

# POSSIBILITIES OF DIGITAL INFORMATION TECHNOLOGIES IN THE FIELD OF PSYCHOLOGY

Xalmetova M. X. Chirchik State Pedagogical University

#### **Abstract**

This article discusses the application of digital and information technologies in the field of psychology. In particular, the possibilities of psychological diagnostics using artificial intelligence for students in the psychology field of higher education and the effectiveness of this process are considered. The article also provides examples of digital tests and their use.

**Keywords**: Digital technologies, information technology, psychology, higher education, artificial intelligence, psychological diagnostics, tests.

## Introduction

## Annotatsiya:

Ushbu maqolada raqamli va axborot texnologiyalarining psixologiya sohasida qo'llanilishi haqida so'z yuritiladi. Xususan, oliy ta'limning psixologiya yo'nalishi talabalariga sun'iy intellekt yordamida psixologik tashhis qo'yish imkoniyatlari va bu jarayonning samaradorligi ko'rib chiqiladi. Maqolada raqamli testlar va ulardan foydalanish bo'yicha namunalar ham keltirilgan.

**Kalit so'zlar:** Raqamli texnologiyalar, axborot texnologiyalari, psixologiya, oliy ta'lim, sun'iy intellekt, psixologik tashhis, testlar.

## \*\*Applications of Digital and Information Technology in Psychology\*\*

Digital and information technologies (DIT) are important in many areas today, and the field of psychology is no exception. RAT opens up a number of new possibilities in the field of psychology. These technologies play an important role, especially for students studying psychology in higher education institutions.

## \*\*AI and Psychological Diagnosis\*\*

Psychological diagnostics using artificial intelligence (AI) have been widely used in recent years. Artificial intelligence systems have the ability to speed up and make diagnostic processes more accurate by processing and analyzing large amounts of data. For example, special algorithms have been developed to detect depression, anxiety, and other mental states.

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## \*\*Digital tests for higher education students\*\*

Digital tests and methods of their use are of great interest to students studying psychology in higher education institutions. Below are examples of digital tests for psychological diagnostics using AI:

- 1. \*\*Beck Depression Inventory (BDI) \*\*: This test is widely used to assess depression. In digital form, the test results are automatically analyzed and accurate results are obtained.
- 2. \*\*Generalized Anxiety Disorder 7 (GAD-7) \*\*: This test, designed to assess anxiety levels, is used on digital platforms where test results are processed using artificial intelligence.
- 3. \*Personality Assessment Inventory (PAI) \*\*: This test, which helps identify personality traits, is also available in digital format, and the test results are analyzed using artificial intelligence algorithms.

## \*\*Advantages of using digital tests\*\*

There are several advantages of psychological diagnostics using digital tests and AI:

- \*Speed and efficiency\*\*: Tests are analyzed automatically, and results are collected quickly.
- \*\*Correctness\*\*: More accurate results are obtained by analyzing large amounts of data.
- \*\*User accessibility\*\*: It makes the process of testing and reviewing results easier for students and psychologists.

Psychological diagnostics using artificial intelligence (AI) have significantly developed and are widely used in recent years. AI systems are capable of speeding up and making diagnostic processes more accurate by processing and analyzing large amounts of data, allowing for the introduction of new approaches to assessing mental health. This approach shows that it is particularly effective in identifying depression, anxiety, and other mental states.

Psychological diagnosis using AI is carried out in several stages. In the first stage, the system collects a large amount of data from the patient or user. This data can be collected using various methods: online surveys, tests, social media activity, monitoring conducted using a phone or computer, etc. For example, to identify depression, users' social media posts, correspondence, and other digital traces are analyzed.

In the second stage, the AI system processes and analyzes this data. Using special algorithms and machine learning techniques, the system identifies patterns and anomalies from the collected data. For example, depression detection algorithms analyze the user's vocabulary, writing style, temporal changes, and other parameters. These algorithms are typically trained based on a large amount of previous data, and therefore they have a high level of accuracy.

AI systems are also used to detect anxiety and other mental states. When determining anxiety, algorithms analyze biometric data such as the user's voice tone, vocabulary, and heart rate. These systems typically focus on subtle features that are difficult to identify through simple inspections or surveys.

One of the main advantages of psychological diagnostics using AI is its speed and effectiveness. Traditional diagnostic methods can often be time-consuming and subjective, as they are often based on the subjective assessments of a doctor or psychologist. AI systems automatically analyze data and provide results quickly, allowing doctors to assess patients' condition faster and more accurately.

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Furthermore, AI systems enhance the accuracy of the diagnostic process by processing large amounts of data. Compared to traditional methods, AI systems are able to analyze more parameters, thereby demonstrating higher results in detecting even subtle mental changes.

In conclusion, it can be said that digital and information technologies create great opportunities in the field of psychology. Psychological diagnostics based on artificial intelligence using these technologies open up new opportunities for students studying in higher education institutions in the field of psychology. Digital tests and automatic analysis of their results make this process more efficient and accurate. Therefore, there is a need for wider application of digital and information technologies in the field of psychology.

Psychological diagnosis using AI creates great opportunities in modern psychology. This technology speeds up diagnostic processes, makes them more accurate, and provides a more individualized approach to patients. Therefore, AI-based diagnostic systems are expected to be used more widely in future mental health assessment.

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