Content Monetization and Philanthropy: A Literature Survey

Alexandru Amariei, Thales Bertaglia, Catalina Goanta, Gerasimos Spanakis

July 2021 (working paper)

1 Introduction

In 2020, global health and social justice events revealed at scale a new era of online philanthropy. Content creators around the world started using their online platforms to gather money for families hit by the economic effects of the Covid-19 pandemic, or for social justice causes such as Black Lives Matter. The options to donate for such causes have reflected a mix of traditional payment affordances on websites advertised through social media, as well as new, more creative and elaborate ways to generate revenue. An example of the latter was the farming of views on Youtube for 'fake' monetized videos (e.g. videos that display the same image/sound for a duration of minutes/hours and that display considerable amounts of ads). Content creators used these videos to maximize the AdSense monetization opportunities, while making public promises that all the monetization revenue would go to charities supporting Black Lives Matter. While social media platforms had some

Monetization through philanthropy is challenging current business and legal frameworks. While traditionally, online philanthropy has entailed supporting non-profit organizations through donations, in recent times, philanthropic practices as disseminated on social media have grown to include crowdfunding resources for individual events (e.g. pet surgeries) as well as monthly incomes. Paired with the professionalization of social media content creation, these new models of giving reflect the monetization realities of social media. Until recently, the main stakeholders in Internet monetization were companies. Digital platforms have been selling ad space and companies have been buying it. Advertising as a digital monetization model has been around since the early days of the Internet. The founders of Google themselves acknowledged the bias introduced by the commercial interests behind advertising in the architecture of search engines (`http://infolab.stanford.edu/~backrub/google.html#ref`). Yet in the past decade this paradigm has been shifting.

Based on an increase in social media consumption, content monetization makes it possible for any Internet user to not only engage with advertising, but *become* advertising. As an illustration, some of the most popular advertising methods in content monetization include influencer and affiliate marketing.

Both approaches consist in brands contracting genuine, relatable influencers (also called content creators) to increase brand awareness or sales. These individuals create advertising content on their social media profiles and channel their armies of followers to the brand partner. In turn, they receive money, goods or services. In 2021, influencer marketing is projected to reach a global market size of $13.8 billion (700 increase since 2016), and affiliate marketing is estimated to grow to $7 billion in the US alone. However, monetization models do not necessarily need to involve advertising, but can also entail other forms of transactions, including philanthropy. In this space, new models are generated at a skyrocketing pace. Creators can ask their fans to subscribe to their content, donate money to them, or even engage in gamified version of a 'human stock market', where creators can sell their decision-making power over day-to-day decisions. (https://www.nytimes.com/2021/03/10/style/creators-selling-selves.html).

In these circumstances, academic literature is struggling to immortalize the content monetization landscape, and the way in which digital philanthropy is affected by it. This paper consists in a systematic literature review undertaken across law, social science and computer science on the topic of content monetization and philanthropy. The goal of this paper is threefold: (i) to streamline scientific knowledge systematically selected across the various disciplines, (ii) to map the research themes and findings addressed by existing scholarship; and (iii) to propose an academic agenda that lists research gaps as identified in this paper.

2 Methods

2.1 Study design

This literature review was conducted on records about business models which content creators can use to monetize their content on online platforms. As the area of online monetization can be considered quite new, a time limit of when the articles were published was not imposed.

2.2 Research questions

This systematic literature review focuses on three main research questions:

- RQ1. What is the place of content monetization in the broader landscape of Internet monetization?

- RQ2. What are the business models used by content creators to monetize content?

- RQ3. How is philanthropy monetized by content creators?

2.3   Eligibility criteria

To be included in the literature review, at least one of the following criteria had to be fulfilled:

1. The article focuses on content monetization in general, for instance, presenting a business model used on the Internet;

2. The article presents business models on social media, from the perspective of content creators;

3. The article focuses on philanthropy, donations, and content creators.

The inclusion criteria were relatively broad because of the exploratory nature of the study. However, some articles were excluded if:

1. They were written in another language than English;

2. They addressed specific online platforms but not how content is monetized on them.

2.4   Search strategy

Four databases were used for the retrieving the records: Scopus, Web of Science, ACM Digital Library, and HeinOnline (Law Journal Library). The choice of these databases was made to have records from a broad range of disciplines, namely computer science, social sciences, and law. For the search string, several variants were tried before deciding on the final one. Boolean operators were used inside the keyword clusters (OR) and between the clusters (AND), the structure of the string being: (terms commonly used to name an online content creator, using) AND (terms about monetization) AND (names of a range of online platforms). The string used in the end, with minor variations depending on each database search strategy, was the following:

```
( "content creator" OR influencer OR streamer ) AND ( moneti?ation OR "
    business model" ) AND ( youtube OR facebook OR twitch OR twitter OR
    instagram OR snapchat OR tiktok OR patreon OR onlyfans )
```

2.5   Search results

After using the search string on each database, 1078 hits were generated in total. Using the export functionalities of the databases, the details of the found articles (title, abstract, journal title, etc.) were downloaded and sorted. Due to HeinOnline platform's limitations, the results of the search here had to be extracted manually. No additional records were included. For the next step, 17 duplicates were found and removed. The remaining articles were divided between the members of the research team, mainly based on the individual expertise. Each member checked the title and the abstract of the records, using the predefined eligibility criteria.

After the title and abstract scan, 99 articles were considered relevant enough for a full-text assessment. However, 4 articles were excluded because it was not possible to retrieve them. Furthermore, 3 records were not written in English and subsequently removed before the full-text scan. The remaining 92 articles were labelled based on the subject: computer science (CS), social sciences (SS), and law. Afterward, they were again divided between the members of the research team. The same eligibility criteria as before were used in the full-text selection.

3 Findings

3.1 Per discipline

3.1.1 Computer science

The papers could be organised thematically either based on the domain (e.g. live streaming, social networks, gaming, etc.) or the type of work conducted (quantitative (e.g. trying to build a predictive model) or qualitative (e.g. conducting interviews to understand and describe a phenomenon)) or the relation to monetization (e.g. donations, endorsements or advertisements in general).

To start with, there is a cluster of papers that since even before the rise of social media, have been exploring how to monetize user-generated content and how it can generate new revenue streams [1]. In this direction, there has been a paper [2] that explored how donations work for more than 25000 open source projects or through the crowdfunding paradigm [3]. Gaming has been a domain that has early on included microtransactions in (online) video games and that has shown to lead to increased revenue by understanding motivations of these transactions [4], [5].

A big cluster of papers explore how content creators (and more specifically streamers) build their audience. There have been works like [6] that build predictive models for predicting subscribers using information from the streamers and the users (daily interaction data). Game streamers specifically, can be seen as as influencers and the audience as endorsers [7] and this transition from viewership and simple impressions to further actions can be monetized. [8] are actually attempting to put a value to each user in social networks.

The role of celebrities (celebrity economy) is taken into account in a big amount of papers (like [9]) and how it can lead to monetizing. [10] explore how emotional, instrumental or financial support is provided to streamers from viewers. They conducted interviews with over 200 people that have donated money to viewers (attributing to parasocial relationships and interpersonal attractiveness). Engagement with the audience has also been explored through interviews and surveys with content creators like in [11]. The business model of virtual gifts for streamers was explored in [12] and they discovered that one fifth of the viewers are contributing almost 100% of all gifts.

The personal angle and the sharing of personal info that is taken by many creators is also explored by several papers. Incentivized social advertising, with

the question about how profit maximization works is discussed in [13]. Sponsored content promoted by creators (e.g. celebrities) and how it can influence negatively users has also been studied in [14]. There are also works on specific domains (e.g. fashion) that try to see how customers make buying decisions [15].

Finally, from a marketing perspective, some papers explore the role of social media communities. [16] explore social shopping communities (i.e. integrated online shopping platforms and social network experience) and the role of social-shopping features on visit duration (i.e. engagement). In [17] authors explore evidence from promotional events and try to understand the effect on social media marketing. Similarly, [18] study the role of daily deal service and how Twitter can be leveraged for marketing purposes. There are also works like [19] that study how video-ad consumption on Youtube can be effective (or not).

3.1.2 Law

21 papers retrieved from the legal database were left after additional filtering. Some general characteristics of these papers include:

- The popularity of Youtube as the most researched platform: Most papers (12/21) focus on Youtube's content monetization models. Other platforms included in the papers for considerable analysis are Twitter, Yelp, Instagram and Periscope. Only one study systematically looks at three platforms (Instagram, Twitter and Youtube, Coker 2019).

- Platform affordances are not generally described in legal literature: Only a few papers describe how platform monetization systems work (Womak, Coker, Pottinger).

- Prevalence of US literature and examples: Although the database is indeed US-centric, it also indexes European journals, and European scholars generally write in US journals as well. In spite of this, only 2 papers deal with EU law (Bechtel) and self-regulation in the Netherlands (Arayess and Geerts).

- The topic of content monetization is becoming increasingly popular: The papers range from 2011 to 2020. The paper written in 2011 (Feinman) focuses on Twitter. Statistics?

Thematically, the papers follow two main threads on copyright infringements and advertising disclosures.

The first cluster addresses at length the risks arising out of Youtube's Content ID system, as well as the fair use exception which allows creators to use copyrighted content (Quach, Hagen, Lesicko, Bechtel, Solomon, Womak). Copyright issues also refer to an overarching issue with content moderation by social media platforms (Hagen, Graves and Lee, Blumenfeld, Womack) which relates to how platform policies and procedures such as Youtube's video content claims

(Quach) are enforced on users. Copyright is also looked at in more niche topics of content monetization such as livestreaming as esports (Bailey, Beals).

The second cluster addresses the problems with the recognition of advertising content on social media, and the Federal Trade Commission's applicable soft law regulatory framework which is aimed at requesting disclosures (Wu, Banningan & Shane, Campbell, Pottinger). Most scholars argue that existing legal frameworks such as the FTC Guides are too lenient on current business practices (James). Content monetization by content creators is referred to as endorsement marketing or native advertising (Wu). Some literature also refers to European regulatory frameworks, and even national approaches to the regulation of disclosures, such as the self-regulation initiatives adopted in the Netherlands (Arayess and Geerts). Another theme found in the selected papers deals with the impact of content monetization on children. Guzman addresses this issue from the perspective of labour law, comparing child influencers to actors, and concluding that the interpretations of current legal frameworks in the US may be insufficient to adequately protect the interests of social media child entertainers. Campbell looks at children not as influencers, but as the audiences for social media advertising.

One of the most distinct issues in the overviewed literature is terminological inconsistency. Terms such as content creator and influencer are generally used interchangeably, and there does not seem to be any agreement in literature relating to how to refer to business models. This is most likely due to the fact that no overarching taxonomy of business models is either generated by or followed in legal scholarship [20].

3.1.3 Social sciences

A significant cluster of papers explores live streaming [21], particularly in the context of platform affordances and how they interact with monetisation. Twitch is the most studied platform. [22] analyse how Twitch streamers engage with different platform affordances to monetise their content. The paper identifies seven monetisation models: subscribing, donating and cheering, advertising, sponsorships, competitions and targets, unpredictable rewards, and channel games. The authors highlight that streamers also develop innovative ways of monetising their content, such as channel games. Twitch is open to these developments, making the platform a significant research object to identify new monetisation models and observe how they behave. Other papers [23] include more platforms and/or focus on particular clusters of business models such as patronage [24].

[25] further investigate the affordances of live streaming on Twitch, splitting them into two main categories: *video stream* and *personal profile*. The authors also identify *social* and *revenue* affordances within each category. The analysis of these affordances shows that the donation button is often the most prevalent item on the streamer's profile. Sponsoring and direct selling (of streamer merchandise) are also common monetisation models, usually displayed as profile affordances.

[26] thoroughly describe how the donation ecosystem evolved on Twitch.

The authors present a techno-economic history of donations in the platform – starting from third-party apps and PayPal donation buttons and reaching the introduction of the platform's own currency, Twitch Bits. The research frames this development as a form of platform capture. Initially, Twitch provided means for developers to create tools to facilitate donations. Once these tools were proved successful and were consolidated in streaming, Twitch implemented their functionality as a feature – thus capturing it. Platform capture leads to uneven competition and heavily benefits the platform, as it controls how features are implemented and displayed for users. As Twitch Bits are active by default, streamers might also subject to use the features without choice.

[27] examine the gamblification (gamified gambling) of engagement mechanisms in Twitch. The paper analyses engagement tools (add-ons) available for streamers concerning gambling-related characteristics. The authors identify five emerging gamblification themes: gambling with social prize, not monetary; predicting winners and in-game events; Legal components of gambling distributed among participants; Gambling in giveaways; and Marketing and advertising practices in legal gambling. Such tools increase engagement and offer new monetisation models for streamers. It is still unclear how gamified gambling relates to traditional gambling, and the legal consequences of the practice are not well defined. Therefore, it is difficult to regulate and control gamblification.

Another cluster of papers focuses on analysing factors that influence users to contribute monetarily to content creators. [28] investigate how different factors influence the purchase of virtual gifts in live streaming in China. These factors include virtual crowd experience, Cognitive Absorption, Parasocial Interaction, deep profiling, and platform design aesthetics. Cognitive Absorption indicates a state in which the person is deeply involved in using a system. Users who are watching a stream might experience it because they get deeply involved. Parasocial Interaction refers to the experience of being involved in a fictional relationship with a media character. Viewers often have such interactions with streamers because they perceive them as friends. The authors survey viewers to measure these factors and then calculate their correlation with the purchase of virtual gifts. Cognitive Absorption correlates positively to purchasing, and so do virtual crowd experience and user-level deep profiling. Parasocial Interaction is not directly correlated but might influence other factors.

Also in the context of live streaming in China, [29]–[31] examine what drives users to donate to streamers. Building upon a socio-technical framework, the study suggests that users' attachment to content creators and their functional dependence on social media influence donations. Analogously, [32] identify that emotional attachment and emotional loyalty significantly influence users' willingness to donate to streamers. [33] focus on how content creators interact with platform affordances and conclude that streamers' screen presence and dynamic display of emotions related to viewership engagement and purchase of virtual gifts.

[34] investigate factors that influence follower's "stickiness" to content creators – i.e., how willing are users to revisit a content creator's page. To model stickiness, the paper considers two main psychological concepts: wishful identi-

7

fication and parasocial relationships. Wishful identification refers to the desire to be or to behave like content creators that followers might experience. Parasocial relationships are personal bonds that audiences form with content creators. The study focuses on two monetisation models: self-brand selling and third-party advertising. By surveying Sina Weibo (a Chinese social media platform similar to Twitter) users, the research shows that these psychological factors lead to stickiness to content creators.

A self-standing theme is the monetization of adult activities. [35] focus on a specific category of influencers (adult performers, sex workers and models) who are using FanCentro – a platform which can be used for selling subscriptions to their social media accounts. The authors performed a quantitative analysis of the semi-illicit adult market connected to platforms like Snapchat and Instagram. They conclude that the social media platforms are inefficient at enforcing community guidelines and banning adult content, aspect highlighted by the existence of platforms like FanCentro. Moreover, the authors also emphasize that the Covid-19 pandemic created a growth in this marketplace.

Platform affordances in terms of monetization are also highlighted in the literature, together with perceptions relating to whether some forms of monetization should be disclosed (e.g. influencer marketing). [36] interviewed Instagram influencers from Singapore about their perception on advertorial practices on the platform. Through the usage of popular hashtags, like #OOTD, influencers feel like they are doing a "tacit labor", not receiving financial compensation when promoting products from certain brands but instead receiving cultural gain (visibility labor). Earlier forms of Internet monetization through social marketing (e.g. Facebook Ads, Beacons) are also looked at in other scholarship [37], highlighting that, with the emergence of Web 2.0, new creative ways for regulating disclosure, endorsement, and identity on social media must be developed.

References

[1] Y.-H. Liu, Y. Ren, and R. Dew, "Monetising user generated content using data mining techniques," in *Proceedings of the Eighth Australasian Data Mining Conference - Volume 101*, ser. AusDM '09, Melbourne, Australia: Australian Computer Society, Inc., 2009, pp. 75–81, ISBN: 9781920682828.

[2] C. Overney, J. Meinicke, C. Kästner, and B. Vasilescu, "How to not get rich: An empirical study of donations in open source," in *Proceedings of the ACM/IEEE 42nd International Conference on Software Engineering*, ser. ICSE '20, Seoul, South Korea: Association for Computing Machinery, 2020, pp. 1209–1221, ISBN: 9781450371216. DOI: 10.1145/3377811.3380410. [Online]. Available: https://doi-org.ezproxy2.utwente.nl/10.1145/3377811.3380410.

[3] K. Sokolova and C. Perez, "The impact of social media on leetchi crowd-funding projects success," in *Proceedings of the 2017 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining 2017*, ser. ASONAM '17, Sydney, Australia: Association for Computing Machinery, 2017, pp. 743–748, ISBN: 9781450349932. DOI: `10.1145/3110025.3110120`. [Online]. Available: `https://doi-org.ezproxy2.utwente.nl/10.1145/3110025.3110120`.

[4] A. Wijanarko and A. Dewanto Hadisumarto, "Online video games as distribution channel for retail brand voucher," in *2020 The 4th International Conference on E-Commerce, E-Business and E-Government*, ser. ICEEG 2020, Arenthon, France: Association for Computing Machinery, 2020, pp. 7–14, ISBN: 9781450388030. DOI: `10.1145/3409929.3409931`. [Online]. Available: `https://doi-org.ezproxy2.utwente.nl/10.1145/3409929.3409931`.

[5] D. Y. Wohn, "Spending real money: Purchasing patterns of virtual goods in an online social game," in *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, ser. CHI '14, Toronto, Ontario, Canada: Association for Computing Machinery, 2014, pp. 3359–3368, ISBN: 9781450324731. DOI: `10.1145/2556288.2557074`. [Online]. Available: `https://doi-org.ezproxy2.utwente.nl/10.1145/2556288.2557074`.

[6] Y.-C. Yang, Y.-H. Lee, S.-H. Lee, and S. Chang, "A novel approach to predicting live-stream subscribers," in *Proceedings of the 7th Multidisciplinary in International Social Networks Conference and The 3rd International Conference on Economics, Management and Technology*, ser. MISNC2020amp;IEMT2020, Kaohsiung, Taiwan: Association for Computing Machinery, 2020, ISBN: 9781450389457. DOI: `10.1145/3429395.3429423`. [Online]. Available: `https://doi-org.ezproxy2.utwente.nl/10.1145/3429395.3429423`.

[7] R. King and T. de La Hera, "Gamer perception of endorsements from fortnite streamers on youtube," in *International Conference on the Foundations of Digital Games*, ser. FDG '20, Bugibba, Malta: Association for Computing Machinery, 2020, ISBN: 9781450388078. DOI: `10.1145/3402942.3403026`. [Online]. Available: `https://doi-org.ezproxy2.utwente.nl/10.1145/3402942.3403026`.

[8] D. Saez-Trumper, Y. Liu, R. Baeza-Yates, B. Krishnamurthy, and A. Mislove, "Beyond cpm and cpc: Determining the value of users on osns," in *Proceedings of the Second ACM Conference on Online Social Networks*, ser. COSN '14, Dublin, Ireland: Association for Computing Machinery, 2014, pp. 161–168, ISBN: 9781450331982. DOI: `10.1145/2660460.2660477`. [Online]. Available: `https://doi-org.ezproxy2.utwente.nl/10.1145/2660460.2660477`.

[9] X. Wang, "Research on the development of live streaming industry of e-business under web celebrity economy," in *2020 The 4th International Conference on E-Business and Internet*, ser. ICEBI 2020, Singapore, Sin-

gapore: Association for Computing Machinery, 2020, pp. 16–20, ISBN: 9781450388573. DOI: 10.1145/3436209.3436884. [Online]. Available: https://doi-org.ezproxy2.utwente.nl/10.1145/3436209.3436884.

[10] D. Y. Wohn, G. Freeman, and C. McLaughlin, "Explaining viewers' emotional, instrumental, and financial support provision for live streamers," in *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*, ser. CHI '18, Montreal QC, Canada: Association for Computing Machinery, 2018, pp. 1–13, ISBN: 9781450356206. DOI: 10.1145/3173574.3174048. [Online]. Available: https://doi-org.ezproxy2.utwente.nl/10.1145/3173574.3174048.

[11] E. Y. Wu, E. Pedersen, and N. Salehi, "Agent, gatekeeper, drug dealer: How content creators craft algorithmic personas," *Proc. ACM Hum.-Comput. Interact.*, vol. 3, no. CSCW, Nov. 2019. DOI: 10.1145/3359321. [Online]. Available: https://doi-org.ezproxy2.utwente.nl/10.1145/3359321.

[12] W. Tu, C. Yan, Y. Yan, X. Ding, and L. Sun, "Who is earning? understanding and modeling the virtual gifts behavior of users in live streaming economy," in *2018 IEEE Conference on Multimedia Information Processing and Retrieval (MIPR)*, IEEE, 2018, pp. 118–123.

[13] C. Aslay, F. Bonchi, L. V. Lakshmanan, and W. Lu, "Revenue maximization in incentivized social advertising," *arXiv preprint arXiv:1612.00531*, pp. 1238–1249, 2016.

[14] L. M. de Oliveira and O. Goussevskaia, "Sponsored content and user engagement dynamics on instagram," in *Proceedings of the 35th Annual ACM Symposium on Applied Computing*, ser. SAC '20, Brno, Czech Republic: Association for Computing Machinery, 2020, pp. 1835–1842, ISBN: 9781450368667. DOI: 10.1145/3341105.3373956. [Online]. Available: https://doi-org.ezproxy2.utwente.nl/10.1145/3341105.3373956.

[15] A. Fernandez and I. Karhawi, "Usability and consumption influence of fashion blogs: An exploratory study," in *Proceedings of the Latin American Conference on Human Computer Interaction*, ser. CLIHC '15, Córdoba, Argentina: Association for Computing Machinery, 2015, ISBN: 9781450339605. DOI: 10.1145/2824893.2824894. [Online]. Available: https://doi-org.ezproxy2.utwente.nl/10.1145/2824893.2824894.

[16] C. Holsing and R. Olbrich, "Effect of user-generated content on website stickiness: The case of social shopping communities," in *Proceedings of the 14th Annual International Conference on Electronic Commerce*, ser. ICEC '12, Singapore, Singapore: Association for Computing Machinery, 2012, pp. 301–308, ISBN: 9781450311977. DOI: 10.1145/2346536.2346597. [Online]. Available: https://doi-org.ezproxy2.utwente.nl/10.1145/2346536.2346597.

[17] P. Adamopoulos and V. Todri, "The effectiveness of marketing strategies in social media: Evidence from promotional events," in *Proceedings of the 21th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining*, ser. KDD '15, Sydney, NSW, Australia: Association for Computing Machinery, 2015, pp. 1641–1650, ISBN: 9781450336642. DOI: 10.1145/2783258.2788597. [Online]. Available: https://doi-org.ezproxy2.utwente.nl/10.1145/2783258.2788597.

[18] J. Y. Park and C.-W. Chung, "When daily deal services meet twitter: Understanding twitter as a daily deal marketing platform," in *Proceedings of the 4th Annual ACM Web Science Conference*, ser. WebSci '12, Evanston, Illinois: Association for Computing Machinery, 2012, pp. 233–242, ISBN: 9781450312288. DOI: 10.1145/2380718.2380748. [Online]. Available: https://doi-org.ezproxy2.utwente.nl/10.1145/2380718.2380748.

[19] M. Arantes, F. Figueiredo, and J. M. Almeida, "Understanding video-ad consumption on youtube: A measurement study on user behavior, popularity, and content properties," in *Proceedings of the 8th ACM Conference on Web Science*, ser. WebSci '16, Hannover, Germany: Association for Computing Machinery, 2016, pp. 25–34, ISBN: 9781450342087. DOI: 10.1145/2908131.2908159. [Online]. Available: https://doi-org.ezproxy2.utwente.nl/10.1145/2908131.2908159.

[20] Z. Blumenfeld, "Selling the artist, not the art: Using personal brand concepts to reform copyright law for the social," *Columbia Journal of Law & the Arts*, vol. 42, no. 2, pp. 241–279, 2019.

[21] C. Cho, J. Sim, and D. Cho, "Gender economy in live streaming: Moderating effects of relational motivation on viewer contributions," 2019.

[22] M. R. Johnson and J. Woodcock, "and today's top donator is": How live streamers on twitch.tv monetize and gamify their broadcasts," *Social Media+ Society*, vol. 5, no. 4, 2019.

[23] R. Bonifacio and D. Y. Wohn, "Digital patronage platforms," in *Conference Companion Publication of the 2020 on Computer Supported Cooperative Work and Social Computing*, 2020, pp. 221–226.

[24] J. Swords, "Interpenetration and intermediation of crowd-patronage platforms," *Information, Communication & Society*, vol. 23, no. 4, pp. 523–538, 2020.

[25] M. Sjöblom, M. Törhönen, J. Hamari, and J. Macey, "The ingredients of twitch streaming: Affordances of game streams," *Computers in Human Behavior*, vol. 92, pp. 20–28, 2019.

[26] W. C. Partin, "Bit by (twitch) bit: "platform capture" and the evolution of digital platforms," *Social Media+ Society*, vol. 6, no. 3, 2020.

[27] B. Abarbanel and M. R. Johnson, "Gambling engagement mechanisms in twitch live streaming," *International Gambling Studies*, pp. 1–21, 2020.

[28] Z. Guan, F. Hou, B. Li, A. Y.-L. Chong, and C. W. D. Phang, "What encourages purchase of virtual gifts in live streaming: Cognitive absorption, social experience and technological environment.," in *ICIS*, 2019.

[29] J. Wan, Y. Lu, B. Wang, and L. Zhao, "How attachment influences users' willingness to donate to content creators in social media: A socio-technical systems perspective," *Information & Management*, vol. 54, no. 7, pp. 837–850, 2017.

[30] Y. Chen and F. Xiong, "The business model of live streaming entertainment services in china and associated challenges for key stakeholders," *IEEE Access*, vol. 7, pp. 116 321–116 327, 2019.

[31] X. Zhang, Y. Xiang, and L. Hao, "Virtual gifting on china's live streaming platforms: Hijacking the online gift economy," *Chinese Journal of Communication*, vol. 12, no. 3, pp. 340–355, 2019.

[32] F. Hou, Z. Guan, B. Li, and A. Y. L. Chong, "Factors influencing people's continuous watching intention and consumption intention in live streaming: Evidence from china," *Internet Research*, 2019.

[33] Y. Guo, K. Y. Goh, and M. Ragab Sayed, "Mobile live streaming: The roles of broadcasters' screen presence and dynamic emotions in viewership engagement," 2019.

[34] L. Hu, Q. Min, S. Han, and Z. Liu, "Understanding followers' stickiness to digital influencers: The effect of psychological responses," *International Journal of Information Management*, vol. 54, 2020.

[35] N. Lykousas, F. Casino, and C. Patsakis, "Inside the x-rated world of "premium" social media accounts," in *International Conference on Social Informatics*, Springer, 2020, pp. 181–191.

[36] C. Abidin, "Visibility labour: Engaging with influencers' fashion brands and# ootd advertorial campaigns on instagram," *Media International Australia*, vol. 161, no. 1, pp. 86–100, 2016.

[37] W. McGeveran, "Disclosure, endorsement, and identity in social marketing," *U. Ill. L. Rev.*, pp. 1105–1166, 2009.