DETECTION OF ACADEMIC PLAGIARISM AS A WAY TO ENSURE QUALITY OF UNIVERSITY EDUCATION[1]

ВИЯВЛЕННЯ АКАДЕМІЧНОГО ПЛАГІАТУ ЯК ШЛЯХ ЗАБЕЗПЕЧЕННЯ ЯКОСТІ УНІВЕРСИТЕТСЬКОЇ ОСВІТИ

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Introduction. The main characteristics of modern society are the development of a global network, online resources and increasing the level of computer literacy. Information reaching the Internet becomes the property of everyone. Incorrect citation of sources and links to texts by other authors in own scientific text is a manifestation of scientists unethical behavior and lack of the academic integrity. "In its turn, society should be confident in the integrity and reliability of scientific results in their research. Unfortunately, in recent years in many countries there are serious violations of ethics that threatens the credibility of science and public trust in scientists" (National Academy of Science, 2009, p. 19).

According to the Ukrainian legislation, ensuring the quality of higher education envisages the prevention and detection of academic plagiarism in research within higher educational institutions (Verkhovna Rada of Ukraine, 2014). So, one of the effective means to establish plagiarism is to use the software and online plagiarism detection resources.

The aim and methods. This paper is aimed to review the notion of plagiarism, as well as to determine optimal software and online resources to identify academic plagiarism within the Cyrillic texts.

The research is based on the comparative analysis of modern services and software, focused on the verification of scientific papers for uniqueness – *Antyplahyat*, *eTXT Antyplahyat*, *Content-Watch.ru*, *Anti-Plagiarism*, *Unplag*. The services were compared by the following characteristics: the possibility of free access; the number of supported languages; file formats, which operates the system; restrictions on the amount of text entered; report of test results.

Findings. Academic plagiarism in paragraph 6 of Article 69 of the Law of Ukraine "On Higher Education" is defined as promulgation (partially or completely) scientific results obtained by others scientist the results of the research and/or reproduction of published texts by other authors without proper reference (Verkhovna Rada of Ukraine, 2014). According to Article 444 of the Civil Code of Ukraine if the person uses the product, it must indicate the name of the author of the work and the original source (Verkhovna Rada of Ukraine, 2003).

For the purpose of this study plagiarism was understood in all its extensive varieties – an exact copy of fragments unchanged ('copy and paste') and without proper bibliographic clearance; changing the order of words while maintaining the overall structure of the sentence (with a permutation of words, replacement of letters, numbers); translation from another language; original source ideas; self-plagiarism.

The system *Antyplahyat* (www.antiplagiat.ru) developed by Russian CJSC «Anty-Plahyat». Using the software is not free. Free online check for student's possible only in Russian segment of the Internet. The

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online service is poor quality. The program allows you to check text files .doc, .txt, .rtf, .html, .pdf, .zip, .rar, with volume up to 5,000 symbols. The system checks only Russian texts. At first, the interface is slightly unclear but the site contains instructions for use. The paid search area inspection includes Russian text indexed pages on the Internet, dissertations and abstracts of the Russian State Library, legal and regulatory database. Phrases that are considered plagiarism highlighted in the report; show the sources of plagiarism and percentage coincidence. The system does not recognize Ukrainian language.

The system *eTXT Antyplahyat* (www.etxt.ru/antiplagiat) developed by Russian company eTXT.ru. Free software can be installed on a personal computer only with the operating system Linux. Online version is paid. The program allows you to check text files .doc, .txt any language. The program interface is understandable. The site developer provides guidance and instructions for use. Text is tested for literal and semantic coincidences. The program emphasizes the text, which was borrowed from other sources. The report contains a general indicator of the uniqueness of the whole text and a list of domains, which has been matched to a defined proportion of coincidence for each domain.

The system *Content-Watch.ru* developed by Russian company Content-Watch. Using the software is partially paid. The text up to 10,000 symbols can check free online seven times a day. The system allows you to check text files in any language. The program interface is understandable. The developer site provides guidance and instructions for use. Search area is the Internet. After online checking the text, the program shows the percentage of plagiarism, the percentage of errors found, coincidences and source list.

System Anti-Plagiarism (http://ikc2.tup.km.ua) developed by Khmelnytsky National University. Using the software is paid. Free demo version allows you to work 60 days or to check 10 documents. The system allows multiple checks of text files such as .doc, .rtf, .pdf in any language. The program interface is understandable. The developer site provides guidance and instructions for use. Search area is the Internet and own data base. After checking the text, the program shows the percentage of plagiarism, the percentage of errors found coincidences and the source list. "First there is a check for plagiarism in its own base search, which is sufficient for working students. Then, if necessary, you can make a comparison of submissions of materials placed in the Internet, which is appropriate for testing dissertations and academic works of professors" (Mykhailovskiy & Dlugunovych, 2013, p. 163).

The system *Unplag* (https://ua.unplag.com) is a Ukrainian development company Unplag.com. Using the software is paid. Free online test can be 500 words. Developer uses cloud technology. The system allows multiple text files check .doc, .docx, .rtf, .txt, .odt, .html, .pdf Ukrainian, Russian, English, German and Spanish. The program interface is understandable. The developer site provides guidance and instructions for use. Search area is the Internet, leading library database and own database. You can check the five documents at the same time regardless of the size of each. To check one page takes only four seconds. The system finds the text coincidences even if some of the symbols in the text replaced by symbols like them from other alphabets. After checking the text the program determines the percentage of unique text; reference to the source; determines the quotes of different styles; paraphrased fragments, replacing characters using synonyms for borrowed text. The report can be viewed online or download in format .pdf.

Conclusions and recommendations. As a result of the comparative analysis in academic plagiarism detection we conclude that to check academic texts written by professors and students is advisable to use such software as the *eTXT Antyplahyat,* online services of *Content-Watch.ru* and systems *Anti-Plagiarism* or *Unplag.* These services provide possibilities of a subscription.

When planning, conducting and formalizating academic research is worth to: 1) ensure impeccable honesty and transparency at all stages of the academic research; 2) note that a person uses the work, it must indicate the name of the author of the work and the original source; 3) description of sources used must be formalized according to the standards; 4) use specialized services on the verification of scientific papers for uniqueness. Compliance with the code of ethics of professors and students and the establishment of a unique scientific works will ensure quality education in universities.

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