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LANGUAGE OF FAKES: CONTEMPORARY EUROPEAN STUDIES

In this paper we addressed the task of a theoretical overview of modern European studies investigating the language of fakes. The relevance of this study is determined by the easy accessibility of the average reader to various mass media (not always of high-quality) as well as the absence of philological Ukrainian studies of fakes. The intensity and frequency of fakes also increased with the spread of the Internet. Due to the lack of media literacy, society is increasingly unable to decide who to trust. In fact, the truth lies on the surface. We consider that with the simple philological knowledge it is possible to detect a fake message. So in this article we have introduced the leading European practices of fakes discoveries. We have found that the issue of research the disinformation phenomenon is the subject of work by scientists from various European countries, and therefore is a matter of public concern. We have described the research activities of local institutions (National Institute for Research in Computer Science and Automatic, France; Médialab, Sciences Po, France; CLEMI, France; The Department of Literature, Area Studies and European Languages, University of Oslo, Norway; the Faculty of Social and Behavioural Sciences of University of Amsterdam, The Netherlands; Mediawijsheid.nl., The Netherlands; Bitext, Spain) as well as international organisations (The International Fact-Checking Network (IFCN), The European Digital Media Observatory (EDMO)).

Also it has been identified that the mechanism of fakes detecting is an interdisciplinary study and requires the involvement of linguists, programmers, cyborgs, and psychologists. One of the key and most important areas of research on the fakes spread is false news about the Russian war in Ukraine. At the same time in Ukraine, there are also current practices regarding the investigation of fakes, as well as relevant state structures and national programs. Among them are those which are launched by The National Institute for Strategic Studies, The Institute of Mass Information, Media Reforms Center, The Social Communication Research Center and NGO "Detektor Media". However most of them are not about language structure or linguistic peculiarities of fake message.

***Key words:** fakes, fake news, language of fakes, disinformation, fact checking, NLP, fake detection.*

Problem statement. The idea of fakes overviewing and analysing is not new. Researchers of different sciences and interdisciplinary areas time to time advert to this question. The study of fakes is of particular interest in periods of instability, upheavals and changes. There is no need to go far: the COVID-19 epidemic, that has recently gripped the whole world, led to the spread of many fakes, starting from speculation about the sources of the virus origin and ending with anti-vaccination campaigns. Or from the latest: bitter news about the death of the Queen of Great Britain. Buckingham Palace has officially announced that "The Queen died peacefully at Balmoral this afternoon". just 6:41 p.m. London time, on the 8th of September. However the fake twitter account named "The Guardian" published a post about Elizabeth's II death more earlier when it was just a rumour without confirmation by official sources [16]. Moreover, that post has been shared by a large amount of users. That case demonstrates that even a false account of a real reputable media can be fake.

The purpose of the work. The beginning of the full-scale invasion of the Russian army onto the territory of Ukraine, which accelerates the world crisis development, became a new milestone in the study of the fakes language. In this article we try to collect information about modern European scientific projects aimed at identifying disinformation and propaganda; how much of these researches is focused on the study of the Russian war in Ukraine; and how Ukrainian scientists and journalists are fighting on the information front, as the common narrative line is a counterpart of Ukraine's integration process into the European media space.

Presentation of the main material. First of all it should be noted that this is a problem of the official international level. In recent years the EU has significantly strengthened measures to counter fake news and online disinformation to protect European democratic systems. Principles and measures to combat disinformation (in particular, fake news) are set out in a number of documents (Tackling online disinfor-

mation: a European Approach, EU Code of Practice on Disinformation Action Plan against Disinformation), as well as European Council Conclusions and European Commission Recommendations. Thus, academicians from various scientific institutions began to study this issue. Let look through the best practices briefly.

Fact checking is one of the research interests of *Inria* (National Institute for Research in Computer Science and Automatic, France). They state that people do not trust the media more. It is possible to deceive not only with the help of text, but also thanks to at first glance true phot. Any image can be doctored with special soft and it can be used out of context. Any article can be edited in a desirable way. *Inria* team developed a project *Imatag* – software which verifies the facts as more and more press organizations must check information carefully. It works as follows: "fact-checkers can instantly find an image or information as it was published the first time, and trace all subsequent manipulations" [9].

Another French company *Médialab, Sciences Po* is launching now the project *DE FACTO*. It unites researchers, journalists and media participants and aims to "provide tools for the general public to help decipher fake news in order to defend a diverse, plural and independent information ecosystem" [2]. The *Medialab* team headlines three main tasks within this project. They want to comprehend the mechanism of misinformation by placing it into the wider context of information chains within digital spaces, using new data science methods; in partnership with the *CLEMI* (part of Réseau Canopé network, is in charge of Media and Information Literacy in the French education system) they strive to study the disinformation offer perception; they eager to analyse and formulate certain regulatory suggestions, especially with regard to the major digital platforms, in order to reconcile quality of information and freedom of expression. The project webpage operates in two languages: French and English. On the site of project there are eleven rubric-tabs. Among them are: *Featured, Ukraine, France, Presidential 2022, UNITED STATES, Economy, Environment, Policy, Health, Science and Company.*

We are particularly interested in the section on fake news about Ukraine. The first article of this column, entitled *Diverted videos, recycled photos: resurgence of misinformation around the Russian-Ukrainian conflict*, was published on February 23, 2022. As you know, Russia invaded the territory of Ukraine on February 24, 2022. During six months, the section has been filled with forty publications. As of the fall of 2022, the war has not ended and it is becoming

clear that, unfortunately, it will linger, and therefore the information war will continue. We hope that the *DE FACTO* team will continue to expose the lies of Kremlin propaganda and new posts will appear on the website.

Another novel experience has been obtained by *CLEMI*, which was mentioned before. They organised original digital and traveling exhibition *Fake news: art, fiction, lie* [3]. The exhibition was opened from May 27, 2021 to January 30, 2022 at Espace Fondation EDF in Paris. It was an integral device which included a multidisciplinary accompanying file, a digital version, a traveling version and a training webinar. To accompany this exhibition, the *CLEMI* has designed a multidisciplinary guid. It contains of teacher's useful resources and educational activities and includes chapters about fake news fabrication and dissemination; the power of images, the solutions of protecting against disinformation in class or elsewhere, etc.

The Department of Literature, Area Studies and European Languages, University of Oslo (Norway) in cooperation with NRK (Norwegian Broadcasting Corporation), NTB (The Norwegian News Agency) and Faktisk.no (a non-profit organization) work on the project *Fakespeak* that is financed by The Research Council of Norway. The duration of the project is 5 years: from 2020 to 2025.

Very often fake detection researches are performed only by ITers. However, this project has united computer scientists with linguists from Norway and the UK. They try to prove that "the language of fake news may be the key to its detection". Thus the full project name is appropriate: "Fakespeak – the language of fake news. Fake news detection based on linguistic cues" [4]. As we can see from the project name itself, its authors even invented a special linguistic term. The general project task is an enabling of fake news detection systems to discover and mark probable fake news items in a faster, more accurate and efficient way than its possible now. So, first of all they are going to build corpora of fake and real news, basing on already existing ones from various online media. Then the texts on English, Norwegian and Russian languages will be analysed with a help of pragmatical and rhetorical, applied, corpus, computational, and forensic linguistics methods. In order to control several potential sources of mistakes they will turn to the comparison method of the fake and genuine articles of the one and the one and the same author.

One of the participants of *Fakespeak* project is a non-profit organization Faktisk.no. This agency posi-

tions itself as "an open laboratory for source awareness and critical media use in Norway" [4]. This company is particularly interesting for us, as it also monitors Ukrainian issues. There are two special sections. The first one is called Verified from the war in Ukraine and the second one includes Facts and propaganda concerning the war in Ukraine. We can find there the thematic articles as well as videos.

One of the research directions at the Faculty of Social and Behavioural Sciences of University of Amsterdam (The Netherlands) is a communicative one. It is realised in the form of laboratory – *The Digital Communication Methods Lab*. This initiative focuses on the up-to-date researches and combines existing and new projects with digital communication methods as its keystone. Their current research topics list includes the issue of mis- and disinformation. The project has been created for testing the effectiveness of corrective information. It is a part of the *European Digital Media Observatory* (EDMO) BE/NL hub (which will be described later). The scientists believe that every citizen must receive honest and true information to be well-informed politically, but more often the uncontrolled mis- and disinformation expands in digital space. Thus they are looking for comprehensive empirical evidence of effectiveness of the interventions used in journalism, media practice and policy, reach they their communicative aims or not. To arrive at a more systematic assessment of fact-checking's effectiveness, research group is developing a research lab to test the effectiveness of existing and new tools used in fact-checking. They expect on such results: "an evidence-based recommendations on which fact-checking formats are most effective. The lab infrastructure will map the effectiveness of different real-life cases of fact-checking and provides a digital lab infrastructure for monitoring the impact of new formats of corrective information" [5].

Also in The Netherlands fake news is the topic of raising by Mediawijsheid.nl. The project is co-financed by the *Safer Internet Center* of the European Commission and deals with media literacy. This website provides with information about the safe and smart of digital media use. Importantly they publish learning materials about recognizing false information and the dangers it poses to recipients of various age groups, from pre-schoolers to fully formed adults. Besides they upload different videos such as *Why recognizing fake news is getting harder, The Age of Post-Truth, How not to spot fake news* and so on [8].

It is also worth to note about company *Bitext*, whose offices are located in Madrid, Spain and San Francisco, the USA. They automatically annotate and generate NLP data for and AI/ML applications, both for training and for evaluation. At *Bitext* four main data types are generated. Among them there are three of special linguist's interest.

1. Text Annotation Tools to tag your data with Linguistic Knowledge: POS, NER, Topic. These core linguistic tools serve to automatically pre-annotate custom corpora & datasets. They annotate at the word level as well as at the sentence level.

2. Synthetic Text Generation Tools, which are used to produce custom data with NLG technology and are focused on assistants/chatbots.

3. Core linguistic data for any NLP application: Lexical Data and Semantic Data. Bitext produces synonym dictionaries both for general purpose and specific verticals like Finance, Human Resources, Legal etc. Bitext produces lexical dictionaries that contain detailed information like POS, morphological attributes, frequency in corpora. They have produced these dictionaries for 77 languages and 25 language variants, including Ukrainian and Russian languages. This means that tools can easily expose fake news on Russian and it's important as most of propaganda materials are written in aggressor's language. Bitext even has prepared a discussive column Could language be the key to detecting fake news? on their website. The authors recognize the whole dangerous of disinformation phenomenon: "fake news' goals are very ambitious for example, they might be trying to influence elections or policies, or discrediting countries as a form of cyberwarfare among states and source of public relations crisis" [1].

The *Bitext* researchers call fake news a public challenge and describe them as serious, disruptive and damaging. But language can be a mean of their detection. "The first step is identifying who benefits from them, who is criticized, etc. For this reason, linguistics plays a key role when it comes to identifying patterns in the language used … to flag it as potentially dubious. The linguistic characteristics of a written piece can tell us a lot about the authors and their motives. Purveyors of disinformation can be caught out by the particular words they use" [1].

The last one was an investigation subject of the article *Automatic Detection of Fake News* by the scientists tandem of University of Michigan and University of Amsterdam. The authors introduce two novel datasets for the task of fake news detection, covering seven different news domains. Also they describe the collection, annotation, and validation process in detail and present several exploratory analysis on the identification of linguistic differences in fake and legitimate news content. The research-

ers have conducted a set of learning experiments to build accurate fake news detectors. In addition they have compared automatic and manual identification of fake news [10, p.1].

Along with national anti-propaganda programs and research projects of individual states, there also international organizations act. For example, *The International Fact-Checking Network* (IFCN) at *Poynter* was launched in 2015 "to bring together the growing community of fact-checkers around the world and advocates of factual information in the global fight against misinformation. They enable fact-checkers through networking, capacity building and collaboration. IFCN promotes the excellence of fact-checking to more than hundred organizations worldwide through advocacy, training and global events. The prof team monitors trends in the fact-checking field to offer resources to fact-checkers, contribute to public discourse and provide support for new projects and initiatives that advance accountability in journalism" [6].

Another professional international organization *The European Digital Media Observatory* (EDMO) consists of fact-checkers, media literacy experts. They collaborate with media organisations, online platforms, media literacy practitioners and academic researchers, and all these efforts are to understand and analyse disinformation. EDMO contributes to a deeper understanding of disinformation relevant actors, vectors, tools, methods, dissemination dynamics, targets, and impact on society.

The program has a clearly defined scientific focus. It promotes basic academic knowledge about online disinformation, develops fact-checking services and popularizes media literacy courses. EDMO collaborates with the EDMO local hubs on the following directions:

1) Detect, analyse and disclose disinformation campaigns at national, multinational, and EU level;

2) Analyse disinformation campaigns' impact on society and democracy;

3) Promote media literacy activities;

4) Monitor online platforms' policies and the digital media ecosystem, in cooperation with national authorities [5].

On the start page of the EDMO website, there is a blog Ukraine along with other hot topics such as *COVID-19, Investigations, Media Literacy, News and Trainings*. This once again shows that the topic of the war in Ukraine is surrounded by a number of fakes, which are spread by Russian propaganda for its justification. The authors of the blog declare that "at times of crisis or conflict, disinformation can be rapidly generated and spread. Media literacy initiatives are a crucial pillar of the European strategy to combat disinformation, and must be equally rapidly generated and spread if they are effectively to reach audiences vulnerable to disinformation" [5].

And what is the status of fake research in Ukraine? In 2019 *The National Institute for Strategic Studies* (NISS) published the material of research The experience of joint *European institutions in protecting the electoral process from destructive informational influences: opportunities for Ukraine* [14, p.1 – 11]; in 2020 they published an analytical report *Fakes as a tool of influence on election* which was is an attempt to outline the key improvement directions of the regulatory and organizational model of protection of the electoral process from the destructive influence of disinformation, as well as creating a basis for a broad dialogue between the state and the professional community in search of solutions for effective information protection of the democratic process in Ukraine [18, p. 5]; in 2021 NISS described the *Features of combating disinformation regarding COVID-19: legislative and practical experience of the Federal Republic of Germany* [13, p. 1–4].

The *Institute of Mass Information* (IMI) is an independent, non-profit, non-governmental public organization that operates in public sector and implements projects aimed at strengthening the positive influence of the media on the formation of civil society in Ukraine. Among such projects is *Fakes and Narratives* [17].

The non–governmental organization *Media Reforms Center* is launching the project *StopFake* which not only identifies cases of fake information about events in Ukraine, but also actually initiated an international discussion on how to resist this shameful phenomenon. The team of media professionals fact-checks, de-bunks, edits, translates, does researches and disseminates information in thirteen languages: Ukrainian, Russian, English, Spanish, Serbian, French, German, Italian, Dutch, Czech, German and Polish, Bulgarian [11].

The *Social Communication Research Center* has published a study *Fake information in social media: detection, evaluation and counteraction* on its website [15].

Invaluable materials for linguistic analysis are the daily publications of the project *MediaSapience* by NGO *Detektor Media* [7].

Conclusions and the prospects for further research. So, as a result of a detailed analysis of modern European trends in the study of fake language, we came to the following conclusions.

1. The issue of research the disinformation phenomenon is the subject of work by scientists from various European countries, and therefore is a matter of public concern.

2. The mechanism of fakes detecting is an interdisciplinary study and requires the involvement of linguists, programmers, cyborgs, and psychologists.

3. One of the key and most important areas of research on the fakes spread is false news about the Russian war in Ukraine.

4. In Ukraine, there are also current practices regarding the investigation of fakes, as well as relevant state structures and national programs. However, in the conditions of a full-scale war and during the European integration processes, Ukraine, as a candidate for joining the European Union, should pay more attention to the fight against fakes. In prospect Ukrainian philological scientists have to cooperate with their European colleagues to learn from their experience and work out unprecedented textual fakes in the media space.

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Мачульська К. Я. Мова фейків: сучасні європейські студії

У цій статті ми виконували завдання теоретичного огляду сучасних європейських студій, які зосереджені на мові фейків. Актуальність цього дослідження зумовлена вседоступністю пересічного читача до різноманітних ЗМІ (не завжди якісних), а також відсутністю відповідних розвідок українськими філологами. З поширенням мережі інтернет зросли також інтенсивність і частота фейків. Через брак медіа грамотності суспільство все більше не може визначитися, кому вірити. По суті, правда лежить на поверхні. Ми вважаємо, що, володіючи елементарними філологічними знаннями, можна легко виявити фейкове повідомлення. Тому в цій статті ми ознайомили з провідними європейськими практиками виявлення фейків. Ми з'ясували, що питання дослідження феномену дезінформації є предметом дослідження вчених із різних європейських країн, а отже, і елементом

суспільного занепокоєння. Ми описали дослідницьку діяльність як локальних інституцій (Національний інститут досліджень комп'ютерних наук і автоматики, Франція; Médialab, Sciences Po, Франція; CLEMI, Франція; Кафедра літератури, країнознавства та європейських мов, Університет Осло, Норвегія; Факультет соціальних і поведінкових наук Амстердамського університету, Нідерланди; Mediawijsheid.nl., Нідерланди; Bitext, Іспанія), а також міжнародні організації (The International Fact-Checking Network (IFCN), The European Digital Media Observatory (EDMO). Також установлено, що механізм виявлення фейків є міждисциплінарним дослідженням і вимагає залучення лінгвістів, програмістів, кіберспеціалістів і психологів. Одним із ключових і найважливіших напрямів дослідження поширення фейків є неправдиві новини про війну Росії проти України. Водночас в Україні також є актуальні практики щодо розслідування фейків, а також відповідні державні структури та національні програми. Серед них є ті, які керуються Національним інститутом стратегічних досліджень, Інститутом масової інформації, Центром медіареформ, Центром соціальних комунікацій та ГО «Детектор медіа». Однак більшість із них не стосується мовної структури чи лінгвістичних особливостей фейкового повідомлення.

Ключові слова: *фейки, фейкові новини, мова фейків, дезінформація, перевірка фактів, НЛП, виявлення фейків.*