



## Esports as a natural laboratory for organizational research



Esports, or competitive video gaming, is an entertainment industry where individuals or small teams compete in professional video-gaming tournaments. Esports has developed tremendously over the last decade: as of this writing, about 500 million viewers watch professional esports games per year, generating more than \$1 billion of revenue worldwide<sup>1</sup>, and tournaments feature substantial prize money (often above \$1 million per tournament). Because fine-grained data are available about what individuals and teams do during esports games, esports is receiving increased interest from AI researchers (e.g., McCandlish et al., 2018) and organizational scholars (e.g., Ching et al., 2019; Clement 2023).

During the Hackathon, we will invite you to come up with a research design using esports data to answer a research question you are interested in. Esports can be a very valuable ‘natural laboratory’ for organizational researchers in at least two ways. First, esports data allow us to **measure behavior much more granularly than in most empirical contexts**. Every action taken by someone in a video game gets recorded, which means that collective behavior and competitive dynamics can be observed directly instead of relying on the distant proxies we often need in other contexts (for instance, we can measure actual adaptation in behavior rather than tracking the survival or performance of organizations as a proxy for whether they adapt). Second, **esports often feature exogenous shocks** that allow us to identify causal effects in a cleaner way than in other contexts. “Games updates” are one example of these shocks: periodically, game developers change elements of their video games in a way that requires esports ‘athletes’ to change their individual or collective behavior (e.g., Clement 2023). Many games also feature settings where membership in teams is randomized (e.g., Ching et al. 2019) so that researchers can rely on exogenous variation in the characteristics of team members, prior collaboration among them, etc.

Prior research has used esports to study organizational adaptation, the division of labor, social networks, and imitation among competitors... but you can use it to study other questions you are interested in! To get yourself started:

- **Some useful questions to ask:** What are phenomena or theoretical mechanisms which organizational researchers often talk about but can rarely measure accurately? What are dynamics found in video games which bear significant resemblance to dynamics found in organizations?
- **Some optional materials to look at:** some papers that use Esports or video game data (Ching et al. 2019; Clement 2023) could give you ideas about the kinds of things you can observe in Esports. This [short video by The Economist](#) or this longer [movie about the beginnings of Esports](#) could also help you get to know Esports better if you are unfamiliar with it.

Ching, K., Forti, E., & Rawley, E. (2021). *Extemporaneous coordination in specialist teams: The familiarity complementarity*. *Organization Science*, 32(1), 1-17.

Clement, J. (2023). *Missing the Forest for the Trees: Modular Search and Systemic Inertia as a Response to Environmental Change*. *Administrative Science Quarterly*, 68(1), 186-227.

McCandlish, S., Kaplan, J., Amodei, D., & Team, O. D. (2018). *An empirical model of large-batch training*. *arXiv preprint*

<sup>1</sup> <https://www.statista.com/statistics/490522/global-esports-market-revenue/>