

MARIA TÖRHÖNEN

# The Professionalization of Play

Examining the convergence of play and labour  
in online video content creation



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ACADEMIC DISSERTATION

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## Dedication

I dedicate this dissertation to my mother and daughter. The two strong women who supported and inspired me throughout this process.



# ACKNOWLEDGEMENTS

Someone once told me I should not go into research, but due to my curiosity and stubbornness, I refused to listen and here we are. I have found this process to be incredibly fulfilling and challenging, but something I would never have completed without the support of my peers and loved ones.

My greatest gratitude goes out to my supervisor Juho Hamari, who I am also happy to call my colleague. While he has given me all the support a supervisor could give, he has also presented me with incredible opportunities during this process and never treated me as a student, but rather as his equal, and always expecting me to perform to that standard which at times has been nearly impossible. However, this work would not be finished without his encouragement and supervision. A great big thank you also goes to the other co-authors of the included publications as well as the funding organisations Media-alan Tutkimussäätiö and Business Finland for making this work possible.

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Finally, absolutely none of this would have been done without the support of my loving family. The incredible expectations and belief of my mother, which I know is the purest form of love. The support from my father, my brothers, and their families. And the endless love and care from my wonderful husband, my curious daughter (who now wants to be a researcher too), and from the one still to come, you three are my world.





# ABSTRACT

The way in which we approach work and our free time has changed rapidly during the last few decades. The increasing digitalization of our everyday lives and routines, and the development of innovative digital platforms and solutions, has made it possible for us to merge our work and leisure and even turn our leisure into work. This merger of leisure and work can be seen in the emergence of concepts and ideas such as online peer-to-peer trading and resource sharing on digital platforms, but it can also be examined in the way we immerse ourselves into social media formats and casually turn our social media consumption into media production through simple interactions such as posting, sharing media content, and commenting. The modern consumer of digital and social media has rapidly turned into a prosumer of content, a consumer who also produces, and through sophisticated, platform developed incentive programs and changes in our digital economy, these activities are also taking more professionalised forms.

This dissertation will examine the increasing convergence of our labour and leisure lives through the activities of video content creators, in whom this new marriage of work and, playful leisure is representatively present. The dissertation will specifically focus on the behaviours, motivations, and practices of private individuals as video content creators and their effect on the professionalization of these activities, through five studies. The dissertation will utilize theoretical and conceptual understanding from media studies, social psychology, and game research and is primarily based on quantitative data and both on inductive and deductive research approaches. The first study of the dissertation examines the existing literature on the topic of professionalised and commercialized video content creation, which provides an insight into the topic. The second and third studies of the dissertation aim to elucidate the behaviours and perceptions of the content creators by examining the ways in which the perceptions of the activity as either leisure or labour affects the activity and its outcomes, and the actor's motivations to generate video content online. The fourth and fifth studies examine the practices of video content creators by examining the formulation of popularity in video content creation and the practices of the most popular video content creators on the video sharing platform, Twitch.

The findings of the dissertation reveal various professionalised aspects through the examination of the behaviours, motivations, and practices of video content creators, and also underline the significance of the recreational nature of the activity. The findings of study two discovered that work-oriented video content creators had the highest activity levels and outcomes (e.g., income) from the activity, of the examined groups (work-oriented, play-oriented and playbour-oriented), while the play-oriented content creators were also found to gain good outcomes from their activities with the least amount of effort and the longest tenure from the activity. Similarly to study two, the findings of study three indicated that extrinsic motivations to create video content, such as income and career development, were associated with weekly activity levels of a content creator, while continued engagement with the activity was seen to be related to intrinsic motivations such as enjoyment, and social interaction.

The findings of studies four and five also discovered strategic practices and tools that can be associated with the more professionalised aspects of video content creation, including a new category of tools used purely for revenue generating purposes (such as donation and subscription links and pop-ups). The findings also emphasized more intrinsically significant aspects of the activity, such as the importance of social interaction and the relatability of the online persona. Based on these findings, it could be argued that specific behaviours, motivations and practices of video content creators are associated with the professionalised aspects of the activity, but the intrinsic nature of the activity seems to remain as a significant contributor in the continued engagement in the activity as well as an instrument for increased authenticity and relatedness for video content creators.

# TIIVISTELMÄ

Ihmisten työ- ja vapaa-aika ovat muuttuneet merkittävästi viime vuosikymmenten aikana. Digitalisaation, kehittyneiden digitaalisten ratkaisujen ja alustojen yleistyminen ja arkipäiväistyminen on mahdollistanut vapaa-ajan ja työn yhdistämisen – ja jopa vapaa-ajan muuttumisen työksi.

Työn ja huvin yhdistyminen näkyy mm. uusien palvelumallien ja ideoiden, kuten digitaalisten vaihtotalouspalveluiden, kehittymisenä, mutta myös ihmisten tapana uppoutua sosiaalisen median kanaviin. Niissä sisällön kuluttamisesta on tullut vaivattomasti myös sisällön tuotantoa yksinkertaisten ja jopa leikillisten toimintojen, esimerkiksi tykkäämisen, sisällön jakamisen ja kommentoinnin, kautta. Modernista, digitaalisen ja sosiaalisen median kuluttajasta on kehittynyt ns. tuluttaja, eli kuluttaja, joka myös tuottaa digitaalista sisältöä. Digitaalisten alustojen kehittymisen myötä vapaa-ajan mediakäyttäytyminen on muovautunut ammatillisemmaksi.

Tässä väitöskirjassa tarkastellaan työn ja huvin yhdistymistä, etenkin videosisällön tuottajien – kuten yksityisten striimaajien ja tubettajien - toiminnassa. Väitöskirja tarkastelee viiden erillisen julkaisun kautta videosisällön tuottajien käyttäytymistä, motivaatioita ja käytäntöjä sekä niiden vaikutusta vapaa-ajan toiminnan ammatillistumiseen. Väitöskirjassa hyödynnetään aiempaa konseptuaalista ja teoreettista ymmärrystä mm. mediatutkimuksesta, pelitutkimuksesta ja sosiaalipsykologiasta. Tutkimukset pohjautuvat pääasiassa määrälliseen tutkimusdataan induktiivisia ja deduktiivisia lähestymistapoja hyödyntäen.

Väitöskirjan ensimmäinen julkaisu tarkastelee aiempaa kirjallisuutta vapaa-ajan videosisällön tuotannon ammatillistumiseen liittyen ja pyrkii näin luomaan pohjan aihealueen ymmärrykselle. Toinen julkaisu analysoi sisällöntuottajien omia näkemyksiä toiminnastaan vapaa-ajan aktiviteettina, työnä tai niiden välimuotona, ja tämän näkemyksen vaikutusta toiminnan tuloksiin. Kolmas julkaisu taas tarkastelee videosisällön tuottajien motivaatioita tuottaa sisältöjä ja motivaatioiden vaikutusta toiminnan tuotoksiin. Neljäs ja viides julkaisu tarkastelevat videosisällön tuottajien käytäntöjä, erityisesti heidän tapansa lisätä suosiotaan toiminnan parissa, ja suosituimpien videosisällön tuottajien käytäntöjä pelisisältöihin erikoistuneessa suoratoistopalvelu Twitchissä.

Väitöskirjan tuloksissa näkyy vapaa-ajan videosisällön tuotannon ammatillistuminen, mutta myös hovin merkitys toiminnassa ja sen kehittämisessä. Väitöskirjan toisessa julkaisussa havaitaan, että sisällöntuottajat, jotka suhtautuivat toimintaansa työnä, olivat selvästi tuotteliaimpia kolmesta arvioiduista ryhmästä ja saivat myös toiminnastaan eniten hyötyä mm. taloudellisesti. Kuitenkin nekin sisällöntuottajat, joille toiminta oli pääasiassa hupia, saavuttivat hyviä tuloksia, vaikka he näkivät selvästi vähemmän vaivaa tuloksen eteen. Heillä oli myös pisin kokemus toiminnasta. Kolmannessa julkaisussa havainnot olivat samankaltaisia. Vaikka ulkoisilla motivaatioilla, kuten ansioilla ja uran kehittämisellä, oli selkeä yhteys tuottajan viikoittaiseen tuotteliaisuuteen, oli toiminnan jatkuminen kuitenkin yhteydessä sisäisten motivaatioiden, kuten nautinnon ja sosiaalisen vuorovaikutuksen, kanssa.

Neljännessä ja viidennessä julkaisussa sama teema toistui. Vaikka molemmissa julkaisuissa havaittiin strategisia käytäntöjä ja työkaluja, joilla on yhteys toiminnan ammatillistumiseen, tuloksissa näkyi myös selvästi sosiaalisen vuorovaikutuksen merkitys toiminnassa ja sen käytännöissä. Myös mm. autenttisuuden ja samaistumisen merkitys korostui. Näiden tulosten perusteella voidaan väittää, että sisällöntuotannon ammatillistuminen kehittyy eri käytäntöjen, käyttäytymisen ja motivaatioiden kautta, mutta toiminnan yhteydellä vapaa-ajan nautintoihin ja toiminnan tuottamalla huvilla on tärkeä merkitys videosisällön tuotannon jatkumisessa ja kehittämisessä.

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# ORIGINAL PUBLICATIONS

- Publication I Törhönen, M., Giertz, J., Hamari J., & Weiger, W., (2021) Streamers: the new wave of digital entrepreneurship? Extant corpus and research agenda, *Electronic Commerce Research and Applications*, 46, Advance online publication, <https://doi.org/10.1016/j.elerap.2020.101027>
- Publication II Törhönen, M., Hassan, L., Sjöblom, M., & Hamari, J. (2019). Play, Playbour or Labour? The Relationships between Perception of Occupational Activity and Production among Streamers and YouTubers, *Proceedings of the 52nd Annual Hawaii International Conference on System Sciences (HICSS)*, 2558-2567. University of Hawaii. <https://doi.org/10.24251/hicss.2019.308>
- Publication III Törhönen, M., Sjöblom, M., Hassan, L., & Hamari, J. (2020). Fame and fortune, or just fun? A study on why people create content on video platforms. *Internet Research*, 30(1), 165-190. <https://doi.org/10.1108/intr-06-2018-0270>
- Publication IV Törhönen, M., Sjöblom, M., & Hamari, J. (2018). Likes and views: investigating internet video content creators perceptions of popularity. *Proceedings of the 2nd GamiFIN conference*, 108-114. CEUR-WS. <http://ceur-ws.org/Vol-2186/paper13.pdf>
- Publication V Sjöblom, M., Törhönen, M., Hamari, J., & Macey, J. (2019). The ingredients of Twitch streaming: Affordances of game streams. *Computers in Human Behavior*, 92(3), 20-28. <https://doi.org/10.1016/j.chb.2018.10.012>

# RESEARCH CONTRIBUTIONS

Publication I Törhönen, M., Giertz, J., Hamari J., & Weiger, W. (2021). Streamers: the new wave of digital entrepreneurship? Extant corpus and research agenda, *Electronic Commerce Research and Applications*, 46, Advance online publication, <https://doi.org/10.1016/j.elerap.2020.101027>

The author was the main contributor in the following: Conceptualization, Methodology, Validation, Formal analysis, Data Curation, Visualization, Writing - Original draft, Writing - Review & Editing. The other authors of the paper also contributed to the following: Investigation, Writing - Original draft, Writing - Review & Editing, and the Funding acquisition and Project administration of this paper.

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# 1 INTRODUCTION

Digital technology and digital platforms (e.g., social networks, mobile devices, digital games) have become a defining feature of modern life, where they facilitate social interactions, mediate daily routines and tasks and even extend our ways of working, from the office to our commute and sometimes even into our leisure time. Although digital technology has had a significant effect on transforming traditional forms of work (Greenwood, 1999), it has also generated opportunities for the development of new forms of digitalized and technology-mediated labour and professions, by allowing us to also transform some of our pastime activities and resources into labour and even direct economic value. This merger of leisure and labour can be seen through various emergent digital phenomena, such as carpooling (e.g., Uber), peer-to-peer trading (e.g., Etsy) and online resource sharing (e.g., Airbnb), where aspects of our leisure time or resources are given a tradable economic value through digital platforms (Kenney et al., 2016).

A more subtle transition of our leisure into labour can be seen in the increasing willingness of individuals to produce different content on digital content sharing platforms and formats (e.g., social media and digital games), where the aim is not necessarily directed at economic value, but also at participation, the attention of global audiences and the mere promise of economic gain and access. In this, individual consumers are willingly turning into hybrid “prosumers” (Kotler, 2010; Ritzer, 2015),

i.e. consumers who also produce digital content for digital platforms or who are active in shaping digital content and communities.

A prominent example of such hybrid content creation activity is the production and distribution of video content, by private individuals, through dedicated video sharing platforms such as Twitch and YouTube. Video content creation has rapidly developed into a popular “leisure” activity among digital natives, with more than 500 hours of video uploaded every minute to YouTube alone (Tankovska, 2021). This popularity has been further developed by the evolution of prominent content genres and cultures of videos and content, such as gaming (Clement, 2021a) and the emergence of new features and video formats such as short video formats on social media (e.g., Snapchat and TikTok), and video story features on platforms such as Instagram

The digital and social nature of video sharing platforms and their various interactive features have made video content creation seem almost playful, which has furthered our interpretation of the activity as something informal, unstructured, and associated with leisure. However, as video content creation has gained further popularity, video sharing platforms (and other commercial actors such as agencies and managers) have begun to generate ways for users to engage in more formal and professionalised video content creation activities, through e.g., partnership and incentive programs. This has generated a level of hybridity between leisure and labour in this activity, which has gained significant attention from researchers in recent years, and has been examined through various concepts such as digital labour (Scholz, 2012) and co-creative or entrepreneurial labour (Banks & Deuze, 2009; Bruns, 2009; Fish & Srinivasan, 2012). However, recent significant contributions to understanding this type of hybridity between work and leisure have also been made in the context of game research through the conceptual understanding of e.g., gamification, where gameful elements are integrated into non-gaming contexts (Deterding et al., 2011; Hamari et al., 2014; Huotari & Hamari, 2017) and playbour (Kücklich, 2005; Taylor et al., 2015), which describes the “productive

leisure” endeavours often associated with gaming and playful activities. The concept of playbour, in particular, will be utilized in this dissertation to develop the understanding of the productive leisure activities of video content creators. While not all video content creators generate gaming content, game cultures and gaming have had a significant impact on the development of video content creation, as a popular genre of video content (Wyatt, 2020), through a community accustomed to spectating play (Taylor, 2018), and also through dedicated game content platforms such as Twitch and YouTube gaming. Therefore, game research can provide a useful framework for the examination of these activities and the merger of work and leisure in them.

By utilizing existing theoretical and conceptual understanding from media studies, social psychology and game research, and especially our current understanding of playbour in the context of video content creation, this dissertation will be able to approach the professionalization of this inherently playful, leisure activity of video content creation from a novel perspective and extend the existing research on this topic. To further the understanding of the hybridity and the professionalisation of video content creation activities, this dissertation approaches the topic through five studies, and aims to answer the research problem: *How do the behaviours, motivations and practices of video content creators affect the professionalization of the activity?*

## 1.1 Research questions

The development of more professionalised aspects of “amateur” content creation, has ignited the research interest in such activities and also the occupational nuances related to it. While some scholars have seen the professionalisation of digital content creation as commodifying the user (Fuchs, 2014; Kücklich, 2005; Scholz, 2012; Terranova, 2013), others have considered these activities as innovative and creative forms of

entrepreneurship (Benkler, 2006; Bruns, 2009; Jenkins, 2006a, 2006b; Werbach & Hunter, 2015), forming a perplexing debate around the nature of this activity.

As a novel form of digital content creation, video content creation has also gained significant research attention from various disciplines in recent years, and the debate surrounding the nature of the activity seems to have continued, forming a gap in our understanding of this activity as hybrid work. To further the understanding of the professionalisation of the activity, and to gain a summarized perspective of this phenomenon, the first study of this dissertation focuses on collecting and analysing the relevant literature related to occupational and commercial aspects of video content creation and aims to answer the following research question:

*RQ1: What is the state of the art of academic literature related to the occupational and commercial characteristics of video content creation?*

Goal-oriented behaviour and a level of strategic thinking has often been associated with traditional forms of work, especially forms of entrepreneurship (Korunka et al., 2003). Similar associations have also been identified in the context of video content creation, where researchers have identified different work-like or entrepreneurial endeavours related to video content creation activities (e.g., Ashman et al., 2018; Guarriello, 2019; Johnson & Woodcock, 2019a). While the elements of work are becoming more apparent in this context, the blurred boundaries of work and leisure in this activity, and their visibility to the content creators themselves, still require further inquiry. It is important to examine how the creator's perception of the activity (as work, or leisure or something in between) is reflected in the activity and its outcomes. By utilizing our understanding of concepts such as digital labour (Fuchs, 2014; Scholz, 2012) and playbour (Kücklich, 2005; Taylor et al., 2015) and examining the perceptions of the video content creators and their effects on their activities and outcomes, this

dissertation can develop the understanding of the professionalisation of video content creation and the hybridity of the activity. Therefore, the second publication aims to answer the following research question:

*RQ 2: How does the video content creator's perception of the activity as play, playbour or labour affect their activities and outcomes from their content creation activities?*

The study of motivations has also become a prominent topic of research related to video content creation (e.g., Bründl & Hess 2016; Lu et al., 2018; Zhao et al., 2018). While many studies have examined the predominant factors influencing video content creation overall, these studies have yet to fully acknowledge the hybridity and the occupational developments in this activity, by examining the effects of occupational aspects of the activity (e.g., career development and income) as motivations to produce video content. By examining the effects of these extrinsic motivations in line with the intrinsic motivations to generate video content, the third publication included in this dissertation furthers our understanding of, not just the motivations of video content creators but also the hybridity and professionalisation of the activity and aims to answer the following research question:

*RQ3: What intrinsic and extrinsic motivations explain video content creation?*

Online celebrity (Khamis et al., 2017) and the attention of online audiences has rapidly developed into a “currency” on digital platforms (Davenport & Beck, 2001; Huberman, 2013), which content creators are required to have in order to access economic rewards and more occupational structures for their activities for example through platform partnerships (Twitch, 2018). The development of popularity has become a strategic endeavour for content creators, which has been evaluated in prior

research through e.g., platform data (e.g., Cha et al., 2007; Szabo & Huberman 2010) and observational methods (e.g., García-Rapp, 2017). However, an examination of the popularity formulation practices and strategies from the perspective of the content creator, can extend our existing understanding of popularity formation tactics, and their relationship to the of professionalization of video content creation. The fourth publication, therefore, approaches the topic through the following research question:

*RQ4: What aspects of video content creation do content creators consider central to creating online popularity?*

The development of video content creation has been shaped by the development of video sharing platforms. These platforms act as a global stage, where access is granted to everyone, but only a select few are allowed access to concrete rewards and services provided by the partnership programs of these platforms (Spangler, 2018). Gaining a partnership status often requires a certain level of strategy and work. Especially on newer platforms such as the game streaming platform Twitch, the necessary goals to achieve this status are directly linked to productivity levels, and the number of viewers and their engagement. Therefore, the analysis of the common practices and tools used by partners on these platforms may provide more insight into the professionalised approaches to video content creation and so develop our understanding of strategies and approaches of these hybrid workers. To analyse the elements utilized by creators on Twitch, the fifth publication utilizes the theory of affordances (Bucher & Helmond, 2017; Gaver, 1991; Gibson, 1979; Norman, 1988; Leonardi, 2013), which has been widely utilized also in a digital context (e.g., Majchrzak et al. 2013; Treem & Leonardi 2013). Using the theory of affordances, publication five aims to answer the following research question:

*RQ5: What tools and elements are utilized by the most popular video content creators on Twitch?*

As stated by Banks and Deuze (2009) framing an activity as labour, requires more understanding of the types of underlying practices, motivations and behaviours involved. The understanding of these practices and behaviours will determine much of the way the activity is perceived in terms of a traditional understanding of labour (Banks & Deuze, 2009; Deuze, 2006) and will also guide the development of the activity in the future. Therefore, through these five research questions, this dissertation aims to not only develop the understanding of the state-of-the-art academic literature on the topic, which currently frames the activity and its interpretation, but also to further our knowledge of the individuals behind the video content, together with their behaviours, practices and motivations, in a way that will help define how this activity develops in the future. An increased understanding of the professionalisation of perceived leisure activities such as video content creation, can potentially begin to extend our understanding of the emerging labour practices and professions in the digital realm, and also develop our understanding of how we balance, and approach work, leisure and their hybrid forms in the future.

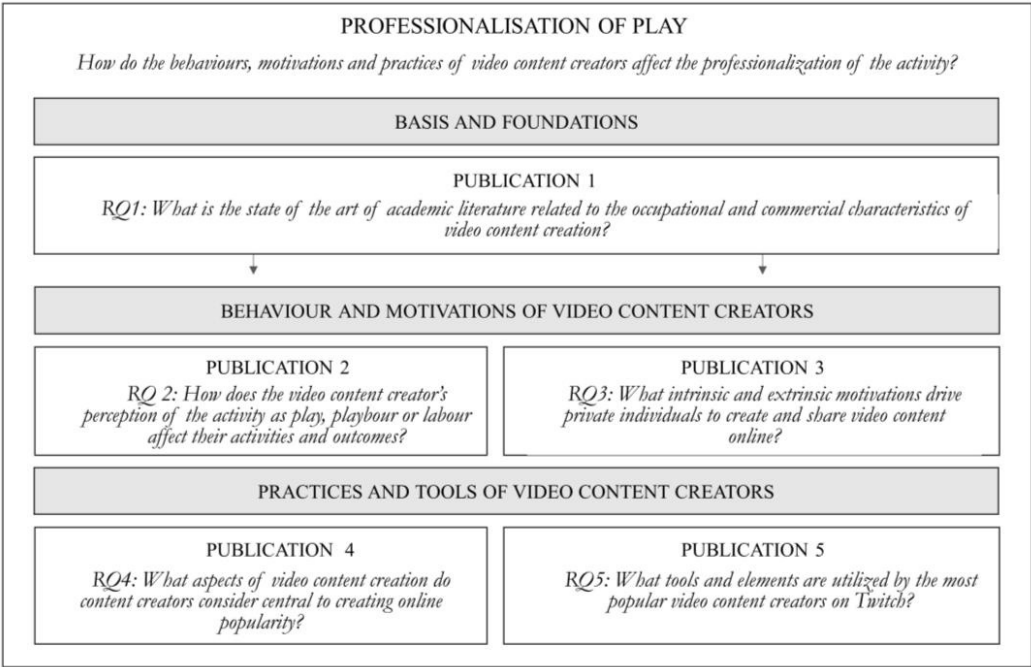
## 1.2 Publications included in this dissertation

The publications included in this dissertation all represent independent studies and approach the research problem from different perspectives and through different research questions. The first publication provides an overview of the existing literature, aiming to develop a basis for understanding the wider topic of this dissertation. The second and third publication aim to approach the research problem from the content creators perspective, and examine their behaviours and motivations, while also



examining the hybridity of the activity and its impact on the professionalisation of the activity through existing conceptual and theoretical understanding. Finally, the fourth and fifth publication of the dissertation further the approach to the research problem by examining the activity from the perspective of popularity, and through practices and tools that can be seen to develop and extend the content creators popularity, as a significant “currency” in the digital economy.

**Figure 1.** Overview of publications



The following sections of the dissertation will provide further background to the phenomenon of professionalised video content creation and introduce relevant conceptual and theoretical frameworks. The dissertation will also provide an overview of the methodological foundations for the dissertation and then present the findings and conclusions of the dissertation.

## 2 BACKGROUND & THEORY

### 2.1 The development of the video content culture

#### 2.1.1 Brief history of internet broadcasting

According to T.L. Taylor (2018), the origins of online video content creation can be traced back to the development of broadcasting media such as TV and Radio, where the extended use of unscripted formats such as reality TV quickly led to the demand for more “organic” content and niche topics. This demand was partially met through the development of new online platforms such as YouTube and Vimeo, which provided users with the ability to consume and produce user generated video content, on a global scale.

Although this type of “cam culture” was already evident before the emergence of these platforms (Taylor, 2018), the launch of YouTube made the culture more accessible and approachable by allowing the broadcasting of numerous topics in a digital, global environment initially having very few limitations or regulations regarding the type of content provided on the platform (Burgess, 2012). YouTube and other similar services such as Vimeo focused on the continuous development of technology for the platform, allowing more innovative features and modes for engagement, which subsequently increased the attraction of the services (Burgess & Green, 2009).

Video content sharing services like YouTube grew in popularity throughout the 2000's gaining attention from different audiences and communities around the world. The popularity of online video content and the emergence of dedicated audiences and communities sparked the interest in the market which resulted in the emergence of competing technology (e.g., live or synchronous video streaming), the advancement of new business models (e.g., platform partnership programs) and also competing video sharing platforms such as Twitch TV.

A significant shift in the history of video content creation was the emergence of live (or synchronous video) streaming and competing platforms such as Twitch TV (formerly known as Justin TV) (Burroughs & Rama, 2015). Twitch provided the audiences of online video content with something entirely new, primarily by focusing on a specifically popular genre of content, gaming, and synchronous video content with direct interaction. Twitch made significant advancements in the level of interactivity in their service through numerous tools, including live chat features (Burroughs & Rama, 2015; Taylor, 2018). The emergence of live streaming also initiated numerous other services competing with the likes of Twitch e.g., Periscope, but none of these services gained similar popularity as Twitch in the western markets. As prominent and popular global platforms, Twitch and YouTube, are often referred to in this dissertation as examples of video content creation services.

The emergence of live streaming and synchronous video also initiated a new wave of integrating video format into social media, especially the emergence of the short video format, with the development of new social media services such as Snapchat and later TikTok. Live streaming and short video format also began to be integrated into existing popular social media formats such as Facebook and Instagram, and have furthered the development and popularity of video content creation. The history of video content creation has been defined not only by technology and different video sharing platforms, but also by innovative approaches to the economy and the business

models of these services and their effects on the service users. Video content platforms primarily offer their services for free, but the underlying economy is still developed around the users and their activities.

### 2.1.2 Platforms, business and the professionalisation of play

The role of platforms in the development of the economic structures of video content creation can be argued to be significant, if not defining (Kenney et al., 2016). Digital platforms such as Google, Amazon or Tencent facilitate numerous societal, cultural, and economic functions through technological interfaces, leading into the development of new platform facilitated economies and business models (Kenney et al., 2016; Kenney et al., 2019). For video content creation, the power of platforms as places of content distribution is significant. The platforms have power over the way in which users interact with each other, and also over discoverability of certain content and users and the value creation and capture the platforms afford. Within video content creation, much of the power and resources of popular video sharing and streaming platforms in the western markets are centred onto two main global platforms, Google, with YouTube (Tankovska, 2021) and Amazon with Twitch (Clement, 2021b). YouTube was notably purchased by Google early on in its development (Marshall, 2006), and this merger/acquisition allowed the service to make significant changes in its monetisation structures and start taking content creators into consideration in their revenue share and business models through the YouTube Partner Program (YPP) (Burgess, 2012). Similarly, to YouTube, Twitch was also acquired by Amazon early on in its rise to popularity (Basich & Gage, 2014). The acquisition was also followed by the introduction of increased user-centric monetisation structures and advertising through the development of partnership/affiliate programs (Twitch, 2018).

Already in the early stages of the development of these platform supported partnership programs, the focus was on allowing content creators to gain a share of the revenue generated on the platform through their content, but in return these programs aimed at increasing the productivity and engagement of their users and audiences (Anonymous, 2007). As structures and resources for partner/affiliate programs developed over the years, this trade-off of productivity and audience attention has become further integrated into the access requirements of these programs (e.g., Twitch program requirements) (Twitch, 2018). However, simultaneously the support and resources for content creators have improved and at their best, programs can provide a steady flow of income for content creators therefore developing the professional levels of the activity (Burgess, 2012).

While the partner program for YouTube has developed extensively over the last decade and become harder to achieve for aspiring video content creators, Twitch has made significant attempts to facilitate content creators at different levels of their activity and tenure. Twitch initiated their affiliate program in 2011 (Statt, 2017), with different tiers of achievements, which were accessible for content creators of different levels. The Twitch partner/affiliate program has also utilized numerous gamified approaches (Siutila, 2018) from the beginning of the program, which has appealed to their primary demographic of gamers. The different tiers of the program have allowed content creators to have different levels of engagement with the platform and thus have extended the development of hybridity between work and play within this activity.

In addition to the direct resources accessible for popular content creators through platform partner/affiliate programs, video content creators may also generate external revenue streams through different commercial partnerships and collaborations often associated with their “micro-celebrity” status or their social media influence and attention (Abidin & Ots, 2015; Woodcock & Johnson 2019a). The term “micro-celebrity” (Senft, 2009; 2013) was initially coined to describe this form of “digital”

celebrity status gained through digital environments and within smaller, local or niche communities. The term focuses on the communities and attention created through social media but can also be applied to communities reached through other digital environments. The term social media influencer (Khamis et al., 2017) is also used almost synonymously to micro-celebrity, but more specifically refers to the commercial influence that a person has over a specific group of people. The commercial use of content creators is therefore also often referred to as “influencer marketing” (Freberg et al., 2011; 2018; Xiao et al., 2018).

As public figures, video content creators can therefore form relationships with commercial entities, for example through brand ambassador roles, sponsorship deals, and commercial partnerships (Khamis et al., 2017). Popular content creators can generate revenue by selling their own merchandise, crowdsourcing, or adding subscription or donation services to their profiles if these are not included in the platform programs (Johnson & Woodcock, 2019b). The development of the commercial potential of this type of publicity has also enabled the emergence of specific commercial entities and representatives for digital content creators most notably known as MCN’s (Multi-Channel Networks), who represent multiple creators and form commercial collaborations between these creators and brands (Gardner & Lehnert, 2016).

Utilizing platform specific resources and monetization structures as well as their public status, video content creators may generate significant revenue streams from their activities, which can be seen in the income of some of the most popular video content creators, e.g., PewDiePie (Berg, 2016). In addition to audience management (Wohn & Freeman 2020), self-branding (Khamis et al. 2017) and continuous content generation, the management of these different revenue streams can require significant entrepreneurial capabilities and strategic thinking associated with the professionalization of the activity. This has led to a further merger of leisure and labour within the activity,

and so requires a further examination of how the digital economy of the user has developed and functions.

### 2.1.3 The digital economy of the user and the attention economy

Through the development of sophisticated technology and digital platforms, the role of the consumer has also developed from being a more passive consumer of professionally produced media content, to becoming an active contributor and “amateur” producer of content (Bruns, 2009; Kotler, 2010; Ritzer, 2010; Van Dijck, 2009). The platforms have not only changed the way in which we interact with content, but also the way in which we can produce content and how its value is generated and traded. This transition to a more active and collaborative user on digital media formats has also been described in the conceptual understanding of the term “participatory culture” (Jenkins, 2006a; 2006b), and through hybrid terms such as “produser” (Bruns, 2009; Van Dijck, 2009) and “prosumer” (Ritzer, 2010; 2015) which have extended the examination of this hybrid user, and their value in the digital economy.

The prosumption power of audiences has been a debated part of the digital economy ever since the emergence of the first broadcasting media formats, i.e. television and radio. The Blindspot debate initiated by Dallas Smythe in the 1970’s (Smythe, 1977) sparked an increasing interest in the immaterial value of the audience, as the debate proclaimed that television audiences already produced commercial value for media organisations and advertisers by consuming commercials during their media content consumption. This examination of audience labour has been further developed to study prosumption activities in digital media formats. Throughout the last decades, digital hybrid work has been examined as either commodifying, almost exploitative labour through concepts such as free labour (Terranova, 2013), digital labour (Fuchs, 2014;



Scholz, 2012), and immaterial/affective labour (Terranova, 2013) or as a more co-creative process with a significant cultural and economic contribution for individuals as well as organisations (Benkler, 2006; Bruns, 2009; Jenkins, 2006a, 2006b; Werbach & Hunter, 2015). According to Banks and Deuze (2009) the modern media consumer has been redefined as a driver of wealth production within the new digital economy, whose engagement and participation is actively being pursued, even if still imperfectly understood, by media companies (Green et al., 2009). The conceptual understanding of these processes describes the different hybrid forms of labour as extensions of our traditional understanding of work and entrepreneurship, and provides new avenues for individuals to innovate their traditional ways of working and their leisure.

Interestingly, a prominent discipline of research providing increasingly innovative perspectives and conceptual frameworks to approach leisure, labour, and their hybridity has been game research. Through the development of concepts such as gamification (Deterding et al., 2011; Hamari, et al., 2014; Huotari and Hamari, 2017) and playbour (Kücklich, 2005; Sotamaa, 2007; Taylor et al., 2015), game research and game cultures have provided new information on how game mechanics and gameful elements can be utilized to turn work-like processes to become more playful (gamification), and also knowledge about processes within game cultures where playful activities are becoming productive work-like processes (playbour).

Playbour was initially developed as a concept that examined the precarious labour of the modding culture in gaming (Kücklich, 2005). The original interpretation was associated with “free labour“ (Terranova, 2000), as the type of playbour examined in modding cultures was considered unclassifiable in traditional terms of work and leisure (Kücklich, 2005). This interpretation has since been extended to examine other productive activities related to gaming, e.g., gold farming (Goggin, 2011), and also outside gaming such as social media and blogging (Archer, 2019). This examination of hybrid forms of work through the conceptual understanding of playful activities

provides particularly important information about the processes related to the increasing levels of productivity within digital media formats, and can enable us to examine other areas of digital participation such as video content creation, that already has a strong association with game cultures and gaming through popular content genres and game streaming platforms such as Twitch.

The foundations of the Blindspot debate (Smythe, 1977) have also been extended through the conceptual understanding of the attention economy (Davenport & Beck, 2001; Huberman, 2013), where the attention/consumption power of the audiences is considered central to the value creation process, and traded as a commodity. On video sharing services, and also other social media platforms, the attention economy seems to have become intertwined with the platform economy, where platforms have begun to use the attention of the audience as a determinant of the content creators' value on the platform (e.g., Twitch, 2018). In practice, this is evident in the way that platforms evaluate the success, visibility and value of a content creator through attention centric metrics such as followers and views, and use these metrics as a gateway to different tiers of partnership with the platforms (e.g., Twitch, 2018). The relevance of the attention economy has become evident for content creators aiming to professionalise their activities through different occupational elements of the activity. Research around this topic has also increased in recent years, focusing on topics such as video content creator popularity (Cha et al., 2007; García-Rapp, 2017; Goodwin et al., 2016) and increased viewer engagement (Abidin & Ots, 2015; Kabadayi & Price, 2014; Lu et al., 2018).

## 2.2 Theoretical frameworks - behaviours & practices

In order to gain further understanding of the practices and behaviour related to professionalised video content creation, this dissertation utilized existing theoretical

conceptions to further the understanding of video content creation motivations (study 3) through an extended understanding of self-determination theory (SDT) (Deci & Ryan, 2000, 2002; Ryan & Deci, 2000) and to analyse practices on video sharing platforms (study 5), through the lens of affordance theory (Bucher & Helmond, 2017; Gaver, 1991; Gibson, 1979).

### 2.2.1 Motivation and the Self-Determination Theory

This dissertation also aims to examine the motivations to generate video content creation (study 3), which was carried out by utilizing one of the leading theoretical frameworks on human motivation Self-Determination Theory (SDT) (Deci & Ryan, 2000; 2002).

The motivation to create video content has been examined through different perspectives in previous research for example in the context of specific video sharing platforms (e.g., Tang et al., 2016) and different demographic factors (Ferreira et al., 2017; Lu et al., 2018). Previous studies on video content creation motivations have also utilized different theoretical frameworks such as the Uses and Gratifications theory (Kim et al., 2017; Lottridge et al., 2017), Social Capital (Bründl & Hess, 2016) and SDT (Zhao et al., 2018), which was also utilized in study three of this dissertation.

The self-determination theory was developed by Ryan and Deci (Deci & Ryan, 2002; Ryan & Deci, 2000) to describe the different psychological motivations that direct behaviour. While the theory considers that self-determination is based on three innate needs that drive self-motivation (competence, relatedness, and autonomy), it also differentiates between the extrinsic and intrinsic factors and influences that may drive or direct human behaviour. According to Deci and Ryan (2000) intrinsic motivations are seen in activities that are done “for their own sake” or for their inherent interest and

enjoyment, while extrinsic motivations are seen in activities done for reasons other than their inherent satisfactions (e.g., external reward or punishment) (Ryan & Deci, 2020). As such, this theory provides fruitful grounds to examine the types of motivations that may drive the creation of video content, and also allows us to differentiate between the types of intrinsic motivations derived from the activity and the more extrinsic motivations related to the professionalization of the creation of video content (e.g., monetary gain, recognition and fame). This allows us to evaluate the hybridity between playfulness and leisure and the professionalised aspects in the motivations of the activity and therefore develop our understanding of the behaviours of video content creators.

## 2.2.2 Affordances

The theory of affordances (Bucher & Helmond, 2017; Gaver, 1991; Gibson, 1979; Leonardi, 2013) allows an examination of the way we interpret different objects and tools in their set environment. For this dissertation, this theory was used to gain further insight into the types of affordances provided by tools and services which can be found on video sharing platforms such as Twitch.

The theory of affordances was originally introduced in the field of visual perception (Gibson, 1979), but has developed into much wider use within fields of design and information sciences (Schrock, 2015), and more recently in the field of human-computer interaction (Norman 1988; Leonardi, 2013). While there is much debate around the use of the affordance theory, it is frequently used to interpret the meaning and uses of physical and digital objects and tools, and thus provides a useful framework for examining the contextual interpretation of services such as video sharing platforms. The theory of affordances has been utilized in numerous ways, but the most common use of affordances is to either interpret elements and objects according to their

interactive nature with the user, or as more static objects within a set environment (Bucher & Helmond, 2017; Gaver, 1991; Schrock, 2015).

The theory of affordances has also been utilized to examine contemporary communication technology and digital media environments, such as social media environments where they have been particularly used to examine the types of social affordances (Bucher & Helmond, 2017) that are generated through communicative and interactive processes. The understanding of social affordances highlights the importance of the user and their interpretative power when examining set elements or designs, within a digital environment. Social affordances are considered to be formed through interaction with the element or design and therefore, while elements in digital or social media environments may be designed for specific purposes, the element of user interaction may further its social affordances (Norman, 1988). Previous research on digital and social media has identified numerous types of social affordances (e.g., Majchrzak et al. 2013; Treem & Leonardi 2013) and the existing understanding of affordances is further utilized in publication five to analyse the affordances of the Twitch video sharing platform.

### 3 METHODOLOGY

This dissertation seeks to answer a wider research question: *How do the behaviours, motivations and practices of video content creators affect the professionalization of the activity?* As the rise of video content creation and related cultures and practices can be regarded as a relatively novel phenomenon on a surface level (i.e. publication 1), the motivations and practices of a video content creator can also be investigated through more established conceptualizations of motivations and practices. Therefore, this dissertation approaches the research problem both inductively (i.e. by seeking to discover new nuance) and deductively (i.e. by seeking to confirm and infer).

The inductive phases of the research consisted of the online observation of 100 popular video content creators on Twitch, which were analysed in study five, and by preliminary, semi-structured interviews with seven video content creators, and observations undertaken at video content creator targeted events (e.g., Tubecon) and on online platforms which were utilized in the development of the survey items used in study four. The deductive phases of the research consisted of the examination and identification of relevant theoretical and conceptual frameworks which were used to develop hypotheses used for studies two and three. The data used for the analysis and testing of hypotheses was collected through an online survey. The methods and data for each study is described in Table 1, and a further description of research data and analysis methods can be found in the following sub-chapters.

**Table 1.** Methodology

<b>Publication</b>	<b>Publication 1</b>	<b>Publication 2</b>	<b>Publication 3</b>	<b>Publication 4</b>	<b>Publication 5</b>
Dissertation Research question	What is the state of the art of academic literature related to the occupational and commercial characteristics of video content creation?	How does the video content creator's perception of the activity as play, playbour or labour affect their activities and outcomes?	What intrinsic and extrinsic motivations drive private individuals to create and share video content online?	What aspects of video content creation do content creators consider central to creating online popularity?	What tools and elements are utilized by the most popular video content creators on Twitch?
Research approach	Combination of scoping and theoretical review	Correlational/ deductive	Correlational/ deductive	Descriptive/ inductive	Descriptive/ inductive
Data type	N/A (review)	Quantitative	Quantitative	Quantitative	Quantitative
Data	N/A (review)	Survey data (N=382)	Survey data (N=377)	Survey data (N=385)	Observations (N=100)
Data gathering	Combination of scoping and theoretical review	Online survey	Online survey	Online survey	Digital/online ethnography

## 3.1 Data

### 3.1.1 Literature search

For study one, the data for the literature review on existing research on occupational video content creation was collected using a combination of a scoping review (i.e. Archer et al., 2011; Arksey & O'Malley, 2005) and a theoretical review (i.e. DeLone & McLean, 1992), as opposed to, for example, a systematic review that aims to gather an exhaustive review of literature and primarily focuses on the empirical evidence that is available on a topic (Paré et al., 2015). The use of a scoping review technique enabled the researchers to examine the development of relevant literature, and also the scope of the available literature. It was also deemed as an appropriate method of review, due to the complex and emergent nature of the topic, and enabled the team to focus on key concepts (and their interpretation), and terminology seen within the literature. However, to also examine the theoretical background of the topic, the literature review was

combined with theoretical reviewing techniques, which allowed the team to determine the theoretical frameworks associated with the topic.

The literature was searched using a pre-determined list of search words on the titles, abstracts, keywords, and full texts found on the Scopus Database. The list of keywords was developed through an explorative investigation of the literature, identified through a preliminary literature review that was presented at a Tampere University hosted seminar “Spectating Play” in 2017. The identified search words were associated with the key occupational elements and aspects of video content creation, and the Scopus database was selected as the source for the data collection of this article as it offers a diverse range of peer-reviewed scholarly articles, and allowed for a lean, but inclusive review process.

The search yielded 893 records, and based on a primary analysis of the title and abstracts of these results; 126 sources were found to be potentially relevant for the scope of the research, and therefore selected for further examination. After further examination, a final sample of 75 sources were identified that met the pre-determined selection criteria (full paper available, peer-reviewed papers in an international publication, available in English, and focusing on the occupational activities/aspects of private video content creators).

The identified 75 sources for the literature review were all reviewed and analysed by two members of the research team. Each source was individually analysed for specific identifiers in three categories: bibliometric identifiers, paper type units, and the topic or outcome specific units. The bibliometric identifiers consisted of publication information including author information, title of the article, year of publication, source/journal title, the volume, issue and article numbers and abstract information. Paper type units provided more detailed identifiers related to the topic of the literature review, consisting of information related to the data of the paper (empirical/non-empirical), the method of analysis, and the theoretical/conceptual framework utilized



in the paper. The outcome specific units were collected to represent the theme of the paper by collecting the domains of research, the outcomes of the papers, and the perception of the activity as commodifying/exploitative work, as productive creative work or as other/neutral. The terminology and definitions derived from the sources were collected individually, aiming to identify the different terminology and definitions for the video content creator as well as the activity of video content creation seen in, each source.

### 3.1.2 Online survey

An online survey was selected as the data collection method for studies two, three and four, as it enabled the large-scale examination of video content creators' behaviours, motivations, and practices. The survey was developed using established conceptualizations and psychometric scales used to measure motivation for social media and digital media engagement and materials gathered through seven semi-structured interviews with video content creators, and online observations of video sharing platforms and creators.

Before the actual data collection, the survey was piloted to establish its technical functionality, readability, and the internal consistency of its psychometric constructs. The pilot revealed some readability issues with two items, which were subsequently slightly reworded. To avoid common-method bias (Podsakoff et al., 2003) and to ensure no patterns could be detected between the different the psychometric items, these items in the survey were randomized. The data gathering through the survey was conducted during 2016 and 2017. The survey was distributed on numerous dedicated groups and channels on social media such as Reddit and Facebook, where the targeted groups and channels were either dedicated to a specific topic related to video content creation, or

broader themes popular among video content creators (e.g., gaming & beauty). Video content creators were also approached through video content sharing services such as Twitch, YouTube and Vid.me (closed in 2018), and through mailing lists.

To gain an inclusive sample, the survey was directed at different types of video content creators with different levels of involvement in the activity (e.g., beginners, professionals, etc.). The survey was created and distributed in English, as most distribution channels for the survey were primarily popular in English-speaking regions. Participants were offered the possibility to win a product valued at \$65 as an incentive to participate in the survey. After the removal of incomplete or invalid responses, the final data set consisted of 385 respondents from 30 countries (validity checked based on a test question included in the survey). A more specific description of demographic information can be found in Table 2. The data for each study was collected through separate sections of the survey, and data for inclusion in different studies was examined prior to each analysis. Due to some ineligible responses for different survey sections, the sub-samples used for the different studies differs slightly (study 2: 382, study 3: 377 and study 4: 385).

**Table 2.** Demographic information, sample 382 (Publication 2)

		N	%			N	%
Gender	Male	280	73.6%	Employment	Part-time	51	13.2%
	Female	97	25.1%		Full-time	128	33.7%
	Other	5	1.3%		Student	135	35.5%
Age	< 17	31	8.8%	Unemployed	63	16.3%	
	18-24	163	43.0%	Retired	5	1.3%	
	24-34	128	33.2%	Primary video format	Live-streams	25	6.5%
	35-44	37	9.6%		Pre-recorded video content	124	32.1%
	44 >	21	5.4%		Both	233	61.4%
Income	Yes	174	46.1%	Geographic origin	US	122	31.9%
	No	208	53.9%		Finland	149	39%
					Other	111	29.1%

### 3.1.2.1 Measuring the video content creator's perception of their activity as work, playbour or play

For study two, three dummy variables were constructed to represent the video content creator's perception of the activity as either work, playbour, or play. These were then used to analyse four dependent variables: the amount of months that the personal broadcaster had been active in their video content creation activities, the estimated hours they spent on producing and distributing their video content per week, the average hours they spent promoting their video content on other social media platforms, and their total income.

The independent dummy variables were generated using four statements from the online survey, which were used to measure the video content creator's perception of the activity as work or play. Respondents answered these statements using a 7-point Likert scale, where each response item on the scale reflected a specific experience of the activity as work or play. The average values gathered from these responses were divided into the three categories/groups, which identified with a statement on a scale for work or play: the work-oriented group (1), the play-oriented group (7), and the playbour group (4). The cut off point for the work group was  $<3.75$ , and for the play group  $>4.25$ .

The dependent variables measured the tenure of the video content creator (*the amount of active months involved in the activity*), the level of involvement/activity in video content creation (*estimated hours spent producing and distributing video content per week*), the amount of promotion activity they engage in, in addition to their video content creation activities (*average hours spent promoting video content through social media channels*), and the total income from the activity (*total income gained*). The respondents gave an estimation of these aspects

of their activities on a pre-determined list of frequencies where the maximum value was used to interpret the data.

### 3.1.2.2 Measuring the intrinsic and extrinsic motivations related to video content creation

Study three utilized nine independent variables and two dependent variables to examine the relationship between the intrinsic and extrinsic motivations of video content creators, and their weekly activity levels and their intention to continue video content creation. These constructs of the analysis utilized measurement instruments extracted from existing research examining social and digital media behaviour and motivation. For the online survey, the wording was adapted to highlight video content creation. The constructs measuring intrinsic motivation were: skill development (Nov & Ye, 2010); social interaction (Lee et al., 2015; Leung, 2001); altruism (Hsu & Lin, 2008); self-expression (Lee et al., 2015); enjoyment (Heijden, 2004; Nov & Ye, 2010); and, relaxation (Leung, 2001). The constructs developed to measure extrinsic motivations were more related to the professionalised aspects of the activity including career development (Nov & Ye, 2010); income (Lakhani & Wolf, 2005; Leimeister et al., 2009); and reputation (Hollenbaugh, 2010; Lee et al., 2015).

The study also utilized two dependent variables, which were: the average time invested weekly on content creation, and the intention to continue video content creation. The average time invested weekly on content creation was a combination of the estimated hours per week spent on video content creation and dissemination through video sharing platforms, and the average hours spent on promoting the video content and channel on different social media outlets and channels. Both activities were used in this variable to highlight the nature of the activity and the different activities involved in preparing, delivering, and promoting content through different channels. The second dependent variable, intention to continue video content creation, was

developed from an existing measurement instrument, that considered the behavioural intention to use a system (Bock et al., 2005; Venkatesh, 2000), and was used to examine the desire to continue the activity in the future.

### 3.1.2.3 Measuring aspects of popularity

To measure how important specific pre-determined elements of video content creation were on the popularity of a content creator, and how much effort content creators placed on these aspects, the study utilized data drawn from two survey questions: *“Please rate how important you estimate the following things are in regards to the popularity of the videos you share online?”* and *“How much effort do you put in the following things when producing and sharing videos online?”*. Each respondent was presented with a pre-determined list of aspects related to their video content creation activities, which was developed based on seven preliminary semi-structured interviews with content creators and observations of video content creators and different video sharing platforms. Respondents provided their responses on a 7-point Likert scale (1 indicating “strongly disagree” and 7 indicating “strongly agree”).

### 3.1.3 Observations

The data for study five was gathered through a form of digital ethnography, which is a data collection method enabling the systematic observation of participants or users in computer mediated or technology mediated environments (Murthy, 2008). The data was gathered thorough the video sharing service Twitch, which at the time of the data collection was the most popular video sharing service in the western region, especially in regard to providing a platform for live streamed video gaming content. The chosen

approach was based on an existing understanding of affordances (Bucher & Helmond, 2017; Gaver, 1991; Gibson, 1979; Leonardi, 2013), and this method was selected to add a more external observation into the practices of video content creators. The use of observations enabled the researchers to reach the most popular video content creators and examine their practices. Observation can also be considered to provide a more realistic and less subjective examination of the topic, and provided the researchers with the ability to examine the video content creators during their activities and in a natural setting.

The collected data was based on public video content provided on the platform and the profile information associated with the observed accounts. Data was collected from one hundred streamers on Twitch, who were selected based on their status among the most popular streamers on the platform at the time of the data collection (28th of April and the 9th of June 2017). The popularity status of the streamers was based on a list of the 250 most popular streamers on the Social Blade service (Social Blade, 2017) and their follower count.

The data collection was purposefully limited through specific selection criteria. Only English-speaking private individuals were examined, and only active accounts were selected (where the streamer had been active in the past year and the video archive was freely available). These selection criteria were used to limit the data to private individuals who generated video content instead of larger commercial organisations or institutions, and to ensure the researchers were able to fully understand the stream content for an accurate data collection. The third selection criteria was also generated to ensure the research team had access to the stream content and it was freely available for further analysis.

The data consisted of the latest live stream recording (90%) or an on-going live-stream (10%), and each stream was examined for 5-15 minutes. The streamer profile associated to the account was also analysed. As the data collection focused on the video

content of the streamer and their profile, some elements such as the chat, were excluded from the analysis. Observations were conducted on a desktop or laptop computers, which ensured best visibility and layout for the content and the profile page of the streamer. More specific information of the observed streamers can be found in Table 3.

**Table 3.** Observed streamers (Publication 5)

Variable	N	Variable	N
Total number of streams investigated	179	Gender Female	11
	100	Male	85
	28	Female and Male (streaming as group)	4
	22		
	29		
Content type	24		
	12		
	10		
	10		
	9		
	4		
	3		
	3		
	3		
	2		
	2		
	2		
	16		

## 3.2 Analysis methods

### 3.2.1 ANOVA

The data for study two was analysed through a one-way analysis of variance (ANOVA), which utilizes the testing of a null hypothesis to provide statistically significant comparison data for two or more unrelated groups (Field, 2009). ANOVA was selected for this analysis as it provides the ability to compare and examine the differences between unrelated groups (Field, 2009) and their data, which in this study was the comparison of the tenure of the video content creator, their level of involvement/activity in video content creation, the amount of promotion activity they engaged in in addition to their video content creation activities, and the total income from the activity, between work, play, and playbour groups.

To further the analysis of the results related to the different groups, the independence of observation and homogeneity of variance was further analysed by carrying out a Levene's test (Levene, 1960). As the data was found to meet the homogeneity of variance, the results were further evaluated through a post-hoc Tukey's test to assess the significance between the findings of different groups. The analysis was conducted using SPSS version 24.

### 3.2.2 Structural equation modelling

The model for study three was based on existing theoretical knowledge, and required the analysis of various latent variables. As such, the analysis was conducted through partial least squares structural equation modelling (PLS-SEM). For the analysis, a model



consisting of independent and dependent variables was constructed, representing the different intrinsic and extrinsic motivations and their potential impact on the production activities and the intent to continue video content creation in the future. As the research model was designed to test how specific motivations predicted the continued involvement in video content creation and the average time invested weekly in the activity, PLS-SEM was preferred over CB-SEM (Sarstedt et al., 2016). Especially, PLS-SEM is seen to have several benefits regarding model testing and analysis, including the ability assess smaller sample sizes (Ringle et al., 2015), the ability to test both formative and reflective models, and its prediction abilities. While the analysed data was derived from a large sample and did not include formative measurements, PLS-SEM was selected as a suitable method of analysis for this publication.

The full analysis was carried out using SmartPLS 3.2.6 software (Ringle et al., 2015). Internal consistency and convergent validity thresholds were met across the standard measures of Cronbach's  $\alpha$ , composite reliability (CR), and average variance extracted (AVE) (Fornell & Larcker, 1981; Nunnally, 1967), and the thresholds for discriminant validity were exceeded (Fornell & Larcker, 1981; Jöreskog & Sörbom, 1996). The sample size used for the analysis also satisfied the criteria for the sample size required for PLS-SEM (Anderson & Gerbing, 1988; Chin & Newsted, 1999).

### 3.2.3 Descriptive statistics

The analysis for study four was conducted using SPSS, and consisted of the examination of the means and standard deviations of: effort placed on different elements of popularity, and the perceived importance of different elements of popularity. The list of items was developed based on seven semi-structured interviews with active video content creators, and observation of video content creators and platforms. The analysis

for study five consisted of a frequency analysis of the observed elements. Similar, to the analysis of study four, this is a relatively simple and common descriptive statistical method that is made possible by the SPSS package. The analyses for publications four and five was carried out using SPSS 24.

## 4 FINDINGS AND DISCUSSION

### 4.1 State of the art of academic literature related to the occupational and commercial characteristics of video content creation

Study one aimed at collecting the existing literature focused on the occupational, entrepreneurial, commercial, or strategic aspects of video content creation and examining the nature of available literature through four research questions.

*RQ1: How has the research on the occupational elements of video content creation developed?*

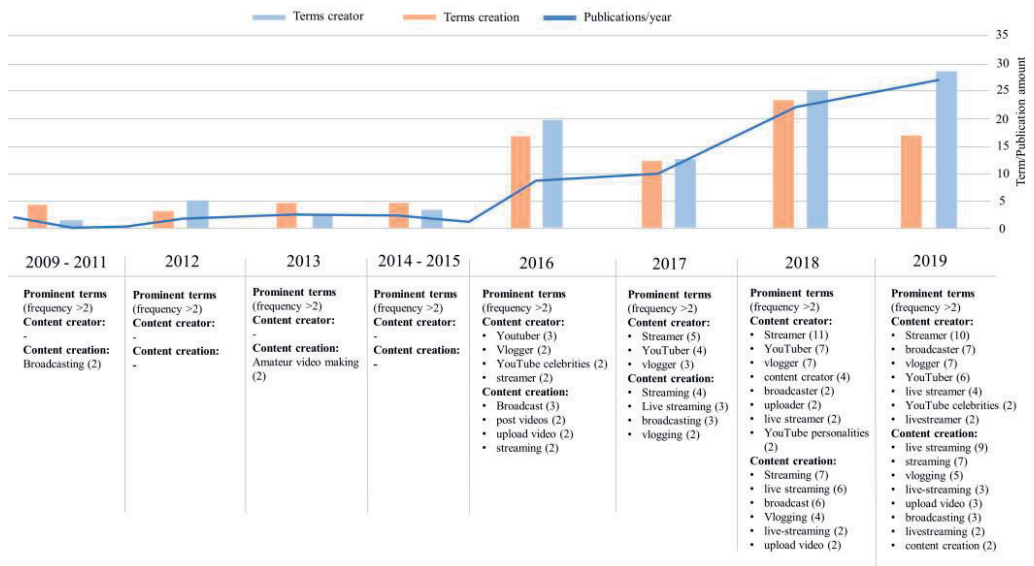
*RQ2: How are the occupational elements of video content creation evident in the development of associated terminology?*

*RQ3: What theoretical frameworks have been utilized in the examination of video content creation as an occupational activity?*

*RQ4: How are the occupational activities related to video content creation perceived within the examined literature in relation to the discussion of the activity as exploitative work or as an entrepreneurial form of creative labour?*

The analysis of available literature discovered that the research interest in the topic of occupational video content creation has increased in the last decade (see Figure 2). The examined research articles were mostly based on empirical evidence, with most empirical research articles focusing on topics related to behaviour and psychology, media production of video content, and different digital media formats and structures (see Table 4). More direct characteristics of work and occupational elements were examined in the domain categories related to celebrity, the commercial aspects of video content creation and work, and entrepreneurship.

**Figure 2.** Number of content creator/creation terms found per year and the amount of publications per year (publication 1)



**Table 4.** Domains of research (publication 1)

Domain	Total of studies	%	Empirical studies	%	Non-empirical studies	%
Behaviour & interaction	18	24	18	27.3	0	0
Media production – content practices and performance	18	24	15	22.7	3	33.3
Celebrity/popularity in video content creation	12	16	10	15.2	2	22.2
Work/entrepreneurship	7	9.3	5	7.6	2	22.2
Digital media - formats & structure	6	8	6	9.1	0	0
Commercial effects (branding & advertising/marketing)	6	8	6	9.1	0	0
Online communities	4	5.3	3	4.5	1	11.1
Economy & industries	4	5.3	3	4.5	1	11.1

The results of the study also indicated developments in the terminology of the research topic, with early terminology reflecting the emergence of the activity and a fragmentation of terminology appearing with the increased research interest in the topic seen after 2015. The rapid development of the activity seems to extend the development of terminology towards depicting specific technology (live streaming), popular platforms (YouTube), or content (Vlogger). Terminology also highlights the development of broader terms for the activity, with “streamer” or “streaming”, and “broadcaster”, or “broadcasting” which seem to be used to describe the wider cultural context of video content creation. “Broadcaster” was also the only prominent term with a direct past association with occupational aspects of media production, but was found to be used more broadly in this context.

The results also indicated a dispersion in terms of the theoretical and conceptual frameworks utilized to examine the occupational aspects of video content creation, as seen in Table 5.

**Table 5.** Theoretical and conceptual frameworks (publication 1)

Theoretical framework	N
Uses and Gratifications theory	5
Affordance theory	2
Field Theory	2
Self-determination theory (SDT)	2

**Other theoretical frameworks:**

Big-five framework of personality traits, Social comparison theory, Genre theory, Credibility theory, Cognitive transactional theory, balance theory, Media richness theory, Social presence theory, cognitive load theory, critical media industry studies (CMIS), Foucauldian neoliberal theory, Haidt's theory of moral emotions, The unified theory of acceptance and use of technology (UTAUT), Self-presentation theory, Technology acceptance model (TAM), Flow theory

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<b>Conceptual framework</b>	<b>N</b>
Parasocial interactions	4
Parasocial relationships	3
<b>Other conceptual frameworks</b>	
Concept of persona, concept of mimesis, social support provision, affective labor, algorithmic gossip, Hochschild's concept of emotional labor, Parasocial attributes	

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Note: Nine studies utilized more than two theoretical or conceptual frameworks.

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While this may reflect the novelty of this research topic and the merger of leisure and labour, further examination of the more prominent frameworks and emerging themes was conducted. While there were only a few theoretical frameworks that examined the labour or work involved in the activity (Foucauldian neoliberal theory, affective labour, Hochschild's concept of emotional labour), there were various theoretical and conceptual frameworks that examined the psychological or behavioural aspects of the activity (e.g., parasocial interaction and relationships, and motivation). The findings of the paper also indicated that the activity has become more prominently considered as a novel form of entrepreneurial/creative labour in recent years. The findings highlighted emerging themes such as new forms of celebrity (e.g., micro-celebrity & the rise of the influencer culture), as well as entrepreneurial aspects of the activity.

While some of the findings of the study were still dispersed, they provided a clear indication about the rapid development of this topic of research, and the development of a more profound understanding of the commercial and occupational aspects of this perceived “leisure” activity. The activity is also increasingly perceived as a new form of entrepreneurship or creative work in relevant literature, with emerging commercial potential, and the strategically significant and laborious aspects of the activity (e.g., relationship management and social interaction, organisational structures and power-

relationships) are still emerging and require the development of extensive support structures as well as further inquiry and theoretical understanding especially in relation to economics and organisational studies. Activities such as digital video content creation that merge labour and leisure, can be a useful resource in the future for understanding the reorganisation of “work” in digital environments. They may also provide further insight into the way existing forms of work can be further merged with elements of play (e.g., gamification) to create more engaging, motivating, and enjoyable experiences.

## 4.2 The perceptions and behaviours of video content creators

Study two examined how the content creator’s perception of video content creation as work, play or playbour affected the activity levels and income of a video content creator. The data for the paper was collected through an online survey (N=382) and hypothesized the following:

*(H1) A play-oriented perception will be associated with higher levels of activity when compared with those having a work-orientation.*

*(H2) A work-oriented perception will be associated with higher levels of income than those having a play-orientation.*

*(H3) Perception of the activity as playbour will be associated with highest levels of income and activity.*

As seen in Table 6, the results of the study indicate that individuals who perceive the activity more as work, spend the most hours per week on video content creation (M

=25.00h) and the most average time on personal broadcasting related social media activities (M = 11.88h). These individuals were also found to be earning the most income on average out of the examined groups (M = \$774.85) but were also the ones with least experience of the activity itself (M =34.21 months). The group who perceived the activity as “playbour”, was found to make the least income out of their activities (M= \$145.76), while being almost as active in their production activities as the “work”-minded group (average production hours/week M=20.74, social media activities M=10.91). The video content creators who perceived the activity as play were found to have the longest experience of the activity (M=38.67 months), but their production activities were significantly lower than the other groups (average production hours/week M=13.28h and social media activities M=6.55h).

**Table 6.** One-way ANOVA - Results (publication 2)

		<b>Production hours/week</b>	<b>Tenure (months)</b>	<b>Social media hours (M)</b>	<b>Total income (\$)</b>
Work	Mean	25.00	34.21	11.88	774.85
	N	48	48	48	48
	Std. Deviation	19.46	30.363	18.04	1999.79
Eq. Work and Play	Mean	20.74	33.95	10.91	145.76
	N	66	66	66	66
	Std. Deviation	21.28	32.977	21.30	587.66
Play	Mean	13.28	38.67	6.55	179.11
	N	268	268	268	268
	Std. Deviation	16.97	32.858	12.64	818.15

The findings of study two found differences between the examined groups (work-oriented, play-oriented, and playbour). Those video content creators who approach the activities from a more work-oriented perspective were not only more productive, but also seemed to indicate goal-oriented behaviour and a level of strategy in their activities, and the activities also lead to higher income. However, the playbour-oriented group



with almost similar productivity levels seem to be making less income from their activities.

While there is no clear explanation for the differences in the income of these two groups, and this should be further examined in the future, it could be argued that those perceiving the activity as playbour may not possess the same level of focus and strategy towards their activities as the “worker” group, which may lead to further discrepancies in the outcomes derived from their activities.

The “play” oriented group, whose activities were perceived to be most associated with leisure, was found to be the group with most experience of the activities, but the lowest average activity levels, thus indicating a more casual approach to the activity. While the activity levels of the “play” oriented group were lower than the other groups, the income from the activities was still second highest. While this finding may be associated with the longest involvement in the activity, the finding also indicates that the input-output ratio of this group is better than the other analysed groups, and leads us to argue that creators approaching this activity as purely leisure also have a good opportunity to make an income from their activities. This somewhat contradicts the debate about the commodifying nature of this activity.

The findings of this study extend our understanding of the professionalization of the activity. The examination of the “worker” group leads us to also argue that we are witnessing the development of a new form of digital entrepreneurship, where private individuals voluntarily professionalize their leisure time activities and take on exceptionally high workloads, as many of the respondents also reported to have a full-time job or be studying. However, it should be noted that a more leisure-oriented approach also seems to lead to good outcomes from the activity and was found to be associated with longer involvement in the activity.

### 4.3 The extrinsic and intrinsic motivations behind video content creation

Study three examined the intrinsic and extrinsic motivations of video content creators, and the relationship between these motivations and the weekly activity levels of video content creators and their intention to continue video content creation. The study utilized the lens of self-determination theory and hypothesized the following:

*H1. The intrinsic motivations examined in this research are positively associated with the average time invested weekly on content creation.*

*H2. The intrinsic motivations examined in this research are positively associated with the intention to continue video content creation.*

*H3. The extrinsic motivations examined in this research are positively associated with the average time invested weekly on content creation.*

*H4. The extrinsic motivations examined in this research are positively associated with the average time invested weekly on content creation.*

The data was analysed on two levels, first by analysing the intrinsic and extrinsic motivations as second-order constructs combining all corresponding constructs and their items (Table 7), and then on a more in-depth individual construct level (Table 8).

**Table 7.** Second-order construct analysis results (publication 3)

R <sup>2</sup>	Average time invested weekly on content creation			Intention to continue video content creation		
	$\beta$	CI	p	$\beta$	CI	p
	0.021			0.379		
Intrinsic motivations	0.046	-0.035-0.143	0.310	0.568***	0.491-0.661	0.000
Extrinsic motivations	0.117	-0.047-0.275	0.154	0.076	-0.006-0.169	0.052

Note: \*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001

**Table 8.** Individual construct level analysis results (publication 3)

R <sup>2</sup>	Average time invested weekly on content creation			Intention to continue video content creation		
	$\beta$	CI	p	$\beta$	CI	p
	0.055			0.409		
Intrinsic motivations						
Enjoyment	0.044	-0.112-0.190	0.567	0.244***	0.107-0.381	0.001
Relaxation	-0.139*	-0.276-0.021	0.037	-0.059	-0.151-0.04	0.230
Self-expression	-0.008	-0.13-0.134	0.908	0.054	-0.036-0.149	0.260
Social Interaction	0.145*	0.000-0.294	0.043	0.293***	0.182-0.402	0.000
Altruism	-0.009	-0.127-0.104	0.848	-0.012	-0.137-0.108	0.885
Skill development	0.032	-0.073-0.144	0.552	0.143*	0.015-0.279	0.038
Extrinsic motivations						
Career development	0.098*	-0.011-0.186	0.048	0.102	-0.013-0.226	0.092

Income	0.123*	0.020-0.258	0.046	-0.026	-0.121-0.097	0.609
Reputation	-0.114	-0.275-0.051	0.190	-0.001	-0.093-0.103	0.984

Note: \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

The first analysis of the combined intrinsic and extrinsic constructs explained 37.9 per cent of the variance for intention to continue video content creation, and a 2.1 per cent of variance in the average time invested weekly on content creation. While, there was no significant relationship between intrinsic ( $\beta=0.046$ ,  $p=0.310$ ) or extrinsic ( $\beta=0.117$ ,  $p=0.154$ ) motivations and the average time invested weekly on content creation, a positive association was found between intrinsic motivations and the intention to continue video content creation ( $\beta=0.568$ ,  $p=0.000$ ).

The model consisting of individual constructs related to intrinsic and extrinsic motivations accounted for 40.9 per cent of the variance for intention to continue video content creation, and 5.5 per cent of the variance in the average time invested weekly on content creation. The analysis discovered a positive association between perceived enjoyment ( $\beta=0.244$ ,  $p=0.001$ ), skill development ( $\beta=0.143$ ,  $p=0.038$ ) and social interaction ( $\beta=0.293$ ,  $p=0.000$ ) and the intention to continue video content creation, whereas social interaction was positively associated with the average time invested weekly on content creation ( $\beta=0.145$ ,  $p=0.043$ ). The results also discovered that relaxation was negatively associated with the average time invested weekly on content creation ( $\beta=-0.139$ ,  $p=0.037$ ).

The analysis also discovered significant associations between extrinsic motivations and the average time invested weekly on content creation, with career development ( $\beta=0.098$ ,  $p=0.048$ ) and income ( $\beta=0.123$ ,  $p=0.046$ ). However, none of the extrinsic motivations correlated with the intention to continue video content creation.

The results of the analysis of motivations provided interesting results. While H1, H3 and H4 were rejected, H2, was supported by the results, which meant that the research

provided interesting insights into the balance of work and play within the activity. The results indicated that hedonistic motivations such as enjoyment and social interaction, are prominent drivers of continued involvement in video content creation, therefore somewhat supporting the findings of study two. These findings were also seen to have similarities with motivations associated with different types of media consumption, including video content consumption (Sjöblom & Hamari, 2017). This finding might reveal a further diffusion of consumption and production activities, e.g., prosumption (Ritzer, 2010) which is especially exemplified in mixed media formats such as game streaming, where the consumption of media content is merged with the production of different media content. Social interaction was also seen to have a positive association with average time invested weekly, which may also develop our understanding of the inherent need to belong in a community, but also to contribute to that community and showcase specific features and skills. However, social interaction is also deeply intertwined in the attention economy of digital environments, leading to more extrinsic rewards such as income and recognition.

While intrinsic motivations were found to have a more significant bearing on the continued engagement with video content creation, the findings also revealed a relationship between specific extrinsic motivations, career development and income, and the average time invested weekly on the activity. These findings can be associated with the professionalization of this activity, with the finding related to career development especially highlighting the occupational lure of the activity. The relationship between income and the average time invested weekly, may also indicate the development of strategic elements in the activity, especially as higher levels of productivity in video content creation is often seen an access requirement to platform partnership programs. Overall, the findings of study three reveal similar findings to study two, where intrinsic aspects of the activity are seen to be linked to continued

engagement with the activity, while the professionalised aspects of the activity are associated with higher activity levels.

## 4.4 Popularity and the practices of video content creators

### 4.4.1 Which practices make perfect?

Study four examined how video content creators perceive different pre-determined aspects (seen in Table 9) related to online popularity and how much effort they place on these specific aspects. The data was collected through an online survey (N=477) and examined through an exploration of means and standard deviation. The results can be seen in Table 9.

**Table 9.** Results (Publication 4)

Descriptive Statistics	Description	Importance		Effort	
		Mean	SD	Mean	SD
1 Entertainment value of the videos	How enjoyable or fun the content is	5.65	1.231	5.5	1.401
2 Interaction and communication with audience	Direct communication with the audience through comments, chats etc.	5.55	1.494	5.5	1.689
3 Your personality as the host of the videos	The personality traits portrayed or enhanced within the video	5.33	1.554	5.15	1.783
4 Originality	Originality of the video content	5.08	1.492	5.04	1.672
5 Activity levels/frequency of posting	How often content is published	5.01	1.601	4.64	1.94
6 The typical topic of the videos you share	The typical topic of video content	4.96	1.532	5	1.705
7 Technical skills (e.g., editing skills)	Technical skills of the content creator related to video production (e.g., editing skills)	4.89	1.502	5.09	1.727

8	Search optimization	Search optimization related to the created social video content	4.85	1.724	4.27	1.989
9	Technical equipment (e.g., streaming technology)	Technical equipment utilized in the production and distribution of videos	4.69	1.467	4.66	1.758
10	Your profile look	The visual and communicative effect of the profile of a content creator (related to video content creation activities)	4.35	1.656	4.47	1.871
11	Level/skill of the host (e.g., pro gaming)	Level of skill of the content creator in their preferred topic/activity presented in their videos (e.g., gaming)	4.2	1.601	4.6	1.748
12	Sharing personal experiences and information	Sharing information and experiences that are considered personal to the content creator (e.g., depression/anxiety).	4.05	1.709	4.1	1.911
13	Network with other streamers and vloggers	Communication and relationships with other content creators	3.9	1.8	3.23	1.952
14	Offline presence	Activities outside the digital environments related to social video content creation (e.g., public appearances and events)	3.52	1.689	3.47	1.855
15	Third-party representatives	Working with promotional networks or representatives who provide further commercial opportunities and development related to social video content creation.	3.03	1.75	2.47	1.806
16	Props in the videos	Additional props in the videos.	2.93	1.692	2.77	1.827
17	Special guests	Special guests in the videos.	2.69	1.625	2.19	1.626
18	Sex appeal of the host of the videos	The physical appearance of the content creator themselves.	2.59	1.731	2.35	1.691

The results indicated that video content creators find entertainment value, interaction and communication, personality, originality and their activity levels important to their popularity ( $M > 5$ ), while most effort was placed on entertainment value, interaction and communication, personality, originality, technical skills, and the topic of videos ( $M > 5$ ). These findings can be seen to emphasise specific aspects of the activity relating to the creator (personality, technical skills, activity levels), their content (originality, entertainment value, topic of video), and the community of a creator (interaction and communication).

To emphasise their personality, digital content creators have been found to strategically develop a branded self (Senft, 2013) or a digital extended representation of their persona to achieve increased attention and even a level of micro-celebrity (Marwick, 2015; Johnson et al., 2019). Taking on an online persona or character has also been associated with more professionalized aspects or labour involved in the activity (Woodcock & Johnson, 2019b), and as these types of digitally consumable public figures and personas, creators can develop a level of tangible relatability (Marwick, 2015), while also having an influence over their audiences and community. However, as characters or defined personas, the creators may lose a level of authenticity, and may be subjected to certain expectations which may be difficult to meet on a continued basis.

The significance of having a community was also reflected in the findings through the importance of interaction and communication. Interaction and communication with a content creator has been found to further the content consumption (Hu et al., 2017; Lu et al., 2018) of audiences and lead to economic interactions such as subscriptions and donations (Lu et al., 2018). An engaged community can therefore contribute to the professionalised aspects of content creation directly, but also provide access to potential partnership programs and other revenue sources (e.g., sponsorship) (García-Rapp, 2017; Van Dijck & Poell, 2013) and therefore have a significant impact on digital popularity and the attention economy (Fuchs, 2014; Huberman et al., 2009; Senft, 2013; Woodcock & Johnson, 2019b).

The findings also indicated that the content of a video content creator is seen as a contributor to popularity. Content strategies in video content creation have become more important due to the over-supply and fragmentation of available content. The findings indicate that specific emphasis is placed on the entertainment value, originality, and topic of content, which can be seen as extensions of the creator's brand, or as a way to enhance engagement with content and develop consistency and visibility. Especially,



the topic of content can also be strategically used to generate more visibility on a platform and interest for the content.

While posting activity, technical skills, content topics and even parts of the online persona of a content creator are aspects that can be more strategically manipulated to increase visibility, entertainment value, interaction with the community, and personality are aspects that generate a sense of authenticity and relatedness with the content creator, and can be seen to require a higher level of personal involvement and potentially intrinsic motivation from the content creator.

#### 4.4.2 Practices and tools of the most popular video content creators

Study five analysed the different affordances of the video sharing platform Twitch, by examining 100 of the most popular video content creators on the platform and the tools and elements they utilize in their streams and profile pages. The study also made a distinction between social affordances and a new category of revenue affordances (seen in Table 10).

**Table 10.** Results (Publication 5)

Element	Description	Frequency (% elements present)	Affordance
<b>PROFILE PAGE</b>			
Social media links		100	Social affordance
Donation links		89	Revenue affordance
Sponsor links		80	Revenue affordance
Subscription link		59	Revenue affordance
Machine specifications		56	Social affordance
FAQ/about me		53	Social affordance
Merch link		35	Revenue affordance
Rules		31	Social affordance
Top donor list		24	Revenue affordance
Schedule		17	Social affordance
<b>STREAM</b>			

Microphone	100	Social affordance
Webcam	86	Social affordance
Subscriber notification	45	Revenue affordance
Donation notification	42	Revenue affordance
Sponsor banner	39	Revenue affordance
Latest subscriber	36	Revenue affordance
Top donator	31	Revenue affordance
Latest donator	26	Revenue affordance
Music (non-game)	25	Social affordance
Social media banner	25	Revenue affordance

The findings of study five discovered that various tools and elements of the stream and the profile page of a streamer were utilized to generate a more interactive environment, and a more concrete profile for the streamer. Most common tools found in the examined content were audio-visual tools (camera and microphone), that allowed the streamer to extend their profile and also develop their public persona (Senft, 2013) through the stream, which was also discussed in study four. They were also found to afford a combination of generative role-taking with meta-voicing (Majchrzak et al., 2013) allowing the creator to take a leadership role, but also further engage with their community. The profile page of the content creators also highlighted more personalised profile building tools, such as other social media links, FAQ sections and machine specs, which can be seen to extend the presence of the content creator and their brand. Social media links were also found to enable community building through social connectivity, social interactivity, and further content discovery (O’Riordan et al., 2016).

From the examined elements, many were linked to the generation of further revenue, and these types of elements were analysed as new category of revenue affordances. Social revenue affordances were defined as elements providing forms of revenue through social interaction, and commercial revenue affordances were elements driving direct commercial gain. Social revenue affordances were particularly evident in different features emphasising donations and subscriptions through social recognition such as subscription/donation notifications and top donator lists. Additional, to social revenue

affordances, commercial revenue affordances were examined in video content as well as the profile page of the creator, in the form of direct advertising and sponsorship links. The findings of study five indicate a level of professionalization and strategy through the discovered tools (especially revenue generating tools), but also highlight the importance of a community and an interactive environment for the streamers' content.

## 5 CONCLUSIONS

The first publication of the dissertation consisted of an overview of extant literature related to occupational aspects of video content creation, and developed the understanding of this emergent field of research. The results of the study indicated that the occupational and entrepreneurial aspects of this activity are developing, and the activity is increasingly seen in relevant literature more as creative entrepreneurial work, instead of commodifying labour. The behaviours of video content creators were examined in study two and study three. The findings of study two indicated differences between groups of video content creators with different perceptions of the activity as work, play or playbour. A work-oriented approach or perception of video content creation was clearly associated with higher levels of productivity and outcomes from the activity (e.g., income), indicating a level of strategy and professionalization in this group, which was not evident in the other groups. While findings related to play-oriented content creators indicated longer tenure with the activity, and also had the second highest outcomes with the lowest productivity levels.

The professionalization of the activity was also examined in the motivations of video content creators, with a positive relationship between extrinsic motivations such as income and career development and the weekly activity levels of content creators. However, it should be noted that intrinsic motivations such as enjoyment and social interaction were found to have an association with continued engagement with the activity, revealing the hybridity between play and labour in this activity area and indicating some similarities in the findings of studies two and three.

The practices of video content creators were examined in study four and study five. Study four found that video content creators consider the creator (e.g., personality, technical skills), their content (e.g., entertainment value, originality) and their community (e.g., interaction with viewers) as important factors in their popularity and also place effort on these aspects. The findings indicated a level of strategic thinking and were linked to professionalised aspects of video content creation such as self-branding (Senft, 2013), micro-celebrity (Khamis et al., 2017) and the attention economy (Huberman, 2013). The findings of Study five examined and analysed the most popular tools and practices utilized by the most popular video content creators on Twitch, which were found to afford a social setting for the content creator, and also develop their influence and brand on the platform. Additionally, the study discovered several tools and practices that afford the generation of revenue through either social interaction with the creator and their content (e.g., top donor notifications and interactive lists) or through more direct commercial paths (e.g., direct adverts on the content or links to sponsors).

While the findings of all of the included studies discovered different aspects and elements related to the professionalization of the activity, the underlying presence of more intrinsic elements and findings lead us to question the true nature of professionalised video content creation. Particularly, the activity seems to be taking on different characteristics of traditional labour, and while it can be approached purely as a professional activity, it seems that the continuance of the activity and the authenticity of content may require a level of personal involvement and intrinsic motivation. It is evident that the professionalization of this playful leisure activity is developing, but the hybridity between leisure and labour, also evident in the findings of this dissertation, may require further examination of the inherent playfulness of the activity itself and its surrounding structures. This hybrid work could potentially further benefit from its close association to game cultures and play, which may guide the way in which the activity is

approached in the future. It may be that further understanding of these practices and behaviours associated with hybrid work, will require the traditional understanding of play, instead of labour, in order to develop.

## 5.1 Contributions

This dissertation aimed to examine a wider research problem of how the behaviours, motivations, and practices of video content creators affect the professionalization of the activity. The dissertation laid out five research questions, through which the research problem was addressed:

1. *What is the state of the art of academic literature related to occupational and commercial characteristics of video content creation?*
2. *How does the video content creator's perception of the activity as play, playbour or labour affect their activities and outcomes from their content creation activities?*
3. *What intrinsic and extrinsic motivations explain content online?*
4. *What aspects of video content creation do content creators consider central to creating online popularity?*
5. *What tools and elements are utilized by the most popular video content creators on Twitch?*

The dissertation makes four contributions to existing knowledge. Firstly, the literature review of the dissertation identifies the scope and nature of current research

on this topic, by assessing the state of research activities related to the topic of professionalised video content creation and assessing the ongoing debate related to the nature of professionalised video content creation. The review also collects the theoretical and conceptual frameworks utilized in existing research, therefore building the foundations for future research and theoretical development of the topic.

Secondly the dissertation contributes to the understanding of the content creators themselves, and the hybrid nature of work in this activity. Through the findings of Publication 2, the dissertation was able to assess how content creators perceive their activities (as work, play or playbour), and evaluate the effect of this perception on their activities and the outcomes of these activities. While the professionalization of play was most evident in the work-oriented group, the play-oriented video content creators were also seen to gain good outcomes from their activities with much less effort. The findings also delivered new information about video content creators who perceived their activities as a merger of play and labour. These content creators were found to invest the same amount of time in their activities as the work-oriented group, but gain the least outcomes from their activities of the examined groups. This finding was seen to indicate a lack of focus in this “hybrid” group, which may suggest that there is a need to develop further guidance for the activity, and support structures for aspiring professionals in this area.

Thirdly the dissertation contributes to the existing research on motivation in the context of video content creation, and hybrid work. Publication three extends existing research by evaluating extrinsic and intrinsic motivations to generate video content, and their effect on video content creation activities. This publication furthers the examination of the effects of professionalised aspects of video content creation, and the research model can be further utilized for the examination of other hybrid forms of work in the future.

Finally the dissertation examines the practices and tools of video content creators, delivering further information about potential strategies for video content creators, and furthering the research on social media affordances by developing a category of revenue affordances that can be utilized and extended in future research.

## 5.2 Limitations

It should be noted that this dissertation has its limitations. The dissertation overall, provides a snapshot of content creators during a specific period of time, and primarily focuses on the creators, which excludes a broader the examination of their audiences and the effects of these audiences. A shared limitation for all of the publications of this dissertation was also the use of English as the primary language in data collection. Although the data collection was done primarily through global platforms, the use of English as the research language limits the data to English speaking respondents (publications 2, 3, 4), English literature (for publication 1), and English-speaking streamers (publication 5). This is also evident in the regional distribution of survey participants, as most participants were located in English speaking regions. It should also be noted that the gender representation of the survey participants was male oriented, with female participants only accounting for approximately 20% of participants (online survey). While gender (identities, representation, roles) in video content creation is a timely and important topic of research, and especially evident in contemporary game streaming culture (Todd & Melancon, 2018; Zhang & Hjorth, 2019; Freeman & Wohn 2020), at the time of the publication of the articles included in this dissertation, the gender division of the respondents represented the user bases on popular video sharing platforms, with Twitch reporting roughly 81.5% male users



(Twitch, 2017). This has, however developed over the last few years, as Twitch has recently reported that 65% of its users are male (Kavanagh, 2019).

The studies of this dissertation also utilized different data sets, methods, and analysis, which pose certain limitations for the study in question. Study 1 consisted of a literature review that utilized a combination of search words related to occupational video content creation to collect available literature for the analysis. The use of these selected search words on one database (Scopus) may limit the scope of the review. To alleviate this limitation, the search string for the review was tested and reiterated several times to gain a large selection of resources relevant to the topic. It should also be noted that as a combination of a scoping review and a theoretical review, the aim was not to conduct an exhaustive review.

Studies 2, 3 and 4 utilized data which was collected through an online survey. Online survey poses specific limitations for studies, primarily related to the lack of control over the respondents focus and attention, as well as the potential for a misinterpretation of the survey. As the respondent may be affected by external distractions during the survey and can try to detect patterns or interpret the survey items, online surveys can lead to common-method bias (Podsakoff et al., 2003). To alleviate this issue, the survey was distributed through different sources and the psychometric items were randomized to ensure that no patterns could be detected. The wording of the items was also standardized to depict the activity of video content creation, and the survey was tested and reiterated before the global distribution of the survey.

Study 5 drew from online observations, which can also limit data collection. Online observation is often based on the interpretation and expertise of the specific researcher(s), which may itself limit the study and its interpretation. In this study this was alleviated by having a standard set of items that were developed by the research team and used systematically to collect data from the observed streams. The data

collection was done by two researchers from the research team with expertise on the topic, and a third researcher was involved in the interpretation of data.

### 5.3 Future research avenues

As discussed in this dissertation, this activity and the topic of research is still emerging, although various significant contributions have already been made. The findings of this dissertation indicate a need for further research on both the work-like aspects and elements of the activity, and also the playful, leisure associated elements of the activity.

As stated in the introduction of this dissertation, the development of this type of activity will benefit from further understanding of traditional labour (Banks & Deuze, 2009; Deuze, 2006). Existing research on traditional labour and entrepreneurship could enable future research to further examine the role of the video content creator in the digital economy, the organisational structures around the creator, as well as the entrepreneurial aspects of this digital activity. This type of research could develop the way we recognize this activity as work, and further the ability to develop support structures and resources for the video creators to alleviate some of the negative effects of this type of hybrid work and digital entrepreneurship for example fatigue and exhaustion. The findings of the dissertation also indicate the significance of more intrinsic aspects of the activity, which can be associated with its foundations in leisure and its playfulness. As mentioned in the conclusion of this dissertation, our traditional understanding of play and game cultures could provide similar foundations for future research avenues on professionalised video content creation, as our traditional understanding of labour. Approaching the activity and the hybridity between work and leisure, utilizing existing understanding of play and game cultures could provide further information about the behaviours of content creators, particularly related to

engagement with the activity, the development of professionalised activities and their effects on the playfulness of the activity. Additionally, further research on gaming content creators and their behaviours in contrast to creators of other video genres, could develop how we see the inherent playfulness of this activity.

In addition to these avenues for future research, the publications in this dissertation indicated a need to further research on specific demographic factors in the context of professionalised video content creation. While the activity of video content creation is rapidly growing in popularity in western regions, this topic is even more prominent in Asia, especially China and South Korea, where professionalised aspects of content creation and gaming are even more prominent (Valentine, 2019; Jin, 2013). While video content creation has been examined in different regions, the professionalization of the activity and especially the comparison of practices and structures could provide avenues for future research and practical development.

In addition to the regional examination of the topic, other demographic factors such as gender and age could also be significant avenues for future research in this area. In the beginning stages of this research the gender distribution in video sharing services was been predominately male dominated (e.g., Twitch, 2017), but during the research significant developments have been made and the gender representation in these platforms is much more balanced. The examination of gender and professionalised video content creation, the related practices and support structures could identify potential opportunities and challenges related to access and opportunity in this form of digital work. As previously stated in the limitations section of this dissertation, a lot of relevant work has already been done on gender in video content creation (Todd & Melancon, 2018; Zhang & Hjorth, 2019; Freeman & Wohn 2020), but a further examination of the professionalization of the activity could potentially develop the way hybrid work is perceived and accepted in the society. Especially interesting topics of research related to the professionalisation of the activity and gender is the development

of agency and self-representation, content types and their gender balance and the accessibility of certain content genres, platforms and communities. As the activity and the platforms for video content creation mature, tenure among the activity could also provide interesting insights to the development of the professionalized aspects of the activity, but also to the development of hybrid work.

## REFERENCES

- Abidin, C., & Ots, M. (2015, August 6-9 ). The Influencer's dilemma: The shaping of new brand professions between credibility and commerce. [Conference presentation abstract]. AEJMC 2015, Annual Conference, San Francisco, CA. <https://wishcrys.files.wordpress.com/2019/03/abidin-ots-2015-the-influencere28099s-dilemma-the-shaping-of-new-brand-professions-between-credibility-and-commerce.pdf>
- Anderson, J. C., & Gerbing, D. W. (1988). Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach. *Psychological Bulletin*, 103(3), 411–423. <https://doi.org/10.1037/0033-2909.103.3.411>
- Anonymous (2007, December 10). Partner Program Expands. *YouTube Official Blog*. <https://blog.youtube/news-and-events/partner-program-expands?m=1>
- Archer, C. (2019). Social media influencers, post-feminism and neoliberalism: How mum bloggers' 'playbour' is reshaping public relations. *Public Relations Inquiry*, 8(2), 149-166.
- Archer, N., Fevrier-Thomas, U., Lokker, C., McKibbin, K., & Straus, S. (2011). Personal health records: A scoping review. *Journal of the American Medical Informatics Association*. 18(4), 515-522. <https://doi.org/10.1136/amiajnl-2011-000105>
- Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology: Theory and Practice*. 8(1), 19-32. <https://doi.org/10.1080/1364557032000119616>
- Ashman, R., Patterson, A., & Brown, S. (2018). 'Don't forget to like, share and subscribe': Digital autpreneurs in a neoliberal world. *Journal of Business Research*, 92(10), 474-483.
- Banks, J., & Deuze, M. (2009). Co-creative labour. *International Journal of Cultural Studies*. 12(5), 419-431. <https://doi.org/10.1177/1367877909337862>
- Basich, Z., & Gage, D. (2014, August 26). Twitch Investors Score Big in Amazon \$970M Acquisition. *Wall Street Journal PRO: Venture Capital* <https://www.wsj.com/articles/DJFVW00120140826ea8qudbsm>
- Benkler, Y. (2006). *The Wealth of Networks: How Social Production Transforms Markets and Freedom*. Yale university Press. <https://doi.org/10.2307/20455766>
- Berg, M. (2016, December 5). The Highest-Paid YouTube Stars 2016: PewDiePie Remains No. 1

- With \$15 Million. *Forbes*. <https://www.forbes.com/sites/maddieberg/2016/12/05/the-highest-paid-youtube-stars-2016-pewdiepie-remains-no-1-with-15-million/>
- Bock, G., Zmud R., Kim Y., & Lee J. (2005). Behavioral Intention Formation in Knowledge Sharing: Examining the Roles of Extrinsic Motivators, Social-Psychological Forces, and Organizational Climate. *MIS Quarterly*, 29(1), 87-111. <https://doi.org/10.2307/25148669>
- Bründl, S., & Hess, T. (2016). Why Do Users Broadcast? Examining Individual Motives and Social Capital on Social Live Streaming Platforms. *Proceedings of the 20th Pacific Asia Conference on Information Systems (PACIS 2016)*, 332. <https://doi.org/10.1007/s11692-015-9345-4>
- Bruns, A. (2009). From prosumer to produser: Understanding user-led content creation. *Proceedings of Transforming Audiences*, London.
- Bucher, T., & Helmond, A. (2017). The affordances of social media platforms. In J. Burgess, A. Marwick, & T. Poell (Eds.), *The SAGE Handbook of Social Media* (pp. 233–253). Sage.
- Burgess, J. (2012). *You Tube and the formalisation of amateur media*. Routledge.
- Burgess, J., & Green, J. (2009). How YouTube Matters. In J. Burgess & J. Green (Eds.) *YouTube: Online video and participatory culture*. (pp.1-15). Polity Press.
- Burroughs, B., & Rama, P. (2015). The eSports Trojan Horse: Twitch and Streaming Futures. *Journal For Virtual Worlds Research* 8 (2), 1-5. <https://doi.org/10.4101/jvwr.v8i2.7176>
- Cha, M., Kwak, H., Rodriguez, P., Ahn, Y., & Moon, S. (2007, October 24–26). I Tube , You Tube , Everybody Tubes : Analyzing the World ’ s Largest User Generated Content Video System. *Proceedings of the IMC’07, San Diego, California, USA*. 1-14. <https://doi.org/10.1145/1298306.1298309>
- Chin, W. W., & Newsted, P. R. (1999). Structural equation modeling analysis with small samples using partial least squares. in R. H. Hoyle (Eds.), *Statistical strategies for small sample research* (pp. 307-341). Sage Publications.
- Clement, J. (2021a, April 29). *Gaming video content market - Statistics & Facts*. Statista. Retrieved from: <https://www.statista.com/topics/3147/gaming-video-content-market/#dossierSummary>
- Clement, J. (2021b, March 24). *Most popular livestreaming platform in the U.S. 2021*. Statista. Retrieved from: <https://www.statista.com/statistics/1221858/most-popular-livestream-platform-watch-us/>
- Davenport, T. H., & Beck, J. C. (2001). *The Attention economy: Understanding the New Currency of Business*. Harvard Business Press
- Deci, E. L., & Ryan, R. M. (2000). The “What” and “Why” of Goal Pursuits: Human Needs and the Self-Determination of Behavior. *Psychological Inquiry*, 11(4), 227–268. [https://doi.org/10.1207/S15327965PLI1104\\_01](https://doi.org/10.1207/S15327965PLI1104_01)
- Deci, E. L., & Ryan, R. M. (2002). *Handbook of self-determination research*. The University of Rochester Press.

- DeLone, W. H., & McLean, E. R. (1992). Information systems success: The quest for the dependent variable. *Information Systems Research* 3(1), 60-95. <https://doi.org/10.1287/isre.3.1.60>
- Deuze, M. (2006). Ethnic media, community media and participatory culture. *Journalism*, 7(3), 262–280. <https://doi.org/10.1177/1464884906065512>
- Deterding, S., Sicart, M., Nacke, L., O'Hara, K., & Dixon, D. (2011, May 7-12). *Gamification: using game-design elements in non-gaming contexts*. [Conference extended abstract]. CHI'11 extended abstracts on human factors in computing systems. <https://dl.acm.org/doi/10.1145/1979742.1979575>
- Ferreira, S. M., Sayago, S., & Blat, J. (2017). Older people's production and appropriation of digital videos: an ethnographic study. *Behaviour and Information Technology* 36(6), 557-574. <https://doi.org/10.1080/0144929X.2016.1265150>
- Field, A. (2009). *Discovering Statistics Using SPSS*. Sage. <https://doi.org/10.1234/12345678>
- Fish, A., & Srinivasan, R. (2012). Digital labor is the new killer app. *New Media and Society* 14(1), 137-152. <https://doi.org/10.1177/1461444811412159>
- Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models With Unobservable Variables and Measurement Error. *Journal of Marketing Research*, 18(1), 39–50. <https://doi.org/10.2307/3151312>
- Freberg, K., Graham, K., McGaughey, K., & Freberg, L. A. (2011). Who are the social media influencers? A study of public perceptions of personality. *Public Relations Review* 37(1), 90-92. <https://doi.org/10.1016/j.pubrev.2010.11.001>
- Freeman, G., & Wohn, D.Y. (2020). Streaming your Identity: Navigating the Presentation of Gender and Sexuality through Live Streaming. *Computer Supported Coop Work*, 29(6),795–825. <https://doi.org/10.1007/s10606-020-09386-w>
- Fuchs, C. (2014). Digital prosumption labour on social media in the context of the capitalist regime of time. *Time & Society* 23(1), 97-123. <https://doi.org/10.1177/0961463X13502117>
- García-Rapp, F. (2017). Popularity markers on YouTube's attention economy: the case of Bubzbeauty. *Celebrity Studies*, 8(2), 228–245. <https://doi.org/10.1080/19392397.2016.1242430>
- Gardner, J., & Lehnert, K. (2016). What's new about new media? How multi-channel networks work with content creators. *Business Horizons* 59(3), 293-302. <https://doi.org/10.1016/j.bushor.2016.01.009>
- Gaver, W. W. (1991). Technology affordances. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems Reaching through Technology - CHI '91*, 79–84. <https://doi.org/10.1145/108844.108856>
- Gibson, J. J. (1979). *The Ecological Approach to Visual Perception*. Houghton Mifflin- Boston.
- Goggin, J. (2011). Playbour, farming and leisure. *Ephemera: theory & politics in organization*, 11(4), 357-368.

- Goodwin, I., Griffin, C., Lyons, A., McCreanor, T., & Moewaka Barnes, H. (2016). Precarious Popularity: Facebook Drinking Photos, the Attention Economy, and the Regime of the Branded Self. *Social Media and Society*, 2(1). 1-13. <https://doi.org/10.1177/2056305116628889>
- Green, J., & Jenkins, H. (2009). The Moral Economy of Web 2.0: Audience Research and Convergence Culture". In J. H. and A. P. Malden (Eds.), *Media Industries: History, Theory, and Method* (pp. 213–225). Wiley-Blackwell.
- Greenwood, J. (1999). *The Third Industrial Revolution: Technology, Productivity and Income Inequality*. AEI Press.
- Guarriello, N. B. (2019). Never give up, never surrender: Game live streaming, neoliberal work, and personalized media economies. *New Media & Society*, 21(8), 1750-1769.
- Hamari, J., Koivisto, J., & Sarsa, H. (2014). Does gamification work?--a literature review of empirical studies on gamification. *Proceedings of 47th Hawaii international conference on system sciences*, 3025-3034. Ieee.
- Huotari, K., & Hamari, J. (2017). A definition for gamification: anchoring gamification in the service marketing literature. *Electronic Markets*, 27(1), 21-31.
- Heijden, H. Van Der. (2004). User acceptance of hedonic information systems. *MIS Quarterly*, 28(4), 695–704. <https://doi.org/10.2307/25148660>
- Hollenbaugh, E. E. (2010). Personal journal bloggers: Profiles of disclosiveness. *Computers in Human Behavior*, 26(6), 1657–1666. <https://doi.org/10.1016/j.chb.2010.06.014>
- Hsu, C. L., & Lin, J. C. C. (2008). Acceptance of blog usage: The roles of technology acceptance, social influence and knowledge sharing motivation. *Information and Management*, 45(1), 65–74. <https://doi.org/10.1016/j.im.2007.11.001>
- Hu, M., Zhang, M., & Wang, Y. (2017). Why do audiences choose to keep watching on live video streaming platforms? An explanation of dual identification framework. *Computers in Human Behavior* 75(10). 594-606. <https://doi.org/10.1016/j.chb.2017.06.006>
- Huberman, B. A. (2013). Social Computing and the Attention Economy. *Journal of Statistical Physics*, 151(1–2), 329–339. <https://doi.org/10.1007/s10955-012-0596-5>
- Huberman, B. A., Romero, D. M., & Wu, F. (2009). Social networks that natter: Twitter under the microscope. *First Monday*, 14(1), 1–9. <https://doi.org/10.2139/ssrn.1313405>
- Jenkins, H. (2006a). *Convergence Culture: Where Old and New Media Collide*. New York University Press.
- Jenkins, H. (2006b). Fans, bloggers, and gamers : exploring participatory culture. *New York University Press*, 279. <https://doi.org/10.1080/09548963.2014.1000599>
- Jin, D. Y. (2013). *Korea's Online Gaming Empire*. MIT Press. <https://doi.org/10.7551/mitpress/9780262014762.001.0001>
- Johnson, M. R., Carrigan, M., & Brock, T. (2019). The imperative to be seen: The moral economy of



- celebrity video game streaming on Twitch.tv. *First Monday*, 24(8).  
<https://doi.org/10.5210/fm.v24i8.8279>
- Johnson, M. R., & Woodcock, J. (2019a). 'It's like the gold rush': the lives and careers of professional video game streamers on Twitch. tv. Information, *Communication & Society*, 22(3), 336-351.
- Johnson, M. R., & Woodcock, J. (2019b). "And today's top donator is": How live streamers on Twitch. tv monetize and gamify their broadcasts. *Social Media+Society*, 5(4), 1-11.
- Jöreskog, K. G., & Sörbom, D. (1996). *LISREL 8.70: User's reference guide*. Scientific Software International.
- Kabadayi, S., & Price, K. (2014). Consumer Brand engagement on Facebook: liking and commenting behaviors. *Journal of Research in Interactive Marketing* 8(3). 203-223.  
<https://doi.org/10.1108/JRIM-12-2013-0081>
- Kavanagh, D. (2019, August 20). Watch and Learn: The Meteoric Rise of Twitch. *Global Web Index blog*. Retrieved from: <https://blog.gwi.com/chart-of-the-week/the-rise-of-twitch/>
- Kenney, M., Zysman, J., Kushida, K., Murray, J., & Christian, N. (2016). The Rise of the Platform Economy. *Issues in Science & Technology*, 32(3), 61–69. <https://doi.org/10.17226/21913>
- Kenney, Martin, Bearson, D., & Zysman, J. (2019, December 19). The Platform Economy Matures: Pervasive Power, Private Regulation, and Dependent Entrepreneurs. [Roundtable], Berkeley Roundtable on the International Economy, *SSRN Electronic Journal*.  
[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3497974](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3497974)
- Khamis, S., Ang, L., & Welling, R. (2017). Self-branding, 'micro-celebrity' and the rise of Social Media Influencers. *Celebrity Studies* 8(2). 191-208. <https://doi.org/10.1080/19392397.2016.1218292>
- Kim, H., Molefi, L. W., Kim, A., Woo, W., Segev, A., & Lee, U. (2017). It's More than Just Sharing Game Play Videos! Understanding User Motives in Mobile Game Social Media. *Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems - CHI EA '17*. 2712-2720. <https://doi.org/10.1145/3027063.3053199>
- Korunka, C., Frank, H., Lueger, M., & Mugler, J. (2003). The Entrepreneurial Personality in the Context of Resources, Environment, and the Startup Process-A Configurational Approach. *Entrepreneurship Theory and Practice* 28(1). 23-42. <https://doi.org/10.1111/1540-8520.00030>
- Kotler, P. (2010). The Prosumer Movement. In Blätzel-Mink B., Hellmann K. (eds) *Prosumer Revisited*. (pp.51–60). VS Verlag für Sozialwissenschaften. [https://doi.org/10.1007/978-3-531-91998-0\\_2](https://doi.org/10.1007/978-3-531-91998-0_2)
- Kücklich, J. (2005). Precarious Playbour : Modders and the Digital Games. *Fibreculture*, 5, 1–8.
- Lakhani, K. R., & Wolf, R. G. (2005). Why Hackers Do What They Do : Understanding Motivation and Effort in Free / Open Source Software Projects 1. In Feller, J., Fitzgerald, B., Hissam, S., & Lakhani, K. R., (eds.) *Perspectives on Free and Open Source Software*, (pp.1–27). MIT Press.
- Lee, E., Lee, J.-A., Moon, J. H., & Sung, Y. (2015). Pictures Speak Louder than Words: Motivations

- for Using Instagram. *Cyberpsychology, Behavior, and Social Networking*, 18(9), 552–556. <https://doi.org/10.1089/cyber.2015.0157>
- Leimeister, J. M., Huber, M., Bretschneider, U., & Krcmar, H. (2009). Leveraging Crowdsourcing: Activation-Supporting Components for IT-Based Ideas Competition. *Journal of Management Information Systems*, 26(1), 197–224. <https://doi.org/10.2753/MIS0742-1222260108>
- Leonardi, P. M. (2013). When Does Technology Use Enable Network Change in Organizations? A Comparative Study of Feature Use and Shared Affordances. *MIS Quarterly*, 37(3), 749–776. <https://doi.org/10.25300/MISQ/2013/37.3.04>
- Leung, L. (2001). College student motives for chatting on ICQ. *New Media and Society*, 3(4), 483–500. <https://doi.org/10.1177/14614440122226209>
- Levene, H. (1960). Robust tests for equality of variances. In Olkin I. (eds.). *Contributions to Probability and Statistics: Essays in Honor of Harold Hotelling*. (pp. 278–292.) Stanford University Press.
- Lottridge, D., Bentley, F., Wheeler, M., Lee, J., Cheung, J., Ong, K., & Rowley, C. (2017). Third-Wave Livestreaming: Teens’ Long Form Selfie. *Proceedings of the 19th International Conference on Human-Computer Interaction with Mobile Devices and Services*. 1-12. <https://doi.org/10.1145/3098279.3098540>
- Lu, Z., Xia, H., Heo, S., & Wigdor, D. (2018). You Watch, You Give, and You Engage: A Study of Live Streaming Practices in China. *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*. 18(466). 1-13. <https://doi.org/10.1145/3173574.3174040>
- Majchrzak, A., Faraj, S., Kane, G. C., & Azad, B. (2013). The contradictory influence of social media affordances on online communal knowledge sharing. *Journal of Computer-Mediated Communication*, 19(1), 38–55. <https://doi.org/10.1111/jcc4.12030>
- Marshall, M. (2006, October 9). They did it! YouTube bought by Google for \$1.65B in less than two years. *Venture Beat*. <https://venturebeat.com/2006/10/09/they-did-it-youtube-gets-bought-by-google-for-165b-in-less-than-two-years/>
- Marwick, A. E. (2015a). You May Know Me from YouTube: (Micro-)Celebrity in Social Media. In Marshall P. D., & Redmond, S., (eds.) *A Companion to Celebrity*. (pp.333-350). John Wiley & Sons. <https://doi.org/10.1002/9781118475089>
- Murthy, D. (2008). Digital Ethnography: An Examination of the Use of New Technologies for Social Research. *Sociology*, 42(5), 837–855. <https://doi.org/http://dx.doi.org/10.1177/0038038508094565>
- Norman, D. A. (1988). The psychology of everyday things. *Basic Books*.
- Nov, O., & Ye, C. (2010). Why do people tag?: motivations for photo tagging. *Communications of the ACM*, 53 (7), 128–131. <https://doi.org/10.1145/1785414.1785450>
- Nunnally, J. C. (1967). *Psychometric theory*. McGraw-Hill.

- O’Riordan, S., Feller, J., & Nagle, T. (2016). A categorisation framework for a feature-level analysis of social network sites. *Journal of Decision Systems*, 25(3), 244–262. <https://doi.org/10.1080/12460125.2016.1187548>
- Paré, G., Trudel, M. C., Jaana, M., & Kitsiou, S. (2015). Synthesizing information systems knowledge: A typology of literature reviews. *Information and Management* 52(2). 183-199. <https://doi.org/10.1016/j.im.2014.08.008>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *The Journal of Applied Psychology*, 88(5), 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Ringle, C., Wende, S., & Becker, J. (2015). SmartPLS 3. Bönningstedt: SmartPLS. Retrieved from <http://www.smartpls.com>
- Ritzer, G. (2010). Focusing on the Prosumer. In Blättel-Mink B., Hellmann KU. (eds) Prosumer Revisited. (pp. 61–79). VS Verlag für Sozialwissenschaften. [https://doi.org/10.1007/978-3-531-91998-0\\_3](https://doi.org/10.1007/978-3-531-91998-0_3)
- Ritzer, G. (2015). Prosumer Capitalism. *Sociological Quarterly*, 56(3), 413–445. <https://doi.org/10.1111/tsq.12105>
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *The American Psychologist*, 55(1), 68–78. <https://doi.org/10.1037/0003-066X.55.1.68>
- Ryan, Richard M., & Deci, E. L. (2020). Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. *Contemporary Educational Psychology* 61(4). 1-11. <https://doi.org/10.1016/j.cedpsych.2020.101860>
- Sarstedt, M., Hair, J. F., Ringle, C. M., Thiele, K. O., & Gudergan, S. P. (2016). Estimation issues with PLS and CBSEM: Where the bias lies! *Journal of Business Research* 69 (10). 3998-4010. <https://doi.org/10.1016/j.jbusres.2016.06.007>
- Scholz. (2012). Digital Labor - The Internet as Playground and Factory. *Routledge*. <https://doi.org/10.1080/09518398.2013.816888>
- Schrock, A. R. (2015b). Communicative affordances of mobile media: Portability, availability, locatability, and multimodality. *International Journal of Communication*, 9(1), 1229–1246. <https://doi.org/10.1177/0094306111425016k>
- Senft, T. M. (2009). Camgirls: Celebrity and Community in the Age of Social Networks. *Peter Lang Publishing*. <https://doi.org/10.3983/twc.v3i0.120>
- Senft, T. M. (2013). Microcelebrity and the Branded Self. In Hartley J., Burgess J., & Bruns, A., (Eds.) *A Companion to New Media Dynamics* (pp. 346–354). Blackwell Publishing. <https://doi.org/10.1002/9781118321607.ch22>
- Siuttila, M. (2018). The gamification of gaming streams. *Proceedings of the GamiFIN Conference 2018*,

- <https://doi.org/10.11.1.105.5167>
- Sjöblom, M., & Hamari, J. (2017). Why do people watch others play video games? An empirical study on the motivations of Twitch users. *Computers in Human Behavior*, 75 (10), 985–996. <https://doi.org/10.1016/j.chb.2016.10.019>
- Smythe, D. W. (1977). Communication: Blindspot of Western Marxism. *Canadian Journal of Political and Social Theory*, 1(3), 1–27.
- Spangler, T. (2018, January 16). YouTube Sets Stricter Requirements for Creator Partners in Response to Advertiser Concerns. *Variety*. <https://variety.com/2018/digital/news/youtubechanges-partner-program-google-preferred-advertisers-1202665815/>
- Statt, N. (2017, April 21). Twitch’s new affiliate program will let almost any streamer earn money. *The Verge*. <https://www.theverge.com/2017/4/21/15385190/twitch-affiliate-program-ad-revenue-game-streaming-youtube>
- Szabo, G., & Huberman, B. A. (2010). Predicting the Popularity of Online Content. *Communications of the ACM* 53(8), 80-88. <https://doi.org/10.1145/1787234.1787254>
- Tang, J. C., Venolia, G., & Inkpen, K. M. (2016). Meerkat and Periscope: I Stream, You Stream, Apps Stream for Live Streams. *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*. 4770-4780. <https://doi.org/cc63>
- Tankovska, H. (2021, January 26). *Hours of video uploaded to YouTube every minute as of May 2019*. Statista. Retrieved from: <https://www.statista.com/statistics/259477/hours-of-video-uploaded-to-youtube-every-minute/>
- Taylor, N., Bergstrom, K., Jenson, J., & De Castell, S. (2015). Alienated playbour: Relations of production in EVE online. *Games and Culture*, 10(4), 365–388. <https://doi.org/10.1177/1555412014565507>
- Taylor, T. L. (2018). *Watch Me Play*. Princeton University Press <https://doi.org/10.2307/j.ctvc77jqw>
- Terranova, T. (2013). Free labour. In T. Scholz (eds.) *Digital Labor: The internet as playground and factory* (pp. 33–57). Routledge.
- Todd, P. R., & Melancon, J. (2018). Gender and live-streaming: source credibility and motivation. *Journal of Research in Interactive Marketing* 12(1), 79-93. <https://doi.org/10.1108/JRIM-05-2017-0035>
- Treem, J. W., & Leonardi, P. M. (2013). Social media use in organizations: Exploring the affordances of visibility, editability, persistence, and association. *Annals of the International Communication Association*, 36(1), 143–189. <https://doi.org/10.1080/23808985.2013.11679130>
- Twitch (2017), *Twitch audience*, <https://twitchadvertising.tv/audience/>
- Twitch. (2018). *Joining The Affiliate Program*. <https://help.twitch.tv/customer/portal/articles/2785927-joining-the-affiliate-program>

- Valentine R., (2019, February 13). *Esports now officially a profession in China*, Gamesindustry.biz. <https://www.gamesindustry.biz/articles/2019-02-13-esports-now-officially-a-profession-in-china>
- Van Dijck, J. (2009). Users like you? Theorizing agency in user-generated content. *Media, Culture and Society* 31(1). 41-58. <https://doi.org/10.1177/0163443708098245>
- Van Dijck, J., & Poell, T. (2013). Understanding Social Media Logic. *Media and Communication* 1(1). 2-14. <https://doi.org/10.17645/mac.v1i1.70>
- Venkatesh, V. (2000). Determinants of Perceived Ease of Use: Integrating Control, Intrinsic Motivation, and Emotion into the Technology Acceptance Model. *Information Systems Research*, 11(4), 342–365. <https://doi.org/10.1287/isre.11.4.342.11872>
- Werbach, K., & Hunter, D. (2015). *The Gamification Toolkit*. Wharton University Press.
- Wohn, Y. D., & Freeman G., (2020). Audience Management Practices of Live Streamers on Twitch, *Proceedings of IMX '20: ACM International Conference on Interactive Media Experiences*. 106-116. <https://doi.org/10.1145/3391614.3393653>
- Woodcock, J., & Johnson, M.R. (2019a). Live Streamers on Twitch.tv as Social Media Influencers: Chances and Challenges for Strategic Communication. *International Journal of Strategic Communication*, 13(4), 321 - 335.
- Woodcock, J., & Johnson, M. R. (2019b). The Affective Labor and Performance of Live Streaming on Twitch.tv. *Television and New Media*, 20(8). 813-823. <https://doi.org/10.1177/1527476419851077>
- Wyatt, R., (2020, December 08). *2020 is YouTube Gaming's biggest year, ever: 100B watch time hours*. Youtube Blog. <https://blog.youtube/news-and-events/youtube-gaming-2020/>
- Xiao, M., Wang, R., & Chan-Olmsted, S. (2018). Factors affecting YouTube influencer marketing credibility: a heuristic-systematic model. *Journal of Media Business Studies* 15(4). 1-26. <https://doi.org/10.1080/16522354.2018.1501146>
- Zhang, G., & Hjorth, L. (2019). Live-streaming, games and politics of gender performance: The case of Nüzhubo in China. *Convergence* 25(5-6). 807-825. <https://doi.org/10.1177/1354856517738160>
- Zhao, Q., Chen, C. Der, Cheng, H. W., & Wang, J. L. (2018). Determinants of live streamers' continuance broadcasting intentions on Twitch: A self-determination theory perspective. *Telematics and Informatics* 35(2). 406-420. <https://doi.org/10.1016/j.tele.2017.12.018>



## PUBLICATIONS

- Publication I Törhönen, M., Giertz, J., Hamari J., & Weiger, W., (2021) Streamers: the new wave of digital entrepreneurship? Extant corpus and research agenda, *Electronic Commerce Research and Applications*, 46, Advance online publication, <https://doi.org/10.1016/j.elerap.2020.101027>
- Publication II Törhönen, M., Hassan, L., Sjöblom, M., & Hamari, J., (2019). Play, Playbour or Labour? The Relationships between Perception of Occupational Activity and Production among Streamers and YouTubers, *Proceedings of the 52nd Annual Hawaii International Conference on System Sciences (HICSS)*, 2558-2567. University of Hawaii. <https://doi.org/10.24251/hicss.2019.308>
- Publication III Törhönen, M., Sjöblom, M., Hassan, L., & Hamari, J. (2020). Fame and fortune, or just fun? A study on why people create content on video platforms. *Internet Research*, 30(1), 165-190. <https://doi.org/10.1108/intr-06-2018-0270>
- Publication IV Törhönen, M., Sjöblom, M., & Hamari, J., (2018). Likes and views: investigating internet video content creators perceptions of popularity., *Proceedings of the 2nd GamiFIN conference*,. 108-114. CEUR-WS. <http://ceur-ws.org/Vol-2186/paper13.pdf>
- Publication V Sjöblom, M., Törhönen, M., Hamari, J., & Macey, J. (2019). The ingredients of Twitch streaming: Affordances of game streams. *Computers in Human Behavior*, 92(3), 20-28. <https://doi.org/10.1016/j.chb.2018.10.012>





# PUBLICATION I

Streamers: the new wave of digital entrepreneurship? Extant corpus and research agenda

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## Streamers: the new wave of digital entrepreneurship? Extant corpus and research agenda

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### ABSTRACT

Video content creation by “amateur” private users has taken on professional (i.e. work) characteristics. The emergence of user-centric video sharing services (e.g. YouTube, Twitch, Mixer) has set the scene for the rise of micro-celebrities and influencers making video content creation a valuable source of income. The development of occupational and commercial elements within the activity has gained a significant amount of attention from the mainstream media but also from academic research. This paper presents a literature review that aims to examine the nature of the available literature (75 articles) on the occupational characteristics of video content creation. The literature review examines the development of research and terminology of this topic, the theoretical and conceptual frameworks utilized in the examined research, and how the elements of work have been examined and perceived in the examined literature. The results reveal an ongoing development of entrepreneurial aspects in the activity and highlight the need for further research on video content creation in a work context.

### 1. Introduction

The pervasive growth of information and communications technology fuels the convergence of work and leisure. The development of digital economies (e.g. sharing economy, platform economy), digital environments (e.g. virtual worlds and games) and the digital collaborative culture (e.g. social media and participatory culture) has enabled the rise of entrepreneurial-like content creation and distribution through digital platforms. Consequently, work and occupational life is becoming more game-like (i.e. gamification) (Huotari and Hamari, 2017; Vesa et al., 2017), while leisure activities start to take on work-like characteristics where work and play are transforming into a hybrid form, frequently coined as playbour (Fuchs, 2014; Kücklich, 2005) or digital labour (Fuchs, 2014; Kücklich, 2005; Scholz, 2012; Terranova, 2000).

“Amateur” video content creation by private individuals (such as in YouTube and Twitch) has become a popular area of such forms of hybrid entrepreneurship, which is afforded by digital platforms that have become characterized by their long-tail nature (Anderson, 2006) and provide legitimate business opportunities for these amateur individuals

(Tassi, 2018). The production and distribution of this type of asynchronous (pre-recorded video) and synchronous video content (live video content) became a popular co-creative activity for private amateur individuals through the emergence of dedicated video sharing platforms such as YouTube in the late 00’s. YouTube as a platform provided a way for individuals to express themselves through (asynchronous, pre-recorded) video formats and offered social recognition through the platform. With the development of YouTube advertising in 2010, the content creators were granted access to advertising revenue, which allowed the activity to begin to develop more professionalized features. Further developments of synchronous “live streaming” technology and innovative streaming and video sharing services such as Twitch and Mixer, have enhanced the professionalization and revenue potential for content creators through dedicated support/partner programs and systems. This has generated a global phenomenon around digital video content and nurtured the development of professionalized video content creator culture, as one of the most advanced manifestation of playbour (Fuchs, 2014; Kücklich, 2005).

Income generated from video content creation is typically a combination of different revenue streams derived from platform-specific

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monetization services, external partnerships and collaborations, potential merchandise sales and cross-platform content syndication and interaction (Rose, 2019). The platform-specific monetization structures are one of the main sources of income for video content creators and have become more and more versatile during the last decade. Most of these revenue sources are made accessible through different forms of partnership and affiliate programs, which are based on a contractual exchange between the creator and the platform. For example, Twitch provides two different forms of collaboration for their creators, the affiliate program (lower-level access to revenue and services) and partnership program (higher-level access to revenue and services). Access to these programs is based on specific visibility, viewer engagement and activity metrics on the platform, and in Twitch is heavily gamified to incentivize creators to develop their presence and retain them on the platform (Siutula, 2018; Twitch, 2020). Most platform-specific partnership programs offer variations of similar revenue sources including, advertising revenue share, donations, and subscription services. Advertising revenue share is derived from ad placements during the creator’s content delivery, donations are either hard currency or virtual currency gifts from viewers and subscription share is derived from different types of subscription packages provided by the platform and the creator.

In addition to platform provided revenue streams, video content creators also increasingly take on the role as a spokesperson for different brands (Lancaster, 2018), and generate additional revenue through sponsorships, endorsements, and other means of brand collaborations as another prevalent commercial aspect of video content creation. Video content creators may generate these opportunities on their own, which requires significant entrepreneurial effort, or they can join a multi-channel network, that represents content creators and establishes, e.g. commercial collaborations, for them (Kozlowski, 2013). Content creators also sell merchandise related to their activities and have begun to further utilize cross-platform interaction to develop a level of digital “celebrity”, also known as “micro-celebrity” or “influencer culture” (Khamis et al., 2017), by utilizing other social media platforms such as Instagram, TikTok, Snapchat etc. to build a community and to further monetize their content creation (Aleti et al., 2019). However, the increasing occupational elements of such activities are still not acknowledged as legitimate forms of work, regardless of the increasing media coverage of issues related to the entrepreneurial aspects of this activity such as increasing fatigue and mental health issues related to work load as well as fame and fortune resulting from engaging in such activities (Parkin, 2018). Indeed, extraordinarily little support and organizational structures are provided for content creators at large.

These elements of commercialisation, merged with the hedonistic and expressive nature and background of these activities, make this form of playbour highly strategic and entrepreneurial at its core, but at the same time emphasizes the elements of commodification of the activities and individuals, resulting from the multitude of different revenue models available. This dichotomy between creative entrepreneurial work (Banks and Deuze, 2009; Bruns, 2009; Fish and Srinivasan, 2012; Senft, 2009) and commodifying labour (Postigo, 2016; Scholz, 2012; Smythe, 1977; Terranova, 2000; Van Dijck, 2009) has been a topic of debate around digital content creation for numerous years and highlights the complex nature of hybrid work, where labour and leisure

merge.

Video content creation represents a novel hybrid form of work and play that has been enabled by developments of digital technology as well as trends in culture, economy, and society. It represents the most popular manifestation of playbour, which warrants the need for a thorough understanding how it may act as legitimate forms of work/profession and for further investigation into its current established forms and structures. To increase the knowledge about this complex phenomenon and the merger of work and play involved, this systematic literature review will examine existing literature (75 papers) highlighting occupational, commercial or strategic aspects of this activity, and analyse the elements and structures of work and labour emerging from the reviewed sources. The research will aim to provide an overview of the available literature on this subject and the nature of the collected literature. By examining the types of sources and literature included in the data of the paper (research interest, domain of research) and the associated terminology utilized in the examined literature, this research will aim to provide an answer to the following research questions:

RQ1: How has the research on the occupational elements of video content creation developed?

RQ2: How are the occupational elements of video content creation evident in the development of associated terminology?

The associated terminology as well as the associated definitions will be analysed for nuances of work and occupational developments. The terminology was selected for the analysis, as it is considered a reflection of the conceptual organization of a special subject as well as a necessary medium of expression and professional communication (Cabre, 1989). Therefore, the terminology could provide information about the current framing of the activity as work, but also reveal if the already established terminology for this activity is associated with the occupational aspects and developments of the activity.

The theoretical frameworks and outcomes of each examined paper were also analysed in order to examine the framing of this activity as work and the types of theoretical and conceptual foundations that may have been used to examine elements of work within video content creation. The outcomes of the sources were categorized and analysed, and the perception of the activity as creative entrepreneurial work or as commodifying labour was examined to answer the following research questions:

RQ3: What theoretical frameworks have been utilized in the examination of video content creation as an occupational activity?

RQ4: How are the occupational activities related to video content creation perceived within the examined literature in relation to the discussion of the activity as exploitative work or as an entrepreneurial form of creative labour?

A further understanding of the development of the professional practices, socio-economic relationships and innovative services related to video content creation provide valuable information about the processes and motivations behind this form of digital labour where the elements of leisure and work collide, and where the likelihood of stability and success are still relatively small. These insights could legitimize and provide structure for video content creation as a digital profession and extend our understanding of modern work and the contrasting processes related to the transformation of work such as gamification.

## 2. The review & methods

### 2.1. The review procedure

As the development of video content creation has largely been labelled by technology and popular global platforms, there is a lot of fragmentation in the terminology used to depict the activity. Most common terminology seems to be associated with specific processes or activities (e.g. delivery of asynchronous or synchronous video content) and specific platforms or content types (YouTuber, vlogger etc.) and the existing knowledge of the terminology associated with this activity was

**Table 1**  
Terminology associated with video content creation.

Asynchronous video content creator	Asynchronous video content creation	Synchronous video content creator	Synchronous video content creation	Generic terms
Vlogger	Vlogging	Live streamer	Live streaming	Influencer
YouTuber		Streamer Twitch streamer	Streaming Twitch streaming	

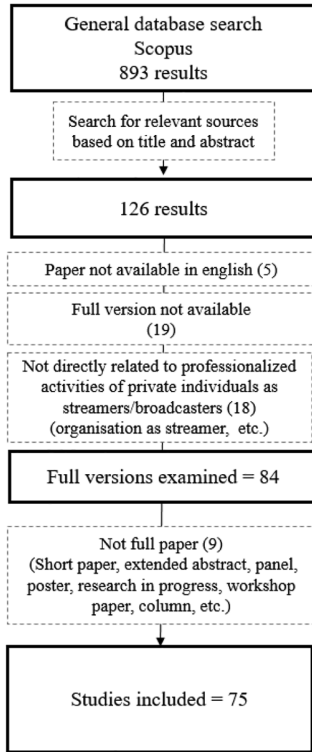


Fig. 1. Flowchart of the analysis process.

used to develop the search string for this literature review. In order to depict the commercial or professionalised aspects of this activity, the researchers also utilized the term “influencer” as a more commonly used term associated with strategic and commercial aspects of digital content creation (Khamis et al., 2017). The terms identified for the literature review, can be found from Table 1 below.

This literature review was conducted as a combination of a scoping review (Paré et al., 2015) and a theoretical review (Paré et al., 2015), in order to gain further insight into the research questions of this study and collect a representative sample for the analysis. A scoping review is primarily used to gain further insight into the nature and range of research on a specific topic (Paré et al., 2015). The utilization of the scoping review process allowed the researchers to gain an understanding of the current extent of research on this topic as well as the nature of the research. The scoping review process was utilized to answer RQ’s 1, 2 and 4. In order to extend the review, the scoping review was combined with elements of a theoretical review, to answer RQ 3. The theoretical review processes allowed the research team to identify, and analyse relevant theoretical frameworks within the texts (Paré et al., 2015) and extend the understanding of the topic based on them. The search for relevant literature was conducted using the identified search words (Table 1) on the title, abstract, keywords and full text, in order to gather an extensive sample of relevant literature. The search words were used to perform queries using the Scopus notation and the following search string for the data collection: ((ALL (streamer) OR ALL (youtuber) OR ALL (vlogger) OR ALL (influencer)) AND (ALL (twitch) OR ALL (youtube))). The search string development proved challenging due to the dispersed terminology associated with the activity, as well as the homonymous nature of specific terms such as “stream\*” and “Twitch”. Some of these homonymous terms and more generic terms such as “live” had to be either removed from the string or further specified, in order to gather more relevant results for the topic of this research. In the end, the terms “Twitch” and “YouTube” were utilized as identifiers in the search string to specify relevant sources to the topic. The Scopus database was selected to be used in this literature review, as it offers a comprehensive abstract and citation database of international peer-reviewed resources. This allowed the researchers to focus on one database with extended coverage rather than numerous more specialized databases.

The initial search identified 893 sources, of which 126 were selected for further review based on their title and abstract. The title and abstract had to reflect a commercial or occupational association to video content creation or structures that support the commercial or occupational development of video content creators (e.g. viewer engagement practices). These sources were further examined using a pre-determined selection criterion (peer-reviewed papers in an international publication, available in English, focusing on the occupational activities/aspects of private video content creators) and a final sample of 84 sources were identified for further analysis. During the final review of sources, 9

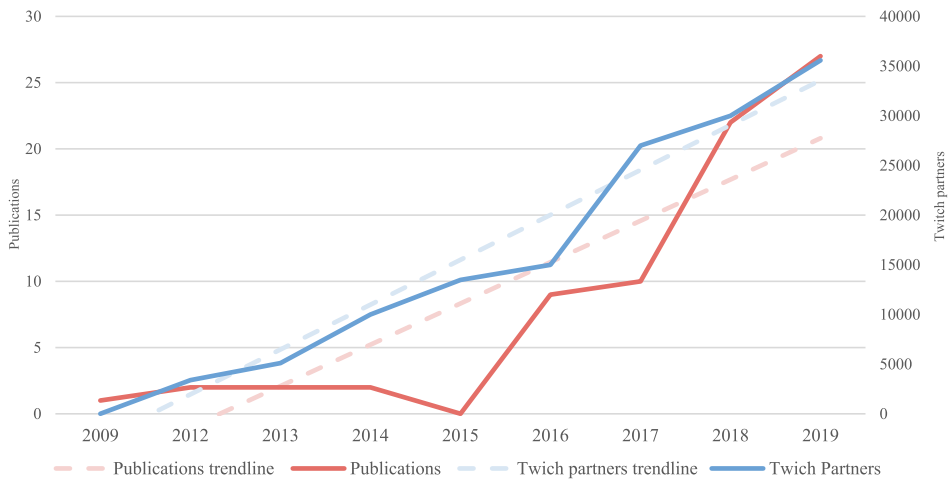


Fig. 2. The comparison of amount of publications per year and Twitch partners per year, and the corresponding trendlines.

**Table 2**  
Type of studies analysed.

Non-Empirical papers		N = 9				
(Berryman and Kavka, 2017; Brownlee, 2016; Cunningham and Craig, 2017; Jerslev, 2016; Keating, 2013; Partin, 2019; Raun, 2018; Wang et al., 2019; Zhao, 2016)						
Quantitative		Qualitative		Mixed Method		
Papers	N	Papers	N	Papers	N	
Survey data	(Chen and Lin, 2018; Gerhards, 2019; Gros et al., 2017; Lee and Watkins, 2016; Lee et al., 2019; Lessel et al., 2018; Liu et al., 2019; Munnukka et al., 2019; Rihl and Wegener, 2019; Sjöblom and Hamari, 2017; Törhönen et al., 2019; Xiao et al., 2018; Zhao et al., 2018; Zhou et al., 2019)	14		0	(Biel and Gatica-Perez, 2013; Hou et al., 2019; Lu et al., 2018; Tang et al., 2016; Wohn et al., 2018)	5
Platform data	(Arnett et al., 2019; Churchill and Xu, 2016; Jia et al., 2018; Kaytoue et al., 2012; Koch et al., 2018; Tu et al., 2018; Wattenhofer et al., 2012; Zhu et al., 2017)	8		0	(Ashman et al., 2018; McRoberts et al., 2016)	2
Interview data		0	(Boxman-Shabtai, 2019; Johnson, 2019; Johnson and Woodcock, 2019a, 2019b; Li et al., 2018; Martínez and Olsson, 2019; Wang, 2020; Woodcock and Johnson, 2019)	8	(Bishop, 2019; Cunningham et al., 2019; Friedländer, 2017; Hou et al., 2019; Lu et al., 2018; Tang et al., 2016)	6
Video content	(Aran et al., 2014; Ferchaud et al., 2018; Fietkiewicz et al., 2018)	3	(Beers Fägersten, 2017; Garcia-Rapp, 2017, 2016; Garcia-Rapp and Roc-Cuberes, 2017; Harley and Fitzpatrick, 2009; Hou, 2019; Jorge et al., 2018; Mardon et al., 2018; Nicoll and Nansen, 2018; Postigo, 2016; Scolari and Fraticelli, 2019; Wotanis and McMillan, 2014)	12	(Bhatia, 2018; Biel and Gatica-Perez, 2013; Friedländer, 2017; McRoberts et al., 2016)	4
Observations/ethnography	(Sjöblom et al., 2019; Yu et al., 2018)	2	(Faas et al., 2018; Garcia-Rapp and Roc-Cuberes, 2017; Guarriello, 2019; Hou, 2019; Johnson, 2019; Johnson and Woodcock, 2019b; Postigo, 2016; Wang, 2020; Woodcock and Johnson, 2019; Zhang and Hjorth, 2019; Zimmer, 2018)	11	(Ashman et al., 2018; Bishop, 2019; Friedländer, 2017)	3
Other digital content		0	(Cullen and Ruberg, 2019; Deller and Murphy, 2020; Garcia-Rapp and Roc-Cuberes, 2017; Hou, 2019; Pellicone and Ahn, 2017; Postigo, 2016; Scolari and Fraticelli, 2019; Siutula, 2018; Wotanis and McMillan, 2014)	9	(Bhatia, 2018; Bishop, 2019; Cunningham et al., 2019; Friedländer, 2017)	4

**Table 3**  
Domains of research.

Domain	Total of studies	%	Empirical studies	%	Non-empirical studies	%
Behaviour & interaction	18	24	18	27.3	0	0
Media production – content practices and performance	18	24	15	22.7	3	33.3
Celebrity/popularity in video content creation	12	16	10	15.2	2	22.2
Work/entrepreneurship	7	9.3	5	7.6	2	22.2
Digital media - formats & structure	6	8	6	9.1	0	0
Commercial effects (branding & advertising/marketing)	6	8	6	9.1	0	0
Online communities	4	5.3	3	4.5	1	11.1
Economy & industries	4	5.3	3	4.5	1	11.1

papers were also removed as they were not full articles. The full review process can be seen in Fig. 1.

Each source was reviewed and coded by the members of the research team based on pre-determined units, which consisted of bibliometric identifiers (Authors, Title, Year, Source title, Volume, Issue, Art. No. and Abstract), paper type units (empirical/non-empirical paper, method, theoretical/conceptual framework), and topic or outcome specific units (domain of research, theme of outcome). Each article was also reviewed individually for common terms used to describe the activity of video content creation and the definitions for the content creator or the content creation activities. The analysis of terms and definitions was conducted using mixed methods, by combining more quantitative data analysis and content analysis (Bryman, 2012; Shelley and Krippendorff,

1984) to identify emerging themes and connections.

### 3. Results

#### 3.1. Research interest

This section responds to RQ1 (*How has the research on the occupational elements of video content creation developed?*). The research interest related to video content creation has developed significantly during the last decade, with significant growth in the number of relevant publications appearing after 2014 and continuing to signal positive growth, as seen in the trendline for relevant publications per year in Fig. 2.

The increase in publications per year can be seen to follow a similar

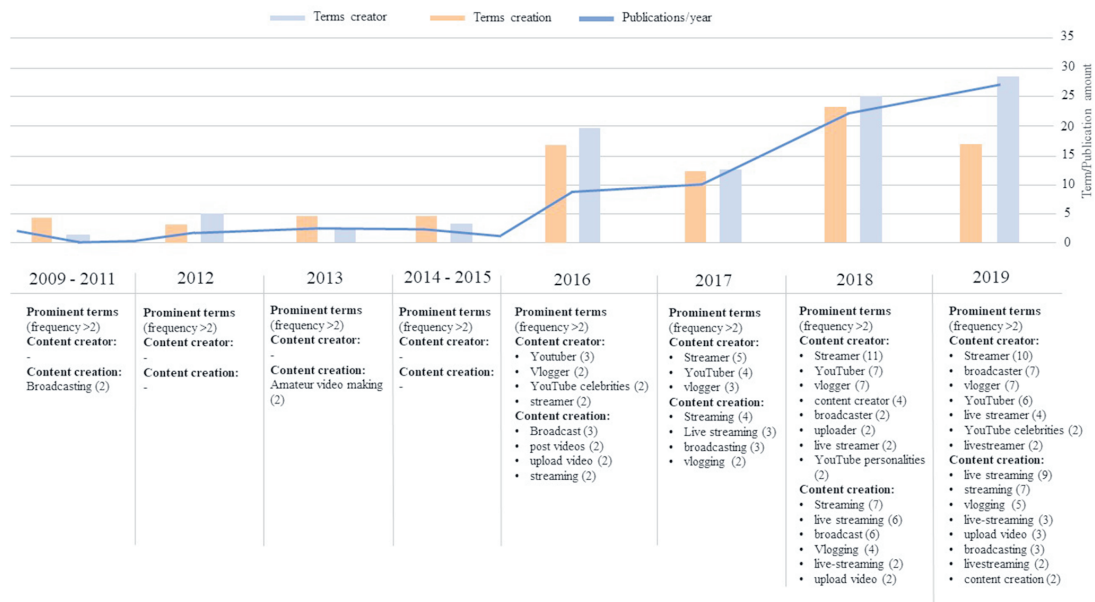


Fig. 3. Number of terms for content creator and content creation per year displayed in columns and yearly growth of publications examined on the trendline.

trend to the development of professionalised aspects of video content creation, which is highlighted in Fig. 2, through the examination of growth in Twitch partners per year (Twitch Tracker, 2020). Annual growth in the number of publications related to occupational aspect of video content creation and the growth in the number of Twitch partners indicate a similar trend in the development of the phenomenon, but it should be noted that the increase in research interest may also reflect the slight lag associated with academic publishing.

The examined research articles were mostly based on empirical evidence as seen in Table 2, and the non-empirical papers were primarily conceptual papers, focusing on larger concepts (e.g. celebrity, economy) through specific examples/cases and themes, or papers developing frameworks or models, but with no clear empirical data. A full list of publications and their details can be found in Table A1. The empirical articles examined in our review were primarily based on survey data,

platform-specific data collected through API's and video content analysis. Interviews, other digital content analysis (e.g. forums, profile pages), and observations/ethnography were also popular data in the examined publications. It should be noted that some publications examined more than one data set, which is reflected in Table 2. All empirical and non-empirical papers were included in the further analysis due to their relevance to the topic of this research.

Each paper was also categorized based on the research domain of the focal/underlying topic and its relation to the phenomenon of video content creation as seen in Table 3. Most empirical research articles examined behaviour or psychology behind activities related to video content creation. Such papers either examined the behaviour of the video content creators themselves such as motivation (Gros et al., 2017; Hou et al., 2019; Sjöblom and Hamari, 2017; Törhönen et al., 2019; Zhao et al., 2018; Zimmer, 2018), or the interaction and behaviour of

Table 4 Terminology frequency.

Terminology Synchronous	Frequency	Terminology Asynchronous	Frequency	Terminology Both/unidentified	Frequency
<i>Terminology content creator</i>					
Streamer	24	Vlogger	18	Streamer	5
Broadcaster	10	YouTuber	17	YouTuber	3
Live streamer	4	YouTube Celebrity	6	Vlogger	4
Live-streamer	1	Content creator	3	Content creator	2
Livestreamer	2	YouTube creator	3	Live streamer	2
		Creator	3		
		Uploader	2		
<i>Terminology content creation</i>					
Streaming	16	Vlogging	13	Content creation	2
Live streaming	14	Upload video	7	Live streaming	5
Broadcasting	13	Post video	4	Streaming	5
Live-streaming	6	Produce video	2	Broadcasting	2
Livestreaming	2	Upload content	2	Upload video	2
		Upload vlog	2		
		Broadcast	2		
		Amateur video making	2		
		Video blogging	2		
		Produce vlog	2		

the viewer in relation to the video content creator (Lee et al., 2019; McRoberts et al., 2016). Another major domain of research was the media production of video content. Papers in this domain examined themes such as the practices of video content creation (Aran et al., 2014; Bishop, 2019; Scolari and Fraticelli, 2019; Tang et al., 2016) as well as the performance elements (Bhatia, 2018; Wotanis and McMillan, 2014; Zhang and Hjorth, 2019) within video content. Different digital media formats and structures were also examined in relation to video content creation and papers in this category primarily focused on the structures (e.g. economy, restrictions) and elements in different video sharing platforms (Cullen and Ruberg, 2019; Lessel et al., 2018; Postigo, 2016; Siuttila, 2018; Sjöblom et al., 2019; Wattenhofer et al., 2012) or the way in which elements such as popularity can be formed within these structures and services (Jia et al., 2018; Koch et al., 2018).

More direct characteristics of work and occupational elements were examined in the domain categories related to celebrity, the commercial aspects of video content creation and work and entrepreneurship. Celebrity was examined in particular in the context of micro-celebrity and through examination of specific examples and channels (Garcia-Rapp and Roc-Cuberes, 2017; Jerslev, 2016; Raun, 2018; Rihl and Wegener, 2019). The commercial aspects of video content creation primarily focused on the brand effect of video content creators (Munnukka et al., 2019; Xiao et al., 2018) and advertising or marketing such as the value of video content creators in advertising and marketing efforts (Gerhards, 2019; Xiao et al., 2018), whereas the papers in the work and entrepreneurship domain examined the value and structure of work and entrepreneurship in video content creation.

### 3.2. Terminology & definitions

This section answers RQ2 (*How are the occupational elements of video content creation evident in the development of associated terminology?*). For this study, the collection and analysis of terms and associated definitions of those terms was conducted to examine if elements of work, or the professional structures within the activity were evident in the development of the terminology, or within the established terminology. Terminology and terms are often used to describe human activities and possess the communicative power to organise and structure activities and reveal relationships forming within them (Cabre, 1989). In order to distinguish and analyse the terminology used in the scope of digital video content creation, the papers were categorized based on the type of content or content creation they examined (synchronous, asynchronous, both or undefined), and terminology for content creation and content creator was collected from each paper. While some sources used different terminology synonymously to describe the same activity or the creator, these variations were also collected for analysis. The development of the terminology was contrasted to the number of publications per year and most prominent terms per year (Fig. 3). Table 4 also lists the most frequently used terminology. The full list of analysed terms per year can be found in Table A2.

The early terminology, as seen in Fig. 3, reflects the emergence of the activity, with lesser fragmentation in terms from 2009 to 2015. Greater fragmentation of terminology appears with the increased research interest in the topic in 2016 as clearly seen in Fig. 3. The terminology becomes more nuanced and descriptive of synchronous technology (live streaming) and popular platforms (YouTuber) or content (Vlogger). The development of terminology seems to reflect the increased popularity of the term “streamer” (29) or “streaming” (21), which have also become popular descriptive terms for video content creation in mainstream media. Upon closer examination of the available definitions, these terms seem to be used to describe the wider cultural context of video content creation (Sjöblom et al., 2019; Sjöblom and Hamari, 2017). Other established, specialized terms frequently examined in the reviewed literature, are *Vlogger/Vlogging* (which is abbreviated from Video blogger/video blogging) and *YouTuber*, which depict specific content types or the use of specific platforms and have been associated with the more

**Table 5**  
Theoretical and conceptual frameworks.

Theoretical framework	N
Uses and Gratifications theory	5
Affordance theory	2
Field theory	2
Self-Determination Theory (SDT)	2
<b>Other theoretical frameworks and approaches:</b>	
Big five personality traits, Social comparison theory, Genre theory, Credibility theory, Cognitive transactional theory, Balance theory, Media richness theory, Social presence theory, Cognitive load theory, Critical Media Industry Studies (CMIS), Neoliberal theory (Foucauldian perspective), Moral emotions (Haidt's theory), The Unified Theory of Acceptance and Use of Technology (UTAUT), Self-presentation theory, Technology Acceptance Model (TAM), Flow theory	
<b>Conceptual framework</b>	
Parasocial interactions	4
Parasocial relationships	3
<b>Other conceptual frameworks and approaches</b>	
Concept of persona, concept of mimesis, social support provision, affective labour, algorithmic gossip, Hochschild's concept of emotional labour, parasocial attributes	

Note: Nine studies utilized more than two theoretical or conceptual frameworks.

established occupational content creation activities within mainstream media (Gutelle, 2016).

The term “*broadcaster/broadcasting*” seems to be the most prominent term within the analysis with a direct association with our previous understanding of media work (Newby, 2006), where the term has been used to describe a broadcast media professional or the activity of delivering media content. In the collected data, the popularity of the term stays consistent with the increasing fragmentation and development of terminology, and from the occupational terms seems to be consistently used to describe the activity of creating video content. Based on the examination of available definitions for the terms, it seems to also be used as a descriptive term for the activity of media content delivery and the provider of content, for example: “Unlike other social media, the content on a live streaming platform is *broadcast* and viewed synchronously. *Broadcasters* can broadcast their own screens and receive live comments from viewers around the world.” (Zhao et al., 2018). The examined definitions did not reveal a connection between the occupational characteristic of this specific term and the activity of video content creation within this review.

Other occupational or commercial terms associated with the content creator/content creation were terms reflecting celebrity (*YouTube celebrities*), the influencer culture (*YouTube influencer*) and entrepreneurship (*entrepreneurial broadcasters*, *entrepreneurial online video creators*, *entrepreneurial content creators*). The inner conflict of professional-amateur work within this activity is evident with the prominence of the term “amateur” (*amateur filmmaker*, *amateur videographers*, *amateur video making*) and hybrid terms such as “*semi-professional*” and “*amateur-experts*”. The occupational nuances seem to be more evident in the terminology for the content creator, also known as the professional, and the terminology for video content creation seems more fragmented and mechanically descriptive of the process of video content creation with terms such as *upload video*, *create video content*, *post video* and *produce video*.

A further analysis of the available definitions for the terms seem to have various ways in describing the occupational elements of this activity, and most are associated with the commercial aspects rather than the elements of organised work. For example, various definitions reflect the interaction with viewers and the revenue through interaction e.g. “In the live streaming platforms, online streamers can interact with viewers via various objects like audio, video, and text, and they attract a large scale of viewers by singing, chatting or shout-wheat. In return, every viewer can purchase and send virtual gifts during the live process, which is one of the most important business models in these live streaming platforms.” (Tu et al., 2018). And other definitions highlight the brands



**Table 6**  
Studies examining motivation.

Paper	Theoretical/ conceptual framework	Topic of examination	Motivations examined
(Zhao et al., 2018)	Self-determination theory	Video content creation	Challenge, Task enjoyment, Self-presentation, Extrinsic reward, Self-esteem, social benefits, feedback
(Törhönen et al., 2019)	Self-determination theory	Video content creation	Relaxation, Self-expression, Social interaction, Altruism, Skill development, Career Development, Reputation, income
(Zimmer, 2018)	Uses and gratifications	Video content creation	Entertainment, Information, Social interaction, Self-presentation (Celebrity)
(Hou et al., 2019)	Uses and gratifications	Viewing/ consumption	Interactivity, Social status, Humour, Sex appeal
(Sjöblom and Hamari, 2017)	Uses and gratifications	Viewing/ consumption	Flow, Entertainment, Social interaction, Endorsement
(Gros et al., 2017)	Uses and gratification	Viewing/ consumption	Affective (entertainment), Cognitive (learning& information gathering), Personal integrative, social integrative, tension release
(Wohn et al., 2018)	Social support	Viewing/ endorsement	Entertainment, information, socialisation
			Entertainment, support (content improvement), learning, attachment, interaction, support (offline actions)

collaborations and commercial partnerships appearing in video content “Vlogger enjoys public recognition and uses this recognition on behalf of a consumer good, service, or brand by appearing with that good, service, or brand in a vlog post” (Munnukka et al., 2019).

### 3.3. The theoretical and conceptual frameworks

This section responds to RQ3 (*What theoretical frameworks have been utilized in the examination of video content creation as an occupational activity?*). The examined literature presented great fragmentation in terms of theoretical and conceptual frameworks, which could be associated with the relatively novel and developing nature of the topic of video content creation as a hybrid form of labour and its commercial aspects. Only three frameworks were directly associated with elements of labour or work (Foucauldian neoliberal theory, affective labour, Hochschild’s concept of emotional labour), which requested for a more thorough examination and analysis of the other theoretical and conceptual frameworks currently associated with the hybrid playbour evident in video content creation.

The prevalence of behavioural and psychological research within the examined literature was also evident in the analysis of theoretical and conceptual frameworks and the most frequent theoretical and conceptual frameworks (see Table 5) primarily focused on the psychological understanding of this phenomena or the examination of interactions and relationships within in the activity such as parasocial interaction (PSI) (Horton and Richard Wohl, 1956) or parasocial relationships. The theoretical understanding of motivation was also evident in utilized theoretical frameworks such as Uses and Gratifications and Self-determination theory. In order to investigate the type of behaviour examined in relation to video content creation, and its association to work, the empirical studies that utilized the most used motivation theories to examine specific motivational aspects, were analysed further.

Upon further inspection (see Table 6), out of the seven papers that examined motivation, three papers examined the motivation behind

**Table 7**  
Research outcome perspective.

Year	Commodifying digital labour		Neutral/other approach		Creative work	
	n	%	n	%	n	%
2019	3	30	13	28.3	11	57.9
2018	3	30	15	32.6	4	21.1
2017	1	10	7	15.2	2	10.5
2016	2	20	5	10.9	2	10.5
2014	0	0	2	4.3	0	0
2013	1	10	1	2.2	0	0
2012	0	0	2	4.3	0	0
2009	0	0	1	2.2	0	0

video content creation (e.g. Task enjoyment, social interaction, enjoyment etc.) and each of those papers also examined motivations related to work (e.g. income or extrinsic reward from the activity, challenge and skill or career development).

The rest of the examined papers focused on the viewing/consumption behaviour on video content platforms and its relation to video content creators. The examined motivational aspects examined in viewers primarily focused on the elements that motivate further viewing and engagement behaviour, and only one of the papers (Wohn et al., 2018) had examined the motivation to view and endorse a video content, which would provide direct monetary value for the content creator.

### 3.4. The outcomes and the nature of occupational video content creation

This section responds to RQ4 (*How are the occupational activities related to video content creation perceived within the examined literature in relation to the discussion of the activity as exploitative work or as an entrepreneurial form of creative labour?*). As discussed earlier in this paper, digital content creation activities associated with digital economies such as the platform economy (Andersson Schwarz, 2017) have also been associated with commodifying or exploitative features (T. Scholz, 2012; Smythe, 1977; Terranova, 2000), as they are often seen as “free” and afford several enjoyable/entertaining experiences, and create dimensions with social and communal aspects. However as the occupational elements and user centric revenue models of online platforms develop, these activities have also been increasingly considered as novel forms of creative work in related research (Banks and Deuze, 2009; Fuchs, 2014; Van Dijck, 2009). As the development of this type of framing can extend our understanding of this digital activity as work, the outcomes of the examined sources were categorized based on their perception of the activity as commodifying/exploitative work, as productive creative work or as other/neutral.

Although the debate around exploitative/commodifying aspects of digital platforms and interaction has been ongoing for the last decade (Fuchs, 2014; Postigo, 2016; Scholz, 2012; Smythe, 1977; Terranova, 2000; Van Dijck, 2009), the development of this perspective in the context of video content creation seems to have stabilized in the last few years (see Table 7). From the analysed papers, ten provide outcomes related to the exploitative nature of the activity, with three papers highlighting issues related to commodifying the increased sense of intimacy generated through video content creation and the digital environments, and three papers focus on the commercial impact of video content creators on children or young people. The papers draw on concepts such as affective labour (Woodcock and Johnson, 2019) and neoliberal work (Ashman et al., 2018) but also utilize more novel concepts such as parasocial intimacy (Woodcock and Johnson, 2019) and autpreneurs (Ashman et al., 2018) to reflect on the commodifying nature of the activity.

Instead the perception of video content creation as a novel form of creative work has gained significant popularity over the last few years, and significant growth in this perception can be seen during 2019. The examined papers in this category highlighted themes such as new forms of celebrity, through concepts such as celebrification (Jerslev, 2016) and

**Table 8**  
Thematic categories of outcomes.

Occupational aspects of video content creation	n	Commercial aspects of video content creation	n	Other	n
Professional strategies and practices	13	Commercial elements within video content creation	10	Motivation (to produce or consume)	7
Elements/creation of popularity	9	The commercial effect of interaction or relationships	7	Content structure	4
Occupational elements/structures	7	Authenticity and its commercial effects	2	Interaction within video content creation	4
Celebrity (forms and structures)	5	Economic structures	2	Performance elements of video content creation	3
Video content creation as work	5			Video content creation and identity	3
				Video content creation and regulations	3
				Video content creation and community	2
				Social impact of video content creation	1
				Video content creation and learning	1

micro-celebrity, and also the branding effect and role of video content creators as unique influencers to their audiences. The papers in this category also examined practices and performance elements within video content creation, as well as strategies involved in the activity. The papers considered as neutral/other, either did not present the activity as purely work or did not represent either of the ends of the dichotomy between exploitative work or creative work.

The outcomes of the examined literature were also categorized based on the underlying theme of the examined outcome and the final categories were grouped based on their alignment to three groups: occupational/commercial/other. It should be noted that some outcomes represented more than one thematic category, this was most prominent in papers examining behaviour or social interaction and the effects of those on elements such as commercial gain or popularity.

The analysis discovered numerous outcomes highlighting commercial aspects and occupational strategies as seen in Table 8. The themes presented in the occupational category primarily highlighted the development of professional strategies and practices that could further the occupational elements of this activity, such as incorporation strategies related to collaborations, cross platform use and algorithms (Arnett et al., 2019; Bishop, 2019; Koch et al., 2018). Similarly, the commercial category highlighted findings related to the different elements enabling commercial gain from video content creation such as platform elements and (Sjöblom et al., 2019) and the impact of relationships and interaction in relation to commercial gain, such as the role of parasocial interaction and relationships on commercial gain (Munnukka et al., 2019; Rihl and Wegener, 2019; Wohn et al., 2018; Woodcock and Johnson, 2019).

#### 4. Discussion

This literature review examined the existing literature on the increasing professionalisation of video content creation (75) and the perceptions of the activity as a form of labour or work, by analysing the research interest, the development of terminology, theoretical and conceptual frameworks utilized in the existing literature and the

outcomes of the literature. Although the findings indicate a significant development in the research interest in this topic, they also reveal fragmentation in the associated terminology as well as the theoretical and conceptual frameworks utilized to examine the topic. The results also indicate some overarching narratives, especially in relation to the importance of social interaction and their impact on the commercial development of the activity as well as the development of this activity as a form of entrepreneurial work.

##### 4.1. The development of occupational video content creation

The increasing popularity and development of amateur video content creation can be seen in the development of the research interest on the occupational, commercial and strategic aspects of this activity. The amount of empirical and non-empirical research papers has clearly increased after 2016 and the research highlights an interest in the domain of social interaction and behaviour within the activity as well as on the media production aspects of the activity.

The terminology for video content creation was found to be fragmented. Moreover, the increase in publications has enhanced this fragmentation, instead of providing clarity and structure to the terms associated with the activity. The terminology analysis revealed various nuanced terms related to the occupational and commercial aspects of the activity (e.g. celebrity, entrepreneurship, amateur content production) and the findings seem to indicate an ongoing development of terminology for this nascent phenomenon, which may be associated with the emergent nature of this activity and the occupational aspects associated with it.

However, the findings yield interesting observations about the culture of occupational video content creation, by underlining the development of a hybrid form of work and play in terms mixing the “amateur” and “professional” elements e.g. “semi-professional” and “amateur-experts”. The fragmentation and overlap of terminology for video content creation as a leisure activity and the more occupational aspects of video content creation may point to a certain trade-off between work and leisure terminologies. This suggests the way future hybrid forms of work may be represented but may also lead to issues in recognizing the activity as more legitimate form of work, or the lack of necessary visibility and support for the occupational sides of the activity, which may lead to issues related to work life balance (Parkin, 2018).

##### 4.2. The commercial agenda within video content creation

The analysis of theoretical frameworks utilized to examine the occupational and commercial elements of video content creation within the examined sources, also revealed fragmentation in the development of more theoretical and conceptual understanding of this activity and a lack of theoretical and conceptual frameworks directly related to the examination of occupational structures and elements within this activity. Similarly, as in the research domains, most theoretical and conceptual frameworks emphasized the analysis of behaviours and social interactions within video content creation, which were also evident in the outcomes of the examined sources. However, a deeper analysis of the use of the theoretical frameworks and the outcomes of the sources revealed commercial and occupational implications and uses.

Analysing the motivational theories used in the sources revealed that most of those papers examined some occupational elements as motivations to generate video content. Similarly, papers using the conceptual framework of parasocial interaction or parasocial relationships were found to deliver implications related to the commercial impacts of these. Although the analysis indicated that various sources examined this potential commercial impact of social interaction and behaviour, the findings also revealed that the activity was primarily perceived as neutral or creative entrepreneurial work, rather than commodifying at its core. However, it should be noted that the sources that examined the more commodifying elements of video content creation did emphasize

the added commodifying impact generated by the intimate nature of video content creation and the social relations present in the activity.

Based on the findings of this study and the overall fragmentation seen in the results, the occupational structures of video content creation seem to be developing rapidly, but further research on this topic is necessary in order for more legitimate professional aspects and structures to develop within the digital economies and environments. There is a clear need for more economic research on the structures of video content creation in different regions and within the digital spheres. It is also evident that the management of parasocial relationships and the audience is becoming a more significant determinant in the pursuit of commercial gain and a career in video content creation, increasing the level of strategy, entrepreneurial skill as well as social skill required in this hybrid digital profession. As the occupational characteristics of the activity develop and more services become available with user-centric revenue share and interactive features, there is a need to extend the understanding of social interaction (e.g. parasocial interaction and parasocial relationships), the value and workload associated with managing them. This calls for more research focusing on the value creation and the digital economy forming around the activity, as well as the organizational structures, managerial and entrepreneurial aspects of the activity. This type of research could alleviate some of the current evident issues in the occupational endeavours of video content creators, such as mental health issues, fatigue and unstructured work conditions (Parkin, 2018). They could also enhance the understanding of the material and the immaterial value associated with this type of content creation, as well as audience work/interaction associated with the attention economy. This in turn could provide more information about what these types of hybrid forms of work, such as playbour, mean in the future and how they contribute to the future organization of work and also to the power-balance between different entities involved in the commercial processes related to these activities.

## 5. Conclusions

Online video content creation as an amateur media production activity, merges elements of work and play. Whereas the research interest in the characteristics of work within video content creation has clearly increased within the last decade, there seems to be a need for more variety in research but also more structure in the type of research that is conducted related to this emerging digital profession. This is especially evident in the findings related to the domains of research, the theoretical and conceptual frameworks and outcomes examined in the reviewed literature, which highlight a trend in the examination of social interaction and behaviour within the activity but also their association and impact on the commercial objectives of the activity. These findings emphasize the importance of social interaction in the creation of commercial gain, which require a level of strategy and community management from the video content creator and extend the entrepreneurial aspects of this activity, however more research is needed in the future, examining how these activities are organised, where the value of this type of activity is formed and the power-balance of different entities (e.g. platforms, service providers, content creators and audiences).

The findings of the study also found that video content creation as an occupation is increasingly perceived as creative entrepreneurial work, instead of commodifying labour, but it should be noted that this paper primarily focused on examining the perception of the activity of video content creation, not the activity of consuming video content creation or being susceptible to commercial content within it. The commodification of the audience is another aspect of this activity that could be examined further in the future, as the platforms for sharing video content become more user centric in their approach. Further research is therefore needed

on the economic structures surrounding video content creators as entrepreneurs and their forms of work, but also on the material and immaterial value of their audiences.

The examination of terminology and definitions within the reviewed literature indicates the emergence of dedicated terminology for the activity, that has taken on descriptive terms of our previous understanding of media production work. However, the terms examined in the reviewed literature describe the activity instead of specific occupational activities or clearly emerging professions. The term “Streamer/streaming” seems to have established itself as a term to depict the overall cultural context for the activity at large, whereas more specific terms such as “vlogger/YouTuber/live streamer” depict the development of sub-cultures within this activity. The fragmentation of terminology also examined in the reviewed literature, presented some limitations to this study, as the fragmented terminology used in the context of video content creation, especially regionally, limits the results of this study to examine sources found based on the most popular terms for the activity. However, it should be noted, that this study aimed to examine the most common terminology and the nuances of work within the development of that terminology. The use of English in this study also limits the terminology to only English sources, and therefore may limit the cultural and geographical context of this study.

As the literature review for this study was conducted as a combination of a scoping review and theoretical review, the aim of the study was to gather a representative sample of available literature which would provide an initial indication of the nature of the research available of this topic (Paré et al., 2015). It should be noted that the sample may not include all available literature on this topic, and a systematic literature review should be carried out as this activity develops further and gains more extensive research. Furthermore, this study did not include research on the amateur video work within the field of mature video content. Mature video content creation was excluded from this study to better define the activity into amateur video content creation that is accessible and allowed for wider audiences and that can be distributed through the most prominent video sharing platforms such as YouTube and Twitch. We acknowledge that the occupational characteristics of video content creation are evident in mature amateur video content, but the characteristics, platforms and regulations would require a separate examination in the future.

## CRedit authorship contribution statement

**Maria Törhönen:** Conceptualization, Methodology, Investigation, Validation, Formal analysis, Visualization, Data curation, Writing - original draft, Writing - review & editing. **Johann Giertz:** Conceptualization, Methodology, Investigation, Validation, Formal analysis, Data curation, Writing - original draft, Writing - review & editing. **Welf H. Weiger:** Conceptualization, Methodology, Supervision, Validation, Writing - review & editing. **Juho Hamari:** Conceptualization, Methodology, Supervision, Validation, Project administration, Writing - review & editing.

## Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## Appendix

**Table A1**  
Reviewed publications.

Publication	Journal	Conference	Empirical	Non-empirical	Qualitative	Quantitative	Mixed	Survey	Platform data	Interview	Video analysis	Content analysis	Ethnography/ observations
(Aran et al., 2014)	X		X			X					X		
(Arnett et al., 2019)		X	X			X			X				X
(Ashman et al., 2018)	X		X				X			X			
(Beers Fägersten, 2017)	X		X	X									
(Berryman and Kavka, 2017)	X		X										
(Bhatia, 2018)	X		X		X						X		
(Biel and Gatica-Perez, 2013)	X		X		X			X			X		
(Bishop, 2019)	X		X		X					X			X
(Boxman-Shabtai, 2019)	X		X		X					X			
(Brownlee, 2016)	X		X										
(Chen and Lin, 2018)	X		X			X		X					
(Churchill and Xu, 2016)		X	X			X			X				
(Cullen and Ruberg, 2019)		X	X		X							X	
(Cunningham and Craig, 2017)	X		X	X			X			X			
(Cunningham et al., 2019)	X		X									X	
(Deller and Murphy, 2020)	X		X		X								
(Faas et al., 2018)	X		X		X								
(Ferchaud et al., 2018)	X		X			X					X		
(Fiedkiewicz et al., 2018)	X		X		X					X			X
(Friedländer, 2017)	X		X				X			X			
(García-Rapp, 2017)	X		X		X						X		
(García-Rapp, 2016)	X		X		X						X		
(García-Rapp and Roc-Cuberes, 2017)	X		X		X						X		X
(Gerhards, 2019)	X		X			X		X					
(Gros et al., 2017)		X	X			X		X					
(Guarriello, 2019)	X		X		X								X
(Harley and Fitzpatrick, 2009)	X		X		X						X		
(Hou et al., 2019)	X		X				X			X			
(Hou, 2019)	X		X		X								X
(Jerslev, 2016)	X		X	X									
(Jia et al., 2018)	X		X			X			X				X
(Johnson, 2019)	X		X		X					X			X
(Johnson and Woodcock, 2019b)	X		X		X					X			
(Johnson and Woodcock, 2019a)	X		X		X					X			
(Jorge et al., 2018)	X		X		X						X		
(Kayroue et al., 2012)		X	X			X			X				
(Keating, 2013)	X		X	X									
(Koch et al., 2018)	X		X		X				X				
(Lee and Watkins, 2016)	X		X		X		X						
(Lee et al., 2019)	X		X		X		X						
(Lesso et al., 2018)	X		X		X		X						
(Li et al., 2018)	X		X		X					X			
(Liu et al., 2019)	X		X							X			
(Lu et al., 2018)	X		X		X			X		X			
(Mardon et al., 2018)	X		X		X		X			X			
(Martinez and Olsson, 2019)	X		X		X				X				
(McRoberts et al., 2016)	X		X		X		X						
(Munnukka et al., 2019)	X		X										
(Nicoll and Nansen, 2018)	X		X		X								
(Parrin, 2019)	X		X	X									
(Pellicone and Ahn, 2017)	X		X		X							X	
(Postigo, 2016)	X		X		X						X		X

(continued on next page)

Table A1 (continued)

Publication	Journal	Conference	Empirical	Non-empirical	Qualitative	Quantitative	Mixed	Survey	Platform data	Interview	Video analysis	Content analysis	Ethnography/observations
(Raun, 2018)	x			x									
(Rihl and Wegener, 2019)	x		x		x								
(Scolari and Frairelli, 2019)	x	x	x			x					x		
(Sirtola, 2018)			x		x						x		
(Sjöblom and Hamari, 2017)	x		x		x								x
(Sjöblom et al., 2019)	x		x		x								
(Fang et al., 2016)		x	x			x							
(Tu et al., 2018)		x	x			x							
(Törhönen et al., 2019)			x										x
(Wang, 2020)	x		x										
(Wang et al., 2019)	x		x										
(Wattenhofer et al., 2012)		x	x										
(Wohn et al., 2018)		x	x										
(Woodcock and Johnson, 2019)			x										x
(Woranis and McMillan, 2014)			x										
(Xiao et al., 2018)	x		x										
(Yu et al., 2018)	x		x										x
(Zhang and Hjorth, 2019)	x		x										x
(Zhao, 2016)	x		x										
(Zhao et al., 2018)	x		x										
(Zhou et al., 2019)	x		x										
(Zhu et al., 2017)		x	x										
(Zimmer, 2018)		x	x										x

Table A2  
Terminology development by year.

Year	Terminology content creator	Terminology content creation
2009	Vlogger	Broadcasting (2), vlogging, video blogging,
2012	Content broadcaster, commenter, user, YouTube celebrity, streamer	Upload video/content, streaming,
2013	Amateur video-maker, vlogger	Amateur video making (2), post a video, Amateur film-making, vlogging
2014	Youtuber, YouTube performer, vlogger	Create video content, vlogging, video creation, produce vlogs
2016	Youtuber (3), vlogger (2), YouTube celebrities (2), streamer (2), amateur filmmaker, amateur videographers, YouTube vlogger, video blogger, entrepreneurial online video creators, entrepreneurial content creators, video creators, content provider, content creators, diaosi, content producer, Blogger, broadcaster, YouTube author, YouTube creator, commentator	Broadcast (3), post videos (2), upload video (2), streaming (2), amateur filmmaking, amateur creative production, uploading video, content production, creative content production, vlog content, author video live streaming, live broadcasting, production, making videos, livestreaming, create video
2017	Streamer (5), YouTube (4), vlogger (3), video creator, creator, YouTube Influencer, content creator, YouTube user, internet celebrities, online creator, broadcaster	Streaming (4), Live streaming (3), broadcasting (3), vlogging (2), upload vlog, upload content, posting video, video-sharing, produce materials, upload, live-streaming
2018	Streamer (11), YouTube (7), vlogger (7), content creator (4), broadcaster (2), uploader (2), live streamer (2), YouTube personalities (2), amateur experts, actor, producer, SLSSs' streamers, video blogger, Youtube influencer, online streamer, content makers, Youtube celebrities, amateur performers, YouTube creators, creator, content producer, professional-amateur, digital creator, semi-professional video producer	Streaming (7), live streaming (6), broadcast (6), Vlogging (4), live-streaming (2) upload video (2), posting video, amateur content production, video blogging, upload material, broadcast live videos, streaming video, upload & share video, produce vlog, upload vlog, live video streaming, broadcast live content, online video streaming, sharing UG video, upload content, produce video, share video, content production
2019	Streamer (10), broadcaster (7), vlogger (7), YouTube (6), live streamer (4) YouTube celebrities (2), livestreamer (2), showroom hosts, content providers, YouTube creators, amateur video creators, video creators, creators, entrepreneurial broadcasters, Online video content creators, video content creators, social video content creators, vBlogger, amateur producers, creator, live video streaming platform user, live-streamer, YouTube stars, amateur content producers, amateur content producers, YouTube bloggers, vidders, YouTube video blogger	live streaming (9), streaming (7), vlogging (5), live-streaming (3), upload video (3), produce videos, broadcasting (3), livestreaming (2), content creation (2), video content creation, social video content creation, amateur video-sharing, lifelogging, live video streaming, host daily streams, video sharing, upload content

References

Aleti, T., Pallant, J.I., Tuan, A., van Laer, T., 2019. Tweeting with the stars: automated text analysis of the effect of celebrity social media communications on consumer word of mouth. *J. Interactive Market.* 48, 17–32. <https://doi.org/10.1016/j.intmar.2019.03.003>.

Anderson, C., 2006. The long tail: how endless choice is creating unlimited demand. *Word J. Int. Linguist. Assoc.*

Andersson Schwarz, J., 2017. Platform logic: an interdisciplinary approach to the platform-based economy. *Policy and Internet.* 9, 374–394. <https://doi.org/10.1002/poi3.159>.

Aran, O., Biel, J.-I., Gatica-Perez, D., 2014. Broadcasting oneself: visual discovery of vlogging styles. *IEEE Trans. Multimedia* 16 (1), 201–215. <https://doi.org/10.1109/TMM.2013.2284893>.

Arnett, L., Netzorg, R., Chaintreau, A., Wu, E., 2019. Cross-platform interactions and popularity in the live-streaming community, in: *Conference on Human Factors in Computing Systems – Proceedings*. <https://doi.org/10.1145/3290607.3312900>.

- Ashman, R., Patterson, A., Brown, S., 2018. 'Don't forget to like, share and subscribe': digital autoneurons in a neoliberal world. *J. Business Res.* 92, 474–483. <https://doi.org/10.1016/j.jbusres.2018.07.055>.
- Banks, J., Deuze, M., 2009. Co-creative labour. *Int. J. Cultural Stud.* 12 (5), 419–431. <https://doi.org/10.1177/1367877909337862>.
- Beers Fägersten, K., 2017. The role of swearing in creating an online persona: the case of YouTube PevDiePie. *Discourse, Context & Media* 18, 1–10. <https://doi.org/10.1016/j.dcm.2017.04.002>.
- Berryman, R., Kavka, M., 2017. 'I Guess A Lot of People See Me as a Big Sister or a Friend': the role of intimacy in the celebrification of beauty vloggers. *J. Gender Stud.* 26 (3), 307–320. <https://doi.org/10.1080/09589236.2017.1288611>.
- Bhatia, A., 2018. Interdiscursive performance in digital professions: the case of YouTube tutorials. *J. Pragmatics* 124, 106–120. <https://doi.org/10.1016/j.pragma.2017.11.001>.
- Biel, J.-I., Gatica-Perez, D., 2013. The YouTube Lens: crowdsourced personality impressions and audiovisual analysis of videos. *IEEE Trans. Multimedia* 15 (1), 41–55. <https://doi.org/10.1109/TMM.2012.2225032>.
- Bishop, S., 2019. Managing visibility on YouTube through algorithmic gossip. *New Media Soc.* 21 (11–12), 2589–2606. <https://doi.org/10.1177/1461444819854731>.
- Boxman-Shabtai, L., 2019. The practice of parodying: YouTube as a hybrid field of cultural production. *Media Cult. Soc.* 41 (1), 3–20. <https://doi.org/10.1177/0163443718772180>.
- Brownlee, S., 2016. Amateuism and the aesthetics of lego stop-motion on YouTube. *Film Crit.* 40 <https://doi.org/10.3998/fc.13761232.0040.204>.
- Bruns, A., 2009. From prosumer to produser: understanding user-led content creation. *Transform. Audiences.* <https://doi.org/10.1080/02680939.2010.508181>.
- Bryman, A., 2012. *Social research methods* Bryman. OXFORD Univ. Press. <https://doi.org/10.1017/CBO9781107415324.004>.
- Cabre, M.T., 1989. Terminology: Theory, methods and applications. <https://doi.org/10.1017/CBO9781107415324.004>.
- Chen, C.-C., Lin, Y.-C., 2018. What drives live-stream usage intention? the perspectives of flow, entertainment, social interaction, and endorsement. *Telematics Inform.* 35 (1), 293–303. <https://doi.org/10.1016/j.tele.2017.12.003>.
- Churchill, B.C.B., Xu, W., 2016. The modern nation: A first study on Twitch.TV social structure and player/game relationships. In: *Proceedings - 2016 IEEE International Conferences on Big Data and Cloud Computing, BDCLOUD 2016, Social Computing and Networking, SocialCom 2016 and Sustainable Computing and Communications, SustainCom 2016*, 223–228. <https://doi.org/10.1109/BDCLOUD-SocialCom-SustainCom.2016.43>.
- Cullen, A.L.L., Ruberg, B., 2019. Necklines and "naughty bits": Constructing and regulating bodies in live streaming community guidelines. In: *ACM International Conference Proceeding Series*. <https://doi.org/10.1145/3337722.3337754>.
- Cunningham, S., Craig, D., 2017. Being 'really real' on YouTube: authenticity, community and brand culture in social media entertainment. *Media Int. Australia* 164 (1), 71–81. <https://doi.org/10.1177/1329878X17709098>.
- Cunningham, S., Craig, D., Lv, J., 2019. China's livestreaming industry: platforms, politics, and precarity. *Int. J. Cultural Stud.* 22 (6), 719–736. <https://doi.org/10.1177/1367877919834942>.
- Deller, R.A., Murphy, K., 2020. 'Zoella hasn't really written a book, she's written a cheque': Mainstream media representations of YouTube celebrities. *Eur. J. Cultural Studies* 23 (1), 112–132. <https://doi.org/10.1177/1367549419861638>.
- Faas, T., Dombrowski, L., Young, A., Miller, A.D., 2018. Watch me code: Programming mentorship communities on Twitch.tv. *Proc. ACM Human-Computer Interact.* 2. <https://doi.org/10.1145/3274319>.
- Ferchaud, A., Grzeslo, J., Orme, S., LaGroue, J., 2018. Parasocial attributes and YouTube personalities: exploring content trends across the most subscribed YouTube channels. *Comput. Hum. Behav.* 80, 88–96. <https://doi.org/10.1016/j.chb.2017.10.041>.
- Fietkiewicz, K.J., Dorsch, I., Scheibe, K., Zimmer, F., Stock, W.G., 2018. Dreaming of Stardom and Money: Micro-celebrities and Influencers on Live Streaming Services. *Lect. Notes Comp. Sci.* [https://doi.org/10.1007/978-3-319-91521-0\\_18](https://doi.org/10.1007/978-3-319-91521-0_18).
- Fish, A., Srinivasan, R., 2012. Digital labor is the new killer app. *New Media Soc.* 14 (1), 137–152. <https://doi.org/10.1177/1461444811412159>.
- Friedländer, M.B., 2017. Streamer motives and user-generated content on social live-streaming services. *J. Inf. Sci. Theory Pract.* 5, 65–84. <https://doi.org/10.1633/JISTAP.2017.5.1.5>.
- Fuchs, C., 2014. Digital presumption labour on social media in the context of the capitalist regime of time. *Time Soc.* 23 (1), 97–123. <https://doi.org/10.1177/0961463X13502117>.
- García-Rapp, F., 2017. Popularity markers on YouTube's attention economy: the case of Bubzbeauty. *Celebrity Studies* 8 (2), 228–245. <https://doi.org/10.1080/19392397.2016.1242430>.
- Rapp, F.G., 2016. The digital media phenomenon of YouTube beauty gurus: the case of Bubzbeauty. *IJWBC* 12 (4), 360. <https://doi.org/10.1504/IJWBC.2016.080810>.
- García-Rapp, F., Roc-Cuberes, C., 2017. Being an online celebrity: Norms and expectations of YouTube's beauty community. *First Monday* 22. <https://doi.org/10.5210/fm.v22i7.7788>.
- Gerhards, C., 2019. Product placement on YouTube: an explorative study on YouTube creators' experiences with advertisers. *Convergence* 25 (3), 516–533. <https://doi.org/10.1177/1354856517736977>.
- Gros, D., Wanner, B., Hackenholz, A., Zawadzki, P., Knautz, K., 2017. World of streaming. Motivation and gratification on twitch, *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*. [https://doi.org/10.1007/978-3-319-58559-8\\_5](https://doi.org/10.1007/978-3-319-58559-8_5).
- Guarriello, N.-B., 2019. Never give up, never surrender: game live streaming, neoliberal work, and personalized media economies. *New Media & Soc.* 21 (8), 1750–1769. <https://doi.org/10.1177/1461444819831653>.
- Gutelle, S., 2016. "YouTuber" Is Now A Word In The Oxford English Dictionary. *TubeFilter*.
- Harley, D., Fitzpatrick, G., 2009. Creating a conversational context through video blogging: a case study of Geriatric1927. *Comput. Hum. Behav.* 25 (3), 679–689. <https://doi.org/10.1016/j.chb.2008.08.011>.
- Horton, D., Richard Wohl, R., 1956. Mass communication and para-social interaction: observations on intimacy at a distance. *Psychiatry* 19 (3), 215–229. <https://doi.org/10.1080/00332747.1956.11023049>.
- Hou, F., Guan, Z., Li, B., Chong, A.Y.L., 2019. Factors influencing people's continuous watching intention and consumption intention in live streaming: Evidence from China. *Internet Res.* 30, 141–163. <https://doi.org/10.1108/INTR-04-2018-0177>.
- Hou, M., 2019. Social media celebrity and the institutionalization of YouTube. *Convergence* 25, 534–553. <https://doi.org/10.1177/1354856517750368>.
- Huotari, K., Hamari, J., 2017. A definition for gamification: anchoring gamification in the service marketing literature. *Electron Markets* 27 (1), 21–31. <https://doi.org/10.1007/s12525-015-0212-z>.
- Jerslev, A., 2016. In the time of the microcelebrity: Celebrification and the YouTube Zoella. *Int. J. Commun.* 10, 5233–5251.
- Jia, A.L., Shen, S., Li, D., Chen, S., 2018. Predicting the implicit and the explicit video popularity in a User Generated Content site with enhanced social features. *Comput. Netw.* 140, 112–125. <https://doi.org/10.1016/j.comnet.2018.05.004>.
- Johnson, M.R., 2019. Inclusion and exclusion in the digital economy: disability and mental health as a live streamer on Twitch.tv. *Information. Commun. Soc.* 22 (4), 506–520. <https://doi.org/10.1080/1369118X.2018.1476575>.
- Johnson, M.R., Woodcock, J., 2019a. 'It's like the gold rush': the lives and careers of professional video game streamers on Twitch.tv. *Information. Commun. Soc.* 22 (3), 336–351. <https://doi.org/10.1080/1369118X.2017.1386229>.
- Johnson, M.R., Woodcock, J., 2019b. The impacts of live streaming and Twitch.tv on the video game industry. *Media Cult. Soc.* 41 (5), 670–688. <https://doi.org/10.1177/0163443718818363>.
- Jorge, A., Marópo, L., Nunes, T., 2018. "I am not being sponsored to say this": a teen youtuber and her audience negotiate branded content. *Observatorio* 2018, 76–96.
- Kaytoue, M., Silva, A., Cerf, L., Meira Jr., W., Raissi, C., 2012. Watch me playing, i am a professional: A first study on video game live streaming. In: *WWW'12 - Proceedings of the 21st Annual Conference on World Wide Web Companion*. pp. 1181–1188. <https://doi.org/10.1145/2187980.2188259>.
- Keating, A., 2013. Video-making, Harlem shaking: theorizing the interactive amateur. *New Cinemas* 11, 99–110. <https://doi.org/10.1386/ncin.11.2.3.99-1>.
- Khamis, S., Ang, L., Welling, R., 2017. Self-branding, 'micro-celebrity' and the rise of Social Media Influencers. *Celebrity Studies* 8 (2), 191–208. <https://doi.org/10.1080/19392397.2016.1218292>.
- Koch, C., Lode, M., Stohr, D., Rizk, A., Steinmetz, R., 2018. Collaborations on YouTube: from unsupervised detection to the impact on video and channel popularity. *ACM Trans. Multimedia Comput. Commun. Appl.* 14 (4), 1–23. <https://doi.org/10.1145/3241054>.
- Kozłowski, L., 2013. Multi-Channel Networks 101 [WWW Document]. *Forbes*. URL <https://www.forbes.com/sites/lorikozłowski/2013/08/30/multi-channel-networks-101/#4da98daf5f40>.
- Kücklich, J., 2005. Precarious Playbour: modders and the digital games. *Fibreculture* 1–8. <https://doi.org/10.1016/B978-0-7506-7523-9.50022-2>.
- Lancaster, B., 2018. Glam or sham: how the big brands cash in on YouTube's beauty vloggers. *Guard*.
- Lee, J.E., Watkins, B., 2016. YouTube vloggers' influence on consumer luxury brand perceptions and intentions. *J. Business Res.* 69 (12), 5753–5760. <https://doi.org/10.1016/j.jbusres.2016.04.171>.
- Lee, Y.-C., Yen, C.-H., Wang, D., Fu, W.-T., 2019. Understanding how digital gifting influences social interaction on live streams. In: *Proceedings of the 21st International Conference on Human-Computer Interaction with Mobile Devices and Services, MobileHCI 2019*. <https://doi.org/10.1145/3338286.3340144>.
- Lessel, P., Altmeyer, M., Krüger, A., 2018. Viewers' perception of elements used in game live-streams. In: *ACM International Conference Proceeding Series*. pp. 59–68. <https://doi.org/10.1145/3275116.3275117>.
- Li, Y., Kou, Y., Lee, J.S., Kobsa, A., 2018. Tell me before you stream me: managing information disclosure in video game live streaming. *Proc. ACM Hum.-Comput. Interact.* 2 (CSCW), 1–18. <https://doi.org/10.1145/3274376>.
- Liu, M.T., Liu, Y., Zhang, L.L., 2019. Vlog and brand evaluations: the influence of parasocial interaction. *APJML* 31 (2), 419–436. <https://doi.org/10.1108/APJML-01-2018-0021>.
- Lu, Z., Xia, H., Heo, S., Wigdor, D., 2018. You watch, you give, and you engage: A study of live streaming practices in China. In: *Conference on Human Factors in Computing Systems - Proceedings*. <https://doi.org/10.1145/3173574.3174040>.
- Mardon, R., Molesworth, M., Grigore, G., 2018. YouTube Beauty Gurus and the emotional labour of tribal entrepreneurship. *Journal of Business Research* 92, 443–454. <https://doi.org/10.1016/j.jbusres.2018.04.017>.
- Martínez, C., Olsson, T., 2019. Making sense of YouTubers: how Swedish children construct and negotiate the YouTube Misslisibel as a girl celebrity. *J. Children Media* 13 (1), 36–52. <https://doi.org/10.1080/17482798.2018.1517656>.
- McRoberts, S., Bonsignore, E., Peyton, T., Yarosh, S., 2016. "Do it for the viewers!": Audience engagement behaviors of young YouTubers. In: *Proceedings of IDC 2016 - The 15th International Conference on Interaction Design and Children*. pp. 334–343. <https://doi.org/10.1145/2930674.2930676>.

- Munnukka, J., Maity, D., Reinikainen, H., Luoma-aho, V., 2019. "Thanks for watching". The effectiveness of YouTube vlogdoersments. *Comput. Hum. Behav.* 93, 226–234. <https://doi.org/10.1016/j.chb.2018.12.014>.
- Newby, J., 2006. Inside Broadcasting. <https://doi.org/10.4324/9780203129951>.
- Nicoll, B., Nansen, B., 2018. Mimetic Production in YouTube Toy Unboxing Videos. *Soc. Media Soc.* 4, 1–12. <https://doi.org/10.1177/2056305118790761>.
- Paré, G., Trudel, M.-C., Jaana, M., Kitsiou, S., 2015. Synthesizing information systems knowledge: a typology of literature reviews. *Inf. Manage.* 52 (2), 183–199. <https://doi.org/10.1016/j.im.2014.08.008>.
- Parkin, S., 2018. The YouTube stars heading for burnout: 'the most fun job imaginable became deeply bleak'. *Guard*.
- Partin, W.C., 2019. Watch me pay: Twitch and the cultural economy of surveillance. *Surveill. Soc.* 17, 153–160. <https://doi.org/10.24908/ss.v17i1/2.13021>.
- Pellicone, A.J., Ahn, J., 2017. The game of performing play: Understanding streaming as cultural production, in: *Conference on Human Factors in Computing Systems – Proceedings*. pp. 4863–4874. <https://doi.org/10.1145/3025453.3025854>.
- Postigo, H., 2016. The socio-technical architecture of digital labor: converting play into YouTube money. *New Media & Society* 18 (2), 332–349. <https://doi.org/10.1177/1461444814541527>.
- Raun, T., 2018. Capitalizing intimacy: New subcultural forms of micro-celebrity strategies and affective labour on YouTube. *Convergence* 24 (1), 99–113. <https://doi.org/10.1177/1354856517736983>.
- Rihl, A., Wegener, C., 2019. YouTube celebrities and parasocial interaction: using feedback channels in mediated relationships. *Convergence* 25 (3), 554–566. <https://doi.org/10.1177/1354856517736976>.
- Rose, J., 2019. How much do youtubers really make? *Forbes*.
- Schoiz, 2012. Digital Labor, Digital Labor – The Internet as Playground and Factory. <https://doi.org/10.1080/09518398.2013.816888>.
- Scolari, C.A., Fraticelli, D., 2019. The case of the top Spanish YouTubers: emerging media subjects and discourse practices in the new media ecology. *Convergence* 25 (3), 496–515. <https://doi.org/10.1177/1354856517721807>.
- Senft, T.M., 2009. Camgirls: celebrity and community in the age of social networks. *Camgirls*. <https://doi.org/10.3983/twc.v3i0.120>.
- Shelley, M., Krippendorff, K., 1984. Content analysis: an introduction to its methodology. *J. Am. Stat. Assoc.* 79 (385), 240. <https://doi.org/10.2307/2288384>.
- Siutila, M., 2018. The gamification of gaming streams, in: *CEUR Workshop Proceedings*. pp. 131–140.
- Sjöblom, M., Hamari, J., 2017. Why do people watch others play video games? an empirical study on the motivations of Twitch users. *Comput. Hum. Behav.* 75, 985–996. <https://doi.org/10.1016/j.chb.2016.10.019>.
- Sjöblom, M., Törhönen, M., Hamari, J., Macey, J., 2019. The ingredients of Twitch streaming: affordances of game streams. *Comput. Hum. Behav.* 92, 20–28. <https://doi.org/10.1016/j.chb.2018.10.012>.
- Smythe, D.W., 1977. Communication: Blindspot of Western Marxism. *Can. J. Polit. Soc. Theory* 1, 1–27.
- Tang, J.C., Venolia, G., Inkpen, K.M., 2016. Meerkat and periscope: I stream, you stream, apps stream for live streams, in: *Conference on Human Factors in Computing Systems – Proceedings*. pp. 4770–4780. <https://doi.org/10.1145/2858036.2858374>.
- Tassi, P., 2018. "Fortnite" Legend Ninja Talks Twitch Fame And Fortune, And The Game That Got Him There. *Forbes*.
- Terranova, T., 2000. Free Labor: Producing Culture for the Digital Economy. *Soc. Text*.
- Törhönen, M., Sjöblom, M., Hassan, L., Hamari, J., 2019. Fame and fortune, or just fun? A study on why people create content on video platforms. *Internet Res.* 30, 165–190. <https://doi.org/10.1108/INTR-06-2018-0270>.
- Tu, W., Yan, C., Yan, Y., Ding, X., Sun, L., 2018. Who Is Earning? Understanding and Modeling the Virtual Gifts Behavior of Users in Live Streaming Economy, in: *Proceedings - IEEE 1st Conference on Multimedia Information Processing and Retrieval, MIPR 2018*. pp. 118–123. <https://doi.org/10.1109/MIPR.2018.00028>.
- Twitch, 2020. Twitch Partners [WWW Document]. URL <https://www.twitch.tv/partners/>.
- Twitch Tracker [WWW Document], 2020. Twitch Tracker. URL <https://twitchtracker.com/statistics>.
- van Dijk, J., 2009. Users like you? theorizing agency in user-generated content. *Media Cult. Soc.* 31 (1), 41–58. <https://doi.org/10.1177/0163443708098245>.
- Vesa, M., Hamari, J., Harviainen, J.T., Warmelink, H., 2017. Computer games and organization studies. *Organization Stud.* 38 (2), 273–284. <https://doi.org/10.1177/0170840616663242>.
- Wang, S., 2020. Chinese affective platform economies: dating, live streaming, and performative labor on Bilibili. *Media Cult. Soc.* 42 (4), 502–520. <https://doi.org/10.1177/0163443719867283>.
- Wang, X., Tao, Z., Liang, L., Gou, Q., 2019. An analysis of salary mechanisms in the sharing economy: The interaction between streamers and unions. *Int. J. Prod. Econ.* 214, 106–124. <https://doi.org/10.1016/j.ijpe.2019.04.003>.
- Wattenhofer, M., Wattenhofer, R., Zhu, Z., 2012. The you tube social network, in: *ICWSM 2012 - Proceedings of the 6th International AAAI Conference on Weblogs and Social Media*. pp. 354–361.
- Wohn, D.Y., Freeman, G., McLaughlin, C., 2018. Explaining viewers' emotional, instrumental, and financial support provision for live streamers, in: *Conference on Human Factors in Computing Systems – Proceedings*. <https://doi.org/10.1145/3173574.3174048>.
- Woodcock, J., Johnson, M.R., 2019. The affective labor and performance of live streaming on twitch.tv. *Televiz. New Media* 20 (8), 813–823. <https://doi.org/10.1177/1527476419851077>.
- Wotanis, L., McMillan, L., 2014. Performing Gender on YouTube: how Jenna Marbles negotiates a hostile online environment. *Feminist Media Studies* 14 (6), 912–928. <https://doi.org/10.1080/14680777.2014.882373>.
- Xiao, M., Wang, R., Chan-Olmsted, S., 2018. Factors affecting YouTube influencer marketing credibility: a heuristic-systematic model. *J. Media Business Studies* 15 (3), 188–213. <https://doi.org/10.1080/16522354.2018.1501146>.
- Yu, E., Jung, C., Kim, H., Jung, J., 2018. Impact of viewer engagement on gift-giving in live video streaming. *Telematics Inform.* 35 (5), 1450–1460. <https://doi.org/10.1016/j.tele.2018.03.014>.
- Zhang, G., Hjorth, L., 2019. Live-streaming, games and politics of gender performance: the case of Nüzhuo in China. *Convergence* 25 (5-6), 807–825. <https://doi.org/10.1177/1354856517738160>.
- Zhao, E.J., 2016. Professionalization of amateur production in online screen entertainment in China: hopes, frustrations, and uncertainties. *Int. J. Commun.* 10, 5444–5462.
- Zhao, Q., Chen, C.-D., Cheng, H.-W., Wang, J.-L., 2018. Determinants of live streamers' continuance broadcasting intentions on Twitch: a self-determination theory perspective. *Telematics Inform.* 35 (2), 406–420. <https://doi.org/10.1016/j.tele.2017.12.018>.
- Zhou, F., Chen, L., Su, Q., 2019. Understanding the impact of social distance on users' broadcasting intention on live streaming platforms: a lens of the challenge-hindrance stress perspective. *Telematics Inform.* 41, 46–54. <https://doi.org/10.1016/j.tele.2019.03.002>.
- Zhu, Z., Yang, Z., Dai, Y., 2017. Understanding the gift-sending interaction on live-streaming video websites. *Lecture Notes in Comp. Sci.* [https://doi.org/10.1007/978-3-319-58559-8\\_23](https://doi.org/10.1007/978-3-319-58559-8_23).
- Zimmer, F., 2018. A content analysis of social live streaming services. *Lecture Notes in Comp. Sci.* [https://doi.org/10.1007/978-3-319-91521-0\\_29](https://doi.org/10.1007/978-3-319-91521-0_29).





## PUBLICATION II

Play, Playbour or Labour? The Relationships between Perception of Occupational Activity and Production among Streamers and YouTubers

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# Play, Playbour or Labour? The Relationships between Perception of Occupational Activity and Outcomes among Streamers and YouTubers

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## Abstract

*The increasing digitalization and gamification of different aspects of our lives has blurred the line between what we consider work and play. Therefore, our productivity may increasingly depend on how we negotiate and view our occupations and work. Through an online survey (n=382), this study examines the relationship between the perception of online video content creation as either work, play or equally as both, and the activities and income of these video content creators (streamers and YouTubers). The results indicate that those who view their content creation as work had the highest levels of activity and income, whereas those who associated their content creation with play, earned more income than those who regard their content creation equally as play and work. The results demonstrate the emergence of new forms of digital entrepreneurial practices in the work-oriented group, but also highlight the increasing workification of our play activities.*

## 1. Introduction

The development of digital technology and the information society has had a significant impact on our working environments and cultures. Technology has advanced our work and communication practices beyond the borders of physical location, but has also provided us with the ability to introduce work into our free time and vice versa. This transition is exemplified in new forms of online work, such as the gig economy (e.g. Uber), sharing economy (e.g. Airbnb) and crowdsourcing (e.g. Wikipedia). But it is also evident in practices that aim to either merge play with work, such as gamification [1,2], or merge work with play such as playbour [3–6].

Therefore, the attitude and perception we hold towards our occupation activities might have a strong effect on our productivity. For example, if an activity were perceived as work, engagement with it would usually be expected to be serious and professional albeit not intrinsically motivating. On the other hand,

if an activity is perceived as leisure, engagement with it could often be characterized by playfulness and the pursuit of enjoyment albeit possibly lacking a serious focus. What is relevant behaviour in one context may not be relevant in another. Therefore, understanding how we perceive different activities is of high importance, in order to understand how we engage with them and what outcomes we expect from them.

Content creation in digital and social media formats is often considered a leisure activity, where individuals produce and share content presumably in their free time, in order to connect with their social networks and to explore their creativity [7]. It is an activity that may lead to enjoyment and a feeling of sociability among other outcomes [7]. However, as digital and social media develop and become more integrated into our lives, the digital economy around an individual content creator and their content has begun to evolve.

This has been particularly evident in video content creation, or *personal broadcasting* activities, through digital platforms such as YouTube and Twitch that have begun to develop sophisticated monetisation systems and commercial benefits for their content creators. The introduction of direct income and commercial incentives to this activity has led to the increasing professionalisation of this type of personal broadcasting. Practices, such as scheduling, time-management and risk-taking, which are often associated with work, are becoming more common within the activity. This has led to an increasing merger of work and play within personal broadcasting activities. Therefore, these new forms of online work provide opportune avenues to research how people view and negotiate their work in the internet era.

The purpose of this research is to understand how personal broadcasters perceive their video content creation and how that perception correlates with their activities and the kinds of outcomes they gain from their content creation. Data was collected through an online survey (N = 382) and was analysed in SPSS. The results allow us to examine this modern form of digital labour in relation to our traditional political economy understanding of work and labour. The results also provide possible opportunities for

personal broadcasters to renegotiate their place in this digital “work” environment.

## **2. Background**

### **2.1. The digital workplace and gamification**

For the last decades, the complex relationship of work and leisure has been examined in conjunction with each other [8], in the context of work-family balance [9,10], overall work-life balance [11,12], and the perceptions of an activity as leisure or as work [13,14]. However, more recently research has begun to focus more on the digitalisation of our working environments and the benefits of gameful and playful experiences in the workplace.

As the reach of games expanded into our modern society, culture and practices [15], we witnessed the exponential growth of the gaming industry that went hand in hand with the gamification of our modern cultural practices and work [16,17]. Gamification attempts to redesign processes and practices through game design so that tedious and repetitive activities become more perceptually enjoyable [1,2]. Hence, gamification has been employed to encourage positive behavioural change such as increased learning in educational contexts [18], enhancement of healthy personal habits [19] and improved productivity in the workplace and work practices [20]. While gamification does lead to enjoyable work experiences and improvements in individual and organizational productivity, as pointed out by most of the empirical research on the gamification of work [1,21,22], it has also led to increasing merger of work and leisure.

### **2.2. Digital labour, playbour and the workification in the media industry**

Ever since the emergence of broadcasting media, there has been an ongoing debate about the increasing merger of work like elements into leisure, and the commodification or workification of media consumption [23–27]. The debate has been deeply rooted into our existing understanding of the political economy and commercial media that have emphasised the relationship of labour and its direct economic value [28–30]. For centuries, labour has been equated in monetary value, which has been the subjective norm for the generations before us. However, the emergence of digital media formats such as television and later on, the internet, have transformed our underlying perception of labour by associating it with other types of rewards and gratifications such as enjoyment, entertainment and information [31–35].

The emergence of digital outlets and services has also resulted in the development of the digital economy, which combines elements from the

postmodern cultural economy and the information industry [36]. In the digital economy, the prior identifiers of labour have become debatable as cultural artefacts and information have become a currency in their own right [37]. With the development of new digital media formats, especially services such as social media, our media consumption has also transformed into active digital prosumption [38–41], where the consumer also becomes a producer of digital content. Prosumer as a term refers to those individual content creators who are consumers, yet simultaneously produce content without direct incentive or association to a commercial entity [42]. The notion of a prosumer aims to define the blurring relationship between the producer of content and the consumer of content, which is evident in digital environments.

This type of prosumerism has become a typical activity for digital natives [43], an integrated part of modern life that provides a two-way communicative environment as well as a creative outlet for individuals, but also a facilitator of hybrid forms of work and play, playbour and digital labour.

The term, and concept, of digital labour has been associated with different activities within digital formats and services [24,25,36], whereas playbour has often been associated with the gaming culture [3,4,6,44]. The basis for this type of labour relies on the prosumption of media content in digital formats, which is considered to generate value [43] through e.g. identifier data and targeted advertising. Although the commodifying or exploitative nature of this labour is a constant discussion among scholars [25,45], many have argued that the prosumption culture as well as the development of the digital economy has given our informative and communicative labour a market value [24,37]. However, the digital economy has also begun to transform into a new innovative version of the traditional labour economy, by allowing the prosumers of content the ability to gain direct monetary value from their activities. It is hence strongly evident that in addition to gamification, where work is becoming more like play, play is also becoming more like work. There is a transformation of playful, leisure activities, towards more professional characteristics of which a prominent example is personal broadcasting (e.g. vlogging, live streaming, game streaming).

### **2.3. Personal broadcasting and content creation**

Personal broadcasting consists of the production of video content by private individuals, and the distribution of said content through one or multiple commercial digital video sharing services such as YouTube or Twitch. For better understanding of this study and the analysed data, it is important to distinguish the labour of individual content creators

from commercial entities, as the nuances of digital labour are most evident in the labour conducted by private individuals. These types of individuals are not directly associated with any commercial entity, and generate video content in their private channels, but

may work in cooperation or partnership with brands and organisations. Table 1 provides further examples of personal broadcasters and commercial video content creators.

**Table 1. Examples of private and commercial video content**

Example	Platform	Entity	Content	Content production	Subscribers/followers
PlayStation	YouTube	Commercial	Commercial content	Professionally produced	6.7 million
Jenna Marbles	YouTube	Private individual	Personal use/content, commercial partnership content	Self-produced	17.8 million
PlayStation	Twitch	Commercial	Commercial content	Professionally produced	233,000
Ninja	Twitch	Private individual	Personal use/content, commercial partnership content	Self-produced	250,000

Personal broadcasting as an activity began to gain popularity in the mid 2000’s with the emergence of the video sharing platform, YouTube. YouTube provided the opportunity for anyone to “broadcast yourself” and provide pre-recorded video content to the world through the internet. This personal broadcasting activity was furthered through the development of digital technology, as live broadcasting, or *streaming*, was introduced to the prosumers through streaming services, such as Twitch and YouTube live. The culture of personal broadcasting has rapidly grown to represent a variety of topics and personalities.

Live streaming as a phenomenon and technology has furthered the incorporation of personal broadcasting into everyday life. The integration of live-streaming functionalities to popular social media services such as Instagram and Facebook has made it more approachable for individuals to live broadcast their activities, but it has also promoted new forms of digital professions and celebrity. For example, game streaming has provoked new forms of online interaction through services such as Twitch, and endorsed digital careers such as “game streamer” [46], “professional gamer” or “esports player” [47,48]. By making the activity more approachable for individuals, live streaming has made the dream of online celebrity even more tangible, and increased the culture of personal broadcasting. It has also affected the way we perceive this activity as work or as leisure.

A novice personal broadcaster is often not compensated for their video content or activities and research has found that, similarly to other social media content creation [7], personal broadcasting is primarily intrinsically motivated [31]. However, as the culture and the digital economy around this activity has developed, the possibilities to gain an income from the activity have increased and personal broadcasting has gained more entrepreneurial like characteristics such as a level of risk-taking [49] and ambiguity [50,51].

The economy of this digital content creation activity revolves heavily around the attention of the viewers and the audiences a personal broadcaster can gain for their content. In this way the activity has begun to emphasize the characteristics of the attention economy [52–54], where the attention of the viewers is commodified and establishes a certain type of market value for the attention of the viewers. Although this attention of the viewers is, at best scarce, the digital landscape provides a global stage for personal broadcasters, with the potential to attract the attention of millions of people.

This potential combined with the allure of this leisure activity continues to attract more individuals towards the activity itself. Due to this increasing popularity of personal broadcasting and the demand for more diverse content, video sharing services have begun to develop their own digital economies, and reward the active and popular content creators for their activities through sophisticated loyalty programmes, that offer access to direct monetisation such as advertising and paid subscription services. However, in addition to these platform specific monetisation services, personal broadcasters are also increasingly involved in influencer marketing activities [55], which consist of paid marketing and partnerships deals with brands and organisations. Through these commercial developments, the activity of personal broadcasting has begun to combine some of the elements from our understanding of the waged economy and capitalism, but also generate new concepts of digital entrepreneurship and a type of intrinsic wage.

In this study, we aim to examine how the perception of personal broadcasting as work, play or as playbour, affects the activity levels and income of a personal broadcaster. We consider that personal broadcasters who do perceive the activity as play, are more likely to be motivated by gratifications previously associated with the use of YouTube [31] and digital content creation overall [7], such as

enjoyment, entertainment and social interaction, which would further the engagement with the activity. Therefore, we hypothesise (H1) that a *play-oriented perception will be associated with higher levels of activity when compared with those having a work-orientation*. As previous research has also indicated that achievement and goal-oriented behaviour [56–58] has been associated with a work-oriented mentality e.g. entrepreneurship [58–60], we also hypothesise (H2) that a *work-oriented perception will be associated with higher levels of income than those having a play-orientation*. Finally, we cautiously hypothesise (H3) that a *perception of the activity as playbour will be associated with highest levels of income and activity*, as these individuals may benefit from both intrinsic and extrinsic motivational forces simultaneously. However, it may also be possible that the combination is conflicting in a way that prevents either orientation to fully flourish.

### 3. Methods and data

This study is based on data that was collected through an online survey during 2017. The survey was distributed through various digital channels such as Facebook groups and subreddits related to specific video content genres and distribution services. Various personal broadcasters were also approached through email and messaging services of platforms such as YouTube, Twitch and Vidme (closed in 2017). The final sample consisted of 382 video content creators, with more specific demographic information presented in Table 2.

work or play. The responses were given on a 7-point Likert scale, where each response item on the scale reflected a specific experience of the activity as work or fun. For this analysis, the average value of the responses to the provided statements were divided into the three categories, the work-oriented group, the play-oriented group and the playbour group. Each group directly identified with one specific statement on the scale (Work = 1, Playbour = 4, Play = 7), but in order to ensure a representative group for each orientation, the cut off places for the work group was <3.75 and for the play group >4.25.

The analysis was constructed around these categorical variables, which were used to measure four dependent variables. The dependent variables used in the study measured the *amount of months that the personal broadcaster had been active* in their video content creation activities, the *estimated hours they spend on producing and distributing their video content per week*, the *average hours they spend promoting their video content* on other social media platforms and the *total income* they gained from the activity. The respondents provided their answers as estimates based on a list of provided frequencies, out of which the maximum value was used to interpret the data.

The data was analysed through a one-way analysis of variance (ANOVA). In order to assure the validity of the ANOVA, the data was grouped into three groups with independence of observation [61], and homogeneity of variance was tested through a Levene’s test [61,62]. The significance of results within and between groups was examined using a post-hoc Tukey’s test.

**Table 2. Demographic information**

		N	%			N	%
Gender	Male	280	73.6%	Employment	Part-time	51	13.2%
	Female	97	25.1%		Full-time	128	33.7%
	Other	5	1.3%		Student	135	35.5%
Age	< 17	31	8.8%	Unemployed	63	16.3%	
	18-24	163	43.0%	Retired	5	1.3%	
	24-34	128	33.2%	Primary video format	Live-streams	25	6.5%
	35-44	37	9.6%		Pre-recorded video content	124	32.1%
	44 >	21	5.4%		Both	233	61.4%
Income	Yes	174	46.1%	Geographic origin	US	122	31.9%
	No	208	53.9%		Finland	149	39%
					Other	111	29.1%

Each respondent was presented with four statements (presented in Appendix A) related to their activity, that measured their perception of their activity as

In order to ensure the validity and reliability of the measurements, specific measures were also taken in the construction of the survey. The order of the items

from the work and play scale was randomised in the online survey, in order to ensure that the respondents were unable to detect patterns between these items

[63]. This extra measure was also used to decrease the potential effect of common method bias [64]. Analysis was conducted using SPSS version 24.

**Table 3. Comparison of means**

	Sum of Squares	Mean Square	F	df	p
Production hours/week	7,360,223	3,680,111	11.240	2	0.000
Tenure (in months)	1,699,763	849,881	0.801	2	0.405
Social media hours (avg)	1,843,609	921,805	3.997	2	0.019
Total income (\$)	15,285,480,111	7,560,721,913	7.444	2	0.001

#### 4. Results

As seen in Table 3, the mean comparison of the three groups showed interesting differences between the groups. However, when examining these results through one-way ANOVAs, the difference between groups pertaining to production hours/week ( $p < 0.001$ ), average social media hours ( $p = 0.019$ ) and total income ( $p = 0.001$ ), were clearly significant. The findings related to the tenure ( $p = 0.405$ ) variable were found insignificant based on the results of the one-way ANOVA seen in Table 4.

The findings of the study were further analysed using the Tukey's post-hoc HSD test to examine the significance of the differences between specific groups across the dependent variables, as seen in table 5.

Significant differences were observed between the production hours of the work and play group ( $p < 0.001$ ) and the playbour and play group ( $p = 0.008$ ). For total income, significant results were found between work and playbour group ( $p = 0.003$ ) and the work and play groups ( $p = 0.001$ ). There were no significant findings found between the groups related to tenure or average social media hours.

#### 5. Discussion/Limitations/Conclusion

##### 5.1. "The Workers"

Examining the results of the study, various interesting findings emerge related to the perception of personal broadcasting as work. It seems that individuals who

perceive the activity more as work, are the ones who spend the most hours per week on video content creation itself ( $M = 25.00$  h), as well as the most average time on personal broadcasting related social media activities ( $M = 11.88$  h). Additionally, they appear to be earning the most income on average out of the examined groups ( $M = \$774.85$ ), therefore our hypothesis (H2) was not rejected. Despite being the most active in their broadcasting and the highest earners of the three groups, individuals who perceive personal broadcasting as work are not the ones with the most experience from these activities ( $M = 34.21$  months). The findings related to this group indicate that individuals, who identify the activity as work, may be taking on a work-like mentality and a strategic approach to it, which is reflected in their high levels of production as well as income. While the traditional approach of political economy has associated work with direct income [29,30], it could be argued that in this type of activity, income becomes the element that transforms play into work, rather than being just the outcome of such work. Interestingly, the work-oriented group seems to convey a new, emerging form of digital entrepreneurial work within personal broadcasting, where individuals voluntarily professionalise their leisure activities and express goal-oriented behaviour as well as motivations for achievement and self-development, previously associated with entrepreneurial work [49,58–60,65]. Similar findings have also been reported when analysing worker types in online environments such as collaborative crowdsourcing [66].

**Table 4. One-way ANOVA**

		Production hours/week	Tenure (months)	Social media hours (M)	Total income (\$)
Work	Mean	25.00	34.21	11.88	774.85
	N	48	48	48	48
	Std. Deviation	19.46	30.363	18.04	1999.79
Eq. Work and Play	Mean	20.74	33.95	10.91	145.76
	N	66	66	66	66
	Std. Deviation	21.28	32.977	21.30	587.66
Play	Mean	13.28	38.67	6.55	179.11
	N	268	268	268	268
	Std. Deviation	16.97	32.858	12.64	818.15

**Table 5. Tukey's post-hoc HSD test results**

Dependent variable			Mean Difference (I-J)	p
Production hours/week	Work	Equal	4.258	0.430
		Play	11.724*	0.000
	Equal	Work	-4.258	0.430
		Play	7.466*	0.008
	Play	Work	-11.724*	0.000
		Equal	-7.466*	0.008
Tenure (months)	Work	Equal	254	0.999
		Play	-4.461	0.657
	Equal	Work	-254	0.999
		Play	-4.714	0.544
	Play	Work	4.461	0.657
		Equal	4.714	0.544
Social media hours (avg)	Work	Equal	966	0.940
		Play	5.326	0.066
	Equal	Work	-966	0.940
		Play	4.361	0.093
	Play	Work	-5.326	0.066
		Equal	-4.361	0.093
Total income (\$)	Work	Equal	629.097*	0.003
		Play	595.746*	0.001
	Equal	Work	-629.097*	0.003
		Play	-33.351	0.969
	Play	Work	-595.746*	0.001
		Equal	33.351	0.969

This strategic and work-like mentality towards personal broadcasting can also be seen in the high levels of social media activity that this work-oriented group engages in. Personal broadcasters often utilize this type of multichannel approach as a promotional tool, which enhances their visibility as well as their overall digital presence and brand. At its core, the attention economy relies on capturing the attention of as many individuals as possible for as long as possible [52,53]. With social media as a promotional tool, personal broadcasters can attract more viewers and audiences for their content, which can be associated with a higher income. This could further explain why this group of individuals seems to be earning the most on average.

The results of this study also reveal the strenuous nature of this activity. As the overall sample of this study indicates, the majority of the respondents are also engaged in full-time work or studies, which implies that personal broadcasting, may take up most of their free time. This level of work-like activity may lead to negative effects such as exhaustion and even depression, which have already been reported by some popular YouTubers and live-streamers [46,67]. Similar negative traits have been associated with entrepreneurial work [58,68]. It should be noted that even for those personal broadcasters, who create video content as their full-time employment, this level of activity would constitute nearly half of the weekly average working hours, which also excludes all promotional and administrative or organisational

tasks, that are also associated with this type of independent work. Therefore, some form of organisation or recognition for this type of profession would be required, in order to maintain the well-being of these type of new workers.

## 5.2. “The Playbourers”

Interestingly enough, it is the group that considers the activity equally as work and play, or playbour, who gains the least amount of income from their activities (M= \$145.76). Although this group is almost as active in their content creation activities as the work oriented group by investing almost the same number of hours on the activity itself (M=20.74) as well as on related social media activities (M=10.91), their income levels are less than a fourth of that earned by the work-oriented group. This partly rejects our hypothesis (H3) and seems to assert our assumption about the conflict this perception may cause.

It appears that this “playbourer” group may lack a certain focus or strategy from their personal broadcasting activities, which has resulted in more time spent on the activity itself, but less concrete outcomes gained from it. This lack of focus and strategy may be affected by the longer tenure within the activity, during which the professional elements of the activity have begun to develop and be more available. In order to better understand this aspect, it would be valuable to further examine video content creators with different tenure among the activity and



their perceptions of professionalisation of the activity and the effects of the development of monetisation in this activity. On the other hand, personal broadcasting is a creative activity. Technical and professional skills needed to perform the activities may have been acquired after a certain time of engaging with it and the increased time spent on broadcasting does not necessarily lead to the development of skills that are of direct value to income generation. It would be of value for further studies to examine this possible correlation between creativity, experience with an activity, and its outcomes.

The obtained findings about this group may also reflect the difficult nature of this type of digital labour and online entrepreneurship, where risk-taking [49] and ambiguity [50] of the activity are heightened, and clear objectives and aims, which are often associated with traditional work environments may be missing. The independent nature of this type of work, and the highly competitive environment of the video sharing platforms, may affect those content creators, who approach the activity without a clear focus or a strong passion for the activity.

In order to better understand the characteristic of this type of work, future research should be focused on the work-oriented group to define the nature of this type of digital labour. Finally, these obtained results for the group divided between work and play further emphasize how possible blurring of lines between work and play in digital environments could reduce worker productivity, income, and possibly overall well-being as it has in traditional work environments [69]. Well-being in particular was not examined by our study and future research is encourage to compare levels of subjective wellbeing between personal broadcasters depending on their perceptions of the activity.

### 5.3. "The Hobbyists"

The final group examined in this research and incidentally, the largest group identified in our sample, is the group of content creators who identified the activity as more play than work. This play-oriented group has the longest experience from the activity ( $M = 38.67$  months). However they seem to be by far, the least active group in regards to their activities, as they spend nearly half the amount of time on the production and distribution of video content ( $M = 13.28$  h) and on social media activities ( $M = 6.55$  h), compared to the work and playbour groups. This rejects our hypothesis (H1), although the group could be considered as the most dedicated group based on their tenure.

This finding related to the activity levels of the play-oriented group is interesting, since the association with leisure and play, could be considered to lead to higher engagement with the activity itself. When examining previous research on hobbies and

free time, we do however see similar findings, where the element of "free time" [70] is associated with various activities and is allocated a specific time from each day or week [71]. For example, an average US gamer would spend 7 hours [72] per week on online gaming, whereas an average person seems to spend around 135 minutes a day on social media [73]. This finding may also indicate that this group has a more casual attitude towards the activity, where it is merely one part of an individual's day, whereas the work-oriented group clearly has a more dedicated attitude towards the activity, where they are investing much more time on it.

As it can be argued that as this group perceives this activity as a leisure activity, it may be motivated by similar motivations as other types of digital content creation [7] or the consumption of digital video content [74], such as enjoyment, entertainment as well as socialisation. Perceiving an activity as a play or leisure activity has also been found to be associated with intrinsic motivators [13].

This underlying heightened appreciation of intrinsic and hedonic motive, may lead to less focus on the income that can be derived from the activity, which could be demonstrated in lower levels of income for this group. However, the results of this study do indicate that this play oriented group is still likely to earn more income ( $M = \$179.11$ ) from their activity than the playbour group. It may be that the intrinsic and hedonic experiences gained from the activity itself, is somewhat reflected in the produced content as a more enjoyable or entertaining experience for the consumer. This could attract more viewers to the content, as viewers have also been examined to be motivated by entertainment and enjoyment [74], and lead to the acceleration of the attention economy and further income for the content creator.

The average level of income reported in this study indicates that although the income level of the play-oriented group is not as high as that of the work-oriented group, there appears to be potential to generate income through this activity while engaging with it as pure play. In a way, this finding contradicts some of the ongoing debate about digital labour and commodification of our digital activities, as the personal broadcaster is gaining compensation from their activities, which they consider as play. Interestingly, when examining this finding, the traditional ways in which we perceive work or labour [28,30,75], and the practice of gamification [22,76], it could also be argued that through this activity, we are trying to workify play, where this type of leisure activity is taking on characteristics of work, but not altering the way the activity itself is perceived or the gratifications derived from it. This type of workification further alters our understanding of work and the way the modern worker approaches work-like tasks, it also provides potential avenues for future

research and practical use, in for example further development of our gamification practices.

## 6. Limitations

The data for this study was collected through an online survey, which provides a specific vantage point on an individual's perceptions and views of reality [77]. As this study is focused on understanding perceptions of personal broadcasting in relation to specific metrics that indicate levels of activity and income, a survey was considered a suitable method for data collection. Nonetheless, future research is highly recommended to employ a wider array of research methods in investigating personal broadcasting from different vantage points such as through qualitative surveys, focus groups or interviews.

We also do acknowledge the specific limitations of using online surveys in data collection. As an online survey relies on self-reporting of activities in an unsupervised environment, we have to take into account the possibility of common-method bias [78] and acknowledge that the activities measured in this study are based on estimates and self-reported values. The common-method bias was addressed by utilizing a variety of distribution sources for the survey and a randomized order for items in the survey. Ethnographic observation methods could provide a more detailed insight into these activities, but due to the intensity of the behaviour, and its private nature, it may not provide accurate results either.

This study grouped together pre-recorded content creators and live-streamers. While small nuanced differences may exist between the two groups, many of the study respondents reported to engage in both live-streaming and pre-recorded video content creation. Hence, we examined the overall production behaviour of the respondents instead of examining specific broadcasting forms or services. It should also be noted that the sample is heavily male-focused, which may limit our findings. The majority of the respondents were located in the US and Finland, which does provide variation in terms of the western culture of personal broadcasting, but it should be noted that further research should be conducted in eastern cultures, e.g. in the Chinese market, where the culture of personal broadcasting is different and utilizes local services.

The three groups examined in this research were different sizes, but each group had enough respondents for them to be compared in this study. Some of our findings were found insignificant through further tests and therefore cannot be considered conclusive.

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## 7. References

- [1] Huotari K, Hamari J. A definition for gamification: anchoring gamification in the service marketing literature. *Electron Mark.* 2017;27(1):21–31.
- [2] Deterding S. The lens of intrinsic skill atoms: A method for gameful design. Vol. 30, *Human-Computer Interaction*. 2015. p. 294–335.
- [3] Kücklich J. Precarious Playbour : Modders and the Digital Games. *Fibreculture* [Internet]. 2005;(5):1–8. Available from: <http://five.fibreculturejournal.org/fcj-025-precariou-playbour-modders-and-the-digital-games-industry/>
- [4] Sotamaa O. On modder labour, commodification of play, and mod competitions. *First Monday*. 2007;12(9).
- [5] Sotamaa O. Play, Create, Share? Console Gaming, Player Production and Agency. *Fibreculture J* [Internet]. 2010;(2000):1–13. Available from: <http://sixteen.fibreculturejournal.org/play-create-share-console-gaming-player-production-and-agency/>
- [6] Ferrer-Conill R. Playbour and the Gamification of Work: Empowerment, Exploitation and Fun as Labour Dynamics. In: *Technologies of Labour and the Politics of Contradiction*. 2018.
- [7] Matikainen J. Motivations for content generation in social media. *J Audience Recept Stud*. 2015;12(1):41–58.
- [8] Blocher DH, Siegal R. Toward A Cognitive Developmental Theory of Leisure and Work. *Couns Psychol*. 1981;9(3):33–44.
- [9] Carlson DS, Grzywacz JG, Zivnuska S. Is work—family balance more than conflict and enrichment? *Hum Relations* [Internet]. 2009;62(10):1459–86. Available from: <http://journals.sagepub.com/doi/10.1177/0018726709336500>
- [10] Grzywacz JG, Carlson DS. Conceptualizing Work—Family Balance: Implications for Practice and Research. *Adv Dev Hum Resour*. 2007;9(4).
- [11] Parkes LP, Langford PH. Work—life balance or work—life alignment? *J Manag Organ*. 2008;14(3):267–84.
- [12] Kalliath T, Brough P. Achieving work-life balance. *Journal of Management and Organization*. 2008;14(3):224–6.
- [13] Juniu S, Tedrick T. Leisure or work?: Amateur and professional musicians.. *J Leis Res* [Internet]. 1996;28(1):44. Available from: <https://www.nrpa.org/globalassets/journals/jlr/1996/volume-28/jlr-volume-28-number-1-pp-44-56.pdf>
- [14] Juniu S. Downshifting: Regaining the essence of leisure. *J Leis Res* [Internet]. 2000;32(1):69–73. Available from: <https://www.nrpa.org/globalassets/journals/jlr/2000/volume-32/jlr-volume-32-number-1-pp-69->

- 73.pdf
- [15] Vesa M, Hamari J, Harviainen JT, Warmelink H. Computer Games and Organization Studies. *Organ Stud.* 2017;38(2):273–84.
- [16] Khaled R. Gamification and Culture. *Gameful World Approaches, Issues, Appl.* 2014;301–21.
- [17] Raessens J. Playful identities, or the ludification of culture. *Games Cult.* 2006;1(1):52–7.
- [18] Nah FF-H, Zeng Q, Telaprolu VR, Ayyappa AP, Eschenbrenner B. Gamification of education: A review of literature. In: 1st International Conference on HCI in Business, HCIB 2014 - Held as Part of 16th International Conference on Human-Computer Interaction, HCI International 2014 [Internet]. 2014. Available from: <http://www.scopus.com/inward/record.url?eid=2-s2.0-84903729964&partnerID=40&md5=0f5ab38ae34a9a1037dc69faa273b2e4>
- [19] Hamari J, Koivisto J. Working out for likes”: An empirical study on social influence in exercise gamification. *Comput Human Behav.* 2015;50:333–347.
- [20] Kumar J. Gamification at work: Designing engaging business software. In: *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*. 2013. p. 528–37.
- [21] Hamari J, Koivisto J, Sarsa H. Does gamification work?—a literature review of empirical studies on gamification. *Syst Sci (HICSS)*, 2014 47th Hawaii Int Conf [Internet]. 2014;3025–34. Available from: [http://ieeexplore.ieee.org/xpls/abs\\_all.jsp?arnumber=6758978](http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=6758978)
- [22] Warmelink H, Koivisto J, Mayer I, Vesa M, Hamari J. Gamification of the work floor: A literature review of gamifying production and logistics operations. *Proc 51th Annu Hawaii Int Conf Syst Sci* [Internet]. 2018;(January):10. Available from: <http://hdl.handle.net/10125/50026>
- [23] Smythe DW. Communication: Blindspot of Western Marxism. *Can J Polit Soc Theory.* 1977;1(3):1–27.
- [24] Terranova T. Free labour. In: *Digital Labor: The internet as playground and factory*. 2013. p. 33–57.
- [25] Bermejo F. The Internet audience : constitution & measurement [Internet]. *Digital formations* ; v. 35. 2007. x, 262 p. Available from: <http://www.loc.gov/catdir/toc/ecip0617/2006022450.html>
- [26] Fuchs C. The political economy of privacy on facebook. *Telev New Media.* 2012;13(2):139–59.
- [27] Mosco V. The Political Economy of Journalism. *Economia* [Internet]. 2016;48:19. Available from: [http://www.academia.edu/download/51081513/LI\\_VRO\\_ECONOMIA\\_POLITICA\\_DO\\_JORNALI\\_SMOI.pdf#page=20](http://www.academia.edu/download/51081513/LI_VRO_ECONOMIA_POLITICA_DO_JORNALI_SMOI.pdf#page=20)
- [28] Mosco V. The Political Economy of Labor. In: *The Handbook of Political Economy of Communications*. 2011. p. 358–80.
- [29] Foley DK. The Political Economy of Postcrisis Global Capitalism. *South Atl Q* [Internet]. 2012;111(2):251–63. Available from: <https://read.dukeupress.edu/south-atlantic-quarterly/article/111/2/251-263/3579>
- [30] Smith A, Hollander JH. Adam Smith 1776-1926. *J Polit Econ.* 1927;35(2):153–97.
- [31] Khan ML. Social media engagement: What motivates user participation and consumption on YouTube? *Comput Human Behav.* 2017;66:236–47.
- [32] Rubin AM. An examination of television viewing motivations. *Communic Res.* 1981;8(2):141–65.
- [33] Rubin AM. Television Uses and Gratifications : The Motivations. *J Broadcast* [Internet]. 2011;1:89–109. Available from: <http://search.ebscohost.com/login.aspx?direct=true&db=cax&AN=50038704&site=ehost-live&scope=site>
- [34] Nov O. What motivates Wikipedians? *Commun ACM* [Internet]. 2007;50(11):60–4. Available from: <http://portal.acm.org/citation.cfm?doid=1297797.1297798>
- [35] Nov O, Naaman M, Ye C. Analysis of participation in an online photo-sharing community: A multidimensional perspective. *J Am Soc Inf Sci Technol.* 2010;61(3):555–66.
- [36] Scholz. *Digital Labor. Digital Labor - The Internet as Playground and Factory*. 2012. 98-111 p.
- [37] Terranova T. Free Labor: PRODUCING CULTURE FOR THE DIGITAL ECONOMY. *Soc Text* [Internet]. 2000;18(2 63):33–58. Available from: [http://socialtext.dukejournals.org/cgi/doi/10.1215/01642472-18-2\\_63-33](http://socialtext.dukejournals.org/cgi/doi/10.1215/01642472-18-2_63-33)
- [38] Toffler A. *The Third Wave - The Classic Study of Tomorrow* [Internet]. Bantam, New York. 1980. 448 p. Available from: <http://www.randomhousebooks.com/books/179102/>
- [39] Ritzer G. Focusing on the Prosumer. In: *Prosumer Revisited* [Internet]. 2010. p. 61–79. Available from: [http://link.springer.com/10.1007/978-3-531-91998-0\\_3](http://link.springer.com/10.1007/978-3-531-91998-0_3)
- [40] Ritzer G. Prosumer Capitalism. *Sociol Q.* 2015;56(3):413–45.
- [41] Fuchs C. Digital presumption labour on social media in the context of the capitalist regime of time. *Time Soc.* 2014;23(1):97–123.
- [42] Ritzer G, Jurgenson N. Production, Consumption, Presumption: The nature of capitalism in the age of the digital “prosumer.” *J Consum Cult.* 2010;10(1):13–36.
- [43] Van Dijck J, Poell T. *Understanding Social Media Logic.* Media Commun. 2013;
- [44] Sotamaa O. When the game is not enough: Motivations and practices among computer game modding culture. *Games Cult.* 2010;5(3):239–55.
- [45] Jhally S, Livant B. Watching as Working: The Valorization of Audience Consciousness. *J Commun.* 1986;
- [46] D’Anastasio C. For Twitch Streamers Who Spend Their Lives On Camera, It’s Hard To Know When To Stop. *Kotaku* [Internet]. Available from: <https://kotaku.com/for-twitch-streamers-who-spend-their-lives-on-camera-i-1792351731>
- [47] Bányai F, Griffiths MD, Király O, Demetrovics Z. The Psychology of Esports: A Systematic Literature Review. *J Gambli Stud.* 2018;
- [48] Tassi P. The U.S. Now Recognizes eSports Players

- As Professional Athletes. *Forbes*. 2013.
- [49] Drucker PF. Innovation and Entrepreneurship. *Innovation and Entrepreneurship*. 2014.
- [50] Knight FH. Profit and Entrepreneurial Functions. *J Econ Hist*. 1942;
- [51] Emmett RB. The Economist and the Entrepreneur: Modernist Impulses in Risk, Uncertainty, and Profit. *Hist Polit Econ*. 1999;
- [52] Simon H a. Designing organizations for an information-rich world. *Comput Commun public Interes*. 1971;72:37.
- [53] Huberman BA. Social Computing and the Attention Economy. *J Stat Phys*. 2013;151(1–2):329–39.
- [54] Huberman B a., Romero DM, Wu F. Social networks that matter: Twitter under the microscope. *First Monday [Internet]*. 2009;14(1):1–9. Available from: <http://www.hpl.hp.com/research/scl/papers/twitter/twitter.pdf>
- [55] Abidin C, Ots M. The Influencer’s dilemma: The shaping of new brand professions between credibility and commerce. “Media Branding Revised: Participative Audiences and their Consequences for Media Branding [Internet]. 2015;1–12. Available from: <http://www.diva-portal.org/smash/record.jsf?pid=diva2%3A850033&dsid=473>
- [56] McClelland DC. Human motivation. *Motivation and Personality*. 1987.
- [57] McClelland DC. How Motives, Skills, and Values Determine What People Do. *Am Psychol*. 1985;
- [58] Memullen JS, Sheperd DA. ENTREPRENEURIAL ACTION AND THE ROLE OF UNCERTAINTY IN THE THEORY OF THE ENTREPRENEUR. *Acad Manag Rev*. 2006;
- [59] Korunka C, Frank H, Lueger M, Mugler J. The Entrepreneurial Personality in the Context of Resources, Environment, and the Startup Process—A Configurational Approach. *Entrep Theory Pract*. 2003;
- [60] Davidson E, Vaast E. Digital entrepreneurship and its sociomaterial enactment. In: *Proceedings of the Annual Hawaii International Conference on System Sciences*. 2010.
- [61] Field A. *Discovering Statistics Using SPSS*. Sage Publication. 2009.
- [62] Levene H. Levene test for equality of variances. *Contrib to Probab Stat*. 1960;
- [63] Campbell D, Cook T. Quasi-experimentation: Design and analysis for field settings [Internet]. Skokie, IL: Rand McNally. 1979. 420 p. Available from: [http://dickyh.staff.ugm.ac.id/wp/wp-content/uploads/2009/ringkasan\\_buku\\_quasi-experimentakhir.pdf](http://dickyh.staff.ugm.ac.id/wp/wp-content/uploads/2009/ringkasan_buku_quasi-experimentakhir.pdf)
- [64] Podsakoff PM, MacKenzie SB, Lee J-Y, Podsakoff NP. Common method biases in behavioral research: a critical review of the literature and recommended remedies. *J Appl Psychol [Internet]*. 2003;88(5):879–903. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/14516251>
- [65] McClelland DC, Burnham DH. Power is the Great Motivator. *Harvard Business Review*. 2003.
- [66] Kazai G, Kooleen M, Kamps J, Doucet A, Landoni M. Overview of the INEX 2010 book track: Scaling up the evaluation using crowdsourcing. In: *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*. 2011.
- [67] Alexander J. YouTube’s top creators are burning out and breaking down en masse. *Polygon [Internet]*. 2018; Available from: <https://www.polygon.com/2018/6/1/17413542/burnout-mental-health-awareness-youtube-elle-mills-el-rubius-bobby-burns-pewdiepie>
- [68] Boyd DP, Gumpert DE. Coping with entrepreneurial stress. *Harvard Business Review*. 1983.
- [69] Ernst Kossek E, Ozeki C. Work-family conflict, policies, and the job-life satisfaction relationship: A review and directions for organizational behavior-human resources research. *J Appl Psychol*. 1998;
- [70] Valtonen A. *Rethinking Free Time : a Study on Boundaries, Disorders and Symbolic Goods*. Aalto University; 2004.
- [71] Olmsted A.D. Hobbies and Serious Leisure. *World Leis Recreat*. 1993;35(1):27–32.
- [72] ESA. *Essential Facts About the Computer and Video Game Industry [Internet]*. 2018. Available from: <http://www.theesa.com/about-esa/essential-facts-computer-video-game-industry/>
- [73] Statista. *No Daily time spent on social networking by internet users worldwide from 2012 to 2017 (in minutes) [Internet]*. 2017. Available from: <https://www.statista.com/statistics/433871/daily-social-media-usage-worldwide/>
- [74] Sjöblom M, Hamari J. Why do people watch others play video games? An empirical study on the motivations of Twitch users. *Comput Human Behav*. 2017;75:985–96.
- [75] Mosco V. The political economy of communication. *The Political Economy of Communication*. 2009. 1-268 p.
- [76] Deterding S, Khaled R, Nacke L, Dixon D. Gamification: toward a definition. *Chi 2011 [Internet]*. 2011;12–5. Available from: <http://gamification-research.org/wp-content/uploads/2011/04/02-Deterding-Khaled-Nacke-Dixon.pdf>
- [77] Barker C, Pistrang N. Quality criteria under methodological pluralism: Implications for conducting and evaluating research. In: *American Journal of Community Psychology*. 2005.
- [78] Straub D, Boudreau M-C, Gefen D. *Validation Guidelines for Is Positivist*. *Commun Assoc Inf Syst*. 2004;

## Appendix A.

Items for the Work and Play scale				
WP1	I think my streaming activities are....	Extremely serious	Extremely fun	-
WP2	activities are....	Extremely instrumental	Extremely entertaining	-
WP3		Extremely work-related	Extremely leisure-related	-
WP4		Extremely labour intensive	Extremely relaxing	-

## PUBLICATION III

Fame and fortune, or just fun? A study on why people create content on video platforms

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# Fame and fortune, or just fun? A study on why people create content on video platforms

Content  
on video  
platforms

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## Abstract

**Purpose** – The purpose of this paper is to examine the motivations behind online video content creation on services such as YouTube and Twitch. These activities, performed by private individuals online, have become increasingly monetized and professionalised through the accessible tools provided by video sharing services, which has presented a noteworthy manifestation of the increasing merger of the work and leisure within digital environments and the emergence of a hybrid form of work and play, playbour.

**Design/methodology/approach** – The data for the study were collected using an online survey of 377 video content creators and it was analysed via structural equation modelling.

**Findings** – The findings of the study indicate that although the practice of video content creation is becoming more commercialised and professionalised, the extrinsic motivations, often associated with work (e.g. income, prestige), remain less significant drivers for content creation than intrinsic motivations (e.g. enjoyment, socialisation), which are associated with leisure activities.

**Originality/value** – This study offers insight into how the authors have begun to reorganise the position in the new digital labour culture, where monotonous tasks are increasingly automated, allowing room for intrinsically driven playful labour to develop within the leisure activities.

**Keywords** Motivation, YouTube, Streaming, Prosumer, Playbour, Twitch

**Paper type** Research paper

## Introduction

Throughout recent years, we have witnessed the emergence and rapid growth of participatory culture (Chau, 2010; Jenkins, 2006; Kaplan and Haenlein, 2010; Rodrigues and Druschel, 2010) and collaborative consumption, sharing and production (Belk, 2014; Deuze, 2006; Hamari *et al.*, 2016). These developments are exemplified by emerging services of the sharing economy (e.g. Airbnb, Uber), crowdsourcing (e.g. Amazon Mechanical Turk, Wikipedia), and content sharing sites (e.g. YouTube, Twitch). Accelerated by technological advancements, these forms of digital participation and collaboration have transformed the internet into a global stage for self-expression, active discourse, and peer-to-peer collaboration, where the celebrification of private individuals (Jerslev, 2016; Khamis *et al.*, 2017; Marwick, 2015; Senft, 2013) and the monetisation of user-generated content (UGC)

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(Alexander, 2018a, b) has rapidly developed. This has dramatically changed the legacy conception of the ways in which information and content is internationally created and disseminated. The traditional business-to-consumer value chains seem increasingly irrelevant in digital environments, where consumers or “users” have become the main source of content creation, evolving into “prosumers”; active producers and consumers of digital content (Fuchs, 2014; Kotler, 1986; Ritzer, 2010, 2015; Toffler, 1980).

This prosumerism has reshaped our understanding of labour and leisure, and developed new dimensions of labour practices. Activities that have traditionally been considered as labour are increasingly gamified, whereby game design and the practices of gamer communities are reshaping the way we work (Deterding, 2015; Huotari and Hamari, 2017; Vesa *et al.*, 2017), while work practices are increasingly difficult to distinguish from game-like practices and behaviour. Conversely, leisure activities, such as playing video games, have begun to adopt work-like elements exemplified in activities such as esports (competitive video gaming) (Hamari and Sjöblom, 2017). Hence, next to the gamification movement, we are also witnessing a “playbour” movement that – in contrast to gamification – diffuses professionalised elements to play and leisure activities (Castronova, 2005; Kücklich, 2005; Lloyd, 2017; Scholz, 2013). Due to these developments, individuals seem to be increasingly seeking to transform their work-life into playful, intrinsically motivated activities, beyond the mere pursuit of employment and income. Furthermore, they appear to be turning leisure activities, such as gaming, into productive endeavours.

Perhaps the most prominent manifestation of the notion of playbour is social video content creation. This new wave of content creation and dissemination is undertaken by private individual prosumers, and built around a perceptually playful and social activity: production and distribution of content through one, or many, social media channels and social video sharing services such as Twitch and YouTube. Yet, it has become an increasingly laborious activity, due to both the economic incentive provided by the distribution platforms and the lure of the celebrification of those individuals involved (Jerslev, 2016; Khamis *et al.*, 2017; Marwick, 2015).

The recent rise in popularity of social video content can be attributed to increasing prosumerism, the development of live streaming technologies, and popular social video sharing sites such as YouTube, Twitch, Snapchat and Instagram. The prosumption habits of millennials and Generation Z (Agrawal, 2016) have also made a significant contribution to the rise of social video content, as they increasingly utilise video content to gather and generate information and entertainment.

We argue that the relationship between leisure and work in social video content creation has been blurred by: increased professionalisation (Johnson and Woodcock, 2017); digital celebrification (Driessens, 2013; Jerslev, 2016; Khamis *et al.*, 2017; Marwick, 2015; Senft, 2013); and, the accessibility of different digital revenues provided by video sharing platforms. Therefore, this paper utilises the framework provided by self-determination theory (SDT) (Deci and Ryan, 1985, 2000; Ryan and Deci, 2000) to specifically examine the effects of intrinsic and extrinsic motivating factors in this increasingly professionalised activity. Structural equation modelling (SEM) is used to analyse data gathered from 377 social video content creators via an international survey, in order to answer the question: what drives social video content creation and sharing in an increasingly professionalised ecosystem? The research model utilises SDT and existing research on social video content creation (such as Bründl and Hess, 2016; Kim *et al.*, 2017; Lottridge *et al.*, 2017; Zhao *et al.*, 2018) and research on behaviours in other social digital environments (Hamari *et al.*, 2016; Nov, 2007; Nov and Ye, 2010). By examining the hybrid form of work and play, this research enables us to further our understanding of the possible emerging challenges of labour and play practices in digital environments, and how they can be supported by technological design, work re-organisation and the organisational structures around them.



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## Background

### *Peer-to-peer economics and the social content creation culture*

In the initial days of the World Wide Web (Berners-Lee *et al.*, 2010), digital content creation still belonged to large conglomerates and functioned within a highly structured ecosystem. However, gradually the digital technologies and cultures have provoked a paradigm shift in the consumer-producer relationship, enabling any online user to become a “prosumer” of content (Fuchs, 2014; Kotler, 1986; Ritzer, 2010, 2015; Toffler, 1980). This has been further emphasised and encouraged by the platform economy, where platforms primarily act as coordinators of content creation and human interaction (Kenney *et al.*, 2016). The impact of these dimensions of digital culture and prosumption can be seen not only through the services individuals utilise for personal purposes or entertainment, but additionally, in the labour-like approaches they utilise to generate income and build professional careers around these new forms of economic coordination, ones which were not available only a few years ago.

This professionalisation of content creation activities can be seen, for example, in the adaptation of specific schedules to content creation activities, as well as in the growing number of individuals converting content creation into their primary source of income. This form of professionalisation of digital content creation can be considered to be related to the concept of “playbour”, where activities regarded as gaming or playing are further infused with aspects of professionalism (Castronova, 2005; Kücklich, 2005; Scholz, 2013; Taylor *et al.*, 2015; Yee, 2006). The concept of playbour can be associated with our understanding of the digital economy, digital labour and free labour (Fuchs, 2014; Lloyd, 2017; Scholz, 2013; Terranova, 2013), but is further exemplified in activities related to professionalisation of play and playful activities. Examples of playbour can be observed in video game economies, such as gold farming and real-money trading (Heeks, 2009; Lehdonvirta and Castronova, 2014), computer game modification (modding) (Kücklich, 2005; Sotamaa, 2010; Taylor *et al.*, 2015), esports (Hamari and Sjöblom, 2017), live video streaming and pre-recorded video broadcasting (Pellicone, 2016; Sjöblom and Hamari, 2017) and UGC.

As an example of playbour, UGC can be examined in reference to a range of services, including Wikipedia (Kaplan and Haenlein, 2014; Nov, 2007) and social media platforms such as Twitter and Facebook (Chen, 2011; Shen *et al.*, 2014). In these cases, the primary content is provided by users and often as a part of a leisure or playful activity. UGC is commonly understood as content that is produced by the end-user of a service or software which expands the original, however, if we consider social video content dissemination through YouTube for example, it cannot merely be viewed as content that expands YouTube as a system. Rather, YouTube is seen as a facilitator of content that is expanded through social interaction and relationships. Therefore, while the term UGC is rather established, it can be seen as outdated in today’s social online environment, where it fails to reflect the interchangeable nature of a prosumer and may limit the understanding of the underlying structures and relationships related to the content itself. Lamb and Kling (2003), who introduced the “user” of ICT as a social actor with multiple affiliations and relationships with the surrounding ecosystem, presented similar arguments. We conceptualise and examine this type of prosumer-generated digital content as social content. That is, that it is produced by independent social actor(s) (Lamb, 2005; Lamb and Kling, 2003) who utilise one or multiple commercial social media channels to disseminate their content and to encourage social interaction with both the content and the content creators.

The production of social video content is often decentralised and independent from the distribution platform (e.g. pre-recorded content broadcasted through video sharing services such as YouTube), but the content can also be directly generated through the distribution platform (e.g. live streaming on services such as Twitch and YouTube live). Although there are various digital video sharing services available for content creators, YouTube and Twitch are currently the leading social video sharing platforms, catering to millions of

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## INTR

content creators and their audiences (Coldewey, 2017; Freitas and Albert, 2018; YouTube, 2017), and as such exemplify the growing influence of social video content as a form of media and an activity. YouTube has a prominent role in the market as it was one of the first video sharing platforms to establish market share, but Twitch has rapidly gained popularity as a live streaming platform with an emphasis on video gaming content. See Table I for examples of different types of digital video sharing services.

The business models of video sharing platforms vary, but are primarily constructed around the attention obtained by the content and content creators on the platforms, and the consumption power of the platform users, as explained in the notion of the attention economy (Huberman, 2013). The content generated by content creators and the consumption of said content is monetisation through various strategies and channels, developed to further the economic agenda of the platform, but lately also extended to provide monetary value for the content creators (Welch, 2018). Of these monetisation strategies and channels, the most prominent are the use of direct advertising and offering a paid subscription to specific content or channels. Content creators share of the revenue from these monetisation channels is often provided through affiliate or partner programs, which are accessible to content creators with specified levels of attention on the platform.

These exclusive programs provide a sophisticated way for platforms to further their monetisation strategy as they allow platforms to engage the content creators in further content creation and monetisation of their personal brand and content through e.g. merchandise. In order to access and maintain the advantages of these programs, a content creator is required to maintain a highly systematic approach to their activities, including effective time management, community management, and a rigorous approach to continuous content creation. Out of the 2m unique monthly broadcasters on Twitch, only 27,000 have Twitch “partner” status (Freitas and Albert, 2018), which allows further access and control over monetisation channels such as advertising revenue. However, over 150,000 broadcasters have “affiliate” status on the Twitch platform (Freitas and Albert, 2018), which allows basic access to subscriptions and donations in the form of Twitch supported digital currency, Bits (Twitch, 2018), thereby increasing the ability to earn an income from these activities.

Regardless of these developments in business models and their accessibility, social video content creation is still largely considered a leisure activity, possibly driven by many of the same motivations as playing video games (Hamari and Keronen, 2017; Hamari and Tuunanen, 2014). Therefore, further examination of previous research on motivations can illuminate the underlying behaviours related to these social video content creation activities.

### *Previous research on social video content creation*

Understanding the motivations of individuals can lead to both a better understanding and prediction of human behaviour (Agarwal and Karahanna, 2000; Chen *et al.*, 2014; Deci and Ryan, 1985) as well as to the improvement of service or product design (Bloch, 1995). The motivation behind digital video content production has been the topic of several research efforts in recent years (Table II). It should be noted that the following literature is focussed primarily on production motivations, and may not be exhaustive.

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**Table I.**  
Examples of different types of digital video sharing services

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Example	Content creator	Type of content	Dissemination
YouTube, Twitch	Independent/commercial	Independent	Commercial
Netflix, HBO Now	Commercial	Commercial	Commercial
View.ly (in development)	Independent/commercial	Independent	Independent

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Study	Theoretical background	Summary of topic	Key findings
Why do users broadcast? Examining individual motives and social capital on social live streaming platforms (Brundl and Hess, 2016)	Social capital theory	Twitch broadcasting motivations	Information dissemination, monetary incentives and commitment associated with content contribution. Enjoyment, Information dissemination, social interaction, commitment and shared vision associated with user's intention to continue content contribution
Determinants of live streamers' continuance intentions on Twitch: a self-determination theory perspective (Zhao <i>et al.</i> , 2018) You watch, you give, and you engage: a study of live streaming practices in China (Lu <i>et al.</i> , 2018) Third-wave livestreaming: teens' long form selfie (Lottridge <i>et al.</i> , 2017)	Self-determination theory n/a	Twitch intentions  Live streaming practices in China The live streaming behaviours and motivations of American teens	Performance expectancy and perceived website attractiveness subsequently affect streamers' continuance of broadcasting intentions on Twitch Social aspects primary motivation for content creation
It is more than just sharing game play videos! Understanding user motives in mobile game social media (Kim <i>et al.</i> , 2017)	Uses and gratifications	Uses and gratifications of GameDuck	Enjoyment, thrill and social aspects significant motivators for content creation activities
Framing and praising Allah on YouTube: exploring user-created videos about Islam and the motivations for producing them, (Moseghvdishvili and Jansz, 2013)	Uses and gratifications	Exploring user created videos about Islam and the motivations for producing them	Communication/interaction, self-expression and social recognition significant motivators in content creation activities
Meerkat and periscope: I stream, you stream, apps stream for live streams (Tang <i>et al.</i> , 2016)	n/a	Use of Meerkat and Periscope for live streaming video	Social interaction and career development significant motivators in content creation activities
Live-streaming mobile video: production as civic engagement (Dougherty, 2011)	n/a	The streaming practices related to the production of civic content	Social aspects, communication/educative power of the medium significant motivators in content creation activities
Motivations and stake management in producing YouTube "bro-science" videos for baldness treatment, (McNeill and Sillence, 2018)	n/a	Motivations and stake management in producing YouTube "bro-science" videos	Information sharing, social interaction/community, altruism significant motivators in content creation activities
Older people's production and appropriation of digital videos: an ethnographic study (Ferreira <i>et al.</i> , 2017)	n/a	Older people's content production and appropriation of digital videos	Sharing moments/information, maintaining memories, skill development, and social inclusion significant motivators in content creation activities

**Table II.**  
Previous research in social video content creation motivations

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*The self-determination theory*

The examined literature on video content creation motivation revealed a gap in the understanding of the economic and extrinsic motivation behind the increasingly professionalised video content creation, and its effect on the overall activity. In order to examine this effect of the economic incentive behind video content creation, this research utilises one of the leading schools of thought on human motivation, SDT (Deci and Ryan, 2000, 2002). SDT allows us to analyse the effect of play and labour elements within this activity, utilising the understanding of intrinsic and extrinsic motivation.

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As one of the core psychological theories on motivation, SDT (Deci and Ryan, 2000, 2002) distinguishes between intrinsic and extrinsic motivation and proposes that behaviour – such as producing and sharing videos online – is motivated by a host of intrinsic and extrinsic motivations. SDT has been developed to describe three core intrinsic psychological needs that motivate behaviour: competence (the need to display and develop one's skill); relatedness (the need for human connection and belonging to a group); and autonomy (the need to be independent in one's own behaviour) (Deci and Ryan, 2000). In addition to these core needs, intrinsic motivations can describe the pursuit of certain behaviours for the sake of the behaviour itself and the psychological value it provides to the individual, for example watching television in the pursuit of enjoyment or relaxation (Baard *et al.*, 2004; Deci and Ryan, 1985, 2002).

SDT also examines extrinsic motivations, that are considered to be separable outcomes from the activity being pursued, for example working in pursuit of a salary or reputation and external approval (Deci and Ryan, 1985, 2000, 2002). Intrinsic and extrinsic motivations often coincide in engagement with work and labour practices (Lepper and Henderlong, 2000), it is, therefore, essential to study both intrinsic and extrinsic motivation in playbour activities where the activities, by definition, combine intrinsic and extrinsic rewards. While intrinsic motivations have previously been studied in the context of playbour, there seems to be a lack of research, which analyses extrinsic motivations in conjunction with intrinsic motivations in the context of playbour.

SDT is a prominent theoretical framework in social psychology and it has also been extensively utilised when examining digital media consumption and production on services such as Wikipedia (Arazy and Nov, 2010; Nov, 2007), YouTube (Cha *et al.*, 2007; Garcia-Rapp, 2017), Facebook (Joinson, 2008) and Twitter (Chen, 2011) to name but a few.

**Research model and hypothesis**

Previous research on social video content creation has indicated similarities in motivations driving video content production and distribution on different digital platforms (Bründl and Hess, 2016; Lottridge *et al.*, 2017; Zhao *et al.*, 2018). However, drawing on the approach of the SDT, there is a lack of understanding as to whether these increasingly professionalised activities are more prominently motivated by intrinsic or extrinsic motivations. This is primarily a result of the fact that these elements have not yet been analysed in this context.

The nature of social video content creation within the digital environment reflects the core psychological needs described in the SDT, such as: social (relatedness) aspects through the interactive nature of the activity and the distribution platforms; competence through the ability to display and build a unique skillset through content creation; and autonomy through the independent and almost entrepreneurial nature of the activity. Previous research on this topic also indicates that intrinsic motivations, alongside the drive to fulfil the core psychological needs (Ryan and Deci, 2000) such as social interaction, enjoyment, relaxation and self-expression (Bründl and Hess, 2016; Kim *et al.*, 2017; Lottridge *et al.*, 2017; Lu *et al.*, 2018), have been found to be associated with the production of video content. Similar research findings on intrinsic motivation, especially social aspects, have also been reported in research related to other forms of digital content creation and media use (Chen, 2011; Joinson, 2008).

As previous research has revealed, various intrinsic motivations, such as social interaction and enjoyment, are positively associated with the creation of digital video content, which is why we argue that the intrinsic motivations examined in this research are also positively associated with the average time invested weekly on content creation (*H1*). Similarly, we argue, that these intrinsic motivations are also positively associated with the intention to continue video content creation, as also examined in previous research (*H2*):

*H1.* The intrinsic motivations examined in this research are positively associated with the average time invested weekly on content creation.

*H2.* The intrinsic motivations examined in this research are positively associated with the intention to continue video content creation.

However, there also are clear indications that the entrepreneurial aspects of the activity have increased the professionalisation and celebrification of individual video content creators (Driessens, 2013; Jerslev, 2016; Khamis *et al.*, 2017; Marwick, 2015; Senft, 2013). In turn, this has led to increased attention and interest in this activity as a profession and a source of recognition and income (Chambers *et al.*, 2018). This has been further supported by the development of the platform economy (Kenney *et al.*, 2016) and developments in digital labour practices (Lloyd, 2017; Scholz, 2013).

This professionalisation of social video content creation is evident in recent developments on distribution platforms; for example, Twitch (Twitch, 2018) has begun to directly associate higher levels of video content creation activity with their partner and affiliate programs which offer direct monetary and visibility benefits. Due to these developments, we argue that extrinsic motivations such as income, career development and reputation are becoming more prominent in the activity of video content creation, and are positively associated with both the average time invested weekly on content creation (*H3*) and the intention to continue video content creation (*H4*):

*H3.* The extrinsic motivations examined in this research are positively associated with the average time invested weekly on content creation.

*H4.* The extrinsic motivations examined in this research are positively associated with the average time invested weekly on content creation.

The model used in this research uses nine variables, adapted from previous research, to assess intrinsic and extrinsic motivations in order to better understand the behaviour of social video content creators. Each item was reworded to represent the activity of social video content creation.

Based on the findings of previous research (see e.g. Bründl and Hess, 2016; Kim *et al.*, 2017; Lottridge *et al.*, 2017) the constructs selected to measure intrinsic motivations were: skill development (competence) which is a drive for self-development and actualisation (Nov *et al.*, 2010); social interaction (relatedness), which emerges when an individual feels part of a bigger social group (Lee *et al.*, 2015; Leung, 2001); altruism (relatedness), in which the drive to share and assist others with their lives is expressed (Hsu and Lin, 2008); self-expression (autonomy), which measures an individual's need to express their personality, attitudes, preferences and lifestyles (Lee *et al.*, 2015); enjoyment, which refers to the positive psychological state individuals experience when they engage with an activity (Nov *et al.*, 2010); and, relaxation, representing the human need to unwind as a means of feeling less tense (Leung, 2001).

The constructs chosen to measure extrinsic motivations were selected based on an understanding of the professionalisation of the activity and extraneous outcomes that drive engagement with it. These are: career development, which describes the drive individuals have to improve their career placement possibilities (Nov *et al.*, 2010); income that represents the psychological perception of receiving a reward for completing a task (Lakhani and Wolf, 2005; Leimeister *et al.*, 2009); and, reputation, the drive to improve an individual's placement in the

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hierarchy of the community to which they belong (Hollenbaugh, 2010; Lee *et al.*, 2015). Table III presents how these variables have been utilised in previous research.

The research model in Figure 1 incorporates these nine variables in order to examine how they influence the intention to continue video content creation, and the average time invested weekly on content creation.

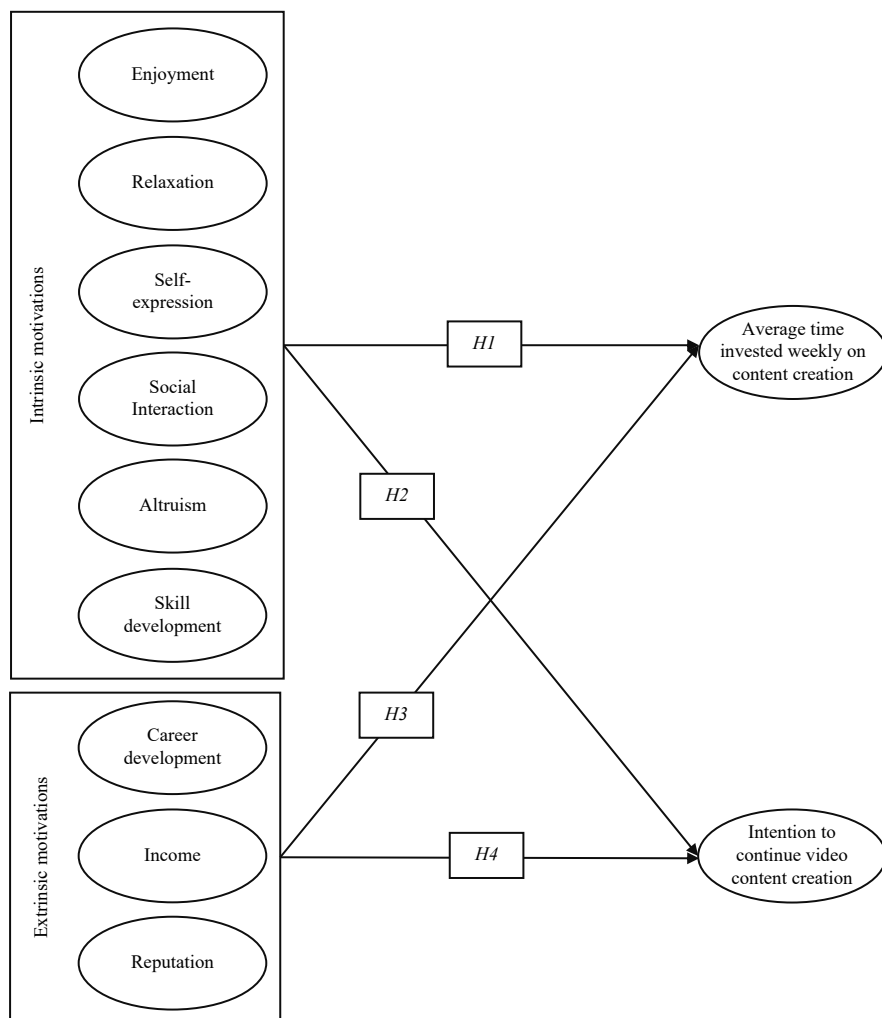
## Methodology

### *Participants and procedure*

Data were collected via an online survey, directed at social video content creators of different levels of popularity and tenure. Piloting of the survey was undertaken to test the technical functionality of the survey platform as well as to investigate internal consistency of psychometric constructs. After the pilot, two items underwent minor rewording. The

Construct	Previous research	Theoretical framework	Topic/Service	Results
<i>Intrinsic motivations</i>				
Enjoyment	Nov <i>et al.</i> (2010)	Self-determination theory	Flickr	Enjoyment not related to tagging and sharing photos
	Hamari <i>et al.</i> (2016)	Self-determination theory	Collaborative consumption	Perceived enjoyment has a significant positive effect on attitude and the behavioural intention
Relaxation	Sjöblom and Hamari (2017)	Uses and Gratifications	Twitch consumption	Tension release (relaxation) has a positive effect with hours of streams watched
	Leung (2001)	Uses and Gratifications	ISQ (I Seek You)	Relaxation has a positive effect on the use ISQ (I Seek You)
Self-expression	Matikainen (2015)		Social media content generation	Self-expression has a positive effect on social media content creation
	Lee <i>et al.</i> (2015)		Instagram	Self-expression has a positive effect on Instagram use
Social interaction	Matikainen (2015)		Social media generation	Social interaction has a positive effect on social media content creation
	Lee <i>et al.</i> (2015)		Instagram	Social interaction has a positive effect on Instagram use
Altruism	Hsu and Lin (2008)	Theory of reasoned action	Blogging	Altruism positively related with attitude towards blogging
Skill development	Nov <i>et al.</i> (2010)	Self-determination theory	Flickr	Skill development has a positive effect on tagging images and the social aspects of photo sharing
<i>Extrinsic motivations</i>				
Career development	Lakhani and Wolf (2005)	Self-determination theory	Free/Open Source Software Projects	Extrinsic motivations (career) has an effect on hours per week dedicated to Free/Open Source Software projects
Income	Lakhani and Wolf (2005)	Self-determination theory	Free/Open Source Software Projects	Extrinsic motivations (income) has an effect on hours per week dedicated to Free/Open Source Software projects
Reputation	Nov <i>et al.</i> (2010)	Self-determination theory	Flickr	Reputation has a positive effect on tagging images and the social aspects of photo sharing
	Hsu and Lin (2008)	Theory of reasoned action	Blogging	Reputation positively related with attitude toward blogging

**Table III.** Summary of previous research in motivations for using digital services



**Figure 1.**  
Research model  
and hypothesis

survey was distributed during 2017 via social media channels and groups (Reddit, Twitter and Facebook), personal messaging services of social video platforms (Twitch, YouTube), and through an e-mail list of active content creators. The respondents of the survey were offered a chance to win a product valued at \$65 as an incentive to participate.

Overall, the survey gathered data from 377 respondents from 30 different countries, of whom most were from Finland (38.6 per cent), and the USA (32.3 per cent). Almost 70 per cent of the respondents reported either having a full-time job or being students. Although the survey did not ask the participants to specify whether video content creation was considered as their full-time job, 45.8 per cent of the respondents reported generating income through their video content creation activities. The respondents were also asked to assess their activity as constitutes work or play on a seven-point Likert scale, over 60 per cent of the respondents reported a value higher than 4, indicating the activity to be considered primarily as play. This further exemplifies the merger of work and play within this activity. More detailed demographic information can be found in Table IV.

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	<i>n</i>	%		<i>n</i>	%
Gender			Employment		
Male	280	74.3	Part-time	51	13.5
Female	92	24.4	Full-time	129	34.2
Other	5	1.3	Student	131	34.7
Age			Unemployed	61	16.2
< 17	33	8.8	Retired	5	1.3
18–24	160	42.4	Video content type		
25–34	126	33.4	Pre-recorded	122	32.3
35–44	37	9.8	Live streamed	24	6.4
44 >	21	5.6	Both	231	61.3

**Table IV.**  
Demographic  
information

### Measurements

The questionnaire items were extracted from existing measurement instruments, used in previous research on social and digital media behaviour. Relaxation and social interaction constructs were created by combining items from different scales, thereby increasing the depth of the relevant scales. The social interaction construct included items from sense of community (McMillan and Chavis, 1986), socialisation (Lee *et al.*, 2015) and sociability (Leung, 2001), while the relaxation construct adopted additional items from escape (Leung, 2001). Reputation was a combination of personal status (Lee *et al.*, 2015) and exhibitionism (Hollenbaugh, 2010), while income was a combination of a construct measuring the perception of financial rewards (Lakhani and Wolf, 2005; Leimeister *et al.*, 2009) and the actual income of the content creator, which was measured based on the income estimates provided by respondents.

The dependent variables measured in this study were average time invested weekly on content creation, and intention to continue video content creation. Average time invested weekly on content creation was measured using the estimated hours per week spent on video content creation and dissemination through different services (e.g. YouTube and Twitch), as well as the average hours spent on promoting the video content and channel on different social media (e.g. Facebook, Twitter, Snapchat). Average time invested weekly on content creation is something the content creator themselves has clear control over and it was measured in hours spent, as many additional activities related to social video content creation (such as editing video, preparing for a live stream and promoting the content) should also be taken into consideration when assessing the laborious nature of this activity. Intention to continue video content creation was adapted from behavioural intention to use a system (Bock *et al.*, 2005; Venkatesh, 2000), in order to highlight the intention to continue video content creation in the future.

The extracted items were amended to emphasise the activity of social video content creation, by utilising the term “streaming” which was introduced to respondents as producing, sharing and posting video content online. All of the items, except estimated income and average time invested weekly on content creation, were measured on a seven-point Likert scale (1 indicating, “Strongly disagree” and 7 indicating, “Strongly agree”). A list of all items and the sources from which they were adapted can be found in the Appendix. Three individual items were removed during the analysis as they showed poor loading with other items in their corresponding constructs. These three items were from the self-expression, reputation and community scales. These deletions are reflected in the listing of items and their sources the Appendix.

### Validity and reliability

Model-testing for this research was conducted through component-based partial least squares structural equation modelling (PLS-SEM) (Chin and Newsted, 1999). In order to ensure the validity and reliability of measurement, specific measures were taken in the construction of the survey and in the analysis of the data. The order of the survey items in the online survey was



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randomised to ensure that respondents were unable to detect patterns between the items (Campbell and Cook, 1979), also serving to decrease the potential effect of common method bias (Podsakoff *et al.*, 2003). Analysis was conducted using SmartPLS 3.2.6 software (Ringle *et al.*, 2015). Accepted thresholds for internal consistency and convergent validity were exceeded across the standard measures of Cronbach's  $\alpha$ , composite reliability (CR) and average variance extracted (AVE) (Fornell and Larcker, 1981; Nunnally, 1967) (see Table V). Furthermore, accepted thresholds for discriminant validity were exceeded across the standard measure of square roots of the AVE for each of the constructs being higher than the correlation for any other construct, as well as each item having the highest loading with the construct to which it belongs (Fornell and Larcker, 1981; Joreskog and Sorbom, 1993; Joreskog and Yang, 1996). The validity calculations are displayed in Table V. In conjunction with validity measurements, the sample size ( $n = 377$ ) satisfies multiple different criteria for the lower bounds of sample size for PLS-SEM (Anderson and Gerbing, 1988; Chin and Newsted, 1999).

## Results

Data were analysed at the levels of: overall intrinsic and extrinsic motivations modelled as second-order constructs (constructs that combine all items of constructs regarded as either intrinsic or extrinsic motivations); and individual constructs across intrinsic and extrinsic motivations.

### *Analysis of overall intrinsic and extrinsic motivations*

The model accounted for 37.9 per cent of the variance for intention to continue video content creation, as well as for 2.1 per cent of variance in the average time invested weekly on content creation. Results show that neither of the second-order constructs of intrinsic ( $p = 0.310$ ) or extrinsic ( $p = 0.154$ ) motivation were statistically significantly associated with average time invested weekly on content creation ( $H1$  and  $H3$  rejected). However, a strong, and statistically significant, positive association exists between intrinsic motivations and intention to continue video content creation ( $H2$  not rejected,  $p = 0.000$ ). Extrinsic motivations did not have significant associations with intention to continue video content creation ( $H4$  rejected,  $p = 0.052$ ). Results are summarised in Table VI and Figure 2.

### *Analysis of specific motivations across intrinsic and extrinsic motivations*

The more detailed analysis accounted for 40.9 per cent of the variance for intention to continue video content creation, and 5.5 per cent of variance in the average time invested weekly on content creation. The analysis showed that perceived enjoyment ( $p = 0.001$ ), skill development ( $p = 0.038$ ) and social interaction ( $p = 0.000$ ) are positively associated with the intention to continue video content creation. Moreover, social interaction was positively associated with the average time invested weekly on content creation ( $p = 0.043$ ) and relaxation was negatively associated with the average time invested weekly on content creation ( $p = 0.037$ ).

From the individual constructs reflecting extrinsic motivations, both career development ( $p = 0.048$ ) and income ( $p = 0.046$ ) had a significant association with the average time invested weekly on content creation. None of the items from extrinsic motivations correlated with the intention to continue video content creation. Results are summarised in Table VII and Figure 3.

## Discussion and conclusion

The findings of this research reveal similarities with previous research into social video content creation (see, e.g. Bründl and Hess, 2016; Kim *et al.*, 2017; Lottridge *et al.*, 2017) and research into content production and consumption on different digital media platforms (Arazy and Nov, 2010; Cha *et al.*, 2007; Chen, 2011; Joinson, 2008; Nov, 2007). Intrinsic

**Table V.**  
Results of validity and  
reliability testing

	$\alpha$	CR	AVE	AVGHW	ALT	ENJ	RLX	SELF-E	SOCI	SDEV	IC	CDEV	INCOME	REP
AVGHW	1.000	1.000	1.000	1.000										
ALT	0.823	0.883	0.654	0.069	0.809									
ENJ	0.859	0.904	0.702	0.074	0.432	0.838								
RLX	0.772	0.848	0.538	-0.041	0.173	0.569	0.734							
SELF-E	0.707	0.831	0.627	0.057	0.377	0.534	0.420	0.792						
SOCI	0.857	0.891	0.542	0.125	0.426	0.619	0.492	0.547	0.737					
SDEV	0.809	0.875	0.638	0.103	0.561	0.558	0.336	0.514	0.559	0.798				
IC	0.794	0.866	0.619	0.172	0.340	0.527	0.312	0.427	0.555	0.499	0.787			
CDEV	0.897	0.927	0.760	0.135	0.290	0.309	0.190	0.358	0.354	0.496	0.359	0.872		
INCOME	0.934	0.950	0.794	0.151	0.100	0.172	0.106	0.140	0.255	0.160	0.176	0.464	0.891	
REP	0.796	0.855	0.544	0.049	0.301	0.371	0.316	0.397	0.483	0.414	0.350	0.599	0.444	0.738

**Notes:** AVGHW, Average time invested weekly on content creation; ALT, altruism; ENJ, enjoyment; RLX, relaxation; SELF-E, self-expression; SOCI, social interaction; SDEV, skill development; IC, intention to continue video content creation; CDEV, career development; INCOME, income; REP, reputation. The diagonal numbers in italic are the square root of AVE.

motivations such as enjoyment and social interaction (relatedness) have a positive bearing on continued engagement in video content production. However, this study additionally identified a significant relationship between specific extrinsic motivations and the weekly activity levels of a content creator. These findings between extrinsic motivations and weekly activity levels of a content creator are significant to this study as they reflect the change towards the more professionalized aspects of this activity, and therefore will be examined in the discussion of this paper.

The findings of this study may indicate that involvement in a creative activity, such as social video content creation, requires an intrinsic motivation that drives the continuity of the activity (hence the rejection of *H4*). However, the willingness to input more systematic effort into the content creation activities, is influenced by the addition of specific extrinsic incentives such as fame and fortune, which may partially explain the rejection of *H1*. These findings related to more specific extrinsic motivations, may have been diluted in the higher-level analysis of this research, which would explain the rejection of *H3*.

*The lure of fame and fortune – extrinsic motivations to create video content*

The significant relationship between income and weekly time invested on content creation may indicate that the developments in platform specific monetisation structures are becoming more accessible and appealing for content creators, which is beginning to affect their behaviour. A prominent example of this type of development is the gamified affiliate programme introduced by Twitch in 2017. The affiliate programme is a step towards the Twitch partner programme but is a separate monetisation scheme that is directed at entry level/beginner streamers on Twitch. It utilises strategic gamified techniques (Siutila, 2018), in the form of specific tasks and challenges, to motivate the content creators to generate more content as well as an audience. As the incentive for a specific activity level of video content creation, the streamers are promised access to the revenue of certain monetisation features, such as subscriptions, as well as other privileges offered by the platform (Twitch, 2018). Similar uses of gamification are utilised in more traditional working environments, as well as digital applications, in order to increase motivation and productivity (Warmelink *et al.*, 2018; Werbach and Hunter, 2012).

In practice, similar strategies could also be utilised in other video sharing platforms to promote the accessibility and availability of these monetisation schemes to beginners, which may add an extrinsic motivator to their activities and increase the activity levels of the content creators. This approach could also further the business models of these video sharing platforms. Interestingly these types of programs utilise familiar elements from our working environment such as clear goals, which emphasise the idea of playbour in this context.

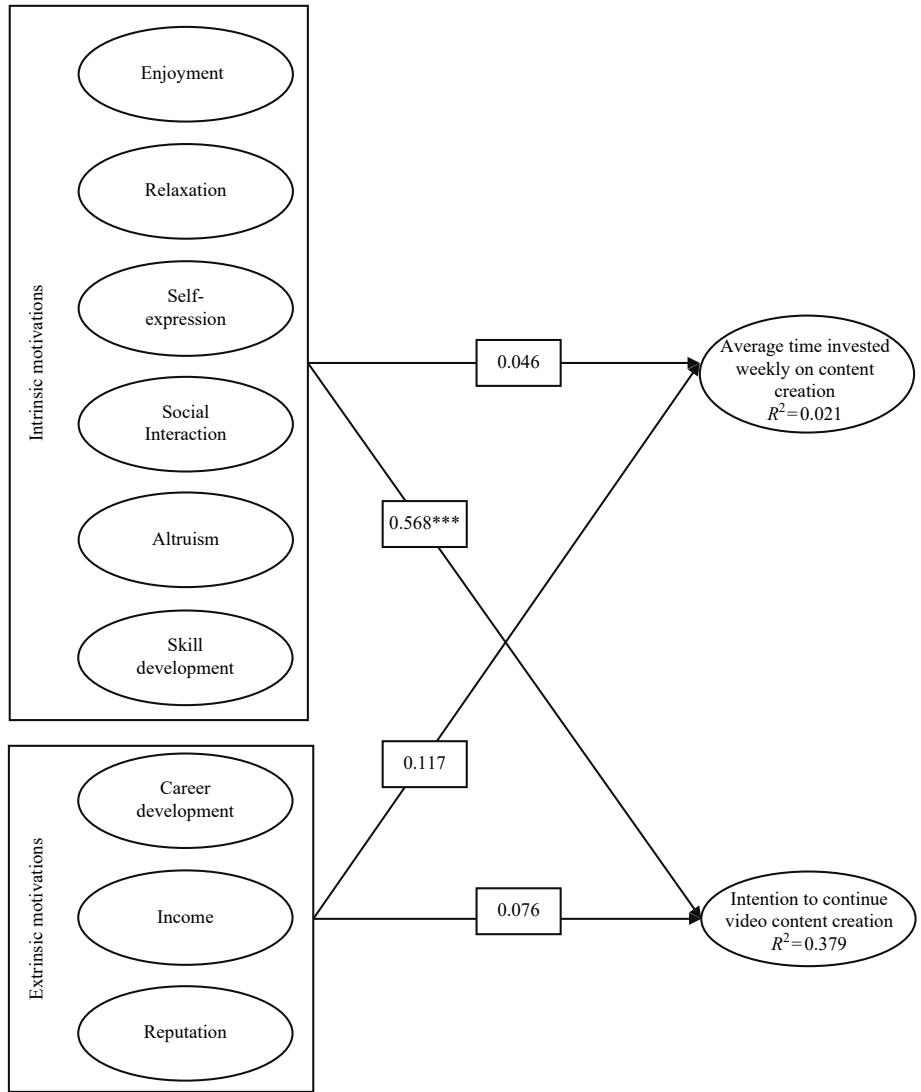
Further examination of the significant relationship between career development and average time invested weekly on content creation, seems to indicate that content creators are also viewing their activities professionally (anonymized for review). It may be that, as a result of the increasing spread of the celebrity culture related to digital content creation exemplified in the concepts of micro-celebrity (Khamis *et al.*, 2017; Marwick, 2015; Senft, 2013)

<i>R</i> <sup>2</sup>	Average time invested weekly on content creation 0.021			Intention to continue video content creation 0.379		
	$\beta$	CI	<i>P</i>	$\beta$	CI	<i>P</i>
Intrinsic motivations	0.046	-0.035-0.143	0.310	0.568***	0.491-0.661	0.000
Extrinsic motivations	0.117	-0.047-0.275	0.154	0.076	-0.006-0.169	0.052

Notes: \**p* < 0.05; \*\**p* < 0.01; \*\*\**p* < 0.001

**Table VI.**  
Results of the analysis on overall intrinsic and extrinsic motivations

INTR



**Figure 2.** Results of the analysis on overall intrinsic and extrinsic motivations

**Notes:** \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

and the influencer culture (Abidin and Ots, 2015), many have come to attempt to attain these celebrity statuses themselves. This relationship may also have been influenced by the rise of more organised digital professions, such as esports players and broadcasters (see, e.g. Bayliss, 2016; Salo, 2017).

The celebrity culture associated with digital content creation has developed through the popularity and rise of individual content creators. Particularly notorious video content creators such as PewDiePie and Paul Logan or Twitch streamers Dr DisRespect and Ninja, are prime examples of online celebrities. Their rise to fame has garnered a substantial amount of commercial and media attention, giving the overall profession of content creation a sense of ease and access (Fagan, 2018; Grundberg and Hansegard, 2014). In addition to this,

$R^2$	Average time invested weekly on content creation 0.055			Intention to continue video content creation 0.409		
	$\beta$	CI	$P$	$\beta$	CI	$P$
<i>Intrinsic motivations</i>						
Enjoyment	0.044	-0.112-0.190	0.567	0.244***	0.107-0.381	0.001
Relaxation	-0.139*	-0.276-0.021	0.037	-0.059	-0.151-0.04	0.230
Self-expression	-0.008	-0.13-0.134	0.908	0.054	-0.036-0.149	0.260
Social Interaction	0.145*	0.000-0.294	0.043	0.293***	0.182-0.402	0.000
Altruism	-0.009	-0.127-0.104	0.848	-0.012	-0.137-0.108	0.885
Skill development	0.032	-0.073-0.144	0.552	0.143*	0.015-0.279	0.038
<i>Extrinsic motivations</i>						
Career development	0.098*	-0.011-0.186	0.048	0.102	-0.013-0.226	0.092
Income	0.123*	0.020-0.258	0.046	-0.026	-0.121-0.097	0.609
Reputation	-0.114	-0.275-0.051	0.190	-0.001	-0.093-0.103	0.984

**Table VII.**  
Analysis of specific motivations across intrinsic and extrinsic motivations

Notes: \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

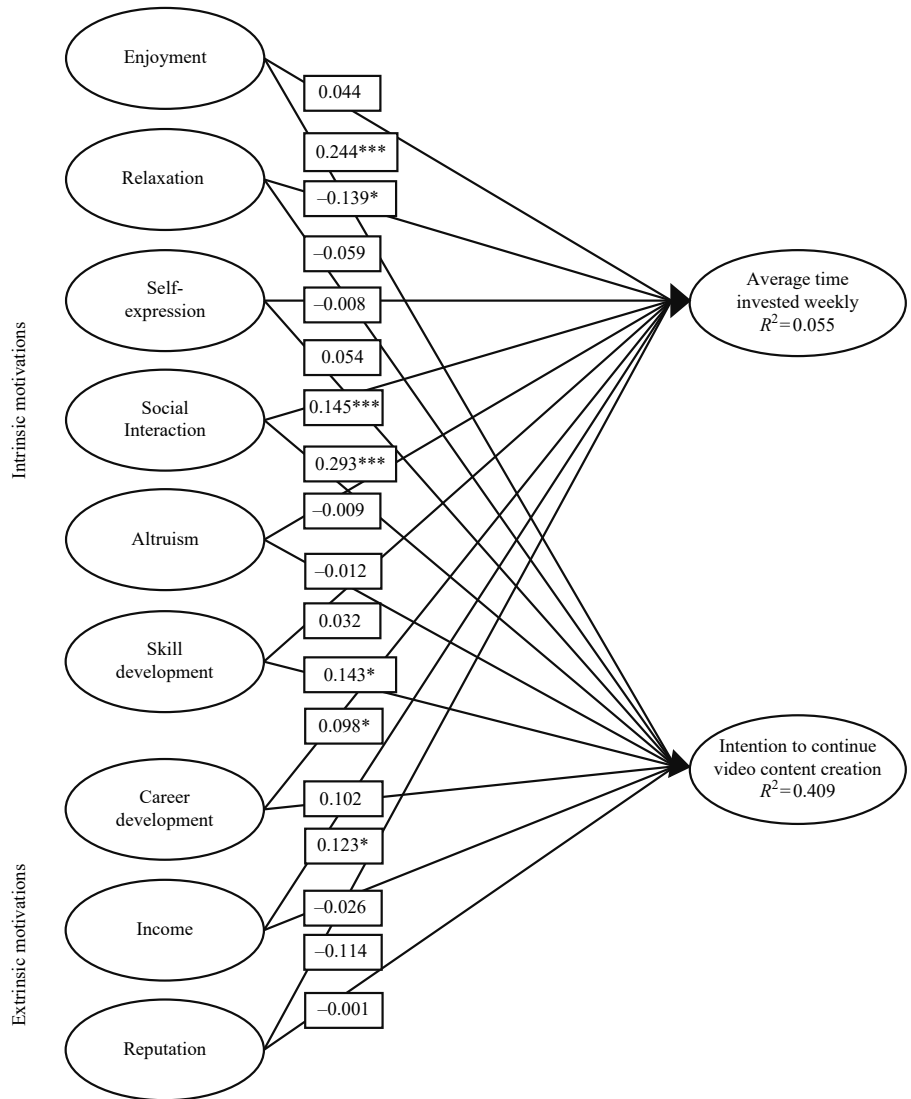
the development of esports and its growing synergy with video content creation, especially live streaming on Twitch, has opened new professional opportunities related to video content creation. The allure of these digital professions is already highlighted in the future aspirations of the younger population (Chambers *et al.*, 2018), but in practice, such professions are still relatively unstructured and unsupported, and could benefit from further research efforts related to labour laws and structures.

Although activities related to esports are already somewhat supported through organisations and teams (Funk *et al.*, 2018; Holden, Kaburakis and Rodenberg, 2017; Holden, Rodenberg and Kaburakis, 2017; Paravizo and de Souza, 2018), there exists a dire need for more globally structured regulations and systematic support to further motivate this activity as a realistic career. In practice, this could be enforced by the video sharing platforms themselves or organised entities at a more national level.

It should be noted that the apparent playfulness in this type of playbour might obscure the labour involved in creating a career and income, which is why the content creators may not recognise these extrinsic motivations in their behaviour, as reflected in our results. Similar elements of playbour are evident in the game-modding culture (Kücklich, 2005; Sotamaa, 2007, 2010), where gamers (often fans of specific games) modify and share digital game content, thereby creating new value for the game industry. In these activities the “modder” is often driven by motivations such as self-expression or community involvement (Sotamaa, 2010), which may mask the laborious aspects of the activity. In this way, the playbourer may not be compensated for their activities, or aware of their impact and value creation. To elevate our understanding of playbour and its effects on economics and our current perceptions of labour, further research should be targeted at the behaviours related to playbour and its effects on the digital economy, regulations and labour laws.

#### *The social hedonists of video content creation – intrinsic motivations*

Although the commercial structures around this activity are developing, the findings of this study indicate that the overall continuity of current social video content creation is still primarily driven by intrinsic motivations. Of these, social interaction was also found to have a positive association with the average time invested weekly on content creation, and has been observed to motivate these activities in previous research (see, e.g. Bründl and Hess, 2016; Zhao *et al.*, 2018) and on other social media channels (Matikainen, 2015; Pai and Arnott, 2013; Sjöblom and Hamari, 2017). The importance of social



**Figure 3.** Analysis of specific motivations across intrinsic and extrinsic motivations

**Notes:** \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

interaction (relatedness) as a motivator in social video creation may not be surprising as the activity is highly social in nature, but the multifaceted aspects of social interaction require further examination.

The community that consumes, and otherwise interacts, with both social video content and the content creator, may directly influence the topic and nature of content being prosumed. Through active discourse, the audience allows, and engages in, global dissemination of knowledge and information about numerous topics and themes (Chang and Chuang, 2011). Furthermore, active participation in a community affects the social placement of the participant within the community itself (Garcia-Rapp, 2017; Welbourne *et al.*, 2013) and the

popularity of a content creator (Törhönen *et al.*, 2018). These aspects of social interaction and its importance may be reflected in the association between social interaction and the average time invested weekly on content creation. In practice, this finding accentuates the importance of integrating social interaction in the centre of content creation. Social interaction and engagement have already become the focus of various live streaming platforms, such as Twitch, but there is a need to incorporate and enhance community-building tools on video sharing platforms in order to support creators' motivations related to social interaction.

A culture of learning and teaching is also evident in social video content creation, which may partly explain the association between skill development and the intent to continue content creation. This culture is a part of "creator" communities, where social video content creators support each other's activities through discourse and collective effort. These communities nurture the democratic side of online autonomy and self-expression by forming communities around even niche topics in a global environment. This type of active, two-way communicative environment is also seen in peer-to-peer networks (Rodrigues and Druschel, 2010) and collaborative work such as crowdsourcing (Nov *et al.*, 2010). To utilise this motivation of skill development, video-sharing services could further enhance their instructive/help resources through the utilisation of their own community. To an extent this is already done on specific forums and through videos, but this could be further developed through organised collaborative efforts.

The motivating effect of enjoyment on social video content creation, observed in this study, may indicate that the roles of the consumer and the producer have merged further within social video content creation. A central aspect of the nature of these new forms of social economic coordination, information creation and dissemination (such as piracy and the sharing economy) is that individuals increasingly partake simultaneously, both as producers and consumers of content (Belk, 2014; Hamari *et al.*, 2016; Nov *et al.*, 2010). Therefore, it may be conceived that the experiences, practices, and activities of production and consumption become intertwined in such a way that it may be increasingly difficult for an individual to discern and separate their roles and activities. Accordingly, a spillover-effect may exist where gratification derived from consumption, such as enjoyment (Hamari and Tuunanen, 2014; Hamilton *et al.*, 2014; Lin and Lu, 2011; Sjöblom and Hamari, 2017), may also be attached to production and vice versa. However, the crossover of these activities is further accentuated in social video content creation activities since the majority of the content is related to the content creators consumption of hedonic products such as games (Ryan *et al.*, 2006). This also adds a dimension of multimodality, as the communicative abilities of media products have begun to merge and transform (Schrock, 2015).

As such, the majority of the activity is characterised by "playbour", where professional-like activities are undertaken under the drive of intrinsic motivation. The results of the current study give credence to these interpretations as they show that the motivations important in playing games such as achievement/skill and competence development, relatedness/community and enjoyment (Hamari and Keronen, 2017; Yee, 2006) also seem to be those that predict social video content creation. In practice, the utilisation of these playbourous activities gives the video sharing platforms power over large creative efforts and therefore the responsibility for fair and justified treatment of the content and the content creators. As the digital environment provides a global stage and domain for these activities, research on the current structures and working conditions of these digital producers is needed. The intrinsic drive to create content has already revealed problems related to growing "working" hours and burnout associated with the activity (Alexander, 2018c) and the need for further support for content creators and their mental health is growing. In the future, the role of the supporting services such as commercial platforms, networks and agencies should become even more central in respect to these issues.

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### Limitations and future research

The data collected in this study were gathered using an online survey, which can be associated with specific limiting factors. The online survey was filled out in a non-supervised environment, where respondents can be exposed to different distractions. This may affect their ability to respond to the survey and therefore lead to common-method bias (Straub *et al.*, 2004). This research aimed to alleviate this issue by using various distribution sources for the survey, and a randomized order of the construct items in the survey.

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As social video content creation is a digital activity and, therefore, a global phenomenon, we also acknowledge the differences between cultures and countries that may limit the study. The demographic of this study is also predominantly male, which may limit the findings. This may be the result of the gender division on the largest video sharing platforms, where the users are predominantly male, for example Twitch reports that 81.5 per cent of Twitch users are male (Twitch, 2017). A study into different practices of social video production among a variety of cultures might provide fruitful in investigating how inherent cultural differences are reflected upon contemporary forms of mass communication.

The research findings reveal various interesting aspects for future research. In particular, that prosumption related to social video content creation and playbour in social video content creation could benefit from closer examination in the future. Analysing the current economic structures of social video content creation and their effect on the activity and information and knowledge sharing would also be important in the future.

The continuous development and diffusion of technology, services and cultures surrounding social video content creation would benefit from more multidisciplinary research in order to understand the delicate relationships and structures of social video content creation. This type of multidisciplinary research would require the development of consistent terminology related to this activity. Although this research defines the social video content creator as a social actor (Lamb, 2005; Lamb and Kling, 2003) and aims to alleviate the diffusion and confusion of terminology, the fragmented terminology in social video content creation is divided by different technologies and developments that have occurred during recent years.

### References

- Abidin, C. and Ots, M. (2015), "The Influencer's dilemma: the shaping of new brand professions between credibility and commerce", *Panel for the Association for Education in Journalism and Mass Communication (AEJMC)*, San Francisco, CA, August, available at: <https://wishcrys.files.wordpress.com/2019/03/abidin-ots-2015-the-influencere28099s-dilemma-the-shaping-of-new-brand-professions-between-credibility-and-commerce.pdf> (accessed 23 May 2018).
- Agarwal, R. and Karahanna, E. (2000), "Time flies when you're having fun: cognitive absorption and beliefs about information technology usage", *MIS Quarterly*, Vol. 24 No. 4, pp. 665-694.
- Agrawal, A. (2016), "Why influencer marketing will explode in 2017", available at: [www.forbes.com/sites/ajagrawal/2016/12/27/why-influencer-marketing-will-explode-in-2017/](http://www.forbes.com/sites/ajagrawal/2016/12/27/why-influencer-marketing-will-explode-in-2017/) (accessed 20 April 2018).
- Alexander, J. (2018a), "Monetization: how Twitch, YouTube and Patreon work for creators revenue", available at: [www.polygon.com/2018/6/25/17502380/monteization-youtube-channel-memberships-patreon-twitch-affiliate-partner](http://www.polygon.com/2018/6/25/17502380/monteization-youtube-channel-memberships-patreon-twitch-affiliate-partner) (accessed 12 November 2018).
- Alexander, J. (2018b), "YouTube introduces new criteria for creator monetization, Google Preferred structure", available at: [www.polygon.com/2018/1/16/16898506/youtube-creators-program-monetization-google-preferred-logan-paul](http://www.polygon.com/2018/1/16/16898506/youtube-creators-program-monetization-google-preferred-logan-paul) (accessed 20 March 2018).
- Alexander, J. (2018c), "YouTube's top creators are burning out and breaking down en masse", available at: [www.polygon.com/2018/6/1/17413542/burnout-mental-health-awareness-youtube-elle-mills-el-rubius-bobby-burns-pewdiepie](http://www.polygon.com/2018/6/1/17413542/burnout-mental-health-awareness-youtube-elle-mills-el-rubius-bobby-burns-pewdiepie) (accessed 10 June 2018).



- 
- Anderson, J. and Gerbing, D. (1988), "Structural equation modeling in practice: a review and recommended two-step approach", *Psychological Bulletin*, Vol. 103 No. 3, pp. 411-423.
- Arazy, O. and Nov, O. (2010), "Determinants of Wikipedia quality", *CSCW '10 Proceedings of the 2010 ACM Conference on Computer Supported Cooperative Work*, ACM, New York, NY, pp. 233-236.
- Baard, P.P., Deci, E.L. and Ryan, R.M. (2004), "Intrinsic need satisfaction: a motivational basis of performance and well-being in two work settings", *Journal of Applied Social Psychology*, Vol. 34 No. 10, pp. 2045-2068.
- Bayliss, H. (2016), "Not just a game: the employment status and collective bargaining rights of professional esports players", *Washington and Lee Journal of Civil Rights and Social Justice*, Vol. 22 No. 2, pp. 359-409.
- Belk, R. (2014), "You are what you can access: sharing and collaborative consumption online", *Journal of Business Research*, Vol. 67 No. 8, pp. 1595-1600.
- Berners-Lee, T., Cailliau, R., Groff, J. and Pollermann, B. (2010), "World-wide web: the information universe", *Internet Research*, Vol. 20 No. 4, pp. 461-471.
- Bloch, P.H. (1995), "Seeking the ideal form: product design and consumer response", *Journal of Marketing*, Vol. 59 No. 3, pp. 16-29.
- Bock, G-W, Zmud, R., Kim, Y-G. and Lee, J-N. (2005), "Behavioral intention formation in knowledge sharing: examining the roles of extrinsic motivators, social-psychological forces, and organizational climate", *MIS Quarterly*, Vol. 29 No. 1, pp. 87-111.
- Bründl, S. and Hess, T. (2016), "Why do users broadcast? Examining individual motives and social capital on social live streaming platforms", *Pacific Asia Conference on Information Systems (PACIS 2016) Proceedings*, AIS Library, pp. 332-348.
- Campbell, D. and Cook, T. (1979), *Quasi-Experimentation: Design and Analysis for Field Settings*, Rand McNally, Skokie, IL.
- Castronova, E. (2005), *Synthetic Worlds: The Business and Culture of Online Games*, University of Chicago Press, Chicago, IL.
- Cha, M., Kwak, H., Rodriguez, P., Ahn, Y. and Moon, S. (2007), "I Tube, You Tube, everybody tubes: analyzing the world's largest user generated content video system", *IMC'07, San Diego, CA, October 24-26*, pp. 1-13.
- Chambers, N., Kashefpakdel, E. and Rehill, J. (2018), "Drawing the future", available at: [www.educationandemployers.org/wp-content/uploads/2018/01/DrawingTheFuture.pdf](http://www.educationandemployers.org/wp-content/uploads/2018/01/DrawingTheFuture.pdf) (accessed 11 November 2018).
- Chang, H. and Chuang, S. (2011), "Social capital and individual motivations on knowledge sharing: participant involvement as a moderator", *Information and Management*, Vol. 48 No. 1, pp. 9-18.
- Chau, C. (2010), "YouTube as a participatory culture", *New Directions for Youth Development*, Vol. 2010 No. 128, pp. 65-74.
- Chen, A., Lu, Y., Chau, P.Y.K. and Gupta, S. (2014), "Classifying, measuring, and predicting users' overall active behavior on social networking sites", *Journal of Management Information Systems*, Vol. 31 No. 3, pp. 213-253.
- Chen, G.M. (2011), "Tweet this: a uses and gratifications perspective on how active Twitter use gratifies a need to connect with others", *Computers in Human Behavior*, Vol. 27 No. 2, pp. 755-762.
- Chin, W. and Newsted, P. (1999), "Structural equation modelling analysis with small samples using partial least squares", in Hoyle, R. H. (Ed.), *Statistical Strategies for Small Sample Research*, Sage, Thousand Oaks, CA, pp. 307-341.
- Coldewey, D. (2017), "Streamers flock to YouTube Live, but the money (and crowd) is still at Twitch", *Techcrunch*, available at: <https://techcrunch.com/2017/04/18/streamers-flock-to-youtube-live-but-the-money-and-crowd-is-still-at-twitch/> (accessed 23 May 2018).
- Deci, E.L. and Ryan, R.M. (1985), "The general causality orientations scale: self-determination in personality", *Journal of Research in Personality*, Vol. 19 No. 2, pp. 109-134.

---

## INTR

---

- Deci, E.L. and Ryan, R.M. (2000), "The 'what' and 'why' of goal pursuits: human needs and the self-determination of behavior", *Psychological Inquiry*, Vol. 11 No. 4, pp. 227-268.
- Deci, E.L. and Ryan, R.M. (2002), *Handbook of Self-Determination Research*, University of Rochester Press, Rochester, NY.
- Deterding, S. (2015), "The lens of intrinsic skill atoms: a method for gameful design", *Human-Computer Interaction*, Vol. 30 Nos 3-4, pp. 294-335.
- Deuze, M. (2006), "Ethnic media, community media and participatory culture", *Journalism*, Vol. 7 No. 3, pp. 262-280.
- Dougherty, A. (2011), "Live-streaming mobile video: production as civic engagement", *MobileHCI '11 Proceedings of the 13th International Conference on Human Computer Interaction with Mobile Devices and Service*, ACM, New York, NY, pp. 425-434.
- Driessens, O. (2013), "The celebritytization of society and culture: understanding the structural dynamics of celebrity culture", *International Journal of Cultural Studies*, Vol. 16 No. 6, pp. 641-657.
- Fagan, K. (2018), "Everything you need to know about Ninja, the 26-year-old Twitch streamer who makes \$500,000 every month playing 'Fortnite' in his bedroom", available at: <https://nordic.businessinsider.com/ninja-tyler-blevins-twitch-subscribers-fortnite-drake-youtube-2018-3> (accessed 3 December 2018).
- Ferreira, S., Sayago, S. and Blat, J. (2017), "Older people's production and appropriation of digital videos: an ethnographic study", *Behaviour & Information Technology*, Vol. 36 No. 6, pp. 557-574.
- Fornell, C. and Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18 No. 4, pp. 39-50.
- Freitas, E. and Albert, B. (2018), "Twitch year 2017 in review", available at: [www.twitch.tv/year/2017/](http://www.twitch.tv/year/2017/) (accessed 4 June 2018).
- Fuchs, C. (2014), "Digital prosumption labour on social media in the context of the capitalist regime of time", *Time & Society*, Vol. 23 No. 1, pp. 97-123.
- Funk, D., Pizzo, A. and Baker, B. (2018), "ESport management: embracing esports education and research opportunities", *Sport Management Review*, Vol. 21 No. 1, pp. 7-13.
- García-Rapp, F. (2017), "Popularity markers on YouTube's attention economy: the case of Bubzbeauty", *Celebrity Studies*, Vol. 8 No. 2, pp. 228-245.
- Grundberg, S. and Hansegard, J. (2014), "YouTube's biggest draw plays games, earns \$4 million a year", available at: [www.wsj.com/articles/youtube-star-plays-videogames-earns-4-million-a-year-1402939896](http://www.wsj.com/articles/youtube-star-plays-videogames-earns-4-million-a-year-1402939896) (accessed 2 June 2017).
- Hamari, J. and Keronen, L. (2017), "Why do people buy virtual goods: a meta-analysis", *Computers in Human Behavior*, Vol. 71, pp. 59-69.
- Hamari, J. and Sjöblom, M. (2017), "What is eSports and why do people watch it?", *Internet Research*, Vol. 27 No. 2, pp. 211-232.
- Hamari, J. and Tuunanen, J. (2014), "Player types: a meta-synthesis", *DiGRA Nordic '12: Proceedings of 2012 International DiGRA Nordic Conference, DiGRA, Tampere*, pp. 29-53.
- Hamari, J., Sjöklint, M. and Ukkonen, A. (2016), "The sharing economy: why people participate in collaborative consumption", *Journal of the Association for Information Science and Technology*, Vol. 67 No. 9, pp. 2047-2059.
- Hamilton, W.A., Garretson, O. and Kerne, A. (2014), "Streaming on twitch: fostering participatory communities of play within live mixed media", *CHI '14 Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, ACM, New York, NY, pp. 1315-1324.
- Heeks, R. (2009), "Understanding 'gold farming': developing-country production for virtual Gameworlds", *Information Technologies International Development*, Vol. 5 No. 3, pp. 95-97.
- Holden, J., Kaburakis, A. and Rodenberg, R.M. (2017), "The future is now: esports policy considerations and potential litigation", *Journal of Legal Aspects of Sport*, Vol. 27 No. 837, pp. 46-78.

- 
- Holden, J., Rodenberg, R.M. and Kaburakis, A. (2017), "Esports corruption: gambling, doping, and global governance", *Maryland Journal of International Law*, Vol. 32 No. 1, pp. 236-273.
- Hollenbaugh, E.E. (2010), "Personal journal bloggers: profiles of disclosiveness", *Computers in Human Behavior*, Vol. 26 No. 6, pp. 1657-1666.
- Hsu, C.L. and Lin, J.C.C. (2008), "Acceptance of blog usage: the roles of technology acceptance, social influence and knowledge sharing motivation", *Information and Management*, Vol. 45 No. 1, pp. 65-74.
- Huberman, B.A. (2013), "Social computing and the attention economy", *Journal of Statistical Physics*, Vol. 151 Nos 1-2, pp. 329-339.
- Huotari, K. and Hamari, J. (2017), "A definition for gamification: anchoring gamification in the service marketing literature", *Electronic Markets*, Vol. 27 No. 1, pp. 21-31.
- Jenkins, H. (2006), *Convergence Culture: Where Old and New Media Collide*, New York University press, New York, NY.
- Jerslev, A. (2016), "In the time of the microcelebrity: celebrification and the YouTuber Zoella", *International Journal of Communication*, Vol. 10, pp. 19.
- Johnson, M.R. and Woodcock, J. (2017), "'It's like the gold rush': the lives and careers of professional video game streamers on Twitch.tv", *Information Communication and Society*, Vol. 22 No. 3, pp. 336-351.
- Joinson, N. (2008), "'Looking at', 'looking up' or 'keeping up with' people? Motives and uses of Facebook", *CHI '08 Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, ACM, New York, NY, pp. 1027-1036.
- Joreskog, K.G. and Sorbom, D. (1993), *LISREL 8: Structural Equation Modeling with the SIMPLIS Command Language*, Scientific Software International, Hillsdale, NJ.
- Joreskog, K.G. and Yang, F. (1996), "Nonlinear structural equation models: the Kenny-Judd model with interaction effects", *Advanced Structural Equation Modeling: Issues and Techniques*, No. 5, pp. 57-88.
- Kaplan, A. and Haenlein, M. (2014), "Collaborative projects (social media application): about Wikipedia, the free Encyclopedia", *Business Horizons*, Vol. 57 No. 5, pp. 617-626.
- Kaplan, A.M. and Haenlein, M. (2010), "Users of the world, unite! The challenges and opportunities of social media", *Business Horizons*, Vol. 53 No. 1, pp. 59-68.
- Kenney, M., Zysman, J., Kushida, K., Murray, J. and Christian, N. (2016), "The rise of the platform economy", *Issues in Science & Technology*, Vol. 32 No. 3, pp. 61-69.
- Khamis, S., Ang, L. and Welling, R. (2017), "Self-branding, 'micro-celebrity' and the rise of social media influencers", *Celebrity Studies*, Vol. 8 No. 2, pp. 191-208.
- Kim, H., Molefi, L.W., Kim, A., Woo, W., Segev, A. and Lee, U. (2017), "It's more than just sharing game play videos! Understanding user motives in mobile game social media", *CHI EA '17 Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems*, ACM, New York, NY, pp. 2714-2720, available at: <https://doi.org/10.1145/3027063.3053199>
- Kotler, P. (1986), "The prosumer movement: a new challenge for marketers", *Advances in Consumer Research*, Vol. 13, pp. 510-513.
- Kücklich, J. (2005), "Precarious playbour: modders and the digital games", *Fibreculture*, No. 5, pp. 1-8.
- Lakhani, K.R. and Wolf, R.G. (2005), "Why hackers do what they do: understanding motivation and effort in free/open source software projects", in Feller, J., Fitzgerald, B., Hissam, S. and Lakhani, K.R. (Eds), *Perspectives on Free and Open Source Software*, MIT Press, Cambridge, MA, pp. 1-27.
- Lamb, R. (2005), *Modeling the Social Actor*. North American Association for Computational Social and Organizational Systems (NAACSOS), Notre Dame, IN.
- Lamb, R. and Kling, R. (2003), "Reconceptualizing users as social actors in information systems research", *MIS Quarterly*, Vol. 27 No. 2, pp. 197-235.

- 
- Lee, E., Lee, J.-A., Moon, J.H. and Sung, Y. (2015), "Pictures speak louder than words: motivations for using Instagram", *Cyberpsychology, Behavior, and Social Networking*, Vol. 18 No. 9, pp. 552-556.
- Lehdonvirta, V. and Castronova, E. (2014), *Virtual Economies: Design and Analysis*, MIT Press, Cambridge, MA.
- Leimeister, J.M., Huber, M., Bretschneider, U. and Krcmar, H. (2009), "Leveraging crowdsourcing: activation-supporting components for IT-based ideas competition", *Journal of Management Information Systems*, Vol. 26 No. 1, pp. 197-224.
- Lepper, M.R. and Henderlong, J. (2000), "Turning 'play' into 'work' and 'work' into 'play': 25 years of research on intrinsic versus extrinsic motivation BT – intrinsic and extrinsic motivation", in Sansone, C. and Harackiewicz, J. (Eds), *Intrinsic and Extrinsic Motivation: The Search for Optimal Motivation and Performance*, Academic Press, San Diego, CA, pp. 257-307.
- Leung, L. (2001), "College student motives for chatting on ICQ", *New Media and Society*, Vol. 3 No. 4, pp. 483-500.
- Lin, K.Y. and Lu, H.P. (2011), "Why people use social networking sites: an empirical study integrating network externalities and motivation theory", *Computers in Human Behavior*, Vol. 27 No. 3, pp. 1152-1161.
- Lloyd, A. (2017), "Überworked and underpaid: how workers are disrupting the digital economy", *Information, Communication & Society*, Vol. 20 No. 12, pp. 1799-1801.
- Lottridge, D., Bentley, F., Wheeler, M., Lee, J., Cheung, J., Ong, K. and Rowley, C. (2017), "Third-wave livestreaming: teens' long form selfie", *MobileHCI '17 Proceedings of the 19th International Conference on Human-Computer Interaction with Mobile Devices and Services*, AMC, New York, NY, p. 20, available at: <https://doi.org/10.1145/3098279.3098540>
- Lu, Z., Xia, H., Heo, S. and Wigdor, D. (2018), "You watch, you give, and you engage: a study of live streaming practices in China", *CHI '18 Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*, AMC, New York, NY, p. 466.
- McMillan, D.W. and Chavis, D.M. (1986), "Sense of community: a definition and theory", *Journal of Community Psychology*, Vol. 14 No. 1, pp. 6-23.
- McNeill, A. and Sillence, E. (2018), "Motivations and stake management in producing YouTube "bro-science" videos for baldness treatment", *International Journal of Web Based Communities*, Vol. 14 No. 2, pp. 97-113.
- Marwick, A.E. (2015), "You may know me from YouTube: (micro-)celebrity in social media", in Marshall, P.D. and Redmond, S. (Eds), *A Companion to Celebrity*, Wiley Blackwell, Chichester, pp. 333-350.
- Matikainen, J. (2015), "Motivations for content generation in social media", *Journal of Audience & Reception Studies*, Vol. 12 No. 1, pp. 41-58.
- Moseghvdlshvili, L. and Jansz, J. (2013), "Framing and praising Allah on YouTube: exploring user-created videos about Islam and the motivations for producing them", *New Media & Society*, Vol. 15 No. 4, pp. 482-500, available at: <https://doi.org/10.1177/1461444812457326>
- Nov, O. (2007), "What motivates Wikipedians?", *Communications of the ACM*, Vol. 50 No. 11, pp. 60-64.
- Nov, O. and Ye, C. (2010), "Why do people tag?: motivations for photo tagging", *Communications of the ACM*, Vol. 53 No. 7, pp. 128-131.
- Nov, O., Naaman, M. and Ye, C. (2010), "Analysis of participation in an online photo-sharing community: a multidimensional perspective", *Journal of the American Society for Information Science and Technology*, Vol. 61 No. 3, pp. 555-566.
- Nunnally, J.C. (1967), *Psychometric Theory*, McGraw-Hill, New York, NY.
- Pai, P. and Arnott, D. (2013), "User adoption of social networking sites: eliciting uses and gratifications through a means-end approach", *Computers in Human Behavior*, Vol. 29 No. 3, pp. 1039-1053.
- Paravizo, E. and de Souza, R. (2018), "Playing for real: an exploratory analysis of professional esports athletes' work", in Tartaglia, S.B., Albolino, S., Alexander, T. and Fujita, Y. (Eds), *Congress of the International Ergonomics Association*, Springer, New York, NY, pp. 507-515.

- 
- Pellicone, A. (2016), "Performing play: cultural production on twitch.tv", *CHI EA '16 Proceedings of the 2016 CHI Conference Extended Abstracts on Human Factors in Computing Systems, ACM, New York, NY*, pp. 244-248.
- Podsakoff, P., MacKenzie, S., Lee, J. and Podsakoff, N. (2003), "Common method biases in behavioral research: a critical review of the literature and recommended remedies", *The Journal of Applied Psychology*, Vol. 88 No. 5, pp. 879-903.
- Ringle, C., Wende, S. and Becker, J. (2015), *SmartPLS 3*, SmartPLS GmbH, Boenningstedt.
- Ritzer, G. (2010), "Focusing on the prosumer", in Blätzel-Mink, B. and Hellmann, K.U. (Eds), *Prosumer Revisited*, Springer VS, Wiesbaden, pp. 61-79.
- Ritzer, G. (2015), "Prosumer capitalism", *Sociological Quarterly*, Vol. 56 No. 3, pp. 413-445.
- Rodrigues, R. and Druschel, P. (2010), "Peer-to-peer systems", *Communications of the ACM*, Vol. 53 No. 10, pp. 72-82.
- Ryan, R.M. and Deci, E.L. (2000), "Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being", *The American Psychologist*, Vol. 55 No. 1, pp. 68-78.
- Ryan, R.M., Rigby, C.S. and Przybylski, A. (2006), "The motivational pull of video games: a self-determination theory approach", *Motivation and Emotion*, Vol. 30 No. 4, pp. 347-363.
- Salo, M. (2017), "Career transitions of esports athletes: a proposal for a research framework", *International Journal of Gaming and Computer-Mediated Simulations*, Vol. 9 No. 2, pp. 22-32.
- Scholz, T. (2013), *Digital Labor*, *Digital Labor – The Internet as Playground and Factory*, Routledge, New York, NY and London.
- Schrock, A. (2015), "Communicative affordances of mobile media: portability, availability, locatability, and multimodality", *International Journal of Communication*, Vol. 9, pp. 1229-1246.
- Senft, T.M. (2013), *Microcelebrity and the Branded Self*, *A Companion to New Media Dynamics*, Wiley-Blackwell, Malden, MA and Oxford, pp. 346-354.
- Shen, X.L., Lee, M.K.O. and Cheung, C.M.K. (2014), "Exploring online social behavior in crowdsourcing communities: a relationship management perspective", *Computers in Human Behavior*, Vol. 40, pp. 144-151.
- Siutila, M. (2018), "The gamification of gaming streams", *Proceedings of the 2nd International GamiFIN Conference, GamiFIN 2018, CEUR-WS*, pp. 131-134.
- Sjöblom, M. and Hamari, J. (2017), "Why do people watch others play video games? An empirical study on the motivations of Twitch users", *Computers in Human Behavior*, Vol. 75, pp. 985-996.
- Sotamaa, O. (2007), "On modder labour, commodification of play, and mod competitions", *First Monday*, Vol. 12 No. 9, available at: <https://firstmonday.org/ojs/index.php/fm/article/view/2006/1881>
- Sotamaa, O. (2010), "When the game is not enough: motivations and practices among computer game modding culture", *Games and Culture*, Vol. 5 No. 3, pp. 239-255.
- Straub, D., Boudreau, M.-C. and Gefen, D. (2004), "Validation guidelines for is positivist", *Communications of the Association for Information Systems*, Vol. 13 No. 24, pp. 380-427.
- Tang, J., Venolia, G. and Inkpen, K. (2016), "Meerkat and periscope: I stream, you stream, apps stream for live streams", *CHI '16 Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems, ACM, New York, NY*, pp. 4770-4780.
- Taylor, N., Bergstrom, K., Jenson, J. and De Castell, S. (2015), "Alienated playbour: relations of production in EVE online", *Games and Culture*, Vol. 10 No. 4, pp. 365-388.
- Terranova, T. (2013), "Free labour", in Scholz, T. (Ed.), *Digital Labor: The Internet as Playground and Factory*, Routledge, New York, NY and London, pp. 33-57.
- Toffler, A. (1980), *The Third Wave – The Classic Study of Tomorrow*, Bantam, New York, NY.
- Törhönen, M., Sjöblom, M. and Hamari, J. (2018), "Likes and views: Investigating internet video content creators perceptions of popularity", *Proceedings of the 2nd International GamiFIN Conference, GamiFIN 2018, CEUR-WS*, pp. 108-114.

- Twitch (2017), "Twitch audience", available at: <https://twitchadvertising.tv/audience/> (accessed 12 April 2018).
- Twitch (2018), "Joining the affiliate program", available at: [https://help.twitch.tv/s/article/joining-the-affiliate-program?language=en\\_US](https://help.twitch.tv/s/article/joining-the-affiliate-program?language=en_US) (accessed 23 November 2018).
- Van der Heijden, H. (2004), "User acceptance of hedonic information systems", *MIS Quarterly*, Vol. 28 No. 4, pp. 695-704.
- Venkatesh, V. (2000), "Determinants of perceived ease of use: integrating control, intrinsic motivation, and emotion into the technology acceptance model", *Information Systems Research*, Vol. 11 No. 4, pp. 342-365.
- Vesa, M., Hamari, J., Harviainen, J.T. and Warmelink, H. (2017), "Computer games and organization studies", *Organization Studies*, Vol. 38 No. 2, pp. 273-284.
- Warmelink, H., Koivisto, J., Mayer, I., Vesa, M. and Hamari, J. (2018), "Gamification of the work floor: a literature review of gamifying production and logistics operations", *Proceedings of the 51th Annual Hawaii International Conference on System Sciences (HICSS), Scholar Space, Manoa, HI*, p. 10.
- Welbourne, J., Blanchard, A. and Wadsworth, M. (2013), "Motivations in virtual health communities and their relationship to community, connectedness and stress", *Computers in Human Behavior*, Vol. 29 No. 1, pp. 129-139.
- Welch, C. (2018), "YouTube tightens rules around what channels can be monetized", available at: [www.theverge.com/2018/1/16/16899068/youtube-new-monetization-rules-announced-4000-hours](http://www.theverge.com/2018/1/16/16899068/youtube-new-monetization-rules-announced-4000-hours) (accessed 25 November 2018).
- Werbach, K. and Hunter, D. (2012), *For the Win: How Game Thinking Can Revolutionize Your Business*, Wharton Digital Press, Philadelphia, PA.
- Yee, N. (2006), "The labor of fun: how video games blur the boundaries of work and play", *Games and Culture*, Vol. 1 No. 1, pp. 68-71.
- YouTube (2017), "YouTube for press", available at: [www.youtube.com/intl/en-GB/yt/about/press/](http://www.youtube.com/intl/en-GB/yt/about/press/) (accessed 5 May 2018).
- Zhao, Q., Chen, C., Der, Cheng, H.W. and Wang, J.L. (2018), "Determinants of live streamers' continuance broadcasting intentions on Twitch: a self-determination theory perspective", *Telematics and Informatics*, Vol. 35 No. 2, pp. 406-420.

Appendix

Construct	Item	Cronbach's $\alpha$	Adapted from
<i>Enjoyment</i>			
ENJ 1	I find my streaming activities interesting	0.826	Nov <i>et al.</i> (2010),
ENJ2	I find my streaming activities enjoyable	0.875	Van der Heijden
ENJ3	I find my streaming activities exciting	0.813	(2004).
ENJ4	I find my streaming activities fun	0.837	
<i>Relaxation</i>			
RLX1	My streaming activities are a pleasant rest	0.816	Leung (2001)
RLX2	My streaming activities help me relax	0.809	
RLX3	My streaming activities make me feel less tense	0.832	
RLX4	My streaming activities take me away from my pressures and responsibilities	0.693	
RLX5	I stream to role-play or try things with my identity	0.445	
<i>Self-expression</i>			
SELF-E1	My streaming activities allow me to express who I really am	0.884	Lee <i>et al.</i> (2015)
SELF-E2	I can express my identity through my streaming activities	0.869	
SELF-E3	I share personal details of my life through my streaming activities	0.588	
SELF-E4 <sup>a</sup>	I show off through my streaming activities		
<i>Altruism</i>			
ALT1	I like helping other people through my streaming activities	0.733	Hsu and Lin
ALT2	It feels good to help other people through my streaming activities	0.850	(2008)
ALT3	I believe that my streaming activities help other people	0.838	
ALT4	I like that other people can benefit from my streaming activities	0.809	
<i>Income</i>			
INCOME1	My streaming activities benefit me financially	0.949	Lakhani and
INCOME2	My streaming activities enhance my economic situation	0.903	Wolf (2005),
INCOME3	My streaming activities lead to getting financial gains	0.918	Leimeister <i>et al.</i>
INCOME4	I gain extra income from my streaming activities	0.914	(2009)
INCOME5	On average, how much income do you make from video sharing related services/activities per month? Please answer in US dollars	0.757	
<i>Skill development</i>			
SDEV1	I think my streaming activities develop my skills	0.835	Nov <i>et al.</i> (2010)
SDEV2	I learn new things through my streaming activities	0.714	
SDEV3	I gain experience from my streaming activities	0.817	
SDEV4	I can improve my personal abilities through my streaming activities	0.821	
<i>Career development</i>			
CDEV1	My streaming activities provide me with a means of developing my career	0.865	Lakhani and
CDEV2	My streaming activities can have a positive impact on my career options	0.875	Wolf (2005)
CDEV3	I am perceived better in the job market because of my streaming activities	0.861	
CDEV4	I have a better chance of finding a job because of my streaming activities	0.886	

(continued)

**Table AI.**  
Research constructs  
and items

INTR

Construct	Item	Cronbach's $\alpha$	Adapted from
<i>Reputation</i>			
REP1	I am known because of my streaming activities	0.607	Lee <i>et al.</i> (2015),
REP2	I feel that my streaming activities improve my status	0.827	Hollenbaugh
REP3	I feel that my streaming activities improve my reputation	0.784	(2010)
REP4	My streaming activities bring me fame	0.735	
REP5	My streaming activities make me feel important	0.717	
REP6 <sup>a</sup>	People like to watch my streaming activities because of me		
<i>Social interaction</i>			
SOCI1	I keep in contact with people through my streaming activities	0.602	Lee <i>et al.</i> (2015),
SOCI2	I interact with people through my streaming activities	0.715	Leung (2001),
SOCI3	I meet new people through my streaming activities	0.799	McMillan and
SOCI4	I make new acquaintances through my streaming activities	0.789	Chavis (1986)
SOCI5	I feel a sense of belonging through my streaming activities	0.749	
SOCI6	I feel like I am surrounded by friendly people within my stream community	0.646	
SOCI7 <sup>a</sup>	I feel like I share values with my stream community		
SOCI8	I feel sense of community through my streaming activities	0.829	
<i>Intention to continue video content creation</i>			
IC1	I intend to stream at least as much in the next months as I have previously	0.713	Venkatesh (2000), Bock <i>et al.</i> (2005)
IC2	I predict I will increase my streaming activities in the next months	0.834	
IC3	I plan to continue streaming in the next months	0.788	
IC4	I intend to stream more frequently in the near future	0.808	
<i>Average time invested weekly on content creation</i>			
AVGHW	On average, how many hours per week do you spend to produce and post videos?		

**Table AI.** Note: <sup>a</sup>Marked items were removed from the analysis

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## PUBLICATION IV

Likes and views: investigating internet video content creators perceptions of popularity

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## Likes and views: Investigating internet video content creators perceptions of popularity

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## 1. Introduction

The online environment encourages digital natives to participate in various forms of collaborative and productive efforts through their use of social media and digital services such as Facebook, Wikipedia, Instagram and YouTube. These type of activities have turned the consumer of online media content and channels into a social prosumers (Fuchs, 2014; Ritzer 2010, 2015), which is particularly evident in the presumption activities of social video content.

*Social video content* is generated by private individuals and distributed to social networks through commercial services such as YouTube, Twitch and Facebook live. The rapid developed of supporting technologies (live-streaming, VR video formats, short video “story” integrations), dissemination platforms and even monetisation services (subscriptions, partnership programmes, donations) related to the creation of video content, have made this activity more approachable and available for the general public. Additionally, the emergence of online video influencers and celebrities such as PewDiePie and Zoella, has increased the allure of online fame and fortune, associated with social video content creation. The increase in the popularity of this activity has led to greater competition for the attention of the online audiences and their engagement with content

Social video content creation revolves around a complicated set of new economic structures that combine both play and labour, playbour (Kücklich, 2005; Castronova, 2005; Lehtovirta & Castronova, 2014), the platform economy, where the platforms facilitates content distribution as well as monetization structures and human interaction (Kenney & Zysman, 2016), and the attention economy, where the attention of the viewers acts as a form of payment for the creators of content (Simon, 1971; Huberman, 2009, 2013).

The attention economy has played a crucial part in the formation of economic value in digital media formats and popularity. The idea of the attention economy evolved from a simple notion, that attention itself is a commodity. This idea was first introduced before the emergence of digital consumer technology, to examine the economics of the increasingly information-rich world (Simon, 1971), but developed into an accurate economic structure for the digital environments that depend on the abundance of content and information and the scarcity of attention (Huberman, 2013).

The different aspects of popularity and the attention economy in digital realms have been studied through various different forms of social media formats. For example, studies related to Facebook, have examined the content posted on Facebook and its effects on popularity (Goodwin, Griffin, Lyons, McCreanor & Moewaka Barnes, 2016) and the “like economy” of Facebook, that exemplifies how technology, through buttons and interactions, can transform our social interactions into transactions (Gerlitz & Helmond, 2013). Whereas previous research related to YouTube has examined the elements of attention on YouTube (García-Rapp, 2016) and how negative emotions are associated with the attention economy of YouTube (Berryman & Kwaka, 2017).

This research will examine the aspects of popularity of social video content creators through an online survey (N=385). The research will analyse and evaluate which aspects of content creation, content creators perceive to be most valuable towards their popularity, and which of those aspects they place most effort in.

## 2. Methods

This research examines the popularity of social video content creators, by determining what content creators themselves perceive to have an effect on their popularity, and how much effort they place on these aspects within their content creation activities. The respondents were presented with eighteen predetermined elements related to different aspects of social video content creation, that were considered to emphasise the content or the content creator to their viewers. These aspects of social video content creation were selected based on seven preliminary semi-structured interviews with different types of content creators, and through observation of different content creators and dissemination channels in digital environments.

The data for this research was collected through an online survey, which was distributed through various social media outlets (Facebook, Reddit, Twitch) and through an email contact list to social video content creators globally. The data was collected during 2017 from 385 social video content creators, out of whom a majority were young adults (millennials/Generation Y). More demographic information presented in Table 1. The respondents were asked two different questions related to the selected aspects of popularity: “Please rate how important you estimate the following things are in regards to the popularity of the videos you share online?” and “How much effort do you put in the following things when producing and sharing videos online?”. Respondents then rated each aspect on a 7-point Likert scale (1 indicating “strongly disagree” and 7 indicating “strongly agree”), which was used to determine the means for each aspect of popularity for the analysis of this research.

**Table 1. Demographic information of respondents.**

		N	%			N	%
Gender	Male	280	73.8%	Employment	Part-time	51	13.2%
	Female	92	24.9%		Full-time	129	33.8%

	Other	5	1.3%	Student	131	35.6%
Age	<17	33	8.8%	Unemployed	61	16.1%
	18-24	160	43.1%	Retired	5	1.3%
	24-34	126	33.0%			
	35-44	37	9.6%			
	44>	21	5.4%			

### 3. Results

The results, presented in Table 2, indicate that content producers place importance in entertainment value, interaction and communication, personality, originality and activity level to a greater extent ( $M>5$ ), and to a smaller extent related to the topic of videos, technical skills, search optimization, technical equipment, profile appearance, skill of the host and sharing personal experiences ( $5>M>4$ ). Content producers felt networking with other producers, offline presence and agents to be of less important ( $4>M>3$ ), and even less so with props, special guests and sex appeal ( $3>M$ ). In regards to effort, content producers placed greater effort in entertainment value, interaction and communication, personality, originality, technical skills and topic of videos ( $M>5$ ). They placed slightly less effort on activity level, search optimization, technical equipment, profile look, skill of the host and sharing personal experiences ( $5>M>4$ ). Less effort was placed on networking with other producers and offline presence ( $4>M>3$ ), and least effort content producers reported for agents, props, special guests and sex appeal ( $3>M$ ).

**Table 2. Descriptive means and standard deviations for perceived importance and effort.**

	Aspects of popularity	Description	Importance		Effort	
			Mean	SD	Mean	SD
1	Entertainment value of the videos	How enjoyable or fun the content is	5.65	1.231	5.5	1.401
2	Interaction and communication with audience	Direct communication with the audience through comments, chats etc. Primarily non-promotional and community enhancing.	5.55	1.494	5.5	1.689
3	Your personality as the host of the videos	The personality traits portrayed or enhanced within the video	5.33	1.554	5.15	1.783
4	Originality	Originality of the video content	5.08	1.492	5.04	1.672
5	Activity levels/frequency of posting	How often content is published	5.01	1.601	4.64	1.94
6	The typical topic of the videos you share	The typical topic of video content	4.96	1.532	5	1.705
7	Technical skills	Technical skills of the content creator related to video production (e.g. editing skills)	4.89	1.502	5.09	1.727

8	Search optimization	Search optimization related to the created social video content	4.85	1.724	4.27	1.989
9	Technical equipment	Technical equipment utilized in the production and distribution of videos	4.69	1.467	4.66	1.758
10	Your profile look	The visual and communicative effect of the profile of a content creator (related to video content creation activities)	4.35	1.656	4.47	1.871
11	Level/skill of the host	Level of skill of the content creator in their preferred topic/activity presented in their videos (e.g. gaming)	4.2	1.601	4.6	1.748
12	Sharing personal experiences and information	Sharing information and experiences that are considered personal to the content creator (e.g. depression/anxiety).	4.05	1.709	4.1	1.911
13	Network with other streamers and vloggers	Communication and relationships with other content creators	3.9	1.8	3.23	1.952
14	Offline presence	Activities outside the digital environments related to social video content creation (e.g. public appearances and events)	3.52	1.689	3.47	1.855
15	Agents/influencer network (representatives that provide you with opportunities etc.)	Working with promotional networks or representatives who provide further commercial opportunities and development related to social video content creation.	3.03	1.75	2.47	1.806
16	Props in the videos	Additional props in the videos.	2.93	1.692	2.77	1.827
17	Special guests	Special guests in the videos.	2.69	1.625	2.19	1.626
18	Sex appeal of the host of the videos	The physical appearance of the content creator themselves.	2.59	1.731	2.35	1.691

#### 4. Discussion

The personality of the host was reported to be an important contributor to popularity. Content creators also reported that they made a conscious effort in depicting their persona as well as their domain specific skills in their content creation activities. The host of social video content is often central to the content of the video and visible throughout, especially in popular genres such as gaming and beauty. Content creators have been found to utilize their content to construct a branded-self (Senft, 2013) and a micro-celebrity status (Marwick, 2015), through which these individuals position themselves as consumable public figures in the eyes of the online audiences. As micro-celebrities, the content creators may reflect a level of relatability to their audiences, but also have an influence on those audiences as “authority” figures, which then again feeds into the larger sphere of the attention economy through elements of promotion.

The importance of the personality of the content creator is often also highlighted in the tone and mood of the social video. This is especially highlighted in the development of a “happiness economy” where the content that portrays favorable, positive, moods and personalities is perceived more favorably, and therefore also gains more attention and popularity. This has been discussed by the popular social video content creator, Felix Kjellberg (PewDiePie) in his “Forced Positivity on YouTube” video (Kjellberg, 2017). However, there has been an increase in subgenres and type of content that reinforces negative associations and moods, through either encouraging criticism (eg. bad gameplay videos) or supporting negatively associated moods, such as anxiety, sadness or even anger (Berryman & Kwaka, 2017).

The content itself is another crucial part of the attention economy, which has been highlighted in previous research on spectating social video content (Sjöblom, Törhönen, Hamari & Macey 2017, Sjöblom & Hamari, 2017, Hamilton, 2014). The topic of the content, combined with search optimization, increases the visibility of the content creator and their content, whereas entertainment value and originality of content allow for further engagement and consistency of audiences and feeds into the self-branding of the content creator. It should be noted, that although search optimization was considered to be important for the popularity of the content creator, the effort placed on it was not as highly rated. This may be related to the difficulty in managing search optimization efforts, or evaluating its real effects on popularity.

The topic and originality of content may also allow for further development of communities around the content creator or their content. Community aspect is highlighted in our findings, as the importance of the activity level/frequency of posts of the content creator, and their interaction with the viewers. Maintaining an engaged community is imperative in the attention economy, as the amount of available content continuously grows and competes for the same viewers. The community of a content creator requires continuous interaction with the content creator themselves in order to maintain said community and audience. Interaction on digital services, especially, allows for the illusion of a more intimate relationship with a public figure, which is one of the main differences between online celebrity and digital micro-celebrity (Marwick & Boyd, 2011). Through interaction and frequent content, the content creator maintains a reoccurring viewer base, which for example in Twitch, is one of the biggest requirements for levelling up in their achievement system. The findings of our study, however, also indicate that content creators do not place great effort on aspects such as a networking with other content creators and their offline presence, which seems to indicate that the focus of effort is on the community of viewers and the active content creation.

Although there is great emphasis on the content of video as well as the content creator and their community, the technical skills of a content creator and their equipment also seem to have a significant importance on the perceived popularity of the content creator. This may highlight the growing standards of quality of digital video content. Viewers of social video content are increasingly expecting the video to be of high quality. The accessibility of editing software and filters, as well as the development of social video sharing services and platforms, have also increased these expectations, as well as the level of technical skills of content creators.

Our findings also indicated a few aspects that were perceived to have a low impact on the popularity of a content creator. Out of these aspects, the most surprising was the sex appeal of the content creator. Sex appeal, as a controversial topic, has been a subject of ongoing discussion related to using sex appeal to gain more concurrent viewers and popularity in social video content creation. This discussion has resulted in increased platform enforced regulations related to sexual content

and sex appeal such as the dress code enforced by Twitch (Twitch, 2018). These discussions have been especially focused on female streamers and their behavior and popularity on social video sharing platforms. Due to this discussion, there has been an ongoing effort to improve the standards of social video content on popular services, which may also be reflected in the findings of this study. This finding reveals an interesting aspect of social video sharing related to the perception of sexualisation and sexual appeal in content creation, that could be examined in future research.

The final element to have a relatively low impact in our findings is the importance of third-party agents and networks on the popularity of social video content. This aspect of social video content creation is relatively new and represents a new economic layer in social video content creation. Not only is this a novel element in social video creation, it also represents a certain type of professionalised aspect of the activity that may not be relevant for those content creators who consider this a leisure activity. These types of partnerships commonly require the content creator to already have a certain level of popularity, in order for them to become more relevant in their activities.

This research presents an overview of the aspects of popularity of social video content creation. We acknowledge that these aspects are based on a relatively narrow interpretation of the activity, which we aimed to address by interviewing different types of content creators before generating these categories of popularity. The research aims to address an emerging issue in content creation. As the tools to generate content become more accessible, the amount of available content grows. This leads to an oversupply of content, which will require developed skills of media literacy to interpret and evaluate. Assessing the different aspects of popularity, does not only provide content creators the tools to approach content creation, but also allows for media organisations to evaluate their approach to content and information creation and dissemination in this looming era of the "infocalypse" (Warzel, 2018).

## References

- Berryman, R., & Kavka, M. (2018). Crying on YouTube. *Convergence: The International Journal of Research into New Media Technologies*, 24(1), 85–98. <https://doi.org/10.1177/1354856517736981>
- Castronova, E. (2005). *Synthetic worlds: The business and culture of online games*. Chicago: University of Chicago Press.
- Fuchs, C. (2014). Digital prosumption labour on social media in the context of the capitalist regime of time. *Time & Society*, 23(1), 97–123. <https://doi.org/10.1177/0961463X13502117>
- García-Rapp, F. (2017). Popularity markers on YouTube's attention economy: the case of Bubzbeauty. *Celebrity Studies*, 8(2), 228–245. <https://doi.org/10.1080/19392397.2016.1242430>
- Gerlitz, C., & Helmond, A. (2013). The like economy: Social buttons and the data-intensive web. *New Media and Society*, 15(8), 1348–1365. <https://doi.org/10.1177/1461444812472322>
- Goodwin, I., Griffin, C., Lyons, A., McCreanor, T., & Moewaka Barnes, H. (2016). Precarious Popularity: Facebook Drinking Photos, the Attention Economy, and the Regime of the Branded Self. *Social Media and Society*, 2(1). <https://doi.org/10.1177/2056305116628889>
- Hamilton, W. A., Garretson, O., & Kerne, A. (2014). Streaming on twitch: fostering participatory communities of play within live mixed media. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, 1315–1324. <https://doi.org/10.1145/2556288.2557048>



- Huberman, B., Romero, D., & Wu, F. (2009). Social networks that matter: Twitter under the microscope. *First Monday*, 14(1), 1–9. <https://doi.org/10.2139/ssrn.1313405>
- Huberman, B. (2013). Social Computing and the Attention Economy. *Journal of Statistical Physics*, 151(1–2), 329–339. <https://doi.org/10.1007/s10955-012-0596-5>
- Kjellberg, F. [PewDiePie] (2017, January 6). *Forced Positivity on YouTube* [Video file]. Retrieved from: <https://www.YouTube.com/watch?v=iyGI1uHywvs>.
- Kenney, M., & Zysman, J. (2017). Entrepreneurial Finance in the Platform Economy Era: What Consequences for Labor? Conference 1, 1–53.
- Kücklich, J. (2005). Precarious Playbour : Modders and the Digital Games. *Fibreculture*, (5), 1–8. <https://doi.org/10.1016/B978-0-7506-7523-9.50022-2>
- Lehdonvirta, V. & Castronova, E. (2014). *Virtual Economies: Design and Analysis*. Cambridge, MA: MIT Press.
- Marwick, A. E. (2015). You May Know Me from YouTube: (Micro-)Celebrity in Social Media. In *A Companion to Celebrity* (pp. 100–127). <https://doi.org/10.1002/9781118475089>
- Marwick, A., & Boyd, D. (2011). To see and be seen: Celebrity practice on Twitter. *Convergence*, 17(2), 139-158.
- Ritzer, G. (2010). Focusing on the Prosumer. In *Prosumer Revisited* (pp. 61–79). [https://doi.org/10.1007/978-3-531-91998-0\\_3](https://doi.org/10.1007/978-3-531-91998-0_3)
- Ritzer, G. (2015). Prosumer Capitalism. *Sociological Quarterly*, 56(3), 413–445. <https://doi.org/10.1111/tsq.12105>
- Senft, T. M. (2013). Microcelebrity and the Branded Self. In *A Companion to New Media Dynamics* (pp. 346–354). <https://doi.org/10.1002/9781118321607.ch22>
- Simon, H. (1971). Designing organizations for an information-rich world. *Computers, Communications, and the Public Interest*, 72, 37. <https://doi.org/citeulike-article-id:986786>
- Sjöblom, M., & Hamari, J. (2017). Why do people watch others play video games? An empirical study on the motivations of Twitch users. *Computers in Human Behavior*, 75, 985–996. <https://doi.org/10.1016/j.chb.2016.10.019>
- Sjöblom, M., Törhönen, M., Hamari, J., & Macey, J. (2017). Content structure is king: An empirical study on gratifications, game genres and content type on Twitch. *Computers in Human Behavior*, 73, 161-171.
- Twitch. (2018, February 8). *Twitch Community Guidelines Updates*. Retrieved from: <https://blog.twitch.tv/twitch-community-guidelines-updates-f2e82d87ae58>
- Warzel, C. (2018, February 12). *He Predicted The 2016 Fake News Crisis. Now He's Worried About An Information Apocalypse*. Retrieved from: [https://www.buzzfeed.com/charliewarzel/the-terrifying-future-of-fake-news?utm\\_term=.bi9KryWXd&ref=mobile\\_share#.juq8R9jx4](https://www.buzzfeed.com/charliewarzel/the-terrifying-future-of-fake-news?utm_term=.bi9KryWXd&ref=mobile_share#.juq8R9jx4)



## PUBLICATION V

The ingredients of Twitch streaming: Affordances of game streams

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Full length article

## The ingredients of Twitch streaming: Affordances of game streams

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### ABSTRACT

During the last five years, game streaming has developed from a niche market into a mainstream activity and the supply of services and technology on offer has exploded. Today, some streamers garner audiences larger than big media houses, and services such as the game streaming service Twitch host millions of daily active users. While such activity is often waived merely as a manifestation of video game culture and an extension of online behaviour by adolescents, the phenomenon has begun to generate significant revenue and has managed to shift media consumption behaviour from large commercial organisations towards content created by private individuals. However, we still have a dearth in our understanding on how streamers undertake this activity and what tools they have in their disposal to facilitate successful endeavours in streaming. As this is an activity driven by individuals, are these individuals using vastly different modalities of communication, or have common trends emerged across broadcasters, as they have in traditional media? To build a better understanding of this, we utilize the existing understanding of affordance theory, and analyse the most popular elements and practices employed by streamers in their video streams and profile pages through the investigation of the 100 most popular individual streamers on the Twitch platform. The results show new aspects of social commerce that emerges from the novel forms of online business models of individual online video streamers.

### 1. Introduction

Contemporary media content producers, in the form of private individuals and small collectives, have begun competing for the attention of the audiences of many larger media conglomerates (Burling, 2015, pp. 22–26; Holland, 2016), through the utilization of digital services such as social media (Facebook, Instagram & Snapchat) and digital content sharing platforms (YouTube & Twitch) (see e.g. Grundberg & Hanssegard, 2014). The increasing popularity of these content creation practices have been especially evident in video content creation, which has been spearheaded by the ease of use of video sharing platforms such as YouTube (Cha, Kwak, Rodriguez, Ahn, & Moon, 2007, pp. 1–13) and Twitch, as well as the incorporation of video as an integral part of social media platforms including Facebook and Instagram (Haimson & Tang, 2017; Raman, Tyson, & Sastry, 2018).

Video content creation has become an integrated part of everyday life for digital natives (Tempelman, 2017), in the form of pre-recorded video sharing through services such as YouTube, and live video broadcasting, or *live-streaming* on services such as Twitch, Facebook Live or YouTube Live. The term *streaming* refers to the larger cultural phenomenon of streaming as a form of social live broadcasting on Twitch (Raman et al., 2018; Törhönen, Sjöblom, & Hamari, 2018),

rather than only the technological solutions of streaming video and sound data over the internet. Additionally, the content creators on Twitch are most commonly referred to as *streamers* and the content on Twitch is primarily focused on gaming and creative endeavours. Although the service is less than ten years old, Twitch caters to 15 million unique daily visitors (Twitch, 2017a), and by 2018 its monthly viewership figures have reached similar numbers as some of the larger cable TV networks in the US (Gilbert, 2018). The infrastructure of Twitch has been designed to foster high engagement between the audience and the streamer, and in order to support this type of interactivity and connectivity, Twitch allows for great freedom in the utilization of different automated bots (e.g. chat facilitators, analytics, song requests, chat games) and tools (donation tools and trackers) in the streams, to further the appeal and communications practices of the streams.

This study will seek to answer the following research questions: *what practices and elements do individual Twitch streamers utilize in their streams and what affordances do these practices create for the streamers and viewers?* by observing one hundred popular streams on the social video sharing platform Twitch, and analysing the video content and the profile page of the selected streamers. This research will examine these popular practices utilized on Twitch streams, by building on existing understanding of affordance theory (Gibson, 1979; Majchrzak, Faraj,

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Kane, & Azad, 2013; Norman, 1988; O’Riordan, Feller, & Nagle, 2016; Treem & Leonardi, 2013) and its capabilities to analyse and understand these practices. Twitch as a service provides a unique environment for research into affordances, as the service itself provides the streamers the technology and tools for streaming, and the streamers themselves often augment the stream with their choice of additional elements and tools. Not only does this type of media service provide the content creator a way of defining their own streaming practices, it also allows for a unique setting to develop social structures through the use of these stream specific tools. Therefore, the purpose of this study is to examine if certain practices have become de-facto standards among individual streamers, or whether the field is fractured into various best practices. Furthermore, the inquiry into how these practices are reflected upon the affordances they create, help us explain the social structures between streamers and viewers.

## 2. Background

### 2.1. Digital media prosumption, live-streaming and Twitch

The changes in our media content consumption and production behaviour have raised the importance of the individual as a media content creator almost parallel to the traditional corporate media production companies. This can be seen in the ever declining viewership of television (McKay, 2018; Nielsen, 2017) and in the increase in the importance of services such as YouTube (McKay, 2018) and Facebook (Joinson, 2008). The ever increasing merger of digital media consumption and production activities have broadened our understanding of such “prosumption” (Fuchs, 2014; Kotler, 2010; Ritzer, 2015; Ritzer & Jurgenson, 2010) and even changed our celebrity culture towards a more decentralized micro-celebrity (Gräve, 2017; Marwick, 2015a; Senft, 2013) and influencer culture (Abidin, 2016). This has resulted in the rapid increase of the popularity of digital content creation activities, especially exemplified by the popularity of social video content creation (e.g. streaming).

Social video content is generated by decentralized individuals, and disseminated through different commercial video sharing services such as YouTube and Twitch. This activity contains complex socio-cultural and socio-economic relationships, and although the activity itself is not new, it has been made more accessible and approachable by the developments in available technology and services. Social video content can be categorized into two types, pre-recorded video content, which is delivered through services such as YouTube, and live-broadcasted video content, also known as live-streamed content, delivered through streaming services such as Twitch.

Live-streaming or *streaming*, as a term, can refer to many aspects of digital technology and culture, ranging from purely technical data transfer, to the cultural phenomenon of streaming (Raman et al., 2018). Twitch is currently the most popular social video streaming platform in Europe and the US, providing a service for the cultural, decentralized, activity of streaming and catering to hundreds of millions of viewers (Needleman, 2015; Twitch, 2017b). Content creators on Twitch are often referred as *streamers*, and the consumers of content on Twitch will be referred to as *viewers*.

Twitch, as a service, provides an approachable platform for live-streaming, and emphasises the role of the streamer through various tools and services. The system itself allows for different levels of engagement and caters to different levels of tenure and proficiency of streamers. Twitch offers simple achievement mechanics to engage and activate the beginner streamers, but also provides the more advanced streamers tools and monetisation mechanics to maintain and further develop their activities (Perez, 2017).

Twitch offers their streamers a set structure for the stream (Recktenwald, 2017), but there are also various optional features and tools that a streamer can use to enhance the appeal and effectiveness of their stream. The main service provided by Twitch is the video stream

itself, but in addition to this, Twitch offers various different features that affect the way a streamer and the audience engage with each other on the platform (Gandolfi, 2016; Karhulahti, 2016). Social features are offered, such as: the chat window; the ability to follow and share a stream or a streamer; revenue features such as the subscribe button (some revenue features require the streamer to be a part of the Twitch partner program); and informative features such as the profile page, the title of the stream and the name of the game being played.

Twitch as a platform stands out through its innovative approach to monetisation, as it also offers the streamers in their partner or affiliate programmes a share of the advertising revenue and subscriptions generated by the streamer. Variable sum donations are another approach to monetisation, offered to streamers both through third-party services, which Twitch does not get a share of, and as so-called *cheers*, which Twitch does get a revenue share of (Fontaine, 2016). By offering streamers direct revenue from their activities, the platform is acquiring more and more valuable content to offer their consumers, but also incentivizing the content creators to continue their activities (Törhönen et al., 2018). Although similar monetisation models have been provided by services such as YouTube before, Twitch has made the prospect of tangible rewards more approachable for streamers through gamified elements and achievements. These monetisation systems, provided by Twitch, have made it possible for streamers to turn their activities into careers, which has blurred the traditional understanding of work and leisure.

This has enabled the development of a *hybrid worker*, who has transitioned their leisure activity into a professional career through the use of digital services and tools. What was once seen as a tool for a user to reflect their creativity, has now transitioned towards professionally generated user content (PGUC), particularly visible in the case of Twitch and other social video sharing platforms such as YouTube (Kim, 2012). Indeed, many users are undergoing a metamorphosis towards a more professional personal brand (Chen, 2013), with prime examples being popular YouTube and Twitch personalities PewDiePie (Grundberg & Hansegard, 2014) and Ninja (Tassi, 2018). The professionalization of content creation is increasingly blurring the lines of play and labour in these “leisure” activities, which feeds into the wider structures of the digital economy through the concepts of playbour (Kücklich, 2005; Sotamaa, 2010) and digital labour (Bermejo, 2009; Cohen, 2004; Scholz, 2012; Terranova, 2000).

Like most developing and trending phenomena, streaming has generated a growing field of research and literature, but the scope of the related research is still relatively limited to a few broader topics such as streaming (Claypool, Farrington, & Muesch, 2016; Li, Salehi, & Bayoumi, 2016; Pringle, 2016; Siekkinen, Masala, & Kämäräinen, 2016), media content consumption (Hamilton, Garretson, & Kerne, 2014) and social structures (Churchill & Xu, 2016; Khan, 2017; Taylor, 2016). However, with an increasing number of streamers emerging on these dedicated streaming services, the focus of research is shifting towards the content creators. Current research has addressed the shifting relationship between the consumer and the producer of content (prosumer) (Lee & Watkins, 2016), participatory culture (Chau, 2010; Deuze, 2006), and user generated content (Aran, Biel, & Gatica-Perez, 2014; Hamilton et al., 2014) in respect to streaming activities. Twitch as a service has been examined in previous research, with various studies examining the overall ecosystem and technical structure of Twitch (Hamilton et al., 2014; Kaytoue, Silva, & Cerf, 2012; Pires & Simon, 2015), however the tools and services of Twitch possess a different meaning to different users of Twitch (viewers and streamers), which is why it is important to evaluate the affordances of these tools through the understanding of the affordances theory.

### 2.2. Affordances

The affordance theory provides a way in which to interpret objects and tools in their environment and use. The theory provides various

ways in which to examine the way a specific tool or object is utilized in different contexts. The term *affordance* originates from the field of visual perception, indicating the possibilities that the environment offers the animal operating in said environment (Gibson, 1979), and has since branched out into various different directions. A more modern definition sees affordances as “the design aspect of an object which suggests how the object should be used” (McGrenere & Ho, 2000, p. 1). Contemporary affordance theory also highlights clarity of information and ease of undertaking an affordance as two important concepts to understand when studying affordances as a framework for design (McGrenere & Ho, 2000).

The term has been reappropriated in the human-computer interaction (HCI) discipline, with the meaning of the term simultaneously morphing to one where the perception of the individual plays a significant role in being able to identify and interpret affordances (Norman, 1988). The examination of affordances in the context of HCI also developed the understanding of the complex nature of our communicative actions. Gaver (1991) categorized affordances of complex actions into two categories, where sequential affordances reflect the changing nature of affordances through interaction, and nested affordances, which describes the context of affordances in relation to each other. Our understanding of affordances has therefore developed through its utilization in different disciplines of research and the use of the theory has also evolved. Some research utilizes the affordances as a static list of uses for elements, which do not change according to the need of the user (Bucher & Helmond, 2017; Gibson, 1979), whereas others use affordances as a way to analyse the uses an element may have in a changing social environment (Bucher & Helmond, 2017; Gaver, 1996; Norman, 1988; Wellman et al., 2003).

2.3. Affordances in social media research

Through its application to modern communications and technology, the theory has begun to further examine and analyse technology and its enabling effect on social and communicative actions (Gaver, 1996). This idea of *social affordances*, has been further developed in relation to social media as well as the technology that enables possibilities for communication. Social affordances have been defined as “the social structures that take shape in association to a given technical structure” (Postigo, 2016, p. 5). These social affordances emphasise the importance of the user and their environment, and can only be identified through their interaction with the user. In digital communications technology, different elements of the service are developed for a specific purpose, but further affordances, through functionality, may become associated with said elements through user interaction (Norman, 1988).

These theoretical lenses to view affordances has been frequently utilized in social media research to examine the different types of affordances that form through the use of technology and human agency (Bucher & Helmond, 2017; Leonardi, 2011). Social media, for example, has been examined in organisational use to reflect four types affordances; *Visibility* of behaviours and information, *persistence* of communications and information, the *editability* of the communicative act, and the *association* formed between individuals, as well as content (Treem & Leonardi, 2013). A similar type of study on social media, especially social networking sites (SNS), examined another six different types of social affordances related to SNS's (O’Riordan et al., 2016). This study listed profile building, social connectivity, social interactivity, content discovery, content sharing and content aggregation as affordances of social networking sites such as Facebook. Social media affordances have also been examined in relation to communal knowledge sharing in organisations, where four additional affordances were identified (Majchrzak et al., 2013). *Meta-voicing*, where an individual adds knowledge to existing content, *triggered attending*, where an individual gets involved in an online activity or conversation through a triggered alert (e.g. notifications), *network-informed associating*, where an

individual engages in the online activity aware of its relational and content ties (e.g. chats), and *generative role-taking*, where an individual takes on a community managing and sustaining role.

This study will utilize this existing understanding of the affordances of digital and social media and apply this knowledge when examining the results of this study.

3. Methodology

We chose to approach the collection of data in this study as a form of digital ethnography (see e.g. Murthy, 2008). The context of Twitch provides an excellent platform for ethnographic observations, as all the material observed for this study was publically available through Twitch, and no account or similar was needed to view the content.

The data for this study was gathered through the observation of one hundred different streamers on Twitch, between the 28th of April and the 9th of June 2017. The observed streamers were selected through a list of the 250 most popular streamers on the Social Blade service (Social Blade, 2017), based on follower count. We chose to limit the data gathering to streams that fulfilled the following criteria: 1) the broadcaster was a private individual, 2) the stream was in English and 3) the streamer had been active in the past year and the video archive was freely available. To ensure that we examined decentralized individuals or groups who stream their content, we excluded popular organisational esports broadcasters such as Riot and ESL. The second criteria excluded non-English streams in order to fully understand the content of each stream that was analysed and avoid misinterpretation in observations. The third criteria arose as a result of examining certain streams that limited their video archive purely to subscribers, and thus we could not access them, as well as streamers that had not been active recently but still had a large number of followers. The details of the data gathered can be seen in Table 1. To help understand the content specific context the streamers operate in, Table 1 also includes a list of the content streamed, most commonly a specific game (such as League of Legends) or genre of stream (such as talk show or IRL).

Table 1  
Data.

Variable	N	Variable	N
Total number of streams investigated	179	Gender	Female 11
	Valid 100		Male 85
	Non-English 28		Female and Male (streaming as group) 4
Content type	Organization as broadcaster 22		
	Archive unavailable or non-active streamer 29		
	League of Legends 24		
	Player Unknown 12		
	Battlegrounds 10		
	Counter-Strike: Global Offensive 10		
	Several games played 10		
	Hearthstone 9		
	FIFA 17 4		
	Talk show 3		
	Grand Theft Auto 3		
	Minecraft 3		
	H1Z1 2		
	Overwatch 2		
	IRL stream 2		
	Games with one appearance each 16		

Commonly, in analysis of content, it is important that the content studied covers a large enough portion of the context studied, or as Barthes states “the corpus must be wide enough to give reasonable hope that its elements will saturate a complete system of resemblances and differences ...” (Barthes, 1964, p. 97). Even though there are millions of streamers on Twitch, and thus, one might argue our sample of 100 streamers is not adequate to cover all aspects, we argue the opposite. This study purposefully chose to focus on popular streamers, and thus, the sample of 100 streamers that was our final sample represented the narrower focus population in a meaningful way, for example representing a number of various games and genres. Notable about the sample observed is that the majority seem to engage in streaming as an activity that is either professional or bordering on professional, based both on pure viewership numbers within the sample as well as previous knowledge on the subject that the researchers possess. Most of our sample was also examined to engage in this activity almost daily. Among our sample, all streamers had at least 340,000 followers, and the cumulative total viewer count was on average 41,329,131 (median 23,369,305).

To study the one hundred streamers, we examined the most recent live-stream recordings from the channel specific Twitch archives (90%) or the on-going live-streams (10%). As the activity of live-streaming is global and happening on various time-zones, we were unable to examine all of the streams live, which is why we chose the most recent recording if the streamer was not live at the time of analysis. Each stream was observed for approximately 5–15 min. Many individual streams were between two and eight hours in length, and therefore observing recordings was invaluable for allowing us to jump to different parts in the recording, allowing for a much more effective way of finding various sequential affordances (Gaver, 1991) such as pop-up graphics.

This research only considers the additional practices that a streamer can utilize in their video stream and personal profile and therefore the basic elements and structures provided by Twitch (such as the chat window) will be excluded from this study. Both the video broadcast and the page content of the stream, available through the same URL, were analysed. All observations were made using desktop or laptop computers, and while the same exact information is visible on mobile devices, it is worth noting that while the video content is identical, the presentation of the streamer page adheres to slightly different layout standards.

The researchers, through their intimate knowledge of the activity of streaming and the Twitch platform, were able to identify commonly recurring practices among streamers, which served as the basis for performing the observations of the streams. Both researchers involved in the active phase of data collection have several years of experience from game streaming and video content creation research, and have been active Twitch viewers for over five years. In addition to a background in relevant research, one of the authors has been a professional gamer, and the other has worked in game development for several years, helping to strengthen the understanding of gaming culture.

#### 4. Results

For the profile page, every individual element was observed and recorded in a spreadsheet, with common occurrences grouped across observations of different streamers. For the video streams, all elements not explicitly part of the game being played were recorded and coded in a similar manner as the profile page elements. Commonly recurring practices and elements were identified throughout the observation process and additional, less common, elements were listed on a stream by stream basis. The most commonly occurring elements and practices, along with a description and the frequency which with they appeared in the observations, are presented separately for the video stream (Table 2) and the profile page (Table 3). Less commonly occurring elements, ones with less than five observations throughout the sample,

are listed in Table 4.

#### 5. Discussion

From the collected data we were able to identify which elements and practices of a stream were popular among the examined streamers and how they were utilized in the streams. The practical use of the elements is relatively evident, but through the understanding of affordances, the following discussion will examine not only the elements and their practical use, but also link them to previous discussion and research on affordances and streaming. The following discussion will also take into consideration the two-way communicative environment of Twitch, and how it affects the various affordances derived from the elements, both for a streamer and a viewer. The discussion will also introduce a new category of revenue related affordances, constructed based on the examined elements and their practical use. These types of affordances have been examined in the context of social affordances in previous research on YouTube (Postigo, 2016), but they have yet to be separately defined as such.

##### 5.1. Social affordances of the video stream

Based on our observations, the most popular elements utilized to augment the stream, are a webcam overlay of the streamer and their vocalization delivered through a microphone. These audiovisual elements generate a two-way communicative environment for the stream and enable the streamer to narrate their gameplay to their audience. However, these elements can also set a virtual stage for the streamer and afford further profile building through the expression of the streamers personality and even self-branding (Senft, 2013). These elements may also allow the streamer to position themselves as a public persona, or a micro-celebrity (Marwick, 2015b; Senft, 2013).

The virtual stage created by the microphone and webcam overlay afford a high level of visibility for the behaviours and knowledge of the streamer (Treem & Leonardi, 2013) as well as social connectivity and social interactivity for the streamer as well as the viewer (O’Riordan et al., 2016). Additionally these practices afford a combination of generative role-taking with meta-voicing (Majchrzak et al., 2013), which allows the streamer to take a leadership role in their stream community, but also allows the streamer to add to the knowledge and information shared within the community. Through these practices the streamer becomes the opinion leader in the community, which affirms their influence on their community and viewers. This influence is evident in the development of influencer culture (Abidin & Ots, 2015, pp. 1–12) and micro-celebrities (Khamis, Ang, & Welling, 2017; Marwick, 2015b; Senft, 2013) but also in the controversies and reactions to extreme behaviours related to streamers and streaming (Alexander, 2018; Hall, 2014).

##### 5.2. Revenue affordances of the video stream

Through our analysis of the popular practices utilized by Twitch streamers, we were able to identify a new category of affordances, *revenue affordances*, which was divided into two subcategories. The category of revenue affordances highlights the practices that afford direct revenue in relation to specific behaviours and interactions within the stream.

The importance of visible and interactive revenue and monetisation techniques in content creation has become more relevant in recent years, with the growth of content creator culture. Twitch enables the content creator to utilize two main viewer driven monetisation services within the stream, subscriptions and donations. In addition to this we observed various additional ways that these elements were highlighted and interacted with within the streams, as well as additional monetisation instruments such as sponsorship banners. Therefore, we categorise the revenue affordances into two subcategories: *social revenue*



**Table 2**  
Observations for video stream elements and practices.

Element	Description of practical use	Frequency (% elements present)
Microphone	A microphone allows a streamer to add additional voiceover and narration to their stream.	100
Webcam	A webcam provides an additional video element to the stream. Most often a webcam shows the streamer in a setting they have chosen, in game streams it is usually the secondary visual on top of the game.	86
Subscriber notification	A notification pop-up that is shown on top of the video stream when a new subscription comes in. This normally shows a celebratory message, along with the name of the subscriber.	45
Donation notification	Similar to subscriber notification, commonly shows the name of the donor and the amount of the donation.	42
Sponsor banner	Sponsor banners are advertisement banners placed on top of the video stream. These placements are not set and differ among streamers. Can be static or rotating among different sponsors.	39
Latest subscriber(s)	Normally a small visual element on the screen that shows the latest subscriber's name and optionally how long they subscribed for. Placement and visual design of this element is not set, and differs among streamers.	36
Top donor	A visual element that shows the top donor of the stream overall or for the current broadcast.	31
Latest donor(s)	Similar visual element to latest subscriber, but shows the latest donation, normally the name of the donor and the amount that was donated.	26
Music (non-game)	Additional music chosen by the streamer.	25
Social media banner	These banners advertise social media accounts of the streamer and are placed in different locations on top of the video stream depending on the streamer.	25

and *commercial revenue*, which are described in Table 5.

A significant practice present in many streams is acknowledging the subscribers and donors of the stream. Streaming is a form of content creation that relies very heavily on the viewers, due to the real time nature of said media and the importance of community (Sjöblom & Hamari, 2017). Thus, it is no great surprise that, as with any type of media, content producers want to keep their audience engaged in order to increase the potential for generating revenue.

One such way is through the *social revenue affordances* related to elements that acknowledge and celebrate subscribers and donors, in order to encourage further purchasing behaviour in the community through social pressure, togetherness or even competition. In fact, previous research has highlighted the importance of social motivations not only for consuming streamed content, but also for choosing to pay for subscriptions (Hilvert-Bruce, Neill, Sjöblom, & Hamari, 2018). Therefore, it is in the interest of the content creator to further facilitate the fulfilment of these spectating motivations.

The acknowledgement of subscribers and donors manifests itself through multiple different practices. The first practice that clearly affords social revenue generation, are the static listings of latest subscribers, latest donors or top donors. The second, and slightly more popular, practice are the dynamic notifications that pop up during the video, commonly accompanied by audio, animation or a reaction from the streamer. These notifications provide the stream community the ability to applaud new supporters of the stream, a behaviour that is commonly witnessed in video streams (Hamilton et al., 2014). An

**Table 4**  
Additional elements encountered during analysis.

Additional Elements in video stream	Additional Elements in profile
Loyal point bot	"Why subscribe" section
Twitch status feed	Goals
Event promo	Achievements
"Now playing" music	Contact information
	Subscriber info
	Subscriber emote images
	Medical marijuana ad
	Subscriber perks list
	List of money raised for charity
	PO box address
	In-stream virtual currency (e.g. Swiftbucks)
	Link to Patreon page of streamer
	Designer responsible for graphic design
	Link to personal website
	Links to charities
	Links to music playlists
	Links to giveaways & raffles

extreme, but interesting, example of social revenue affordances of these stream practices is the way competitive donating to streamers has become a popular activity among some viewers. During our analysis we witnessed a few occasions where two or more spectators engaged in a

**Table 3**  
Observations for profile page elements and practices.

Element	Description of practical use	Frequency (% elements present)
Social media links	Links for different social media accounts for the streamer	100
Donation link	Donation links are placed in the profile of the streamer and allow viewers to donate money to the streamer.	89
Sponsor links	Sponsorships are visible in the profile of the streamer, where they are normally accompanied by a call for action and a direct link to specific products or services.	80
Subscription link	A visual element that links to the subscription page of the channel. Commonly accompanied by descriptions of the benefits users get when subscribing.	59
Machine specifications	Machine specifications that describe the specific technology and tools the streamer uses in their activities.	56
FAQ/about me	The FAQ/about me section enables a personalised description of the profile.	53
Merchandise link	Merchandise links direct the viewer to a merchandise store where they can purchase branded merchandise.	35
Rules	Rules define the code of conduct of the video stream. These are normally defined by the streamer and especially regulate the way viewers interact with each other and the streamer in the video stream chat.	31
Top donors list	Top donor list highlights the highest donations made by viewers. This lists the highest accumulated donations made by specific viewers.	24
Schedule	The schedule of the streamer, that states when they normally broadcast.	17

**Table 5**  
Revenue affordances.

Main category	Subcategory	Description	Example
Revenue affordances	Social revenue	Monetisation through increased social visibility and competitive elements	Top donor lists, pop-up notifications, subscription and donation links
	Commercial revenue	Monetisation through traditional product placement or advertising	Advertising and sponsorships

“donation war” (see e.g. KittyPlays, 2016), with one person continually raising the donation of the other person, in an effort to end up as the top daily or monthly donor. In some cases, the individuals may also be encouraged by the streamer or the chat community, or both. In the light of this activity, it can be argued that these notifications and pop-ups are also social in nature and also afford triggered attending.

Our observations also revealed that any elements superimposed on the game graphics have the potential to hide critical UI elements of the game being played, and as such, any visual elements placed on the video stream should be considered meaningful and important for the aims of the streamer. Analysis of the affordances of these elements and practices highlights the revenue generation possibilities present in the activity, which is why this analysis of affordances brings forth important information not only for the streamer themselves, but also for game designers and commercial entities working with streamers through for example sponsorships.

### 5.3. Social affordances of the personal profile

The standard setup offered by Twitch for streamers features not only the primary video stream, but also a personalised profile visible underneath the video stream. As this space is freely customizable by the streamer without additional technical tools, it was also where we were able to detect most diversity between streamers.

An inherently social element in streaming is the use of social media. Although the use of this element within the stream is relatively unpopular, it is the most common element in the profile of a streamer and has a significant meaning in the activity of streaming. Social media links are promotional in their nature, but within this activity, they also enable further community building by affording social connectivity, social interactivity, and further content discovery (O’Riordan et al., 2016). The importance of community and community building within the streaming culture is significant and emphasised by the content creators themselves, as the community feeds the attention economy (Simon, 1971) that utilizes the community and audiences as a commodity for commercial gain. Social media also provides a streamer with the possibility to further their personal brand (O’Riordan et al., 2016) and create a multi-channel presence. By promoting social media within their profile, a streamer may be able to generate a wider presence and also a more active community that stretches outside the confines of merely the Twitch platform. Additionally, the social media outlets can be used to generate triggered attending (Majchrzak et al., 2013), by promoting when the streamer starts broadcasting, a common practice on Twitter.

From our observations we discovered that, although the primary function of the personalised profile should be to provide more information about the streamer, only around half of the observed streamers have included an “about me” section in their profile. This type of personal description provides an opportunity for a streamer to become more approachable and easier to identify with. A description like this also affords profile building (O’Riordan et al., 2016), through which a streamer can enhance the personal brand they convey through their video stream and build upon it.

Although only half of the examined streamers did not include a clear description about themselves, it was discovered that over half of the examined streamers have a specification of the tools and technology they use to stream. This type of information is often requested by viewers and may act as a status indicator for streamers and game enthusiasts, utilized to indicate a certain level of expert knowledge and understanding of gaming or streaming. The display and mention of particular hardware manufacturers can also be considered an indirect sponsorship or advertising effort.

The profile page of a streamer is also used to highlight the structure of the stream through elements such as the rules and schedule of the stream. Although our observations indicated that these elements are not very popular among streamers, they do afford generative role-taking (Majchrzak et al., 2013) for the content creator, where they can generate the structure of the stream and their community, as well as triggered attending through the utilization of a schedule. Similarly to social media links, we identify that these elements also afford community building and community aspects for the content creator.

Although a schedule may restrict the free nature of streaming, it also allows for more consistency. A schedule also provides a familiar setting for viewers, familiarised from traditional television broadcasting (Smith, Obrist, & Wright, 2013), and may encourage habitual consumption of stream content. The rules of a stream provide structure by simultaneously limiting and encouraging certain types of behaviour. These rules most often regulate the viewer’s behaviour in the chat and although they may make the chat more comfortable for some viewers, others may prefer a more disruptive style of chat. This seems to also fluctuate based on the game and stream genre (Sjöblom, Törhönen, Hamari, & Macey, 2017).

### 5.4. Revenue affordances of the personal profile

Elements that afford revenue generation were also prominent and popular elements in the personal profile of a streamer. There were clear examples of practices that afforded both social revenue and commercial revenue. Indeed, the donation button was commonly the first element in the profile page of a streamer. By placing this element in a prominent position as a clear call-for-action, it has an increased ability to drive viewer engagement, leading to increased revenue for the streamer. Along with the call-for-action, these elements often listed benefits for subscription and donation, potentially as a further way to incentivize engagement. Some streamers listed the donation obligations they had towards the viewers, as a way of expectation management, which also affords role-taking and meta-voicing (Majchrzak et al., 2013) through interaction. There have been several cases indicating unrealistic expectations of viewers regarding the reciprocity of streamers related to donations (D’Anastasio, 2017). Interestingly we also observed some streamers deliberately downplaying the aspect of donating, stating that the option was there because many viewers had asked for it, thus expressing that they are not “money hungry”. Compared to the other forms of social revenue affordances discussed previously, these elements and practices were in comparison more static, as they did not change as rapidly as the dynamic in-stream elements.

Another popular element of the profile page was sponsorships and advertising of external partners, with many streamers having multiple image banners linking to external web pages and online stores. These afford direct commercial revenue generation, where the content creation aims to directly drive their viewers towards a third-party purchase, which is analogous to sponsorship advertising in traditional television broadcasts. A variety of industries are represented within the sponsor banners, with the most common being manufacturers of computer hardware and gaming equipment, online gaming related services, media services and beverages.

Related to sponsorships, but not entirely equivalent, is the advertisement of merchandise related to the content creator. This type of merchandise affords the content creator the ability to further their

personal brand as a streamer (O’Riordan et al., 2016), but is also provided by Twitch as a possible revenue stream (Twitch, 2017c). Although these adverts afford direct revenue generation, in this socio-economic context, the revenue generation may even be secondary to the content creator, as the element of brand building, community involvement and fandom are heavily emphasised in the interaction with this element.

As mentioned in the context of the video stream, acknowledging viewer support appears to be an integral part of streaming, and an element that can also be observed in some streamer profiles is a list of top donors, a form of high-score list or badges commonly used in gamification (Hamari, 2013, 2017; Hamari, Koivisto, & Sarsa, 2014; Morschheuser, Hamari, Koivisto, & Maedche, 2017). These lists serve as a way of acknowledging those who have given the largest amount of monetary support for the streamer, potentially encouraging others to also donate to the streamer, as discussed in relation to the revenue affordances of the stream. These affordances, along with subscriber icons, also tie to loyalty marketing where top customers and loyal supporters are visually celebrated in order to induce social influence (Cialdini, 2001, p. 262; Festinger, 1954) and social proof (Goldstein, Cialdini, & Griskevicius, 2008).

### 5.5. Practical implications

The results of our study offer many interesting insights into the world of streaming, which can be put into good use by both practitioners themselves and managerial staff working in industries related to streaming (such as game development, influencer marketing and media).

For streamers themselves, our study offers an excellent overview of the type of practices & elements used, that a streamer can use to benchmark their own stream content against other successful streamers, and potential figure out areas of improvement. Furthermore, identifying less commonly used practices may allow streamers the opportunity to stand out from the continuously increasing crowd that is contemporary live-streaming.

For practitioners within the industry of media & communications, the indication that individual actors gravitate towards commonly shared practices and elements helps further the understanding of contemporary media services where the content creation is driven by the users. While not all practices presented here will be applicable in other contexts, these practices may still serve as inspiration and a base when designing new services utilizing one-to-many and many-to-many broadcasting & live video.

For the game design industry in particular, we emphasise the importance of planning the UI and screen layout with streaming & video creation in mind. An interface that is already cluttered with elements leave next to no space for the expressive creative freedom of streamers, thus meaning that any graphical elements superimposed on the game will block out critical game elements. Hence, it is worth considering if an adequate amount of space can be left for custom elements, and perhaps even integrate some options for these in the game itself.

Finally, for streaming services themselves, it might be advisable to further integrate some of these common practices & elements into the service itself. As we can see, particularly among popular streamers, certain elements such as the regular schedule could be easily implemented into the user interface of the service itself, helping communicate important information to viewers. We have noticed that over the past few years, services such as Twitch have continuously focused on improving these basic practices and offer many common affordances as part of the base service.

## 6. Limitations and future research

When utilizing the affordance theory, it should be noted that affordances are very rarely static and they are relational to the both the

temporal and the social context as well as the environment in which they are utilized and examined (Gaver, 1991). There are also many ways in which the affordances theory has been utilized and debate about the different ways in which it should be understood.

This study concentrated on the most popular streams on Twitch and observed a single streaming session from a streamer’s archive of content. Therefore, it is not representative of all streams and is limited to a single occurrence. As the study did not examine the full content of the streams, there may be some elements missing from the observations that are only occasionally visible in the streams, and thus a type of sequential affordances. These elements were mainly notifications such as the new donation and new subscription pop-ups.

The study exclusively examined English speaking streams, which may limit it to a certain cultural context. The male dominant set of streamers observed in this study also limits the female representation in this study. However, it should be noted that streaming as a phenomenon, and game streams in particular, is still a relatively male dominant activity (Sjöblom & Hamari, 2017).

The findings of this research open up various different opportunities for future research. This research could be expanded by including different research methods, such as interviews or surveys with streamers. These methods could further define our findings and also enable us to take this research further by examining what specific combinations of affordances are most used by popular streamers, as well as investigating motivations and gratifications for use among streamers. This research could also be expanded by redoing the observations on a randomised set of streamers, to gain an insight to which affordances an average streamer utilizes.

## 7. Conclusions

This study investigated how streamers on the Twitch platform construct the structure of the content that they produce, through an affordances approach. This investigation was done through one hundred observations of the most popular Twitch streamers, by number of followers. We identified a number of affordances that Twitch streamers use to enhance their streams and provide an experience that is both enticing for viewers and generates revenue for the streamer. Affordances were identified separately for the video stream and the profile page of the streamer.

We found that while some elements, including the use of a microphone and webcam along with integration of other social media channels, seem to form a ubiquitous base for the activity of streaming, there are a number of other very varied affordances that are used alongside these. These base affordances, all categorized as social affordances, would support previous research indicating that the activity of streaming, from the consumer side, is indeed highly based on social interaction (Hamilton et al., 2014; Sjöblom & Hamari, 2017; Sjöblom et al., 2017).

Contemporary research among affordances has focused a great deal on the aspect of mobility in the modern world (Ranzini & Lutz, 2017; Schrock, 2015). Reflecting upon this, it is interesting to see that our results do not indicate any affordances that would be significantly different for spectators on a mobile platform compared to watching from a computer. Twitch offers a dedicated app on most major mobile platforms, and thus the possibility of watching Twitch on the go is a very real one. Thus, we can state that using Twitch is more of a universal experience, not limited to the platform in use, at least from the consumer side.

This study is not only limited to Twitch and video game streaming, but also helps us understand the nature of affordances in the modern social media driven world. Indeed, the new type of creator focused economies that have appeared around services such as Twitch and YouTube are testaments to the need of understanding the interactions going on between producers and consumers of the modern internet era. In fact, the affordances that streamers facilitate, as uncovered in this

study, help us understand these interactions, and also highlight the difference a particular element or practice can have for different stakeholder groups. The identification of different types of revenue affordances tied to separate revenue streams also carries over to other types of content creation and social media outside of Twitch, and strengthens our knowledge on influencer and micro-celebrity culture (Senft, 2013).

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### References

- Abidin, C. (2016). "Aren't these just young, rich women doing vain things online?": Influencer selfies as subversive frivolity. *Social Media and Society*, 2(2)<https://doi.org/10.1177/2056305116641342>.
- Abidin, C., & Ots, M. (2015). *The Influencer's dilemma: The shaping of new brand professions between credibility and commerce*. "Media Branding Revised: Participative Audiences and Their Consequences for Media Branding.
- Alexander, J. (2018). *Twitch tackling sexually suggestive content in IRL section with new rules*. Retrieved June 29, 2018, from <https://www.polygon.com/2018/2/8/16988696/twitch-irl-rules-sexual-content-streamers-moderation-bans>.
- Aran, O., Biel, J. I., & Gatica-Perez, D. (2014). Broadcasting Oneself: Visual discovery of vlogging styles. *IEEE Transactions on Multimedia*, 16(1), 201–215. <https://doi.org/10.1109/TMM.2013.2284893>.
- Barthes, R. (1964). *Elements of semiology*. New York, NY: Hill and Wang.
- Bermejo, F. (2009). Audience manufacture in historical perspective: From broadcasting to Google. *New Media & Society*, 11(1–2), 133–154. <https://doi.org/10.1177/146144808099579>.
- Bucher, T., & Helmond, A. (2017). The affordances of social media platforms. In J. Burgess, A. Marwick, & T. Poell (Eds.). *The SAGE handbook of social media* (pp. 233–253). Thousand Oaks, CA: Sage Publications.
- Burling, A. (2015). *Book publishing comes to YouTube*. Publisher's Weekly.
- Cha, M., Kwak, H., Rodriguez, P., Ahn, Y., & Moon, S. (2007). *I Tube, You Tube, everyTube: Analyzing the world's largest user generated content video system*. *IMC'07, October 24–26, San Diego, California, USA*. <https://doi.org/10.1145/1298306.1298309>.
- Chau, C. (2010). YouTube as a participatory culture. *New Directions for Youth Development*, 2010(128), 65–74. <https://doi.org/10.1002/yn.376>.
- Chen, C. P. (2013). Exploring personal branding on YouTube. *Journal of Internet Commerce*, 12(4), 332–347. <https://doi.org/10.1080/15332861.2013.859041>.
- Churchill, B. C. B., & Xu, W. (2016). The modern nation: A first study on Twitch.TV social structure and player/game relationships. *Proceedings - 2016 IEEE international conferences on big data and cloud computing, BDCloud 2016, social computing and networking, SocialCom 2016 and sustainable computing and communications, SustainCom* (pp. 223–228). <https://doi.org/10.1109/BDCloud-SocialCom-SustainCom.2016.43>.
- Cialdini, R. B. (2001). *Influence: Science and practice*. Book (3rd). <https://doi.org/10.2307/3151490>.
- Claypool, M., Farrington, D., & Muesch, N. (2016). Measurement-based analysis of the video characteristics of Twitch.tv. *2015 IEEE games entertainment media conference, GEM 2015*<https://doi.org/10.1109/GEM.2015.7377227>.
- Cohen, N. S. (2004). *The valorization of surveillance: Towards a political economy of Facebook*. <https://doi.org/Article>.
- D'Anastasio, C. (2017). *When fans take their love for Twitch streamers too far*. Retrieved June 15, 2017, from <http://kotaku.com/when-fans-take-their-love-for-twitch-streamers-too-far-1794815112>.
- Deuze, M. (2006). Ethnic media, community media and participatory culture. *Journalism*, 7(3), 262–280. <https://doi.org/10.1177/1464884906065512>.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7(2), 117–140. <https://doi.org/10.1177/001872675400700202>.
- Fontaine, R. (2016). *Introducing cheering: Celebrate, together*. Retrieved June 29, 2018, from <https://blog.twitch.tv/introducing-cheering-celebrate-together-da62af41fac6>.
- Fuchs, C. (2014). Digital presumption labour on social media in the context of the capitalist regime of time. *Time & Society*, 23(1), 97–123. <https://doi.org/10.1177/0961463X13502117>.
- Gandolfi, E. (2016). To watch or to play, it is in the game: The game culture on Twitch.tv among performers, plays and audiences. *Journal of Gaming & Virtual Worlds*, 8(1), 63–82. <https://doi.org/10.1386/jgvw.8.1.63.1>.
- Gaver, W. W. (1991). Technology affordances. *Proceedings of the SIGCHI conference on Human factors in computing systems Reaching through technology - CHI '91* (pp. 79–84). <https://doi.org/10.1145/108844.108856>.
- Gaver, W. W. (1996). Situating action II: Affordances for interaction - the social is material for design. *Ecological Psychology*, 8(2), 111–129. [https://doi.org/10.1207/s15326969eco0802\\_2](https://doi.org/10.1207/s15326969eco0802_2).
- Gibson, J. J. (1979). *The ecological approach to visual perception*. Houghton Mifflin- Boston.
- Gilbert, B. (2018). *Amazon's streaming service Twitch is pulling in as many viewers as CNN and MSNBC*. Retrieved May 1, 2018, from <http://nordic.businessinsider.com/twitch-is-bigger-than-cnn-msnbc-2018-2?r=US&IR=T>.
- Goldstein, N. J., Cialdini, R. B., & Griskevicius, V. (2008). A room with a viewpoint: Using social norms to motivate environmental conservation in hotels. *Journal of Consumer Research*, 35(3), 472–482. <https://doi.org/10.1086/586910>.
- Gräve, J.-F. (2017). Exploring the perception of influencers vs. Traditional celebrities. *Proceedings of the 8th international conference on social media & society - #SMSociety17: Vol. 28*, (pp. 1–5). <https://doi.org/10.1145/3097286.3097322>.
- Grundberg, S., & Hansegard, J. (2014). *YouTube's biggest draw plays games, earns \$4 million a year*. Retrieved June 2, 2017, from <https://www.wsj.com/articles/youtube-stars-plays-videogames-earns-4-million-a-year-1402939896>.
- Haimson, O. L., & Tang, J. C. (2017). What makes live events engaging on Facebook live, periscope, and Snapchat. *Proceedings of the 2017 CHI conference on human factors in computing systems - CHI '17* (pp. 48–60). <https://doi.org/10.1145/3025453.3025642>.
- Hall, C. (2014). *Twitch cracks down on topless and "sexually suggestive" streamers*. Retrieved June 14, 2017, from <https://www.polygon.com/2014/10/27/7079631/twitch-topless-ban-code-sexually-suggestive>.
- Hamari, J. (2013). Transforming homo economicus into homo ludens: A field experiment on gamification in a utilitarian peer-to-peer trading service. *Electronic Commerce Research and Applications*, 12(4), 236–245. <https://doi.org/10.1016/j.elerap.2013.01.004>.
- Hamari, J. (2017). Do badges increase user activity? A field experiment on the effects of gamification. *Computers in Human Behavior*, 71, 469–478. <https://doi.org/10.1016/j.chb.2015.03.036>.
- Hamari, J., Koivisto, J., & Sarsa, H. (2014). Does gamification work? - a literature review of empirical studies on gamification. *Proceedings of the annual Hawaii international conference on system sciences* (pp. 3025–3034). <https://doi.org/10.1109/HICSS.2014.377>.
- Hamilton, W. A., Garretson, O., & Kerne, A. (2014). Streaming on twitch: Fostering participatory communities of play within live mixed media. *Proceedings of the SIGCHI conference on human factors in computing systems* (pp. 1315–1324). <https://doi.org/10.1145/2556288.2557048>.
- Hilvert-Bruce, Z., Neill, J. T., Sjöblom, M., & Hamari, J. (2018). Social motivations of live-streaming viewer engagement on Twitch. *Computers in Human Behavior*, 84, 58–67. <https://doi.org/10.1016/j.chb.2018.02.013>.
- Holland, M. (2016). How YouTube developed into a successful platform for user-generated content. *Elon Journal*, 7(1), 52–69.
- Jonson, A. N. (2008). 'Looking at', 'looking up' or 'keeping up with' people? Motives and uses of Facebook. *CHI 2008 Proceedings: Online social networks* (pp. 1027–1036). <https://doi.org/978-1-60558-01101/08/04>.
- Karhulathi, V. (2016). Prank , troll , gross and Gore : Performance issues in esports live-streaming. *1st international Joint conference of DiGRA and FDG*, 1–13.
- Kaytoue, M., Silva, A., & Cerf, L. (2012). Watch me playing, i am a professional: A first study on video game live streaming. *Proceedings of the 21st international conference companion on world wide web* (pp. 1181–1188). <https://doi.org/10.1145/2187990.2188259>.
- Khamis, S., Ang, L., & Welling, R. (2017). Self-branding, 'micro-celebrity' and the rise of social media influencers. *Celebrity Studies*, 8(2), 191–208. <https://doi.org/10.1080/19392397.2016.1218292>.
- Khan, M. L. (2017). Social media engagement: What motivates user participation and consumption on YouTube? *Computers in Human Behavior*, 66, 236–247. <https://doi.org/10.1016/j.chb.2016.09.024>.
- Kim, J. (2012). The institutionalization of youtube: From user-generated content to professionally generated content. *Media, Culture & Society*, 34(1), 53–67. <https://doi.org/10.1177/0163443711427199>.
- KittyPlays (2016). *Biggest Twitch donation war ever!!!*. Retrieved June 19, 2018, from <https://www.youtube.com/watch?v=s1BeC5KkqOE>.
- Kotler, P. (2010). The prosumer movement. *Prosumer revisited SE - 2* (pp. 51–60). [https://doi.org/10.1007/978-3-531-91998-0\\_2](https://doi.org/10.1007/978-3-531-91998-0_2).
- Kücklich, J. (2005). Precarious Playbour: Modders and the digital games. *Fibreculture*, 5(1), 1–8. <https://doi.org/10.1016/B978-0-7506-7523-9.50022-2>.
- Lee, J. E., & Watkins, B. (2016). YouTube vloggers' influence on consumer luxury brand perceptions and intentions. *Journal of Business Research*, 69(12), 5753–5760. <https://doi.org/10.1016/j.jbusres.2016.04.171>.
- Leonardi (2011). When flexible routines meet flexible technologies: Affordance, constraint, and the imbrication of human and material agencies. *MIS Quarterly*, 35(1), 147. <https://doi.org/10.2307/23043493>.
- Li, X., Salehi, M. A., & Bayoumi, M. (2016). VLSC: Video live streaming using cloud services. *2016 IEEE international conferences on big data and cloud computing (BDCloud), social computing and networking (SocialCom), sustainable computing and communications (SustainCom) (BDCloud-SocialCom-SustainCom)*, 595–600<https://doi.org/10.1109/BDCloud-SocialCom-SustainCom.2016.93>.
- Majchrzak, A., Faraj, S., Kane, G. C., & Azad, B. (2013). The contradictory influence of social media affordances on online communal knowledge sharing. *Journal of Computer-mediated Communication*, 19(1), 38–55. <https://doi.org/10.1111/jcc4.12030>.
- Marwick, A. E. (2015a). Instafame: Luxury selfies in the attention economy. *Public Culture*, 27(1 75), 137–160. <https://doi.org/10.1215/08992363-2798379>.
- Marwick, A. E. (2015b). You may know me from YouTube: (Micro-)Celebrity in social media. *A companion to celebrity* (pp. 100–127). <https://doi.org/10.1002/>

- 9781118475089.
- McGrenere, J., & Ho, W. (2000). Affordances: Clarifying and evolving a concept. *Graphics interface* (pp. 1–8). . <https://doi.org/citeulike-article-id:2863397>.
- McKay, B. (2018). *The future of media buying: YouTube versus traditional TV*. Retrieved May 2, 2018, from <https://www.forbes.com/sites/forbesagencycouncil/2018/01/16/the-future-of-media-buying-youtube-versus-traditional-tv/#3b93e4a22675>.
- Morschheuser, B., Hamari, J., Koivisto, J., & Maedche, A. (2017). Gamified crowdsourcing: Conceptualization, literature review, and future agenda. *International Journal of Human-Computer Studies*, 106, 26–43. <https://doi.org/10.1016/j.ijhcs.2017.04.005>.
- Murthy, D. (2008). Digital ethnography: An examination of the use of new technologies for social research. *Sociology*, 42(5), 837–855. <https://doi.org/https://doi.org/10.1177/0038038508094565>.
- Needleman, S. E. (2015). *Twitch's viewers reach 100 million a month*. Retrieved June 2, 2017, from <https://blogs.wsj.com/digits/2015/01/29/twitchs-viewers-reach-100-million-a-month/>.
- Nielsen (2017). *The Nielsen total audience report*.
- Norman, D. A. (1988). The psychology of everyday things. *The Psychology of Everyday Things*, 1–104. <https://doi.org/10.2307/1423268>.
- O'Riordan, S., Feller, J., & Nagle, T. (2016). A categorisation framework for a feature-level analysis of social network sites. *Journal of Decision Systems*, 25(3), 244–262. <https://doi.org/10.1080/12460125.2016.1187548>.
- Perez, S. (2017). *Twitch launches Achievements and Stream Summary to help creators grow their channels*. Retrieved June 19, 2018, from <https://techcrunch.com/2017/11/14/twitchs-launches-achievements-and-stream-summaries-to-help-creators-grow-their-channels/>.
- Pires, K., & Simon, G. (2015). YouTube live and Twitch : A tour of user-generated live streaming systems. *MMSys DataSet*, 1–6 <https://doi.org/10.1145/2713168.2713195>.
- Postigo, H. (2016). The socio-technical architecture of digital labor: Converting play into YouTube money. *New Media & Society*, 18(2), 332–349. <https://doi.org/10.1177/1461444814541527>.
- Pringle, R. (2016). Periscope's Paradox: The promise and peril of uncensored live video. *IEEE Consumer Electronics Magazine*, 5(4), 101–102. <https://doi.org/10.1109/MCE.2016.2590582>.
- Raman, A., Tyson, G., & Sastry, N. (2018). Facebook (A)live? Are live social broadcasts really broadcasts? *Proceedings of the 2018 world wide web conference* (pp. 1491–1500). Lyon: International World Wide Web Conferences Steering Committee. <https://doi.org/10.1145/3178876.3186061>.
- Ranzini, G., & Lutz, C. (2017). Love at first swipe? Explaining tinder self-presentation and motives. *Mobile Media and Communication*, 5(1), 80–101. <https://doi.org/10.1177/2050157916664559>.
- Recktenwald, D. (2017). Toward a transcription and analysis of live streaming on Twitch. *Journal of Pragmatics*, 115, 68–81. <https://doi.org/10.1016/j.pragma.2017.01.013>.
- Ritzer, G. (2015). Prosumer capitalism. *The Sociological Quarterly*, 56(3), 413–445. <https://doi.org/10.1111/tsq.12105>.
- Ritzer, G., & Jurgenson, N. (2010). Production, Consumption, Prosumption: The nature of capitalism in the age of the digital "prosumer. *Journal of Consumer Culture*, 10(1), 13–36. <https://doi.org/10.1177/1469540509354673>.
- Scholz, T. (2012). *Digital labor: The internet as playground and factory*. Digital Labor: The Internet as Playground and Factory <https://doi.org/10.4324/9780203145791>.
- Schrock, A. R. (2015). Communicative affordances of mobile media: Portability, availability, locatability, and multimodality. *International Journal of Communication*, 9(1), 1229–1246. <https://doi.org/10.1177/0094306111425016k>.
- Senft, T. M. (2013). Microcelebrity and the branded self. *A companion to new media dynamics* (pp. 346–354). . <https://doi.org/10.1002/9781118321607.ch22>.
- Siekkinen, M., Masala, E., & Kämäräinen, T. (2016). *A first look at quality of mobile live streaming experience: The case of periscope*. <https://doi.org/10.1145/2987443.2987472>.
- Simon, H. A. (1971). Designing organizations for an information-rich world. *Computers, Communications, and the Public Interest*, 72, 37. <https://doi.org/citeulike-article-id:986786>.
- Sjöblom, M., & Hamari, J. (2017). Why do people watch others play video games? An empirical study on the motivations of twitch users. *Computers in Human Behavior*, 75, 985–996. <https://doi.org/10.1016/j.chb.2016.10.019>.
- Sjöblom, M., Törhönen, M., Hamari, J., & Macey, J. (2017). Content structure is king: An empirical study on gratifications, game genres and content type on Twitch. *Computers in Human Behavior*, 73, 161–171. <https://doi.org/10.1016/j.chb.2017.03.036>.
- Smith, T., Obrist, M., & Wright, P. (2013). Live-streaming changes the (video) game. *Proceedings of the 11th european conference on Interactive TV and video - EuroITV '13* (pp. 131). . <https://doi.org/10.1145/2465958.2465971>.
- Social Blade (2017). *Track Twitch analytics, future predictions & Twitch usage graphs*. Retrieved May 4, 2017, from <https://socialblade.com/twitch/>.
- Sotamaa, O. (2010). When the game is not enough: Motivations and practices among computer game modding culture. *Games and Culture*, 5(3), 239–255. <https://doi.org/10.1177/1555412009359765>.
- Tassi, P. (2018). *Ninja's new "Fortnite" Twitch records: 5 million followers, 250,000 subs, \$875,000 + a month*. Retrieved April 27, 2018, from <https://www.forbes.com/sites/insertcoin/2018/04/07/ninjas-new-fortnite-twitch-records-5-million-followers-250000-subs-875000-a-month/#5c5a45b1478f>.
- Taylor, N. T. (2016). Now you're playing with audience power: The work of watching games. *Critical Studies in Media Communication*, 33(4), 293–307. <https://doi.org/10.1080/15295036.2016.1215481>.
- Tempelman, M. (2017). *17 stats and facts every marketer should know about video marketing*. Forbes.
- Terranova, T. (2000). Free labor: Producing culture for the digital economy. *Social Text*, 18(2), 33–58. 63 [https://doi.org/10.1215/01642472-18-2\\_63-33](https://doi.org/10.1215/01642472-18-2_63-33).
- Törhönen, M., Sjöblom, M., & Hamari, J. (2018). Likes and views: Investigating internet video content creators perceptions of popularity. *Proceedings of GamiFIN 2018, Porï, Finland*.
- Treem, J. W., & Leonardi, P. M. (2013). Social media use in organizations: Exploring the affordances of visibility, editability, persistence, and association. *Annals of the International Communication Association*, 36(1), 143–189. <https://doi.org/10.1080/23808985.2013.11679130>.
- Twitch (2017a). *About Twitch*. Retrieved June 8, 2017, from <https://www.twitch.tv/p/about>.
- Twitch (2017b). *Twitch 2017 year in review*. Retrieved June 29, 2018, from <https://www.twitch.tv/year/2017/>.
- Twitch (2017c). *Twitch partner teespring merchandise store guide*. Retrieved June 13, 2017, from <https://help.twitch.tv/customer/en/portal/articles/1766516-twitch-partner-teespring-merchandise-store-guide>.
- Wellman, B., Quan-Haase, A., Boase, J., Chen, W., Hampton, K., Díaz, I., et al. (2003). The social affordances of the Internet for networked individualism. *Journal of Computer-mediated Communication*, 8(1).





