What sorts of computer generated imagery can currently be done: case study 2d com...

Science, Computer Science

There exist two main types of computer generated imagery with the simplest being the two dimensional computer graphics. This reflects how an artist may make their drawings using a pencil on a piece of drawing paper. However, these are not done by hand anymore. The image is often on the computer screen and the material used for drawing that is used in place of a pencil is the mouse or a tablet stylus. On the part of the produced image, it may appear as having been drawn using a pencil, a pen or a paintbrush depending on the modifications that the computer is used to perform on them. The other is the three dimensional computer graphics in which the screen is made to become a virtual environment in which images are placed for photographing by the computer. In ideal sense, the three dimensional graphics of the computer use what the artists call virtual graphics that help create reality installations of the immersive virtual type while the two dimensional computer graphics make use of the raster type of graphics as the basic source of their data representations. (Coyne, 1995)

There has been an attempt to introduce a third formula to generate artistic images in the two dimensional or the three dimensional forms through the execution of algorithms that have been coded into computer programs. According to art specialists, this would still be a part and parcel of the native art which is basically a form of the computer. However, they have a slight disadvantage in that they cannot be produced without the use of the computer. The examples are quite a variety, ranging from datamoshing, algorithmic art and fractal arts. Moreover, the technology of the dynamic painting also fits into this category of the digital technology. (Bunnell, 1998)

Generation of 3D Still Imagery

These are created through the designing of imagery from the geometric shapes or polygons to three dimensional scenes and objects that can the find use in films, televisions and other special types of visual effects. Further, animated imageries have been able to find their way into the contemporary art practices. For instance, movies have been credited with an extensive use of graphics generated from the computer. As early as the 1990s, such kind of computer generated imagery underwent a lot of advancement to the extent that it became technically possible to create a good variety of three dimensional computer animations even though the use of computer images had been in existence especially in the films since the 1970s. To this date, several films that are considered modern have found extensive application of the photo realistic computer generated imagery. (Coyne, 1995).

There is also the digital installation art that has been popular in the contemporary arts practice. Digital installation arts encompass a good variety of activity some of which look like the video installations. These have been possible with the projection techniques that work directly or indirectly to enhance the sensory impressions that the audience gets as the digital installations make an attempt to create an immersive environment. This type of installation is often considered to be site specific, scalable and posses no fixed dimensionality that defines it. This implies that they can be configured afresh to take care of the different spaces of presentation as is typical to that particular artistic work. (Coyne, 1995).

Computation and Digital Code

Digital code is a form of electronic media that involves the storage of data in the digital form. Essentially, it involves the use of hard disc drives and computer networking as the means of storing data like the digital video or the digital arts in general. On the other hand, computation is basically any means of calculations and may be used specifically to imply the use of computer technology to perform information processing. The programs of computational arts have posed quite a challenge to the artists to the extent that they often have to re-imagine the objects as well as the environments by merging the digital technologies. The fact that these technologies can be used to modify the artistic productions means that the artists have been able to produce more fine type of arts than before the emergence of such technology. For instance, it has become possible to give an image a completely different color for its initial color to make it more appealing to the viewer. (Kellner, 2000).

Furthermore, the distribution of this kind of artistic works has become much easier with the emergence of computations as well as the digital codes. This is because they can be sent through the electronic media much easily, often almost instantly. Moreover, the use of the digital codes in particular have made it easy to produce a large mass of artistic work without losing track of one’s work as the storage technique works in a quite superb manner. Furthermore, the interaction between the artworks and their potential buyers has become much easier with the introduction of the computing technology. This is because computing often follows a well defined model that is

expressed mostly in the algorithm or the network topology. Essentially, Computation can be put into categories depending on whether they are digital or analogue; sequential or parallel and interactive or congruent. This diversity explains its relative significance in the production as well as in the distribution of artworks. (McCullough, 2004).

The idea of digital aesthetics is a real phenomenon in the field of digital technology. As a matter of fact, the television technology developed along the paths that had been founded by the earlier established mass media which were basically the radio and the film. In aesthetic computing in particular, artists, computer scientists and designers have laid the ground for a discipline that uses theoretical knowledge as well as the practical skills of art to the computing technology. It explores the different ways in which art together with aesthetics can be injected into computer science. The main intention of this technology is to modify the area of computer science by bringing in the application of a wide variety of categories that are essentially concerned with the making of artistic works. The interactions between the humans and the computer are projected to be able to increase the usability as well as the emotional state of the users as the new models of learning are expected to emerge. Basically, aesthetic computing or by extension the aesthetic technology approaches its subject from various perspectives. These will include arts, computing, mathematics as well as the interface. Moreover, interactions have also been considered to be an additional perspective. (Marshall, 1999).