# Nicholas Lok - CSE 262 Homework 6

An Exploratory Literature Study on Live-Tooling in the Game Industry

As an avid video gamer, I had to choose this subject matter to see how it relates to both live programming and video games. His talk mainly covered how game developers today are using live-tooling to edit games and stages on the fly. He covered examples from the big AAA game developers, such as Nintendo and Sony’s first party developers.

I think one solid example that he highlighted was on the Decima engine by Guerrilla Games. This was the engine with the robot dinosaurs that allowed the developers to edit the environment as it was happening. They were not lying about how powerful it is. A certain man named Hideo Kojima was searching for an engine that fitted his needs, and of all the engines he could have used, he used the Decima engine.

Hideo Kojima is known as one of the best developers, and even considered an auteur of video games. He is a widely respected developer, and for him to decide on using the Decima engine, it means that it is of high quality. To prove that, he managed to complete the game in about 3 years, compared to the 5 years he took for his previous game. I have no doubt that it was due to the power of the engine and the influence that live programming has on the engine.

However, I felt that the presenter could have done more to show some earlier examples of live programming, especially when it comes to the gamers themselves using it. I personally feel that the video game that had the biggest influence was LittleBigPlanet. This video game came out in 2008, almost 11 years ago on the Playstation 3. It had an extensive level editor, and some of the amazing creations that the users have made, have ended up being hired by the company itself to create even more levels for their future instalments in the LittleBigPlanet video game series. The level editor could switch halfway while building in level mode (albeit it took a longer time than Horizon Zero Dawn’s demo with the Decima Engine). So in a sense it was the first solid foray into live programming in video games.

In fact, the company, Media Molecule, is beta-testing their next game Dreams which is likely to take live programming in video games to the next level. Some of the beta-testers have in fact made some fantastic creations, from emulating Mario Levels to making their own space adventures. Live programming, especially with regards to the users themselves creating the content, has been around much longer than I believe the presenter was implying.

I believe that with video games becoming increasingly complex as developers get more ambitious, tools and capabilities such as live programming and live tooling will become invaluable. Open world games require this the most considering the sheer amount of content that the developers aim to strive for. As such, I would expect this technology to continue to increase and get even better. And we’re on the edge of the new console generation where in the coming year, Sony and Microsoft will be unveiling their next generation consoles. Live tooling and programming are set to hit the next level.