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## **COMPUTER ANIMATION AS A TOOL OF VIZAALIZATION OF INFORMATION**

According to many researches there are 4 types of perception of the world: audial, visual, kinesthetic and discrete. In the 21st century, with the development of digital technologies in the world perception of people, especially those, who were born at the beginning of two thousand`s and later, the visual type predominates.

Since information is better absorbed by humans when it presented in a visual form, the specialists in the field of animation are becoming more and more demanded.

A. Rappaport in his work defines animation as a dynamic medium in which images or objects are manipulated to appear as moving images [1, p.37].

With the development of technology computer animation became more relevant.

S. Bezklubenko says that computer animation is the process used for generating animated images [2, p.13-18]. As we see the terms animation and computer animation are different. With the development of technology computer animation became more efficient Computer animation can be applied in the field of entertainment and mass media, business and scientific areas. For example, information visualized in the form of infographics, graphics or animated schemas, people perceive, decode and remember better than if the same information is provided in text form.

As we see the techniques of computer animation are in great demand in the modern world.

In his book on computer animation [3] M. Kuperberg distinguishes several ways to create computer animation:

- Vector graphics

- Raster graphics
- Fractal graphics
- 3D graphics

Vector graphics is a way of representing objects and images in computer graphics, based on a mathematical description of elementary geometric objects such as points, lines, curves, circles, and polygons . In my opinion, this type of computer graphics is the best for creating simple video animations, infographic or schemas for visualizing scientific or business information.

Raster graphics is an image representing a grid of pixels. Raster graphics is edited using special programs such as Adobe Photoshop. As for me, in the context of visualization of information, this type of computer graphics can be used to create gif-images. The media uses this type of animation to make animation for posts on Facebook or Twitter.

Whith the help of fractal computer graphics abstract compositions can be created. There is a possibility of implementing many different techniques in this very way of creating animation. They are horizontal and vertical, diagonal directions, symmetry and asymmetry etc. A characteristic feature of images of fractal graphics is photorealism. Thus, it is more appropriate to use this type of graphics to create special effects for the field of entertainment or for high-quality commercials and presentation of a brand product.

3D graphics is a section of computer graphics, designed for creating images or video by simulating bulky objects in 3D space. The graphic representation of 3D objects differs in the approach which includes the construction of a geometric projection of a 3D model of a scene on a plane. This kind of animation can be used in the field of entertainment: creation of cartoons, special effects for films, commercials or professional models and schemas for the media.

To conclude, it is important to highlight that technical progress dictates our living conditions. In my opinion in the modern world, the use of computer animation can be useful for designers, businessmen or scientists. More over, the information

introduced using media resources is better perceived and more effective in communicating with people.

Furthermore, our future is closely connected with digital technologies, therefore, we should be able to use them for the purposes we want, because it is not only simplifies our life, but also makes it more interesting.

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#### **GROWTH OF TWO KINDS OF COOPER SULFATE CRYSTALS IN DOMESTIC CONDITIONS**

***Purpose.*** Growth of poly- and monocrystals of copper sulfate in domestic conditions, using improvised means as chemical materials.

***The problem.*** The investigation of the reality of growing copper sulfate crystals at home and the use of ready-made crystals in everyday life, the growth of a crystalline hydrate monocrystal of copper sulfate.