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BEYOND GAME ENGINES

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Beyond Game Engines

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ABSTRACT

When one thinks for the term game engine the first thought that usually comes to mind is video games. Nowadays game engines go far beyond just a program that is solely for making games. A great example is Unreal Engine made by Epic Games, the creators of Fortnite. Unreal Engine has also been used to make well-known movies, tv shows, and used by various companies. Some examples of the use of Unreal Engine outside of games are, The Mandalorian, Westworld, animated series Big City Greens, Matrix Resurrection. Unreal can also be used to render images in real time, at times only taking only minutes, compared to some programs that hours. Recently they have created life like humans called, MetaHumans. They are hyper realistic computer-generated characters that are used in video games and tv/film productions. When it comes to The Mandalorian and Westworld Epic was asked to create huge LED walls. The purpose of the walls was to cut down on the cost of building sets. They use multiple cameras to achieve effects that would formally need massive sets and visual effects. As previously mentioned, MetaHumans are one of the newest ventures that Epic is embarking on. MetaHumans were recently used in Netflix show, Love, Death, and Robots. They were able to use the MetaHumans to create the life like characters with already created skeletons, known as rigs. They were also able to fully animate the characters. To get the realistic movements they used called motion capture, also known as MoCap. This may sound familiar as MoCap was used in films like Lord of the Rings and various Marvel films. It involves someone wearing a suit that may be covered in dots or various wires, to accurately capture the movements and then placed on the digital character. Unreal engine is changing the entertainment and art industry and is now being seen as something beyond just a tool to make video games.

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