

Exchange, and any devices we access email on, will keep a copy of our emails. To reduce the number of copies that are stored, and the number of places where they are stored, follow these tips: - Disable forwarding to another email client (like Gmail or Yahoo);

- Use the Outlook Web App instead of the desktop client, so that copies of your emails are not stored on your machine.

Internet security is a broad term that refers to the various steps individuals and companies take to protect computers or computer networks that are connected to the Internet. One of the basic truths behind Internet security is that the Internet itself is not a secure environment. The Internet was originally conceived as an open, loosely linked computer network that would facilitate the free exchange of ideas and information. Data sent over the Internet—from personal e-mail messages to online shopping orders—travel through an ever-changing series of computers and network links. As a result, unscrupulous hackers and scam artists have ample opportunities to intercept and change the information. It would be virtually impossible to secure every computer connected to the Internet around the world, so there will likely always be weak links in the chain of data exchange [2].

References:

1. Techwalla [Electronic resource]. – Access mode: – <https://www.techwalla.com/articles/what-is-the-meaning-of-internet-security>
2. Reference for Business [Electronic resource]. – Access mode: <http://www.referenceforbusiness.com/small/Inc-Mail/Internet-Security.html>
3. Webwise [Electronic resource]. – Access mode: <http://www.bbc.co.uk/webwise/0/22717881>

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HISTORY OF VIRTUAL REALITY

Since the beginning of civilization people have tried to represent physical world in virtual reality (VR). Nowadays we are able to render computer-

generated world and think about ways of transplanting our minds into the artificial realm. However, many researchers consider the history of VR as a story of failure [1].

Sensorama became the first multisensory machine which included a stereoscopic color display, fans, odor emitters, stereo sound system, and a motional chair. It was built in the early 60s by Morton Helig.

Head Mounted Display (HMD) system “The Sword of Damolces” created by Ivan Sutherland was the next step in the field. The main feature of this device was "the ultimate display". A head-mounted room filling one-two gadgets that Sutherland hoped would prove a looking glass into a mathematical Wonderland. It was primitive both in terms of user interface and realism.

NASA's virtual visual environment displays proved the great potential of the outside sphere in VR. In 1986 two tiny LCD screens and a helmet-mounted sensor were presented to public which promised the development of remotely controlled space hardware.

In the 80s virtual reality became a popular term which was popularized by Jaron Lanier who developed several VR devices like the Data Glove, the Eye Phone, and the Audio Sphere. Data glove represents an interactive device, resembling a glove worn on the hand, which facilitates tactile sensing and fine-motion control in robotics and virtual reality [2].

The rapid development of game industry in the mid 90s became one of the crucial points in the development of the field. As a result in 1995 Nintendo released a console called “Virtual Boy”, which was marketed as the first console capable of displaying stereoscopic 3D graphics. However, it was expensive and gamers complained of headaches and nausea when using it [3].

In April 2001, SAS Cube became the first PC based cubic room, developed by Z-A Production (Maurice Benayoun, David Nahon), Barco, and Clarte. It was installed in Laval, France. The SAS library gave birth to Virtools VRPack [1].

By 2007, Google introduced Street View, a service that shows panoramic views of an increasing number of worldwide positions such as roads, indoor buildings and rural areas. It also features a stereoscopic 3D mode, introduced in 2010 [1].

The great step in the history of VR became The Oculus Rift, the headset device that gave the possibility of a 90-degree field of vision and served as a basis for later designs. Since then Microsoft, Samsung, Sony, HTC, Valve and many companies have thrown their hats into the VR ring .

Today's VR is being pioneered by such great tech makers like Samsung and HTC and others. VR has many applications in a variety of fields. It is used in entertainment applications such as gaming and 3D cinema, in medicine and robotics, in telepresence and telerobotic systems, in education and digital marketing. It's really a great field for future research.

References:

1. Virtual reality [Electronic resource]. – Access mode: http://en.wikipedia.org/wiki/Virtual_reality
2. Nintendo Power Glove for VR [Electronic resource]. – Access mode: <https://medium.com/teague-labs/nintendo-power-glove-for-vr-b8bee1449e4>
3. Virtual Boy [Electronic resource]. – Access mode: https://en.wikipedia.org/wiki/Virtual_Boy
4. Vive Shipment Updates - Vive Blog [Electronic resource]. - Access mode: <https://blog.vive.com/us/2016/04/07/vive-shipment-updates/>

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INFORMATION TECHNOLOGY USAGE IN HIGHER EDUCATION

Development of information technologies is a priority task of modern society in recent years. In modern conditions the learning process is in constant interaction with new information complexes and systems. This allows us to apply new methods and approaches in relation to an education system. Implementation of new information technologies in the educational environment, as well as any other innovative process, makes changes in pedagogical sphere.

The new technologies integrated into an education system help to develop students' creative thinking. Due to the new opportunities the student becomes more motivated to resolving the tasks set for him. The introduction of new information technologies and information systems in the field of education has become a factor of dynamic development of the world science [1].

It is important to understand a role of informatization of the higher education system in the modern world where information technologies are