, who did not study the basics of media literacy. The survey results and focus group discussion proved that the future journalists show greater confidence in their skills, but, in fact, they are not able to distinguish better truth, manipulation and lies than the future economists. All three groups had vague ideas about these concepts and tend to trust statements that seem familiar and simple. Fact-checking trainings do not give students an advantage in identifying truth and lies in public statements.

Anotacія
У статті обговорюється ефективність реакції системи журналістської освіти на виклики постправди. Мета нашого дослідження – з'ясувати, чи спроможна система вищої освіти України забезпечити систему ЗМІ якісними професійними кадрами, готовими до політичної участі, відповідальності та відстоювання демократичних цінностей в умовах постправди та агресивного зовнішнього інформаційного впливу. Експеримент охоплював три групи: студентів-journalістів, які мають загальну професійну підготовку, студентів-журналістів, які додатково пройшли тренінги з фактчекінгу, та студентів-економістів, які не вивчили основ медіаграмотності. Результати опитування та фокус-групового обговорення засвідчили, що майбутні журналісти хоча й показують більшу ввініщеність у своїх навичках, насправді не здатні краще за майбутніх економістів розрізняти правду, маніпуляцію та неправду. Усі три групи мають розмитні уявлення про ці поняття та складні довірити заявам, що здаються знайомими і простими. Тренінги з

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DOI: https://doi.org/10.34069/AI/2022.57.09.11

How to Cite:
The results suggest an urgent need to find new system solutions on the part of higher education, the community of professionals to train future journalists ready to work in the post-truth conditions.

**Keywords:** post-truth, fact-checking, media literacy, critical thinking, journalism education.

**Introduction**

Post-truth challenges are fairly new to the education system. Although the post-truth era affects almost all areas of life, it poses particularly difficult questions for journalists, who must provide the audience with reliable, accurate, truthful information. Therefore, journalism education should provide future journalists with the tools to work in post-truth conditions.

Post-truth, as Bufacchi (2021) describes it, “is a deliberate strategy aimed at creating an environment where objective facts are less influential in shaping public opinion, where theoretical frameworks are undermined in order to make it impossible for someone to make sense of a certain event, phenomenon, or experience, and where scientific truth is delegitimized”. The main consequence of post-truth is that it undercut the possibilities of gaining accurate knowledge. Several interconnected trends lead to this: 1. increasing prevalence and influence of misinformation and disinformation; 2. increasing rejection of well-established claims; 3. placing personal belief and experience above facts and evidence; 4. declining trust in institutional providers of information such as journalism and science; 5. increasing fragmentation and polarization of information consumption (Barzilaia & Chinnb, 2020). All these circumstances lead to the fact that the truth becomes very difficult to achieve.

Today people mostly perceive reality through the news. Changes in information distribution channels and in ways of consuming content “are affecting the perception of what is true or false in the news”. (Capilla, 2021, p. 320). Journalists, as critical mediators of truth (Michailidou & Trenz, 2021), can be those who not only broadcast news and inform the public, but also help the audience to overcome the challenges of post-truth: they are the translators and mediators that ensure the procedure [for arriving at the truth] is safeguarded (Michailidou & Trenz, 2021).

**Theoretical Framework or Literature Review**

In the world of constantly changing technologies, it is necessary for higher education to return to the origins – to teach fundamental knowledge. In post-truth era the tools we are teaching students today will not help them in practice tomorrow. Therefore, we should develop in students ability to reflect, train and promote “autonomy of reason,” and plan the educational process to “encourage the culture of intellectual inquiry” (Bhaskaran, Mishra & Nair, 2019). Students, and especially future journalists, “need to learn a much broader array of aims, ideals, and reliable processes to deal with a complex world rife with low-quality information and bad evidence” (Chinn, Barzilai & Duncan, 2021).

As noted by Theodosiadou, Spyridou, Nikos, Milioni, & Venetia (2021), “journalism students acknowledge the need for journalists’ increased responsibility towards their publics”. What can educators do for this? Barzilaia & Chinnb (2020), among other strategies, identify the following: developing civic media and digital literacy competencies, increasing students’ epistemic vigilance, acknowledging and coordinating multiple epistemologies.

As the ways to confront main manifestations of post-truth – alternative facts and fake news – including that among students, researchers mostly mention media literacy and the development of critical thinking (Dell, 2018; Cooke, 2018; Buckingham, 2019), including news literacy (Bonnet & Rosenbaum, 2019) and digital media literacy (Lee, 2018). The need to develop media-educational technologies is also advocated by Ukrainian scientists, including N. A. Tkachova & D. V. Strelchenko (2018), D. Bachynskyi (2018), N. Gabor (2018). It is
important, however, that students acquire not only text analyzing skills, but also an understanding of the power structures behind the media, whose interests they serve, and what goals they have (Barton, 2019). As Hobbs (2017) notes, “[i]n a post-truth world, media literacy matters. The future of our democracy depends on it”.

But media literacy is just one of the mechanisms. In the case of students studying social studies, the strategy of discussing political topics throughout the learning process may also be productive (Journell, 2017, p. 11). Even if it does not provide expertise, discussing politics in the classroom “helps them [students] activate critical thinking skills and cultivate respect for diverse interpretations” (Hobbs, 2017). Software products, such as automatic fake news recognition systems, can also be used as a means to counteract the manifestations of post truth (Pandey, 2018; Kanozia, 2019; Conroy, Rubin & Chen, 2015). Elements of fact-checking can be applied even throughout the learning process among students, who have corresponding background and mostly study social studies (Journell, 2017, p. 11). Although fact-checking is mainly viewed as special techniques used by journalists to verify public statements, students can also be introduced to these technologies during their studies. The goal will not consist in producing media materials, but only in developing the ability to critically assess the facts and select reliable sources.

The aim of our research is to find out whether the higher education system of Ukraine is able to provide the media system with quality professional staff ready for political participation, responsibility and upholding democratic values in the conditions of post-truth and aggressive external information influence. To this end, based on the materials of the latest presidential campaign, we aim to test whether the skills of discerning truth, lies and manipulation, which are critical and fundamental to a future journalist, are better developed among journalism students rather than in those who do not receive specific media knowledge.

In order to achieve this aim, a number of research questions need to be answered:

- Whether there is a correlation between the level of trust/distrust and the students’ specialty.
- Whether additional mastery of fact-checking techniques helps journalism students to better distinguish between truth, manipulation and deception.
- What markers and criteria allow future journalists and students of other specialties to assess information as truth, manipulation or lies.

**Methodology**

The study included two stages. During the first stage, the participants filled in the questionnaires, where they had to determine whether a political statement is true, manipulative or false. At the second stage, the results were discussed in the focus group. The aim of this stage was to clarify the motives of the given responses.

**Stage 1.** Three groups of students of Sumy State University were involved in the study:

The first group included 25 participants studying “Journalism”. It was assumed that these students are able to distinguish manipulative, fake, false messages using their knowledge of the journalism standards, the principles of media work.

The second group included 25 economics students. Since some of the quotes in the questionnaire were related not only to social, but also to political and economic topics (the terms like “GDP” or “gross income” were used), it was assumed that these students are able to distinguish manipulative, fake, false messages using their knowledge of the journalism standards, the principles of media work.

The third group consisted of 22 journalism students, who attended one or more trainings on fact-checking methodology. Such trainings within the educational projects at Sumy State University were conducted by a media expert, a journalist, a chief editor of the Ukrainian fact-checking project “Without Lies”. In general, about 30 participants were trained, but since the survey was voluntary, only 22 of them took part in the experiment. It was expected that this group has the most effective tool for exposing the manipulative and false news, most of the students had experience in applying fact-checking methodology when conducting own investigative reporting.

The age of all respondents varies from 17 to 23 years (from the first year of bachelor’s degree
programme to the last year of master’s degree programme at a Ukrainian university), with 65.3% of participants aged 17–18 (the first or the second year of bachelor’s degree programme). The gender distribution is as follows: 22.2% – men, 77.8% – women, which generally corresponds to the students’ gender composition of the Departments of Humanities and Social Studies in Ukraine.

Since the survey was conducted on the day before the first ballot of the election of the President of Ukraine, the questionnaires included statements of politicians who according to the surveys of three leading Ukrainian sociological research centres (the Sociological group “RATING”, Kyiv International Institute of Sociology, Ilko Kucheriv Democratic Initiatives Foundation) had the highest ratings of voters’ support. It was planned to confine to only five political figures, but since there were small differences in the data of opinion polls as to the 4 6th candidates, then it was decided to include all leaders in the survey (as a result, these politicians were ranked 1-5th and 7th in the first round of the presidential elections).

The questionnaire statements were taken from the portal VoxCheck. This is a leading Ukrainian resource, which verifies political rhetoric, it is a signatory of the Poynter Institute Code of Ethics. VoxCheck team includes scientists, economists, financial experts, lawyers, most of whom have European education and job experience in international companies. The portal works according to a clear check-out methodology of political statements verification (strict rules for statement selection, reliable sources for verification, each statement at the selection stage is assessed by several experts, at least two members of the editorial board must approve a proposed verdict after the study) (VoxCheck, n.d.).

VoxCheck uses the following verdicts “True”, “Technical error”, “Manipulation”, “False” and also “No verdict”. In order not to perplex the respondents, only statements with the experts’ conclusion “Truth”, “Manipulation” or “False” were included in the questionnaire. We selected one statement with different verdicts, which belongs to one of six politicians (the total number of statements – 18, respectively). The participants had to assess each statement choosing one of three proposed verdicts.

The questionnaire instruction gives the verdicts criteria used by VoxCheck for the respondents:

- Truth: information is truthful. The data are presented in the correct context. The given data may differ from the correct data by 0-10%.
- Manipulation: information/data are truthful, but they are presented in a distorted context or not completely. A speaker tries to illustrate a false idea.
- False: information or data are not true, including data that are more/less correct by >20 %.

All statements were anonymous, the author of a statement was not specified. While selecting the quotations that could reveal a politician’s personality (mentioning a politician’s position, his previous experience, the names of political parties or the most famous “brand” phrases) were excluded. The only way to identify authors that was not eliminated is the statement language (two of six politicians are predominantly Russian speaking, while the rest speak Ukrainian in public). All quotes were given in the original language, 4 of them were in Russian, which could prompt the authorship.

The survey was conducted using a paper questionnaire. All results are processed using Google Services and Microsoft Excel.

Stage 2. After processing the survey results, the focus group was interviewed. All students of the first stage were invited to participate, about 20 of them showed the interest. We selected 9 students to participate in the focus group. The composition of the focus group was equally formed: three representatives from each group of the first stage, taking into account the gender balance (4 boys and 5 girls) with the maximum involvement of students of different years of study (the latter was important because it helped avoid a situation, when some of the participants are familiar with each other, while the rest do not know others and feel less free to express their thoughts).

The scenario of focus group study supposed a discussion of the following issues: how the participants understand the concepts of “truth”, “manipulation”, “lie”, how comprehensible and useful the definition of these concepts was in the questionnaire, is it possible to distinguish these concepts, how important the personality of the statements author is to identify if the statement is true or false. The further discussion concerned the statements of the politicians (three quotes of each politician): what criteria were used to identify the author, does the perception of
information changes when the name becomes known.

Results and Discussion

Stage 1. While analysing the survey results, there was no significant difference in the number of correct answers given by respondents of different groups. The highest index – 33.8 % – was shown by those, who were trained on the methodology of fact-checking. But the results of the other two groups differ only by about two per cent (Fig. 1) which is not representative within the scale of our sampling. At that, it should be noted that even when guessing the number of correct answers should be close to 33% (since each question had only three possible choices). In fact, none of the surveyed groups showed the result that would prove the participants’ ability distinguish between truthful, manipulative and false political statements.

Figure 1. The number of correct responses
Source: own authorship

The significant differences are recorded only in the distribution of respondents’ responses according to the choices (Fig. 2). The students at least once trained on fact-checking significantly less chose the choice “True” (by 13-16 % compared to two other groups), and more often – “Manipulation” (by 4-11 %) and “False” (by 4-9 %). The choices of students, who participated in the trainings distributed the most evenly, while the other two groups considered the questionnaire statements to be true in half or almost half of the cases. The journalism students, who did not participate in additional trainings, are least likely to consider the political statements manipulative (only approximately one out of four respondents), while in other two groups, more than one third of respondents chose this answer.

Figure 2. The distribution of respondents’ responses
Source: own authorship
Despite the fact that the questionnaire statements were anonymous, i.e. the respondents did not know the statement author, the analysis showed a significant difference in the number of correct responses as to certain politicians (Fig. 3). For example, the candidate Anatoliy Hrytsenko, who is a relatively non-media figure, invested less money in advertising in comparison with other candidates and the number of false assessments of his statements exceeds the number of correct responses by 53.8 % (three quarters of the respondents were wrong, assessing the statements of Anatoliy Hrytsenko). But for a well-known for the audience candidate Yuriy Boiko, whose rhetoric is confined to pro-Russian slogans and based on the criticism of the current government, the index of wrong responses amounted to only 22.2 %. Among the other speakers Yuriy Boiko has been characterised by stable rhetoric for a long time (at least last 15 years), so, probably, it is easier for the audience to distinguish when the politician tells the truth, the lies or when he manipulates. The significant prevalence of false estimates of respondents for the elected president of Ukraine Volodymyr Zelenskyi was recorded (at the survey time, the candidate had announced about his plans to go into politics only three months earlier and he almost did not give interviews). Despite the fact that one of the largest media holdings of the country openly supported Volodymyr Zelenskyi, the audience, obviously, did not understand quite well the political principles of his election campaign.

Figure 3. The distribution of correct and incorrect respondents’ responses according to the authorship

Source: own authorship

A noticeable difference is recorded in the responses distribution in relation to politicians (Fig. 4). Regarding the statements of the recently elected President Volodymyr Zelenskyi, the respondents most often chose the choice “Manipulation” and least frequently “True”. The statements of the well-known and rather odious politician Oleh Liashko, at that time, an opposition MP, were evaluated as “True” most often and “False” least often. The choice “False” was chosen in relation to the statements of the incumbent at that time President Petro Poroshenko. Obviously, such answers of the respondents can be explained by the confidence crisis, which developed in Ukraine at that time: the current President, the Parliament, the Cabinet of Ministers had the level of confidence below 10 %, while various factions of the opposition were actively gaining ratings.
The fact that the current President Volodymyr Zelenskyi was not among the leaders in the respondents’ confidence is obviously due to the fact that his statements were too ambiguous and confusing, and, therefore, they were perceived by more than half of the respondents as manipulative. It should be noted that Ukraine is traditionally geographically divided in relation to political views. Therefore, Volodymyr Zelenskyi placed stake on avoiding harsh comments for any region, liberalized them according to his views of foreign and domestic policy in his campaign, so he was perceived as “one of their own” in the East and the West.

Stage 2. During the focus group discussion, the representatives of two groups of the first stage of the study noted that they referred to the definitions of “True”, “Manipulation” and “False” in the descriptive part of the questionnaire. So, an economics student noted that the given criteria are very clear, he took them into account while responding. The journalism students noted that they referred to these definitions, but less often, because they had already known them before. The respondents trained on fact-checking pointed out that they did not refer to the definitions, because they seemed limited to them, especially the definition of manipulation. These students considered their understanding deeper and more complete.

During the focus group, the participants also discussed their own definitions of concepts. Among the responses:

- “True”: “something not abstract” (an economics student); “information is already verified”, “maybe it is something not 100% true, but there is great percentage of reliable information”, “lists specific numbers, specific people, facts without evaluations” (journalism students); “this is our basic knowledge, which we already have”, “something that sounds adequately, not absurd, these are pure facts without emotions” (“fact-checkers” students).
- “Manipulation”: “information is vague, separate fragments are given” (an economics student); “it may be true, but to somebody’s advantage, emotional appeals, information overload” (a journalism student); “it is rather a lie”, “we are bombarded with numbers, emotions” (“fact-checkers” students).
- “False”: “basically it is a mistake, probably, intentional” (an economics student), “for example, we are told that certain amount of money is allocated for the road repair, but, in fact, there is no road; i.e. a lie is an obvious phenomenon, what we see with our own eyes, we know it from the experience”, “something that causes doubts. If this happens, the phenomenon should be analyzed, checked and only then to draw conclusions. A lot of numbers can just be erroneous, it does not mean that it is a lie” (journalism students); “it is information that is contrary to your knowledge base, sometimes something absurd” (a “fact-checker” student).

The respondents’ responses differed dramatically whether it was easy for them to draw a boundary
between True, Manipulation and False while filling in the questionnaire. Economics students admitted that the most difficult was to distinguish the truth, because Ukrainian journalists usually hide it, they mainly spread fakes and lies (let us remind that the group of economics students considered true almost half of questionnaire statements at the first stage). Journalism students noted that the boundary is quite easy to draw, because the concepts are too different, they were confident enough to be able to correctly identify the statements. Students trained in fact-checking, noted that the boundary is quite blurred, what seems false may be true and vice versa. In addition, manipulation is somewhere in the middle between truth and lies, which makes it even more difficult to find the right answer. At the same time, one of the group representatives expressed a very significant opinion: “it seemed that everything in the questionnaire was false, because it is better not to believe than to be caught [on the hook of manipulation and lies]”.

The opinions of the focus group divided regardless of their speciality regarding the importance of knowing the statement author to determine whether it (statement) is true or false. For example, one economics student, when asked whether it is important to know the author, answers: “Yes. If you know who the author is, you will not choose [his quote as true]” and the other one has the opposite position: “The author does not influence me, the numbers are important”. The journalism students have the same opinions division: “If I support a politician, his personality is important, it is very influential”, “Even if I support a politician, I do not necessarily trust fully”. Only “fact-checkers” students were unanimous, their most revealing explanation is the following statement: “The author is not important, it is necessary to analyze irrespective of personalities”.

While discussing the phrases of certain politicians, all the participants of the focus groups showed a common point that the truth/manipulation/lies uttered by Petro Poroshenko, who was the current president at that time, were the easiest to identify because, according to the words of one of the respondents, “[Poroshenko] bases on the information favorable for him and the messages well known to the audience”. It is noteworthy, that during the discussions in the focus group, the participants almost unmistakably gave the correct verdicts to P. Poroshenko’s comments, despite the fact that in the survey, this index did not differ significantly from the indices for other politicians. It is also significant that the participants immediately identified the author of the quotes according to the rhetoric subject, because, according to one of the respondents, “no one else would say that”.

During the focus group survey, the participants had the biggest difficulty to distinguish the truthfulness of the statements of the current President, who at that time was known as a comedian and only three months as a politician Volodymyr Zelenskyi and a long-term “mediocre” of Ukrainian politics, former Minister of Defense Anatoliy Hrytsenko. Participants were able to identify the authorship of Volodymyr Zelenskyi’s quotations only due to their Russian language. Most of the respondents agreed that it is almost impossible to determine whether a statement is true or false, because they are all “the same”, “everything seems like manipulation”, “he is somewhat vague in all comments”.

Anatoliy Hrytsenko remained the only politician whose authorship the students were unable to identify. Obviously, it is due to the fact that the politician was not active enough in the digital environment, his main electorate was older people, for young people his rhetoric is unfamiliar. At that, regarding the verdicts, the situation is better as the students easily and correctly identified the true statement of the politician (it concerned the army, and the former Minister of Defense obviously seems an expert and convincing to the audience) in this topic.

During the discussion the participants, despite declared criticality, openly showed their biased attitude towards the politicians several times, for example: “Tymoshenko is manipulating”, “Tymoshenko is lying, I don’t believe her”, “Everything is a lie, Julia cannot be trusted” (there were no such value judgments as to other politicians).

In general, while discussing, the participants mostly defined as true the statements that seemed “simple”, “[that] are easy to read”, “already familiar” to them. Manipulative statements were considered those, which “touches sensitive issues for society”, it has “no logic”, “a catch is felt”, “vague wording”, “what kind of value judgments is it?”. Why the statements seem false, the students explained as follows: “it does not look like a manipulation, too”, “a lot of is said, it is difficult to figure it out”, “this is something strange”, “everyone knows that it is not so”.

The important thing is that even knowing that one of the statements is a lie, the participants...
mostly tried to avoid this verdict: the majority easily made suggestions which of the phrases is either truth or manipulation, but while answering the question of the leader of the focus group (such as: “If A is a true, C is a manipulation, then Is B a lie?”), the participants tried to avoid such a verdict, because “it is necessary to check everything” (a journalism student), “it is difficult to respond not knowing exactly what is written in NATO statute” (a journalism student), “we are not familiar with this topic” (a “fact-checker” student).

During the focus group survey, the students assessed their knowledge and skills of critical analysis of information as quite high. At the same time, the journalism students of two groups expressed greater confidence. However, in fact, the representatives of all three groups showed approximately the same level of understanding of the issue. Even students having a high level of media literacy tend to assess the statements credibility according to the fact whether it is easy or difficult to perceive, familiar or unfamiliar. Perhaps journalism students have higher working culture with information and are able to check data better, distinguish reliable and unreliable sources (it was not investigated in our study), but when they find themselves in the situation of information consumers, their knowledge and skills did not help them to be more protected than others.

The obtained results have proven that Ukrainian students are generally not completely aware of true and false political statements. This statement concerns not only the economics students, who did not take any media literacy training, but also the journalism students (including those, who were additionally trained on fact-checking).

As a consequence, we get approximately the same results that are described by Bhaskaran, Mishra & Nair (2019) – the journalism students do not have a higher level of media literacy than other students, they tend to trust the first available results from the Internet, have specific understanding of such concepts as truth and objectivity.

At the same time, our results confirmed the thesis mentioned by Bhaskaran, Mishra & Nair (2019) that the future journalists are overconfident about their ability to recognize fakes and lies. This was explicitly stated by our participants during the focus group discussions. In fact, their skills were not better than those of the future economists.

However, the question arises whether trainings can replace system academic knowledge of the subject. Our results show that, obviously, not. Students, who additionally participated in the training, conducted by the fact-checking resource editor with many years of practical experience at extracurricular time, did not show better skills in distinguishing truth / manipulation /untruth. The only thing that fact-checking trainings have given is to doubt everything. Certainly, the journalist should be critical, but do not the fact-checking trainings make students even more perplexed and confused? Do not they contribute to the fact that students begin to doubt even the obvious truth, lose hope to form a coordinate system necessary for orientation in the information space? The results of our experiments have proven that students became suspicious, saw manipulation even where it was absent, but they still had low ability to consciously distinguish truth from wrong.

And if to recall the UK poll (Goodfellow, 2017), according to which “[h]alf of those confident they could tell the difference between a fake news story and a real news story were stumped by at least one of the fake news stories shown”, then we can come back to already mentioned issue. Probably, specific and specialized knowledge gained by students during one-, two-day trainings only creates the illusion of “omniscience”, but, in fact, it does not contribute to a truly profound personal and professional transformation.

**Conclusions**

Obviously, knowledge of fact-checking is not superfluous for future journalists. As a matter of fact, it is not an adequate response to the challenges of the post-truth era. But it is impossible to fight the untruth only with the help of fact-checking, since the post-truth affects, first of all, recipient’s emotions, but not his mind. Therefore, it is possible to counteract it only through the coordinated actions of all public institutions.

Instead, one should start with identifying the cause why students are not ready to think critically and be objective. Ridgway, Nicholson & Stern (2017) mentioned about four possible causes: vulnerability to emotional appeals, lack of engagement, lack of criticism, inadequate skills in interpreting data. We should start working with each of these causes separately, systematically. In addition, one should stop perceiving media literacy as a self-evident skill.
of anyone studying journalism and begin to teach it.

Our results are based on the students’ survey of one of the Ukrainian universities and, therefore, they need verifying by involving students from other universities, especially from other regions of the country. Also, the obtained results allow us to draw conclusions only about certain factors (students’ specialty, participation in trainings) that may affect their ability to judge impartially, however, it is important to identify other possible factors influencing the critical thinking of students.

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