

Towards Understanding Game Data Work

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Keywords

Game production, data-driven game development, game data work, data work, data professionals

EXTENDED ABSTRACT

In the past decade, digital game production has actively integrated data-driven methods into its core. Most companies now use specialised tools to understand player communities, improve player experience, optimise player retention and increase revenues (El-Nasr, Nguyen, Canossa & Drachen 2021). A less explored area is what kind of game-related data work is done “on the ground” by actual human workers (Carter & Scholler 2016) and what kind of influence the data-driven model has on game developers’ professional identities (Dubois & Weststar 2021).

This research aims at clarifying what kind of data work is done in game companies and how that work is organised around workers on different levels. We ask: who does game data work in game companies, what does it entail and how does it shape our understanding of game work altogether? The study is based on two different datasets: 1) a collection of game industry job advertisements that discuss ‘data’ (public-facing perceptions of data) and 2) semi-structured interviews with 20 Finnish game industry professionals (more mundane accounts of data work). The main theoretical contribution of this research is in explicating and operationalising the idea of ‘game data work’, looking for distinguishing characteristics when compared to data work in other sectors (see e.g. Avnoon 2021).

The game industry job advertisements indicate that there are now a multitude of emerging, data-intensive jobs in game companies, often focused on different parts of the “data pipeline” or “established stack” services. Next to the observed invisibility and low status of some other emerging game industry positions (Kerr & Kelleher 2015, Tyni 2020), the job listings portray game data professionals for example as “a key hire within the company”, “at the core of decision-making” and “in the lead role”, suggesting that data-intensive processes can also have an effect on the existing power structures within studios.

Proceedings of DiGRA 2023

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We divide game data workers into three strata, which we call 1) dedicated data professionals (DDPs), 2) ‘product people’, and 3) ‘everyday game data workers’. Of these, the dedicated data professionals – e.g. data scientists, data analysts, data engineers – are most evidently visible. To make sense of the various strands of game data, they need to understand the entirety of the game service to a sufficient degree. Often, as the company’s scale of operations grows, DDPs also build custom analysis tools, sometimes even the entire data architecture of the studio. Since DDPs also often train everybody else in the use of selected tools, communication and social skills appear more central than often thought.

‘Product people’ – a term originating from one of our interviewees – typically include the CEO and other management, product owners, game producers, game designers, and people from marketing. Product people need to be, at all times, concerned with the “health of the product”, meaning that they need to be fluent with various performance indicators, originating from data analytics tools, and understand how any changes in a game service’s live operations affect its performance in real time, on multiple axis.

Finally, ‘everyday game data workers’ consist of the rest of the development staff. They are employees whose primary tasks may not seemingly be very data-intensive, yet they do their job in an environment that overwhelmingly revolves around data and data-driven design. Data seeps through everywhere within the day-to-day of the studios, and everybody working in contemporary free-to-play mobile game development needs to understand data analytics, at least on a basic level (Sotamaa, Tyni & Myöhänen 2023). At the same time, ‘data talk’, a way of communicating using data-related jargon and shorthands (cf. ‘game talk’; O’Donnell 2014), becomes a significant form of soft power.

Altogether, the data-driven development model comes across as an all-encompassing transition of game work, mostly visible on mobile development and free-to-play games, but increasingly shaping other fields as well. Based on this study, we argue that ‘game data work’ is similar in some ways with data work in other fields, but also exhibits marked differences. Dedicated game data professionals need to adapt to the unique environment of a game studio, e.g. accommodate to and support the needs of the core development team. This calls for a much closer day-to-day working relationship with creatives and other personnel. This, subsequently, makes communication a surprisingly large area of the day-to-day work, i.e. being able to communicate various things on different levels of abstraction to a wide spectrum of people. At the same time, with this process of accommodation, game data work gradually shapes other areas of game work as well.

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