

disadvantage is: you can't capture your video call using built-in tools. You need to use third party screen recorders.

From this we can conclude that the best online-platform for up-to-date young teachers is DISCORD. For elder lectures, it would be easier to use GOOGLE MEET service. And for those, who prefer functionality to simplicity, we propose to work with ADOBE CONNECT.

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## ANALYSIS OF ALTERNATIVE ENERGY SOURCES

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In Ukraine, the so-called alternative energy sources have been actively used for the last 5-10 years. Nowadays, several types of energy production from renewable sources are used: Solar power plant (SPP), wind power plant (WPP), hydroelectric power plant (HPP). Providing the country with natural resources is the most important economic and political factor in the development of the national economy. The second factor, and perhaps the first in importance, is the impact on the ecology of the planet. Greenhouse gas emissions from burning minerals disrupt the climate balance. The impacts of climate change have become more tangible over the past decade. The only way for people to reduce the rate of climate change is to switch to more environmentally friendly energy sources, including renewable or alternative ones: sun, wind, water, biogas.

To solve the problem of fossil fuel shortages, researchers around the world have been working to create and implement alternative energy sources. It is only recently, that algae began to be considered an alternative source of energy, but the technology according to experts is very promising: from 1 hectare of water surface occupied by algae 150 thousand cubic meters of biogas could be produced per year. This is approximately equal to the volume of gas produced by a small well, and this is enough for the life of a small village. In order to preserve ecology, new methods of rational use of natural resources should be introduced. What are the benefits of using natural resources? Firstly, the risk of the temperature increase in the atmosphere is reduced by almost 50%. Secondly, the emission of toxic gases, thick smoke is reduced to a minimum, and thirdly, the cost of using natural resources is much lower than the cost of oil, gas, etc.

The advantages of alternative energy have already been assessed by China, the USA, Germany, Italy, Spain, Japan, India, and Nordic countries. They account for about 75% of the world capacity. In some countries, the cost of generating electricity from solar energy has already reached the level of retail electricity prices in the residential, commercial and industrial market segments. Therefore, alternative energy can already be profitable without any additional support. Until now, renewable energy sources do not occupy a significant market share in Ukraine, but their development prospects are doubtless. The share of renewable energy sources has almost doubled since the beginning of the

decade to 4%, taking into account losses across the country. The energy of the sun, wind and biomass is optimal for Ukraine. The production of equipment for SPP and WPP in Ukraine is also developing. In February 2019, the KNESS PV plant was launched in Vinnitsa – the first large-scale industrial production of panels for solar power plants in Ukraine. The commissioning of the KNESS photovoltaic installation allows us to speak of Ukraine as a manufacturer of 100% components for solar energy. According to the company, since the plant's launch, 12 industrial photovoltaic stations with a total capacity of 70.66 MW have been built in Ukraine using solar modules of their production.

Thus, for the rational use of natural resources and the transition to sustainable development of the regional economy, it is necessary to carry out the introduction of new engineering designs, to rationally use the natural resources; to control the usage of flora objects.

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## PROSPECTS FOR THE DEVELOPMENT OF ARTIFICIAL INTELLIGENCE

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Today, artificial intelligence and machine learning have begun to be applied in almost all areas of human activity: from the simple technology of blurring the background in photographs to the analysis of genetic predisposition to serious medical diseases by supercomputers.

Incredibly, nowadays artificial intelligence brings enormous benefits, and also has a significant potential in the development and expansion of the range of its applications. At the end of January 2020, CB Insights conducted an annual analysis of global trends in investing in artificial intelligence and reported that in 2019, specialists in such technologies attracted a record investment of \$26.6 billion, having concluded more than 2,200 deals worldwide. For comparison, in 2018, about 1900 agreements were concluded for a total of \$22.1 billion, and in 2017 - about 1700 for \$16.8 billion (Fig. 1).

Let us look at the potential areas of AI more closely.

Artificial intelligence in the agricultural sector. In agriculture, artificial intelligence is used in processing and harvesting equipment. Work in this area is carried out by foreign engineers.

Artificial intelligence in everyday life. Home robots are expected to become common by 2030. They will not be able to completely free a person from household duties, but they are able to provide the most favorable living conditions, automate a number of basic

The \$1B+ AI unicorn club is getting increasingly crowded

Number of AI startups reaching \$1B+ valuations for the first time

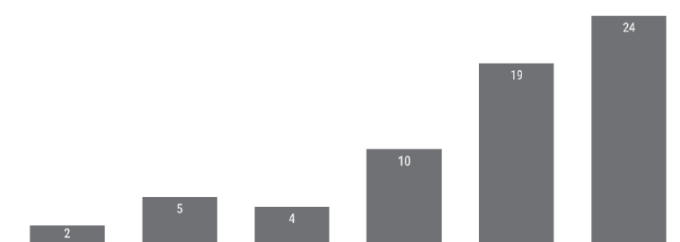


Figure 1. Number of AI startups worth more than \$ 1 billion, retrieved from CB Insights.