## Maxym Oblozhok

National Aviation University, Kyiv

## THE IMPACT OF AUGMENTED REALITY (AR) ON MODERN SOCIETY AND INDUSTRY

Most experts are surre that our future lies precisely behind augmented reality(AR).

Until recently, this term was not known to mankind, but today, advanced corporations are putting all their efforts into the development of this field. Some associate it with everyday life, others with education, and some seek to simplify people's work. The term itself, according to some sources, was proposed in cooperation with Boeing by Tom Codel. Until recently, it was in the shadow of virtual reality (VR), but the world is very changeable, which forced inventors to redirect their efforts.

Augmented reality is a technical approach that consists of combining two components - the real world and virtual objects. You can use this approach through many things we are used to - a smartphone, tablet, any graphic display, and some new things like AR/VR glasses (a great example is the loud appearance of similar glasses from Apple).

The main idea of this invention is to expand the objects and events of the real world with interactive virtual content with the help of cameras and sensors built into the device in order to expand the display of information and interactivity.

Humanity is improving all those screen devices that surround us for an evergreater impact from them. Thanks to better screens and cameras, augmented reality is becoming more and more convenient and merged with simple everyday life, allowing you to use this technology professionally in various fields such as education, architecture, production and even aviation.

AR provided an opportunity to improve learning for students by various methods. Such as virtual tours, which allow you to visit any important place from a different point on the planet, feel the effect of presence, interact with the environment without having any equipment. It is also the creation of virtual models that allow you to see what an object looks like, which can be unrealistic to see in ordinary life. The creation of virtual objects is often supplemented with textbooks in order to obtain extended information about a certain subject on a certain page.

Architects and designers owe to this technology the possibility of visualizing future projects. To see certain advantages or disadvantages in the location of the planned work, to visualize the complex life support systems of

the structure (plumbing, ventilation, electricity), to improve the accuracy of all measurements and the installation of objects.

Augmented reality is also used in medicine, not as widely as you might imagine, but surgeons can use AR to obtain all the accurate data about the state of the body during surgery, which can increase the percentage of successful operations. In general, now psychiatrists often use AR to create virtual environments for exposure therapy (for example, to treat popular phobias by visualizing them in various forms).

Pilots around the world are already practicing the use of augmented reality to optimize piloting and obtain detailed data about the course of the flight (for example, as a visualization of the dashboard in cars), which makes it possible to simplify the management of this complex mode of transport and make it even safer. AR, along with VR, is also part of the training program for future pilots. The visualization of a real flight, the creation of different weather conditions, and the occurrence of unexpected events—all of this can be trained together with augmented reality.

All things considered, it should be stated that although AR technology is young and needs development, it is already changing our lives with each improvement.

> Scientific supervisor: Nataliia Denysenko, Senior Lecturer