UDC 341

ARTIFICIAL INTELLIGENCE AND COPYRIGHT LAW

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The development of technology that began in the twentieth century has profoundly influenced the subsequent twenty-first century, or as it is called – the age of technological progress. This is especially noticeable in the field of robotics and artificial intelligence. Currently, these technologies have spread to almost all types of human activities, including culture and art.

One of the example is the resonant art sale in 2018 at the London auction house Christie's – one of the leaders of the world art market, where was sold the painting "Portrait of Edmond Belami", which is part of the portraits of the fictional Belami family. The features of this painting is that it was created using a machine algorithm, which analyze a certain number of artistic works of one style and generate its own interpretation [1].

Two years earlier, Bas Korsten, the creative Director of JWT Amsterdam, had the idea to create a portrait of a man "The next Rembrandt" in the style of the famous Dutch artist Rembrandt Harmens van Rijn, using a specially created Microsoft program. The goal of this project was to explore the work of the great artist using modern technologies, where artistic value did not play a primary role. However, at the 2016 Cannes lions international advertising festival, the work received two Grand prizes in the Cyber Lions and Creative Data Lions categories [2].

Another example is the work of the artist of the Drawing Operations project Su-Weng Chang, which was created using a robotic hand in addition to a machine algorithm. This process represent the robotic arm synchronously repeated the movements of the artist's hand. This is the first stage of the ongoing research Drawing Operation Unit Generation-1, which studies the interaction of human and robot in the field of art. According to the artist Su-Weng Chang, the presented composition is the result of co-authorship of human and artificial intelligence [3]. The basis for this conclusion can be the artistic theory of the American art critic Clement Greenberg: during evaluating artistic works, he considers that important only what is available to direct perception: the substrate of an artistic work, that is, the material from which it consists, and the process by which it was created [4]. Opponents of this theory claim that a work of art is an expression of a spirituality.

Moreover, the participation of artificial intelligence has also been shown in the literary sphere. In 2016, a Japanese computer program created the novel «The Day the Computer wrote the novel», which was released in the second round of the national literary award of Japan. The only drawback of this work that prevented its passage to the final is the inability of artificial intelligence to convey all the emotional experiences of the characters, i.e. the psychological aspect of the personality. As an example, the Japanese edition of the Japan News quotes the end of the book: «I writhed with joy, which I experienced for the first time, and continued to write with excitement. This is the day the computer wrote a novel! On this day, when the computer set priorities and started writing for its own pleasure, it stopped working for people»[5].

These examples give reason to believe that the introduction and further development of technologies in the field of culture can change not only the attitude of people to the created works, but also radically change the existing canons and ideas about art in general, which can be reflected in the future of art as such. However, this innovation raises a number of legal issues. On the one hand, whether a "reasonable machine" or so-called "artificial intelligence" can be recognized as the

author with all the ensuing consequences, or whether the author is a human programmer who wrote an algorithm and indirectly participates in the creation of any piece of art.

To better understand the status of artificial intelligence, it is necessary to consider significant historical aspects of this issue. In the mid-twentieth century, in the time of creating the first computers, scientists did not attach much importance to the development of machines from the point of view of artificial intelligence. The primary task was to perform complex arithmetic tasks to facilitate human activity. Later it was discovered that these machines have a huge potential that can not only increase the efficiency of human labor, but also become the owner of a system similar to the human mind.

This theory was first put forward by the English mathematician, logician and cryptographer – Alan Turing in his work "Computing machines and the mind" in 1950. One of the key issues of its work is: "Can machines think?" By doing this, he wanted to show that a machine cannot just think like a human, but understand and answer questions, recognize facial expressions and gestures of the speaker. To further develop his theory, Alan Turing developed a test (the Turing test) or "imitation game", the essence of which is that a robot in a dialogue with a person must convince the latter to conduct a dialogue with the same person as he – a person [6]. But, today's realities give reason to believe that artificial intelligence goes beyond simple computing machines and from a tool for achieving certain results becomes the same Creator as man.

At present, almost all the views and ideas of Alan Turing have been turned into reality, where artificial intelligence has become widespread. In a technically progressive world, millions of programs are improving and appearing every day, but there is still no clear legal regulation and definition of "artificial intelligence".

One of the first scientists who introduce the term was John McCarthy at a conference at Dartmouth University in 1956. In his speech, he mentioned that artificial intelligence is not directly related to human intelligence. He also pointed out that «the problem is that we can't yet generally determine which computational procedures we want to call intelligent. We understand some of the mechanisms of intelligence and don't understand the rest. Therefore, intelligence... refers only to the computational component of the ability to achieve goals in the world» [7]. According to the opinion that was proposed in the monograph of P. M. Morhat, artificial intelligence is a fully or partially Autonomous self - organizing (and self-organizing) computer-hardware-software virtual (virtual) or cyber-physical (cyber-physical), including bio-cybernetic (bio-cybernetic), system (unit) that is not alive in the biological sense of this concept, with appropriate mathematical software, endowed/possessing software-synthesized (emulated) abilities and opportunities [8]. From the point of view of professor, PhD, I. V. Ponkin and associate Professor A. I. Redkina: "... artificial intelligence is an artificial complex cybernetic computer-software-hardware system (electronic, including virtual, electronic - mechanical, bio-electronic-mechanical or hybrid) with a cognitive-functional architecture and its own or relevant available (attached) computing power of the necessary capacities and speed...» [9].

Based on the presented positions, artificial intelligence is a special computer algorithm that, based on previously set or accumulated knowledge, is able to transform it into something new that had no analogues and simultaneously improve its activities, i.e., function similarly to the human mind. In this regard, the most pressing issue is related to intellectual property rights, especially copyright of individuals and artificial intelligence.

Creating works of art that use artificial intelligence can have a huge impact on the development and improvement of copyright. Before that, the question of the authorship of the "intelligent machine" was not relevant, because the program until recently was just a tool in the creative process. But due to the continuous development of artificial intelligence, computer programs are no longer a tool, but a subject that can make decisions in the creative process without any human intervention.

There are several options for how to reflect all the ongoing innovations from a legal point of view. One position is not to recognize "intelligent machines" as an independent unit that can be granted copyright as a result of the creation of any work of art. For example, the United States

copyright Office recognizes that an original work can only be registered if it was created by a human being. This is also supported by case of First Publication vs. Rural Telephone Service Company, Inc. 499 US 340 (1991), which specified that only "the fruits of mental work" that "were created through the creative work of the mind" could be protected by copyright [10]

Under French copyright law, the original subject of copyright is the author himself - a natural person. Although the intellectual property Code of 1992 does not clearly define "author of a work of art", it sets out general criteria for all authors, which include that an individual must conceive and shape his idea, independently or with the help of a third party, and subsequently make his creation available to the public as the Creator [11].

In Australia, in 2012, the court heard the case Acohs Pty Ltd v Ucorp Pty Ltd, in which the original data was automatically converted into a data table, with the participation of a "reasonable machine". As a result, the court ruled that works created using technology are not protected by copyright due to the fact that there was no human participation [10].

Another point of view, which is not widespread, but is already practiced by some countries, is based on the attribution of authorship of such works to programmers, i.e. those people who created a certain algorithm and got a certain result. In countries such as India, Ireland, New Zealand, and the United Kingdom, programmers are recognized as authors. This position is clearly expressed in English law, for example, in section 9 (3) of the Copyright, Desings and Patents Act (1988) states that «in the case of creating a literary, dramatic, musical or artistic work using a computer, the author is the person who takes the measures necessary to create the work» [12]. Accordingly, it can be concluded that only a person can be the author.

In international legal acts, in particular, the Berne Convention for the protection of literary and artistic works of 1886; the World Copyright Convention of 1952, it is specified that the author is recognized exclusively as a natural person, due to the definition of the author's belonging as a citizen to a country. In accordance with article 3 of the Berne Convention of 1979: the protection provided for in this Convention shall apply: (a) to authors who are nationals of one of the countries of the Union in respect of their works, regardless of whether they are published or not...» [13]. According to article 3(4) the World Copyright Convention of 1971: «each Contracting state shall establish legal means for the protection, without formalities, of unpublished works of citizens of other Contracting States» [14].

Based on the above, we can conclude that this issue needs to be carefully studied, since it affects not only philosophical, moral and ethical aspects, but also legal ones. For further research and develop it is important to find the most suitable solution to this issue. In the foreseeable future, a situation that does not have a clear regulation may damage the business in the field of art and also lead to the devaluation of some forms of human creativity. In addition, it is possible that soon artificial intelligence will reach the level of independence, in which it will be able to create copyright objects without any human intervention.

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