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DATA

Analytics in the Gaming Industry: A Big Data Utopia

by Jocelyn Shieh

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A powerful application of big data lies in the gaming industry, where game logs accumulate massive streams of data as the gaming field grows and expands to consoles, PCs, and mobile. Big data here incorporates every interaction and transaction that the gamers make, storing streams of pure data ready to be analyzed. Unlike other industries, the challenge does not lie in data collection; it lies in how to make best use of it. Game developers, the market researchers and analysts of their field, utilize analytics to understand consumer behavior, demographics, and cause-and-effect trends in both gameplay and sales.

In gaming, there is a clear direction: players start the game, play the game, then finish—either upon completion or frustration. This clear direction simplifies the problem of funneling—instead of losing potential leads to the thousands of options on the Internet, as in marketing, in games, stage set-ups capture user activity on every level and allow analysts to quickly determine which stage leads to the most drop-offs of user activity. This quick determination point allows game developers to pinpoint what level of their game is deterring players and work in near real-time to solve the problem at hand.

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One recent innovation unique to the gaming industry is that of a gaming heatmap: a 3-D rendition of a computer-rendered world that marks user actions and events across the scope of the land. Using the heatmap, developers are able to track where their users go and what they do to a degree that market researchers wish they could emulate. By analyzing events and actions at every point of the map, developers in beta can A/B test problem points by redirecting routes, adding other influences, etc., and taking note of how players respond to these new factors—and redirecting their strategies if something does not seem to be working.

Another easy factor for game developers to analyze is the use of custom events in analytics. Similar to market surveys, custom events allow game developers to pinpoint certain actions and preferences of their users. However, unlike market surveys, which are dependent on many factors that bias their results, custom event analytics are entirely action-based, devoid of guesswork, estimations, psychological biases, etc. Thus, custom event analytics lead to an extremely clear idea of customer sentiment and preferences.

The world of gaming analytics, due to its reach over simulated worlds where players operate within a world system and have their actions documented into game logs, shows the perfect world of analytics—one where big data is pure and structured, where customer pathways are clearly mapped and transparent, and where every aspect of customer behavior can be purely logged and analyzed.

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Jocelyn Shieh is a graduate of the University of California, Berkeley, and has a strong interest in emerging business technology, specifically cloud systems and data analysis tools, and their impact on business functions and strategy.