Usage of Stats and Data in Esports

I’m going to skip an introduction and get to the point. Data is a powerful tool in sports, and it is abundant when it comes to video games. The way this data can be used can be best illustrated by looking at one of the top esports, and looking at how it handles itself.

Before we look at any examples though, it is important to note something. Where esports differs from normal sports is the fact that it is in the digital medium. This has many implications, one of the greatest being audience participation, and another being data access.

In terms of audience participation, look it against a normal sports. An average office worker may play cricket with their friends one or two times a week; an activity that becomes more and more difficult with time. On the other hand, they could go home after work and play a match or two with ease on a daily basis. As a result, many viewers of esports tend to be active players themselves.

As far as data access is concerned, it is often far easier for a game developer to provide data for a game as opposed to a sports organizer; there is no hardware requirement, a simple API tends to suffice.

For instance, take League of Legends. It is one of the most widely played games in the world, and has an active esports scene, with several official regional tournaments and a few official international tournaments.

In terms of available data, the amount is huge. From basic ladder rankings, match outcomes (including things like damage dealt, team assists and so on) it even provides real-time match data; that is to say, data of the match currently occurring (albeit with a set time delay).

This data has been used by both the developers, Riot Games, and the community to considerable effect. There are several websites and mobile apps geared towards helping with match-ups and practice, either by analyzing game progress or by showing optimal builds and matches from high-ranking games.

This allows players, both pro and amateur, to examine their performance and measure it against what could be deemed as ‘optimal’.

As far as audience participation goes, any pro match will have a live display of each player’s items, sub-scores, and a few other statuses alongside the stream itself. In smaller circuits, viewers may even be able to use the spectator mode provided by the game, and thus control the camera.

The developers often give viewers in-game items for watching, as an added incentive.

For contrast, take a fighting game. Tekken 7 is arguably one of the most popular fighting games currently, but has no official tournaments of its own. While it makes an appearance at every major fighting game tournament, there is no large tournament solely for the game itself. (The average prize pool for top ranked tournaments is around 5,000 USD, whereas for League of Legends it exceeds 1 million USD)

That said, it is a game where certain data would be highly valuable to players. Fighting games tend to rely on combos; that is where one attack moves into another. Being able to provide data on moves used, order and timing of use, damage dealt and so on would be highly valuable for a the viewer, as it can be difficult to follow along visually at times, and difficult to recognize each move.

This data is useful for players as well, as they can optimize actions and evaluate their performance.

The issue is that none of this data is available from the game itself, and using either hardware to capture input or software to read this data would likely breach the game’s security, and result in a ban.

Essentially, the data which is useful tends to depend on each game, but can be broadly categorized as how the game is played, and general match results. Esports viewers tend to not just think ‘wow, he did that’, but also, ‘how did he do that?’ and ‘oh man, I want to try that out.’

To gain this data, however, requires the game developers to make it available via APIs, which requires cooperation from them. This isn’t out of the realm of possibility, there are teams who are happy to work with the community on such matters. But for larger developers, a general community request may be insufficient; a more formal tie-up would be needed.