New Media: Flashing Digital Animations—Pixar’s Digital Aesthetic

In Chapter 14 of *New Media: Theories of Practices of Digitextuality*, we read Katherine Sarafian’s article “Flashing Digital Animations—Pixar’s Digital Aesthetic.” Sarafian starts by explaining that computer animation is the art of creating moving images through the use of computer programs and coding. Digital animation opens up new realms for designers—not only can creators work in realistic worlds, but they can also manufacture completely new ethereal worlds. The possibilities are infinite with digital storytelling. This article discusses the importance of the collaborative teamwork of human skills and computer tools. Much of the task of creating a computer-animated feature film, like the Pixar, surprisingly does not take place at the computer. Filmmakers must write a rough sketch of the story. Once all of the major plot points are worked out, artists create a storyboard, which is a 2-D comic book rendering of each important scene in the movie with snippets of dialogue. After the script is finalized, voice actors are hired to come in and record all of the dialogue and sound effects. Using this, filmmakers can assemble a video animated with only storyboard drawings. After changes are perfected, the real animation process begins.

Production managers hire artists into a department in charge of designing all characters, digital sets and even the look and feel of the film. These things are modeled in 3D and even scanned into computers from clay models created by hand. Once imported into the designer’s programs of choice, character models are equipped with hinges that let animators move parts of the character’s “body.” These hinges act as muscles. In Pixar’s “Toy Story,” to achieve the realistic look of Woody talking, animators needed to create 100 different hinges in just his face alone. In between individually blocked movements, the programs used by designers fill in from point A to point B. Animators must edit work frame by frame. For a 90 minute film at 24 frames per second, that leave 130,000 frames to be reviewed and created. One of the lengthiest parts of the process is called rendering, which assembles all of the layers of art from textures, colors, mattes, etc. into one single frame of film. It can take an average of six hours to render one frame of an animated film—with strong enough computers, though, it is possible to render more than one frame at a time.

After working in similar graphics and video editing programs such as After Effects, Motion 4, Final Cut Pro, and Adobe Premiere, I was happy to see terminology that was familiar. Understanding what rendering means, which digital tools do what, and how key frames are created was useful in understanding exactly what Sarafian was trying to explain. The realm of digital animation would be an exciting field to explore for me.