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## THE SOCIO-TECHNICAL ENTANGLEMENTS OF LIVE STREAMING ON TWITCH.TV

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### Introduction

The website and platform *Twitch.tv* is the overwhelming market leader in the live broadcast (“streaming”) of user-created videos over the internet, known primarily for the streaming of video game play. In both 2016 and 2017 over two million people regularly broadcast on the platform, resulting in over a *million years* of video content in total viewed by over one hundred million people (Twitch, 2017). Streamers range from those broadcasting for their own amusement to friends, to those who do so as their full-time job (approximately several thousand individuals). Central to the success of the platform is the potential for broadcasters and viewers to talk *directly* to one another (Sjöblom and Hamari, 2016) through a feature known as “Twitch Chat” – a chat window that appears alongside video broadcasts. This shrinks traditional distances between media producers and media consumers, generating a newfound responsiveness for those consuming *Twitch* broadcasts who find themselves able to talk directly with broadcasters, and therefore influence the broadcast itself (Taylor, 2016). The deep newness of this phenomenon, alongside the many elements that constitute it, make it an important site for studying digital labour, co-production, and gaming culture. As such, in this paper we focus on three elements of the conference theme: the shifting political and creative economies of streaming media, in our case *Twitch*; social media, platforms, podcasts, and actors in online networks; and the materialities of data, in our case a million years of video content.

### Research Questions and Framework

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In an interdisciplinary study grounded in both Science & Technology Studies and the Sociology of Work, this paper explores the entangling of the technical and social dimensions of the *Twitch* phenomenon. Specifically, we are interested in how these elements shape streamer labour, audience engagement, and *Twitch*'s wider position in contemporary media production. In the first case, we explore the nature of the current technological moment that has contributed to the emergence of live streaming: development in computer hardware required to play, live-record, and live-broadcast, video content; the rapid growth in internet speed (within the Global North) which allows for the upload, transfer and download of video data; and shifts in media consumption away from traditional television and cinema toward online services, of which *Twitch* is one (Johnson & Woodcock, 2017). We also note that the ever-expanding library of games (leisure opportunities) one might play, combined with the contraction of leisure time emblematic of contemporary capitalism, has led to a desire to *view* games one does not oneself have the time to *play*. Each of these trends has shaped *Twitch*, and we seek to trace these trends and explore the elements of the live streaming platform they have enabled, created, influenced, or determined. In the second case, we explore social elements that affect the dynamics and texture of live streaming: how these disparities in technical hardware and knowledge have shaped the geographical locations of broadcasters and streamers; how the emergence of live streaming has affected the popularity of certain kinds of games, especially independent or "indie" games and "esports"; and the increasing convergence, in only the past two or three years, between games broadcast, games play, traditional media broadcast, and games culture. We therefore look to produce a critical engagement with the sociotechnical networks that have developed over the last decade to not just allow for the *possibility* of streaming, but to position it at a place within gaming culture and changes in gaming as a pastime that have enabled such a rapid growth and sudden *ubiquity*.

## Methodology

In this paper we combine original interview and ethnographic data. In the first case, we draw upon semi-structured interviews with over one hundred professional streamers on the *Twitch* platform, lasting between ten minutes and one hour. Ethnographically, we draw on data from both online and offline investigations. The authors recorded at least one hour of observation from over two hundred *Twitch* channels, aiming to maximise the demographic variation in those observed and focusing on the *work* being performed by the broadcasters in question. To this we add offline ethnographic observation at almost a dozen gaming events in the United Kingdom, United States, Germany and Poland in the past two years.

## Findings

In seeking to understand the labour and work of *Twitch* streamers, audience interest and engagement with in the platform, and *Twitch*'s broader position in contemporary media production, we offer three findings in this paper. Firstly, that although much of the appeal of *Twitch* for aspiring professionals lies in the promise of an "easy living", *Twitch* is actually a profoundly challenging career path, requiring aspirants to work immensely long hours for long periods of time, restructure their personal and family lives, potentially damage their health and relationships, and compete with millions of others for a tiny

sliver of potential success at the apex of the platform (Johnson, 2018). This situation is created through both the technical and social elements of live streaming, which together encourage extreme levels of competition, time commitment, mental effort, and a sense of being “always on” and always available to one’s fans (Woodcock & Johnson, In Press). Secondly, that audiences find *Twitch* so compelling due to the shortening of distances between broadcasters and viewers, made possible by both the technical elements of the platform (*live*, video broadcast, fast internet speeds, chat windows, and so forth) and the social elements: a set of norms and practices that encourage direct engagement with viewers, the creation of new forms of interaction unique to the platform, the broadcaster-led gamification of *Twitch* to encourage viewer interest, and overall a deep proximity between digital celebrities and digital consumers contingent upon *Twitch*’s sociotechnical network. Thirdly, that *Twitch*’s technological and social entanglements are, above all else, unique – although other live streaming platforms exist, the ubiquity (and the attendant competition and labour dynamics) of *Twitch* make it both synonymous with live streaming, and quite unlike any other live streaming platform. *Twitch* combines social and technical elements of internet *technology* and internet *culture* in ways never before brought together, and as such – given the scope of its influence and growth – its socio-technical entanglements merit close scholarly attention. As such, *Twitch* is an exemplary example of “transnational materialities” emerging on the internet, through which individuals across the globe are bound together, in previously unknown ways, through the combination of both new technologies and distinctive social practices.

## References

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