Reflection

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Context and Practice 2022
Semester 1, Assignment 3

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Introduction

For *Context and Practice* this semester, I've been researching Koji Kondo, a Japanese music composer known for his work at Nintendo and on the *Super Mario* and *The Legend of Zelda* franchises. My main reason for choosing this practitioner and creative industry was so that I could hopefully find out what makes Kondo's music unique, and replicate that style for my own soundtrack that would feature in the video game I have been working on for *Major Projects* this semester.

In assignment one I have explored Kondo's early career life, the challenges he faced writing music for an emerging artistic medium and some of his most well-known works. In assignment two, I have presented these findings in the form of a more casual presentation to other students. This third assignment serves as an end-of-semester reflection of the practitioner and creative discipline.

Creative Practitioner

Growing up, Koji Kondo always had a passion for music, beginning electronic organ lessons at the age of five, and noting American musician Henry Mancini as a particular source of inspiration. After his university was approached by Nintendo and he applied for a job, he soon encountered the particularly notable challenge of the limited capabilities found on the sound chips of early video game consoles. As a result, Kondo had to create memorable and entertaining songs consisting of little more than simple beeps and buzzes. This proved to be a success however, and his persistence and passion for both games and music can be credited for the creation of arguably the most well-known video game theme of all time, the *Super Mario Bros* theme.

I can somewhat relate to Kondo's technical challenges in a few ways. As a creative student who's primary field of interest is computer-generated imagery or CGI, I often find myself limited primarily by time and finances, with more realistic environments taking longer to render on cheaper hardware. This is by no means a limitation on the technology itself however, and as a student in the late 2010s and early 2020s I've seen that it has advanced to the point where digital character models can be created that are almost indistinguishable from real people, in the hands of the competent of course. Going forward I expect to see such technology become more widely available to the public, and this is already the case with the free software Blender, the primary animation counterpart to Autodesk Maya.

Creative Discipline

With regards to my chosen creative discipline of video game development for *Major Projects* this semester, I noticed that unlike other forms of art such as movies or paintings which are considered 'finished standalone packages', video games often require updates and bug fixes after their initial release dates. Combine this with various dependencies, framerates and monitors the game will be played on, and you can often end up with very different experiences, specifically when building games for desktop computers. With consoles this is less of an issue due to the reduced fragmentation between hardware setups.

In a time where both desktop computers and their pocket-sized siblings are capable of great graphical processing power, many developers and designers are inspired by the low-polygon appearance of early video games. What was once a necessity due to hardware limitations is now seen as its own visual genre.

Additionally, with computers and consoles becoming more powerful than ever, we can expect to see video games looking more realistic. Graphics card manufacturer NVIDIA released the first graphics cards designed for real-time raytracing in 2018 alongside the launch of DICE's *Battlefield V*, a title which demonstrated the cards' capabilities. The appeal for this technology is still going strong in 2022, with the company set to release their third generation of RTX cards later this year.

With regards to my primary creative field of interest, that being CGI animation, I have seen the industry come a long way in the past few decades. With their 2022 film *Lightyear*, it seems to me that Pixar's decided the technology has reached the point where they feel comfortable redesigning the titular character in a more realistic art style, who made his first appearance in the 1995 film *Toy Story*. Insider's video linked in the bibliography does a great job of explaining the advancements made in each Pixar film.

As with many artistic mediums, CGI has examples of countless styles in the media. While Disney tends to be more conservative and sensible with their human character designs across movies, for instance when comparing 2009's *Tangled* with 2021's *Encanto*, other companies such as Pixar and Illumination are often seen presenting noticeably different styles in each of their franchises. These stylised designs often provide more character and clue the audience in to the personality of the characters. This appeal is in fact one of the twelve principles of animation as written by Disney animators Frank Thomas and Ollie Johnston in their 1981 book *The Illusion of Life*.

Discussion Sessions

Within Disciplines

With several other students researching and presenting their findings on musicians, I had a lot of material to compare similarities in terms of challenges the practitioners faced and other things. For instance, Kiki Hu's presentation on Chinese pop artist Jay Chou revealed that like Koji Kondo, Chou had an interest in music at a young age, and he started learning to play the piano at the age of four.

Across Disciplines

I noticed similarities across different creative practices as well. For instance, when asked if she thought miniatures were an outdated form of art, Anna Gilmor believed that while it's less necessary these days, it remains a stylish medium that is still used occasionally. This is similar to the video game music industry as the 8-bit genre remains nostalgic for many gamers.

Conclusion

To conclude, with regards to whether my view on the CGI creative field has changed, I admit it wasn't something I thought about much until now. I believe that there isn't much advancement left for the technology in terms of graphics, rather I expect to see the focus shift to optimising these existing technologies. With CPUs and graphics cards becoming more powerful and capable of handling more complex environments, artists will be able to more efficiently create great visuals to complement their film stories.

The process for creating a 3D rendered environment is mainly broken down into modelling, texturing and lighting. Creating graphics that imitate real life requires rendering engine developers to create shaders that mimic the way various objects respond to light. Artists can manipulate these shaders with numbers or texture maps that selectively adjust the roughness, reflectivity and displacement of an object, amongst other attributes. With all this being said, achieving realistic graphics in 2022 is very much proportional to the effort and attention to detail an artist exhibits. The quality of character movement however is another subject entirely.

Bibliography

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