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History and Development of Computer Graphics

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Opinion Article

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DESCRIPTION

Computer graphics is the process of creating visuals using computers. Computer graphics is now a foundational technology in digital photography, movies, video games, mobile phone and computer displays and a wide range of specialised applications. A significant quantity of specialised hardware and software has been developed with computer graphics hardware driving the displays of the majority of devices. It is a large and relatively new topic of computer science. Verne Hudson and William Fetter of Boeing are computer graphics experts created the word in 1960. It is frequently abbreviated as CG or in the context of movies as Computer Generated Imagery (CGI). Computer science is studying the non-artistic aspects of computer graphics [1].

User interface design, sprite graphics, rendering, ray tracing, geometry processing, computer animation, vector graphics, 3D modelling, shaders, implicit surfaces, visualisation, scientific computing, image processing, computational photography, scientific visualisation, computational geometry and computer vision are some of the topics covered in computer graphics. The underlying sciences of geometry, optics, physics and perception play a significant role in the whole technique [2].

Computer graphics is responsible of effectively and meaningfully showing art and picture data to the consumer. It is also used to process picture data from the physical world such as photos and videos. The advancement of computer graphics has had a tremendous impact on many sorts of media, improving animation, movies, advertising and video games in general [3].

Computer graphics is now widely utilized in different fields. This type of imagery can be found in and on television, newspapers, weather forecasts as well as a number of medical investigations and surgical operations. A well-designed graph can show complex statistics in an easy-to-understand and interpret format. Such graphs are used to show papers, reports and other presentation material in the media.

Many data visualisation programs were designed. There are three categories of computer-generated imagery: two-dimensional (2D), three-dimensional (3D) and animated graphics. Although 3D computer graphics have become more widespread as technology has advanced 2D computer graphics are still commonly employed. Computer graphics is a branch of computer science that explores ways for digitally synthesizing and modifying visual images. Other specialized fields such as information visualization and scientific visualization have emerged in the last decade with the emphasis on the visualizations of three-dimensional phenomena, where the emphasis is on realistic renderings of volumes, surfaces, illumination sources and so forth possibly with a dynamic component.

The developments in electrical engineering, electronics and television that occurred throughout the first half of the twentieth century were the foundation sciences to the development of modern computer graphics. Since the Lumiere brothers used mattes to produce special effects for the first films in 1895 screens could display art but such displays were limited and not interactive [4,5].

The Braun tube is the first cathode ray tube invented in 1897, opening the way for the oscilloscope and the military control panel, the field's has more significant origins as they supplied the first two-dimensional electronic displays that responded to programming or user input. Moreover computer graphics remained relatively unknown as a discipline until the 1950s and the post-World War II period, when it emerged from a combination of pure university and laboratory academic research into more advanced computers and the United States military's further development of technologies developed during the war, such as radar, advanced aviation, and rocketry.

To process the abundance of information generated by such initiatives, new types of displays were required, resulting in the creation of computer graphics as a discipline.

REFERENCES

1. Sarvade KD, et al. Recent trends in virtual reality and computer graphics. Int J Innov Res Technol Sci Eng Technol 2019; 19:135-140.
2. Jon Peddie. The history of visual magic in computers: How beautiful images are made in CAD, 3D, VR and AR. Springer 2013;3: 98-101.
3. Defanti, TA. The mass impact of videogame technology. Adv Com. 1984;23: 93-104.
4. You J, et al. Real-time 3D visualization of forest fire spread based on tree morphology and finite state machine. Comput Graph 2022;103: 109-120.
5. Kump A. et al. Visual analysis of multi-parameter distributions across ensembles of 3D fields IEEE Trans Vis Comput Graphics 2021; 28: 3530-3545.