

MONETIZING THE DIGITAL PERSONA: STRATEGIES, CHALLENGES, AND FUTURE TRENDS IN SOCIAL MEDIA INCOME GENERATION

Lazaro Inon Kumbo¹, Rodrick Frank Mero², Robert Michael Sikumbili*

^{1,2,*} Department of Computing and Communication Technology, National Institute of Transport,
Dar es salaam, Tanzania

* Correspondence:

Email Id: lazaro.kumbo@nit.ac.tz

Abstract

This study delves into the multifaceted landscape of social media monetization, focusing on YouTube and employing a mixed-methods research design. Analysis of the 15 most sponsored videos as of February 10, 2023, reveals influencer dominance, particularly exemplified by MrBeast, emphasizing their instrumental role in successful brand partnerships. Niche influencers, like Veritasium, highlight the significance of authentic connections and targeted audience engagement. The study explores prevalent strategies, challenges, and future trends in social media monetization, drawing insights from quantitative surveys and content analysis. Interviews with content creators supplement findings, providing valuable perspectives on strategic storytelling and diversified monetization. The study contributes nuanced insights for practitioners and platforms navigating the dynamic realm of digital monetization.

Keywords: *Algorithmic changes, Digital persona, Emerging technologies, Income generation, Influencer marketing, Monetization, Privacy concerns, social media.*

Introduction:

In the dynamic realm of social media, the intersection of personal identity and income generation has become a focal point of interest. As the digital era unfolds, individuals increasingly harness their online personas as potential sources of income, marking a transformative shift in the traditional role of social platforms.

Lamberton and Stephen's (2016) comprehensive exploration of the evolution of social media offers valuable insights into the broader changes shaping the digital era. The study delves into the transformative shifts within the social media landscape, shedding light on the overarching trends and dynamics that influence user interactions and content dissemination. According to Lamberton and Stephen (2016), social media has evolved significantly since its inception. From basic online forums in the early 2000s, platforms like Friendster and MySpace paved the way. Facebook's rise in 2004 marked a turning point, followed by the emergence of Twitter in 2006.

The late 2000s saw the advent of visually-driven platforms like Instagram and Snapchat. The 2010s witnessed the rise of video-centric platforms such as Vine (later replaced by TikTok). Today, social media

continues to evolve by integrating augmented reality, live streaming, and niche-focused platforms. Technology and social connectivity fusion has transformed digital spaces into vibrant marketplaces, driving economic growth for individuals and businesses (Evans et al., 2017).

User-generated content platforms like TikTok have reshaped the dynamics of social media income generation. TikTok's short-form videos have given rise to a new generation of content creators, providing brands with innovative ways to reach younger demographics. The platform's algorithmic approach ensures content virality, presenting unique influencer partnerships and advertising opportunities (Haenlein et al., (2020).

Similarly, YouTube and Instagram continue to be influential platforms for user-generated content. The evolution of features like YouTube Shorts and Instagram Reels highlights the platforms' commitment to short-form, engaging content. Brands increasingly collaborate with content creators on these platforms for sponsored content and integrated advertising campaigns. This evolution of social media has reshaped the marketing approach in many ways, where personal identity is shifting to digital identity (Aichner et al., (2021).

According to Kraus et al. (2021), digital identity has become pivotal in today's marketing; it navigates the complex landscape of how individuals present themselves online. The study sheds light on the psychological and identity-related aspects of digital interactions. While offering valuable insights into digital identity, Kraus's work does not explicitly delve into individuals' detailed strategies for income generation through their online personas. In addition to that, Arfini et al. (2020) emphasis on personal branding.

Arfini et al. (2020) observed that it is crucial to understand how individuals shape and present themselves in the digital realm. The study provides insights into the creation of a distinct online identity. However, Arfini's research falls short in sufficiently analyzing the diverse strategies individuals employ to convert their online presence, shaped by personal branding efforts, into tangible sources of income.

Haenlein's (2020) study focuses on the burgeoning field of influencer marketing, elucidating the mechanisms and impact of this prominent trend within social media. In addition, Ye et al. (2021) researched to explore the effectiveness of various metrics in assessing the impact of influencer campaigns. The study contributes significantly to a nuanced understanding of measuring Return on Investment (ROI) and engagement in influencer marketing. The research contributes to understanding how individuals, often labeled as influencers, leverage their online presence for commercial collaborations.

On the other hand, Tumasjan's (2023) work focuses on the economic implications of social media, offering valuable insights into the financial aspects of user engagement and content creation. The study provides a macro-level perspective on the economic ecosystem of social platforms. However, Tumasjan's research lacks a detailed analysis of the myriad strategies individuals employ at the micro-level to generate income from their online presence.

In essence, while existing studies, such as those conducted by Arfini et al. (2020), Haenlein (2020), Kraus et al. (2021), Lamberton & Stephen (2016), Tumasjan (2023), Ye et al. (2021), have made valuable contributions to understanding aspects of social media and online identity, a notable gap emerges in the comprehensive exploration of individual strategies employed for income generation through digital personas. This void in the literature calls for an extensive study that delves into the intricate tactics individuals use for income generation within the dynamic landscape of social media.

This study addresses the research gap by delving into users' multifaceted strategies to monetize their online presence. Through case studies, user behavior analysis, and trend exploration, it aims to offer a nuanced

understanding of the economic dynamics in today's social media landscape. In light of the transformative influence of social media monetization, this timely study fills a void in academia, offering comprehensive insights into current strategies, challenges, and future trends for scholars, practitioners, and policymakers.

The surge in social media monetization is not without its complexities and challenges. Privacy concerns, algorithmic changes, and the risk of platform dependence pose significant hurdles to those seeking to monetize their digital personas effectively. Understanding and addressing these challenges is paramount for individuals and businesses aiming to sustain and grow their income streams in this digital landscape. Consequently, this study seeks to answer the following pivotal questions:

- i. *What are the prevailing strategies individuals and businesses employ to monetize their digital personas on social media platforms?*
- ii. *What are the critical challenges associated with social media monetization?*
- iii. *What future trends are anticipated in social media monetization?*

By addressing these questions, this research endeavors to unravel the intricacies of social media monetization, providing valuable insights for scholars, practitioners, and stakeholders navigating the ever-evolving landscape of digital identity and income generation.

LITERATURE REVIEW

Evolution of Social Media Monetization:

Social media monetization has undergone a profound evolution since its inception. The early years of social platforms were characterized by experimentation and a lack of explicit revenue models. This section aims to provide a historical overview, identifying pivotal moments and paradigm shifts that shaped the landscape of social media monetization.

The Emergence of Ad-Based Monetization:

The advent of ad-based monetization marked a pivotal moment in the history of social media. Platforms like Facebook and Twitter were among the trailblazers recognizing the immense potential of leveraging user data for targeted advertising. The shift from traditional banner ads to more sophisticated, data-driven advertising strategies represented a fundamental departure and paradigm shift in monetization (Helmond et al., (2019).

The evolution of data-driven advertising strategies on major social media platforms demonstrates a transformative shift in the landscape. In 2007, Facebook pioneered this shift by introducing the Facebook Ads platform, capitalizing on vast user-generated data (Helmond et al., 2019). Rosário & Dias (2023) emphasize how this data-driven approach revolutionized the advertising industry, allowing advertisers on Facebook to target their ads precisely based on demographics, interests, and user behavior. Similarly, Zhang et al. (2022) noted that Twitter, a key player in social media, adopted a similar data-centric approach in 2010 with the introduction of "Promoted Tweets." S. This marked Twitter's venture into advertising and its subsequent impact on user engagement.

The game-changing ability to target ads with unprecedented precision is highlighted in the research by Helmond et al. (2019), Rosário & Dias (2023), and Zhang et al. (2022), showcase how advertisers could tailor messages to specific demographics, locations, and individual interests. Furthermore, the enhanced effectiveness of ads through leveraging user data is explored by Haleem (2022), contributing valuable insights into the success of targeted advertising campaigns and the broader implications of data-driven strategies in social media monetization. The introduction of advertising on social media platforms, characterized by a shift toward data-driven strategies, represented a landmark moment in the monetization journey.

Rise of Influencer Marketing:

The maturation of social media platforms gave rise to a transformative phenomenon in the monetization landscape: the emergence of influencers as central figures in the digital economy. As these influencers garnered substantial followings, they harnessed the power of their online presence to forge brand partnerships, ushering in a new era of marketing characterized by authenticity and personalization. (Evans et al., 2017).

The evolution of influencers is intricately linked to the dynamic changes within social media platforms. Early influencers experienced organic growth, resonating authentically with niche audiences, as Haenlein (2020) extensively explored in their study on influencer evolution and the pivotal role of authenticity in audience engagement. A significant turning point occurred with the recognition by influencers of the potential to monetize their digital presence through collaborations with brands. This departure from traditional advertising methods saw influencers seamlessly integrating brand messaging into their content, fostering a more genuine connection with followers (Campbell & Farrell, 2020).

The connection provides valuable insights into the dynamics of influencer-brand partnerships and their consequential impact on consumer trust (Joshi et al., 2023). Additionally, the study by Kapitan et al. (2021) noted that the authenticity embedded in influencer content became a linchpin for the success of influencer marketing. Audiences gravitated towards content perceived as genuine and relatable, establishing a profound trust between influencers and followers.

As the marketing landscape evolved, influencer marketing introduced challenges in metrics and measurement. Notably, Chopra et al. (2020), Dwivedi (2021), and Ye et al. (2021) researched the effectiveness of various metrics in assessing the impact of influencer campaigns. Their studies contribute significantly to a nuanced understanding of measuring Return on Investment (ROI) and engagement in influencer marketing, providing valuable insights for marketers seeking to optimize their strategies.

Concurrently, with the ascendancy of influencer marketing, regulatory bodies recognized the imperative of transparency in this dynamic space. Ye et al. (2021) delve into the evolving landscape of regulations surrounding influencer marketing. This research sheds light on the implications for influencers and brands, offering guidance on navigating the regulatory terrain and ensuring ethical practices. The convergence of research efforts in metrics and regulatory considerations underscores the multifaceted nature of influencer marketing, where effective measurement and adherence to ethical standards are crucial for success.

Evolution of Sponsored Content:

The evolution of social media monetization has witnessed the dominance of sponsored content as a transformative strategy, fundamentally altering the relationship between creators and brands. This paradigm shift has intricately woven organic and promotional content, notably observable on influential platforms like Instagram and YouTube (Gillespie, 2020). The ascendancy of sponsored posts and videos has empowered content creators to monetize their influence and presented brands with an innovative and engaging avenue to connect with their target audiences. This section critically examines the Rise of Sponsored Content Platforms, delving into Native Advertising and User Engagement, exploring the Metrics and Effectiveness of Sponsored Content, and addressing Authenticity Challenges imposed by sponsored content while navigating the evolving Regulatory Considerations (Helmond et al., (2019).

The rise of sponsored content platforms, as exemplified by Instagram and YouTube, plays a pivotal role in reshaping the influencer marketing landscape. Instagram's visual-centric nature facilitates the seamless integration of brand messaging into influencer content. At the same time, YouTube emerges as a central hub for sponsored videos, showcasing collaborative efforts between content creators and brands. Haenlein

(2022) provides valuable insights into the effectiveness of sponsored content on Instagram, shedding light on the factors contributing to successful brand collaborations.

This surge in sponsored content signifies a paradigm shift towards native advertising, a strategic approach where promotional material seamlessly integrates into the platform's natural content flow, amplifying user engagement. The groundbreaking research conducted by Shahbaznezhad et al. (2021) provides a comprehensive exploration of the concept of native advertising, unraveling its profound impact on user engagement and perception. Additionally, Schuster et al. (2016) concluded that, as native advertising gains prominence, its effectiveness lies in organically blending with the surrounding content, avoiding the disruptive nature often associated with traditional advertising.

This seamless integration not only captures users' attention but also enhances the overall user experience by delivering branded messages in a format that aligns with the platform's existing content (Shahbaznezhad et al. (2021) and Schuster et al. (2016)). Moreover, the success of native advertising is intricately linked to its capacity to resonate with the platform's user base (Evans et al., 2017). Understanding the preferences, behaviors, and expectations of the target audience becomes crucial for crafting native ads that seamlessly fit into the user experience Kietzmann et al. (2011). Kietzmann et al. (2011) research not only delves into the mechanics of native advertising but also sheds light on the psychology behind user engagement, emphasizing the importance of relevance, authenticity, and context in creating impactful native ad campaigns.

The immersive nature of native advertising extends beyond a mere visual presence. It encompasses a holistic approach considering the narrative, aesthetics, and tone, ensuring the promotional content aligns with the platform's overarching theme. This level of integration fosters a sense of continuity, making it challenging for users to distinguish between native ads and organic content. (Harms et al., 2017). Consequently, Yoon et al. (2022) research emphasizes the transformative potential of native advertising in capturing users' attention and cultivating a positive perception of branded content within the social media landscape.

Measuring tools or metrics: As more sponsored content pops up, figuring out whether it works well becomes essential. Rancati et al. (2016) described the measuring tools or metrics people use to check if sponsored stuff is doing a good job. The findings help to see what makes partnerships between content creators and brands successful. These metrics are like the scorecard for sponsored content (Chopra et al., (2020). They show how many people saw the sponsored content, how many liked it, and if it made people more interested in the brand. It is like checking if your favorite game is a hit by looking at how many people play it and how much they like it (Chopra et al., 2020; Dwivedi, 2021; Ye et al., 2021).

According to Ye et al. (2021), the measurements are not just about numbers; they are like a guide that helps content creators and brands understand what works and what does not in their partnership. They look at the behind-the-scenes stuff that makes these sponsored content friendships successful, like when your favorite singer teams up with an excellent brand, and everyone loves it. This research helps determine why it is a win and how to keep making excellent content everyone enjoys.

Navigating sponsored content has become ubiquitous, yet maintaining authenticity in this saturated landscape presents a formidable challenge. Tafesse & Dayan's (2023) study serves as a valuable backstage pass, providing insight into how content creators delicately balance authenticity while forming brand partnerships. Analogous to a beloved actor featured in a commercial, the desire to convey genuine content is evident, but the execution is akin to walking a tightrope. Like actors striving to imbue authenticity into their scripted lines, content creators aim to strike a delicate balance. Tafesse & Dayan's (2023) study acts as a guide, assisting creators in discovering that elusive sweet spot where authenticity prevails, fostering trust in the content they deliver.

On the other hand, the surge in sponsored content has not merely transformed the influencer marketing landscape. However, it has also attracted the vigilant attention of regulators, who are meticulously scrutinizing the regulatory framework surrounding sponsored content (Helmond et al., 2019), Rosário & Dias (2023), Zhang et al., 2022). This meticulous examination unravels a multifaceted interplay involving technology, user interests, and regulatory policies. The findings underscore the imperative for a nuanced equilibrium that harmonizes the promotion of innovation in content creation, the assurance of user protection, and adherence to regulatory standards. The evolving dynamics within this trilateral relationship present challenges and opportunities, calling for continuous discourse and adaptability within the influencer marketing sphere (Helmond et al., 2019; Zhang et al., 2022).

Subscription-Based Models:

The progression of social media monetization witnessed a significant shift with the emergence of subscription-based models, providing content creators with new avenues to monetize their digital presence directly. Platforms such as Patreon and OnlyFans were pivotal in empowering creators to generate income directly from their audience (Lamberton & Stephen, 2016). This transformative shift democratized monetization and allowed creators to diversify revenue streams, relying less on traditional advertising and more on their fanbase's direct and sustained support (Rosário & Dias, 2023).

Gillespie (2020) mentioned Patreon, an innovator who launched and revolutionized social media monetization by introducing a subscription-based model. This groundbreaking approach allowed creators to secure ongoing financial support from their patrons through tiered subscription plans, offering exclusive content and behind-the-scenes access. The study illuminates the intricate dynamics of creator-fan relationships on Patreon, unraveling the motivations and expectations of both parties. In 2016, OnlyFans emerged as a disruptive force with its explicit content subscription model, enabling creators to monetize adult content directly. The paradigm shifts towards subscription-based models signaled a broader trend in revenue diversification for content creators, reducing reliance on traditional advertising. This development provided financial stability and allowed creators to connect directly with their audience. Moreover, subscription-based models facilitated community building, fostering subscriber loyalty and a sense of exclusivity.

However, the adoption of subscription-based models also introduced challenges and ethical considerations (Helmond et al., 2019; Rosário & Dias, 2023; Zhang et al., 2022), the ethical dimensions of subscription-based monetization, scrutinizing issues including content exclusivity, pricing transparency, and platform policies which are also discussed all over this paper. These debates within the digital creator community underline the evolving landscape of social media monetization, raising essential questions about its ethical underpinnings (Rosário & Dias, 2023).

Paradigm Shifts in Monetization Ethics:

As platforms mature, ethical concerns surrounding privacy, transparency in sponsored content, and the influence of algorithms on user behavior have become central points of debate. The concern over privacy and user data exploitation has become central as platforms delve deeper into user behaviors. According to Helmond et al. (2019), there are ethical implications for this practice; Helmond et al. (2019) emphasized the need for transparent data practices to address the growing concerns. In addition to privacy, transparency in sponsored content is crucial as the audience demands clarity about collaborations and promotional content.

Additionally, Algorithmic change may impact data, given that human interest can lead to potential manipulation of user experiences for commercial gain (Etter & Albu, 2020). Algorithmic influence on social media prompts critical ethical reflections. Etter and Albu (2020) Suggested that there should be a balance between personalized content delivery and preserving users' agency, contributing to ongoing discussions about the ethical dimensions of algorithmic decision-making.

In response to ethical concerns, platforms have initiated changes in policies and features to foster responsible monetization practices.

The paper by Reisach (2021) outlines industry best practices and standards, offering insights into collaborative efforts to shape responsible conduct. Moreover, ethical considerations have sparked discussions about user empowerment and control. Hokke et al. (2019) research examines user perceptions of control over their data and interactions, highlighting the importance of empowering users in shaping ethical practices on social media platforms. This multifaceted exploration underscores the evolving landscape of ethical considerations in social media monetization, emphasizing the need for responsible and transparent practices to ensure a balanced and fair ecosystem for all stakeholders involved. As privacy concerns suggest, transparency in sponsored content should be addressed to ensure trust and transparency.

Current Monetization Strategies:

As social media evolves, content creators and influencers leverage diverse monetization strategies to sustain and grow their digital presence. The following strategies represent critical trends in the current landscape. Sponsored content remains a cornerstone of social media monetization. Content creators collaborate with brands to craft authentic, engaging content seamlessly integrating brand messaging. This approach provides a revenue stream for creators and offers brands an effective way to connect with their target audience (Joshi et al., (2023).

The second Current Monetization strategy is Affiliate: Affiliate marketing has gained prominence, allowing creators to earn commissions by promoting products and earning a percentage of the sales generated through their unique affiliate links. This strategy aligns the interests of creators with the success of the products they endorse (Houssard et al., 2023)

The third Current Monetization strategy is Digital Product Sales: The sale of digital products, including e-books, online courses, and exclusive content, provides creators with a direct and diversified revenue stream. Creators can monetize their expertise and creativity, offering valuable content directly to their audience. Crowdfunding and Fan Support are the fourth Current Monetization Strategy. Crowdfunding platforms like Patreon, Ko-fi, and Buy Me a Coffee have become instrumental for creators seeking direct financial support from their audience. Fans can contribute regularly, fostering community and reciprocity (Tafesse et al., M. (2023).

Live Stream Monetization is the last Current Monetization Strategy for this study. Live streaming platforms offer creators various monetization options, enhancing real-time engagement. Virtual gifts, donations, and subscriptions are common mechanisms through which creators can receive financial support during live broadcasts (Houssard et al., 2023). Generally, the current monetization landscape is characterized by a rich tapestry of strategies that empower creators to diversify their income streams through the effectiveness of sponsored content, the dynamics of affiliate marketing, consumer perceptions of digital products, motivations behind fan support, and livestream monetization.

Future Trends in Social Media Monetization:

Future trends in social media monetization will likely be shaped by evolving technologies and changing user behaviors. One prominent trend is the continued integration of blockchain and cryptocurrency into

social media platforms. This technology enables decentralized and transparent financial transactions and introduces novel ways for users to earn and spend digital assets within the social media ecosystem (Guidi & Michienzi, 2021).

Another significant trend is the rise of virtual currencies and digital goods. Virtual currencies, often specific to a particular platform, allow users to purchase digital goods, services, or exclusive content. This trend reflects a shift towards creating unique and personalized experiences for users, encouraging them to invest in digital assets within the social media space (Aichner et al., 2021).

Live content monetization is also gaining momentum. With the increasing popularity of live streaming on platforms, users can support creators in real time through virtual gifts, donations, or paid subscriptions. This trend emphasizes the importance of direct user-to-creator transactions, fostering a more intimate and interactive relationship between content creators and their audience (Houssard et al., 2023).

The emergence of non-fungible tokens (NFTs) is another noteworthy trend. NFTs, unique digital assets stored on blockchain, enable creators to tokenize their content, making it scarce and tradable. This opens up new avenues for content monetization, as users may purchase and trade exclusive digital items or experiences linked to their favorite creators (Guidi & Michienzi, 2023).

Artificial intelligence (AI) and machine learning are expected to play a pivotal role in the future of social media monetization. These technologies can analyze user behavior, preferences, and engagement patterns to provide personalized content recommendations and targeted advertisements. This personalization enhances the user experience while creating new opportunities for advertisers and content creators to reach their target audiences effectively (Haleem et al., 2022). Overall, the future of social media monetization seems to be moving towards decentralized, personalized, and interactive models. Embracing emerging technologies and adapting to evolving user preferences will be essential for social media platforms and content creators looking to thrive in this dynamic landscape.

Research Design

A mixed-methods research design was employed to address the outlined objectives and research questions effectively. This design incorporated qualitative and quantitative data collection and analysis methods, offering a comprehensive understanding of the multifaceted aspects of social media monetization.

Research Approach:

The study adopted a sequential explanatory design, starting with qualitative data collection and analysis followed by quantitative methods. This approach allows for an in-depth exploration of strategies, challenges, and future trends through qualitative insights, which are then validated and supplemented by quantitative data.

Sample techniques

The study employed non-probability sampling. A prominent platform like YouTube was selected to provide specific insights into prevalent monetization strategies.

Sample Size

A representative sample comprising 15 of the most viewed sponsored videos was chosen to represent the larger population effectively. Additionally, 16 representatives, including influencers, content creators, entrepreneurs, and industry experts, were selected for the study. The decision to include a relatively small number of representatives was influenced by the limited accessibility to this specific group of individuals and the challenges related to their willingness to contribute insights for the study.

Data Integration:

The findings from the qualitative and quantitative phases are integrated to provide a holistic understanding of social media monetization. The qualitative insights helped contextualize quantitative results, offering a nuanced interpretation of trends, challenges, and prospects.

Ethical Considerations:

In this study, ethical considerations were rigorously adhered to following established protocols. Participants received comprehensive information about the study, and their informed consent was sought before data collection occurred. To uphold anonymity and confidentiality, participant identities were safeguarded, and data were anonymized throughout the research process. Additionally, stringent data security measures were implemented to ensure that all collected information was securely stored. Access to the data was restricted solely to the research team, further safeguarding the privacy and integrity of the participants throughout the study.

Results and Discussion

This section presents the results of our comprehensive investigation into social media monetization, encompassing a mixed-methods research design. The findings offer a multifaceted understanding of strategies, challenges, and emerging trends. Subsequently, we engage in a detailed discussion, interpreting the results in the context of existing literature and providing insights into the implications for social media practitioners, platform dynamics, and the broader landscape of digital monetization.

This study selected YouTube, considering the views of the 15 most sponsored videos as of February 10, 2023. Quantitative surveys comprehensively explored social media monetization dynamics, encompassing strategies, challenges, and future trends. A content analysis of social media platforms complemented this approach—tables 1 and 5 show the most viewed sponsored YouTube and Instagram videos, respectively.

Strategies individuals and businesses employ to monetize their digital personas on social media platforms, specifically YouTube:

The study extracted data from online sources using the keyword “MOST VIEWED SPONSORED VIDEO IN YouTube,” whereby several sources were extracted and compared; the data from Wikipedia and exonia.com was the same, and exonia.com was chosen to represent the other sources; table 1 shows the source of data from exonia.com

Table 1: Most viewed Sponsored YouTube video

Creator	Brand/Sponsor	Video Views
MrBeast	Honey	159,709,984
MrBeast	Current	120,670,130
Veritasium	Wren	24,095,878
Matt Stone	Better Help	22,134,621
Dhar Mann	Dragon City	20,140,297
Mark Rober	Acorns	18,975,865
MrBeast Gaming	Epic Games	18,809,186
Ryan's World	Sonic the Hedgehog 2	17,397,394
Veritasium	Brilliant	15,701,158
Veritasium	Wren	14,523,194
SpeedSilver	Genshin Impact	14,490,315
aCookieGod	Dragon City	14,330,399
Jordan Matter	BestFiends	13,878,446

PDK Films	Nerf / WowWee	13,872,759
Dude Perfect	SoFi	13,337,276
Total	15	502,066,902

Source: <https://www.exonia.com/blog/15-most-viewed-sponsored-youtube-videos-in-2022>

Table 1 highlights the most viewed sponsored YouTube videos and provides valuable insights into individuals' and businesses' prevailing strategies to monetize their digital personas on social media platforms. Several key observations were made about the strategies:

Influencer Dominance:

MrBeast's Influence: The presence of MrBeast as the top contributor with two videos in the top three indicates the immense influence top creators wield. Collaborating with brands like Honey and Current, MrBeast leverages his extensive reach (159,709,984 and 120,670,130 views, respectively) for successful brand partnerships. This underscores the effectiveness of partnering with top influencers to maximize reach and engagement. Table 1.1 Summarizes the results.

Table 1.1: Influencer Dominance:

Creator	Brand/Sponsor	Video Views
MrBeast	Honey	159,709,984
MrBeast	Current	120,670,130
Total	2	280,380,114

Source: *Researcher 2024*

Niche Influencers and Authentic Connections:

Veritasium's Impact: Veritasium's videos (Wren and Brilliant) highlight the effectiveness of niche influencers in establishing authentic connections with specific audiences. While their view counts are lower than MrBeast's, they still garner substantial engagement (24,095,878 and 15,701,158 views, respectively). Brands like Wren and Brilliant collaborate with Veritasium (Content Creator) to tap into a more engaged and targeted viewership, diversifying the impact of influencer marketing. The table below shows the summary of the results.

Table 2.2: Niche Influencers and Authentic Connections

Creator	Brand/Sponsor	Video Views
Veritasium	Wren	24,095,878
Veritasium	Brilliant	15,701,158
Veritasium	Wren	14,523,194
Total	3	54,320,230

Source: *Researcher 2024*

Targeting Specific Audiences:

aCookieGod: Creators like aCookieGod, collaborating with brands like Dragon City, respectively, showcase the effectiveness of targeting specific audiences. This aligns with Schouten et al.'s (2019) observation that niche influencers can establish authentic connections with specific audience segments. aCookieGod has the potential to acquire around 34,470,696 views due to a recommendation of 20,140,297 from Dhar Mann. The table below shows the summary of the results.

Table 2.3: Targeting Specific Audiences

Creator	Brand/Sponsor	Video Views
Dhar Mann	Dragon City	20,140,297
aCookieGod	Dragon City	14,330,399
Total	2	34,470,696

Source: *Researcher 2024*

The prevailing strategies evident in Table 1 include leveraging top influencers for broad reach, collaborating with niche creators for authentic connections, diversifying content and brand partnerships, emphasizing engagement metrics, targeting specific audiences, and exploring diversified revenue streams beyond traditional advertising. Collectively, these strategies contribute to the success of social media monetization for both individuals and businesses.

The distribution of earnings involves creators receiving compensation from brands for featuring sponsored content on their platforms. Brands benefit by reaching the creators' extensive audience. Creators typically earn through fixed payments or performance-based models, while brands gain visibility and potential customer engagement, creating a mutually beneficial financial arrangement.

It is essential to note that the strategies provided here are solely limited to the data from Table 1: Strategies like Strategic Storytelling and Engagement Metrics were not covered due to the available data in Table 1; hence, they are covered in the subsequent sections.

To complement the data from Table 1, this study integrated interviews with the content creators. One of the interesting comments from the respondents answered the quest How is storytelling proper on YouTube?

“As a creator, my approach involves carefully crafting narratives that seamlessly embed brand messages. The key is strategically weaving these messages into engaging content, creating a genuine connection with the audience. Aligning brand values with authentic storytelling captures viewer attention and enhances brand perception. Monetization is realized through brand partnerships, sponsorships, and heightened viewer engagement. This multifaceted approach increases ad revenue and fosters audience loyalty over time.

The respondent was also asked how he earned from your sponsored content. The reply was:

“Brands pay me to feature their products or services in my videos. It is crucial to align with brands that resonate with my content and audience. This provides an additional income source and introduces my viewers to valuable offerings.”

The diversified approach to monetization discussed in the interview aligns with findings from related studies. For instance, research by Haenlein (2020) and Ye et al. (2021) emphasizes the significance of multiple revenue streams for content creators. The respondent's integration of affiliate marketing, merchandise sales, channel memberships, crowdfunding, and sponsored content echoes the recommendations made in studies by Chopra et al. (2020), Tafesse & Dayan (2023), and Haleem et al. (2022). These studies stress the importance of creators exploring various avenues to enhance income and sustain a digital presence.

The interviewee's emphasis on aligning brand values with authentic storytelling in sponsored content resonates with insights from Kapitan et al. (2021), highlighting the importance of authenticity and compelling storytelling in influencer marketing. Additionally, the respondent's focus on community building through channel memberships and crowdfunding mirrors the findings of research by Joshi et al. (2023) and Gillespie (2020), which emphasize the role of community engagement in creator-fan relationships.

Challenges associated with social media monetization

To explore question two, the use of the following questions identified challenges associated with social media monetization: The questions were designed specifically for groups of people who are experts in the areas related to Software engineering, System analysis, design, and information and communication technology at large. In addition to that, the selected group is also familiar with digital marketing. The questions are stipulated below.

To what extent do you believe privacy concerns impact the effectiveness of social media monetization strategies?

Table 3: Summarizes the results on whether privacy concerns impact the effectiveness of social media monetization strategies.

Table 3: Privacy concerns over the effectiveness of social media monetization strategies

Reply	Frequency	Percentage (%)
Strongly Agree	6	37.5
Agree	4	25
Neutral	4	25
Disagree	0	0
Strongly Disagree	2	12.5
Total	16	100%

Source: *Researcher 2024*

From the data analysis, 37.5% of respondents strongly agree that privacy concerns substantially impact the effectiveness of social media monetization strategies, indicating a prevailing acknowledgment among experts. This aligns with the growing public concern and regulatory scrutiny surrounding user data privacy (Helmond et al., 2019). The strong consensus suggests that addressing privacy issues is crucial for social media monetization's success and ethical integrity. On top of that, a quarter (25%) of the respondents further strengthens the overall consensus on the importance of privacy concerns. This indicates that many experts recognize the potential challenges and implications of privacy issues on the strategies for monetizing social media. The agreement emphasizes the need for industry stakeholders to navigate these concerns strategically and ethically.

On one hand, the neutral stance of a quarter (25%) of the respondents could be interpreted in several ways. It may signify a divergence of opinions within the expert community or a recognition that the impact of privacy concerns is context-dependent. This neutrality highlights the issue's complexity and underscores the necessity for nuanced discussions and tailored solutions considering diverse perspectives.

On the other hand, the absence of respondents disagreeing or strongly disagreeing (12.5%) suggests that, within this expert group, there is little to no contention with the idea that privacy concerns impact social media monetization. This unanimity reinforces the understanding that addressing privacy issues is a shared responsibility among platforms, creators, and regulators to ensure ethical and effective monetization practices.

These results imply an urgent need to address privacy concerns in the context of social media monetization. The diversity of responses, including neutrality, highlights the need for ongoing discussions, research, and industry collaboration to formulate comprehensive and context-aware solutions. Finally, the absence of solid disagreement suggests a broad consensus within the expert community, underscoring the importance of privacy considerations in the digital landscape.

The second question was posed: How much do you agree that frequent algorithmic changes on social media platforms pose challenges to successful monetization efforts?

The survey results, as depicted in Table 4, highlight the varying perspectives on the challenges posed by frequent algorithmic changes in the context of social media monetization. Participants were asked to express their agreement or disagreement with the statement, leading to a distribution of responses across five categories: Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree.

Table 4: The effect of frequent algorithmic changes on social media platforms of social media monetization strategies

Reply	Frequency	Percentage (%)
Strongly Agree	0	0
Agree	6	37.5
Neutral	4	25
Disagree	6	37.5
Strongly Disagree	2	12.5
Total	16	100%

Source: *Researcher 2024*

The results show that participants who agree with the statement (Agree + Strongly Agree 37.5%) likely perceive frequent algorithmic changes as challenging for successful monetization. Several studies support this viewpoint. Helmond et al. (2019) emphasized the impact of algorithmic shifts on user engagement, indicating that sudden changes can disrupt established audience interactions. The findings agree that consistent algorithmic fluctuations may impede content visibility and reach, directly influencing monetization success (Zhang et al., 2022).

On the contrary, an equal percentage of participants (50%) disagree with the statement. This perspective suggests that many respondents do not consider frequent algorithmic changes hindrances to successful monetization. This divergence could be attributed to the adaptability of content creators or the belief that algorithmic changes present opportunities for innovative monetization.

On the other hand, a quarter (25%) of the participants remained neutral, indicating uncertainty or a lack of a definitive stance on the impact of algorithmic changes. This neutral stance might reflect a diverse set of experiences among participants, where the perception of algorithmic changes' impact varies based on individual strategies, platform preferences, or adaptability to industry shifts.

The impact of algorithmic changes on user engagement, as explored by various studies, could influence participants' views (Helmond et al., 2019; Zhang et al., 2022).

To what degree do you think platform dependence is a significant hurdle for individuals and businesses seeking to monetize their digital personas?

Table 5: The effect of platform dependence changes on social media platforms of social media monetization strategies

Reply	Frequency	Percentage (%)
Strongly Agree	0	0
Agree	4	25
Neutral	8	50
Disagree	2	12.5
Strongly Disagree	2	12.5
Total	16	100

Source: *Researcher 2024*

Table 5 presents responses to the question regarding the significance of platform dependence as a hurdle for individuals and businesses seeking to monetize their digital personas. Participants were given five response options: Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree.

A quarter (25%) of the participants agree that platform dependence is a significant hurdle for monetizing their digital personas. This viewpoint may be rooted in the understanding that reliance on specific platforms can introduce vulnerabilities, such as algorithm changes, policies, or user base dynamics, negatively impacting monetization strategies. Studies like Helmond et al. (2019) and Zhang et al. (2022) have highlighted the susceptibility of monetization strategies to changes in platform dynamics.

An equal percentage of participants (25%) disagree with the statement, believing that platform dependence is not a significant obstacle in monetizing digital personas. This perspective may align with studies emphasizing the adaptability of content creators and businesses to navigate challenges associated with platform changes (cf. Literature Review, Evolution of Social Media Monetization).

In Contrast, A substantial portion (50%) of respondents remain neutral, suggesting a lack of a clear consensus on whether platform dependence is a significant hurdle. This neutrality might stem from various factors, including diverse experiences across platforms, different industry niches, or varying degrees of adaptability among participants.

The responses to platform dependence as a hurdle for social media monetization indicate a lack of consensus among participants. The diverse perspectives underscore the complexity of the relationship between individuals, businesses, and the platforms they depend on for digital persona monetization. Further research and a nuanced exploration of factors influencing these perspectives are essential to unravel the dynamics of platform dependence in the evolving landscape of social media monetization.

Future trends are anticipated in social media monetization

To explore question three, a set of interview queries was crafted for digital marketers specializing in information technology. These questions were tailored to capture insights into the anticipated future landscape of income generation through social media platforms

Question: What role do you see emerging technologies, such as augmented reality (AR) and virtual reality (VR), playing in the future of social media monetization?

Respondent: "Emerging technologies like AR and VR are poised to revolutionize social media monetization. Brands will leverage immersive experiences, allowing users to interact with products innovatively, enhancing engagement and ultimately driving sales."

Question: How do you anticipate the rise of niche communities influencing social media monetization strategies?

Respondent: "Niche communities are becoming pivotal in social media monetization. These platforms offer targeted audiences, enabling influencers and businesses to connect with highly engaged users. We foresee brands shifting towards micro-influencers with dedicated followings for more effective and authentic marketing."

Question: In what ways do you expect user-generated content (UGC) platforms to evolve in terms of monetization?

Respondent: "User-generated content platforms will continue flourishing, and monetization strategies will evolve to reward users for quality content. Brands will encourage authentic content creation, fostering community and trust. This creates opportunities for users to be compensated for their contributions."

Question: How might blockchain technology and cryptocurrency integration impact social media monetization in the future?

Respondent: "Blockchain and cryptocurrencies are poised to revolutionize social media monetization. Smart contracts can streamline payment processes, ensuring fair compensation for content creators. Cryptocurrencies may become a standard form of transaction within these platforms bypassing banks' transactions, providing a decentralized and transparent approach to monetization."

Question: Can you discuss the potential for interactive and shoppable content on social media platforms in terms of monetization strategies?

Respondent: "Interactive and shoppable content is expected to play a significant role in the future of social media monetization. Users can seamlessly shop products featured in posts or engage in interactive experiences, providing new avenues for e-commerce and revenue generation."

Question: How do you foresee subscription-based models shaping the future of social media monetization?

Respondent: "Subscription-based models are gaining prominence in social media monetization. Creators can offer exclusive content or perks to paying subscribers, providing a reliable income stream. Users, in turn, enjoy premium content tailored to their interests, creating a win-win scenario."

Question: How will artificial intelligence (AI) and machine learning impact the personalization of social media monetization strategies?

Respondent: "AI-driven personalization will be integral to social media monetization. Machine learning algorithms will analyze user behavior and preferences, enabling targeted advertising and personalized content recommendations. Drawing interesting pictures and creating fabulous images, animations, and, in some cases, videos are expected to be fundamental to marketing approaches. This enhances the overall user experience and maximizes monetization potential."

The interview results align with findings from related studies. The anticipated impact of emerging technologies, niche communities, user-generated content, blockchain integration, interactive/shoppable content, and subscription-based models resonates with research by Lamberton & Stephen (2016), Haenlein (2020), and Guidi and Michienzi (2021). The emphasis on AI and machine learning aligns with insights from studies by Haleem et al. (2022). These convergences suggest a shared understanding and anticipation within the industry, reinforcing the validity of the findings.

The respondents collectively envision a transformative future for social media monetization. Emerging technologies like AR and VR are anticipated to revolutionize engagement and sales. Niche communities are seen as pivotal, with a shift toward micro-influencers for authentic marketing. User-generated content platforms are expected to reward quality contributions, fostering community trust. Blockchain and cryptocurrencies may offer decentralized and transparent monetization. Interactive content and subscription models are poised to create innovative revenue streams, while AI-driven personalization enhances user experience and maximizes monetization potential.

Conclusion:

In concluding the study on social media monetization, several vital insights emerge. The influencer landscape, dominated by figures like MrBeast, emphasizes the pivotal role of top creators in successful brand partnerships. Niche influencers like Veritasium underscore the value of authentic connections and targeted audience engagement. Diversifying strategies, including content, partnerships, and revenue streams, is essential for sustained success. Challenges like privacy concerns and algorithmic changes

demand careful attention. The anticipated trends highlighted by digital marketing experts indicate a transformative shift with emerging technologies, niche communities, and advanced personalization playing central roles. Overall, the study underscores the dynamic nature of social media monetization, requiring adaptability and strategic foresight.

Acknowledgments

We extend our heartfelt gratitude to Dr. Francis Muya for his exceptional contributions and guidance, which were instrumental in completing this journal paper. His expertise and support significantly enriched the quality of our research, and we are truly grateful for his invaluable assistance throughout the process.

Code and Data Availability

The authors aim to enhance research reproducibility by providing materials in the Materials and Methods section. Data and code are available at <https://www.exonia.com/blog/15-most-viewed-sponsored-youtube-videos-in-2022>, reference number [reference number]. Alternatively, upon request, materials can be provided by the corresponding author to interested researchers, fostering collaboration and transparency.

Author contribution

LK: Contributed comprehensively to the entire manuscript, crafting the content from the initial data analysis to the interpretation of results and subsequent reporting. The author was solely responsible for developing, organizing, and articulating each section, ensuring a coherent and insightful presentation of the research findings throughout the document.

RM: Contributed to the interpretation of results and subsequent reporting.

RS: Contributed to the development of the methodologies and data collection.

Competing Interests:

The authors declare that they have no competing interests that could influence the objectivity, integrity, or validity of the research presented in this manuscript.

REFERENCES

- Aichner, T., Grünfelder, M., Maurer, O., & Jegeni, D. (2021). Twenty-Five Years of Social Media: A Review of Social Media Applications and Definitions from 1994 to 2019. *Cyberpsychology, Behavior, and Social Networking*, 24(4), 215–222. <https://doi.org/10.1089/cyber.2020.0134>
- Arfini, S., Parandera, L. B., Gazzaniga, C., Maggioni, N., & Tacchino, A. (2020). Online identity Crisis Identity issues in online communities. *Minds and Machines*, 31(1), 193–212. <https://doi.org/10.1007/s11023-020-09542-7>
- Chopra, A., Avhad, V., & Jaju, A. S. (2020). Influencer Marketing: An Exploratory Study to identify Antecedents of consumer behavior of millennials. *Business Perspectives and Research*, 9(1), 77–91. <https://doi.org/10.1177/2278533720923486>
- Dwivedi, Y. K., Ismagilova, E., Hughes, D. L., Carlson, J., Filieri, R., Jacobson, J., Jain, V., Karjaluoto, H., Kéfi, H., Krishen, A. S., Kumar, V., Rahman, M. M., Raman, R., Rauschnabel, P. A., Rowley, J., Salo, J., Tran, G. A., & Wang, Y. (2021b). Setting the future of digital and social media marketing research: Perspectives and research propositions. *International Journal of Information Management*, p. 59, 102168. <https://doi.org/10.1016/j.ijinfomgt.2020.102168>
- Etter, M., & Albu, O. B. (2020). Activists in the dark: Social media algorithms and collective action

- In two social movement organizations. *Organization*, 28(1), 68–91. <https://doi.org/10.1177/1350508420961532>
- Evans, N., Phua, J., Lim, J. I., & Jun, H. (2017). Disclosing Instagram Influencer Advertising: The Effects of disclosure language on advertising recognition, attitudes, and behavioral intent. *Journal of Interactive Advertising*, 17(2), 138–149. <https://doi.org/10.1080/15252019.2017.1366885>
- Gillespie, T. (2020). Content moderation, AI, and the question of scale. *Big Data & Society*, 7(2), 205395172094323. <https://doi.org/10.1177/2053951720943234>
- Guidi, B., & Michienzi, A. (2023). From NFT 1.0 to NFT 2.0: A review of the Evolution of Non-Fungible Tokens. *Future Internet*, 15(6), 189. <https://doi.org/10.3390/fi15060189>
- Guidi and A. Michienzi A. (2021). “The decentralization of social media through the blockchain technology,” in 13th ACM Web Science Conference 2021, Jun. 2021, pp. 138–139. doi: 10.1145/3462741.3466680.
- Roberts, S. T., Sinnreich, A., & West, S. M. (2020). Expanding the debate about content Moderation: *Scholarly research agendas for the coming policy debates. Internet Policy Review*, 9(4). <https://doi.org/10.14763/2020.4.1512>
- Haenlein, M., Anadol, E., Farnsworth, T., Hugo, H., Hunichen, J., & Welte, D. (2020). Navigating The New Era of Influencer Marketing: How to be Successful on Instagram, TikTok, & Co. *California Management Review*, 63(1), 5–25. <https://doi.org/10.1177/0008125620958166>
- Haleem, A., Javaid, M., Qadri, M. A., Singh, R. P., & Suman, R. (2022). Artificial intelligence (AI) Marketing applications: A literature-based study. *International Journal of Intelligent Networks*, 3, 119–132. <https://doi.org/10.1016/j.ijin.2022.08.005>
- Harms, B., Bijmolt, T. H. A., & Hoekstra, J. (2017). Digital Native Advertising: Practitioner Perspectives and a Research Agenda. *Journal of Interactive Advertising*, 17(2), 80–91. <https://doi.org/10.1080/15252019.2017.1357513>
- Helmond, A., Nieborg, D. B., & Van Der Vlist, F. (2019). Facebook’s evolution: development of a platform-as-infrastructure. *Internet Histories*, 3(2), 123–146. <https://doi.org/10.1080/24701475.2019.1593667>
- Hokke, S., Hackworth, N., Bennetts, S. K., Nicholson, J. M., Keyzer, P., Lucke, J., Zion, L., & Crawford, S. (2019). Ethical considerations in using social media to engage research participants: Perspectives of Australian researchers and ethics committee members. *Journal of Empirical Research on Human Research Ethics*, 15(1–2), pp. 12–27. <https://doi.org/10.1177/1556264619854629>
- Houssard, A., Pilati, F., Tartari, M., Sacco, P. L., & Gallotti, R. (2023). Monetization is online Streaming platforms: an exploration of inequalities in Twitch. *Tv. Scientific Reports*, 13(1). <https://doi.org/10.1038/s41598-022-26727-5>
- Jarman, H. K., Marques, M. D., McLean, S. A., Slater, A., & Paxton, S. J. (2021). Motivations for Social Media Use: Associations with Social Media Engagement and Body Satisfaction and Well-Being among Adolescents. *Journal of Youth and Adolescence*, 50(12), 2279–2293. <https://doi.org/10.1007/s10964-020-01390-z>
- Joshi, Y., Lim, W. M., Jagani, K., & Kumar, S. (2023). Social media influencer marketing: Foundations, trends, and ways forward. *Electronic Commerce Research*. <https://doi.org/10.1007/s10660-023-09719-z>
- Kapitan, S., Van Esch, P., Soma, V., & Kietzmann, J. (2021). Influencer marketing and authenticity In content creation. *Australasian Marketing Journal*, 30(4), 342–351. <https://doi.org/10.1177/18393349211011171>
- Kietzmann, J., Hermkens, K., McCarthy, I. P., & Silvestre, B. S. (2011). Social media? Get serious! Understanding the functional building blocks of social media. *Business Horizons*, 54(3), 241–251. <https://doi.org/10.1016/j.bushor.2011.01.005>
- Kraus, S., Jones, P., Kailer, N., Weinmann, A., Chaparro-Banegas, N., & Roig-Tierno, N. (2021). *Digital Transformation: An overview of the current state of the art of research. SAGE Open*, 11(3), 215824402110475. <https://doi.org/10.1177/21582440211047576>

- Lamberton, C., & Stephen, A. T. (2016). A Thematic Exploration of Digital, Social Media, and Mobile Marketing: Research Evolution from 2000 to 2015 and an Agenda for Future Inquiry. *Journal of Marketing*, 80(6), 146–172. <https://doi.org/10.1509/jm.15.0415>
- Rancati, E., Gordini, N., & Căpățină, A. (2016). Conceptualizing and measuring content marketing In luxury firms. *Advances in marketing, customer relationship management, and e-services book series* (pp. 109–132). <https://doi.org/10.4018/978-1-4666-9958-8.ch006>
- Reisach, U. (2021). The responsibility of social media in times of societal and political manipulation. *European Journal of Operational Research*, 291(3), 906–917. <https://doi.org/10.1016/j.ejor.2020.09.020>
- Rosário, A. T., & Dias, J. C. (2023). How has data-driven marketing evolved: Challenges and Opportunities with emerging technologies. *International Journal of Information Management Data Insights*, 3(2), 100203. <https://doi.org/10.1016/j.ijime.2023.100203>
- Rosengren, S., & Campbell, C. (2021). Navigating the future of influencer advertising: Consolidating what is known and identifying new research directions. *Journal of Advertising*, 50(5), 505–509. <https://doi.org/10.1080/00913367.2021.1984346>
- Schauster, E., Ferrucci, P., & Neill, M. S. (2016). Native advertising is the new journalism. *American Behavioral Scientist*, 60(12), 1408–1424. <https://doi.org/10.1177/0002764216660135>
- Shahbaznezhad, H., Dolan, R., & Rashidirad, M. (2021). The role of social media content format And platform in users' engagement behavior. *Journal of Interactive Marketing*, 53, 47–65. <https://doi.org/10.1016/j.intmar.2020.05.001>
- Tafesse, W., & Dayan, M. (2023). Content creators' participation in the creator economy: Examining the effect of creators' content sharing frequency on user engagement behavior on digital platforms. *Journal of Retailing and Consumer Services*, 73, 103357. <https://doi.org/10.1016/j.jretconser.2023.103357>
- Ye, G., Hudders, L., De Jans, S., & De Veirman, M. (2021). The Value of Influencer Marketing for Business: A bibliometric analysis and managerial implications. *Journal of Advertising*, 50(2), 160–178. <https://doi.org/10.1080/00913367.2020.1857888>
- Yoon, H. J., Huang, Y., & Kim, T. (2022). The role of relevancy in native advertising on social Media. *International Journal of Advertising*, 42(6), 972–999. <https://doi.org/10.1080/02650487.2022.2135345>
- Zhang, Y., Lee, J. K., Han, J., & Tsai, R. (2022). Task reformulation and data-centric approach for Twitter medication name extraction. *Database*, 2022. <https://doi.org/10.1093/database/baac067>