From pixel to plate: Exploring discussions of food in online gaming communities

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INTRODUCTION AND BACKGROUND

The rise of gaming as a mainstream activity has transformed how people engage with digital entertainment and social interaction. In conjunction with gaming, participation in online gaming communities such as Twitch streams has become a common accompaniment to games. Gamers engage with content creators for a variety of reasons, including gameplay tips, for entertainment and to engage with other gamers (Yoganathan et al. 2021; King & de la Hera 2020). This popularity has attracted advertisers, with the use of games, esports and content creators now becoming a common part of the marketing strategies for major brands wanting to engage with younger audiences (Elasri-Ejjaberi et al. 2020). Despite the popularity of using gaming content creators for the marketing of games and technology products, their potential to influence other areas, such as public health messaging, remains largely unexplored in research.

Health issues related to sedentary lifestyles and poor dietary habits have been a regular topic of debate within gaming cultures (Chan et al. 2022). Evidence links gaming to increased body mass index (BMI) and the consumption of energy-dense, nutrient-poor (EDNP) foods (Dindar & Akbulut 2014; Delfino et al. 2018). Sedentary lifestyles and poor dietary habits have been linked with chronic disease later in life. These health issues are of particular concern for teenagers and young adults, key demographics for gaming use, as they are at an age where they are still forming life-long habits related to their health (Arnett 2014). Understanding whether and how gaming communities contribute to these behaviours can provide valuable insights for public health.

Communities play a significant role in shaping individual behaviours, including dietary habits. Socio-ecological models of behaviour change highlight the layered influences of individual, local, community, and societal factors (Hovell et al. 2009). They posit that actors within these groups influence individual behaviour. Micallef et al. (2022) mapped socio-ecological factors potentially influencing emerging adult gamers' dietary behaviours. The research underscored the importance of community-level interactions, such as content creators, online gaming communities and esports

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players as a conduit of information and influence within gaming communities. This framework informs the current research, which examines food-related discourse within gaming communities and its implications for behaviour.

A further study (Micallef et al. 2024) focusing on *Fortnite* (Epic Games 2017) streaming communities revealed food discussions as a prevalent aspect of content creator-audience interactions. These included on-stream eating, sponsorship-driven food promotions, and food-related discussions, recommendations and advice. Apart from planned sponsorship content, the majority of conversations about food happened organically. Alarmingly, the study found that EDNP foods seemed culturally more accepted in these discussions than healthier options. These findings raised questions about whether such patterns are unique to *Fortnite* or common across other gaming communities.

This study: research aims and questions

Building on prior research, this study investigates whether discussions of food and drink are commonplace in communities centered on popular esports titles, including *DOTA 2* (Valve 2013), *Counter-Strike: Global Offensive* (Valve 2012), *Rocket League* (Epic Games 2015), PUBG: Battlegrounds (Krafton 2017), and Call of Duty (Activision Blizzard 2003). The study addresses two key research questions:

- **RQ1:** How are online game streaming communities engaged in conversations about food and drink?

- **RQ2:** Do online game streaming communities based on different esports titles engage differently in conversations about food and drink?

METHODS

This study used netnography, a methodology adapted from ethnography to explore virtual communities (Kozinets 2002; 2012). Following Kozinets' five-step process, the research involves:

1. Defining research questions, sites, and topics.
2. Identifying and selecting relevant gaming communities.
3. Observing and collecting data ethically.
4. Analyzing data iteratively through thematic analysis.
5. Reporting findings and implications.

Data collection focused on observing three prominent streamers from each of the five esports titles. Streamers were selected based on their audience size and a diversity of gender and age representation. A total of 262.5 hours of streaming content was collected, with observation notes created based on observed food-related conversations by the streamer, conversations in text chats, visible on-stream eating and other references to food, drink and health. A thematic analysis, informed by a coding framework identified patterns in the observations.

FINDINGS AND CONTRIBUTION

Findings suggest food discourse is common across gaming communities, with discussions ranging from ongoing minor mentions that create a background noise about food and health, to in-depth discussions around various health topics that verge on providing health advice. Outside of food, conversations about fitness, smoking and vaping, drinking alcohol and drug use were also observed. This positions gaming streamers as a hub of communication that may be impacting the food and health choices of young people.

This research has implications for gaming and esports industries as it highlights that the influence of gaming streamers has moved past the games that they play and is likely influencing areas of health. It suggests that the need to consider the impact that the broader gaming ecosystem (including, esports, streamers, sponsors) may have on the health of gamers and their role in protecting the health of gamers. For public health practice, the study suggests an opportunity and a need to leverage the authentic community connections that gaming streamers have with their communities to promote good health.

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