
INSTAGRAM CLONE APP: CONNECTING PEOPLES

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ABSTRACT

Social media plays a significant role not only in mass communication but also in delivering a variety of services to users. Among the numerous platforms available, Instagram stands out as a leading visual-based social networking site, offering users the ability to capture and share photos and videos, while also integrating seamlessly with other platforms through its well-defined user targeting. Numerous scholars have examined Instagram's evolution from diverse academic angles. This paper presents a comprehensive literature review centered on the methodologies employed in Instagram-related research. The findings reveal that data collection is commonly carried out through the use of Instagram's API, structured surveys, and in-person interviews. For data analysis, researchers employ a mix of quantitative techniques such as statistical modeling and regression analysis, as well as qualitative approaches including textual and contextual analysis.

Keywords: Social Media, Instagram, Literature Review, Research Methodologies.

I. INTRODUCTION

With the swift advancement of mobile internet technologies worldwide, social media has become increasingly influential in everyday life. Over the years, its role in society has diversified significantly. Today, social media serves not only as a means of mass communication but also as a multifunctional tool offering a wide range of services. Among the most rapidly expanding platforms, Instagram stands out as a prominent example of modern social media (Sheldon & Bryant, 2016). It provides users with the ability to capture and share photos and videos, while also supporting cross-platform sharing. In recent years, numerous scholars have tracked Instagram's growth and produced various studies exploring its development. This paper aims to critically examine existing research on Instagram, with particular attention to the methodologies applied in data collection and analysis to gain a broader understanding of the platform from multiple perspectives.

To provide a comprehensive literature review, this paper is organized into four main sections. The first section outlines the evolution of social media, serving as the contextual foundation for the study. The second section introduces Instagram, along with a discussion of the study's methodology, significance, and the approaches used in analyzing existing literature. The third section focuses on categorizing and examining the various research methods employed by scholars in studying Instagram. Finally, the fourth section offers a summary and concluding remarks based on the findings of the review.

II. METHODOLOGY

Boyd and Ellison (2007), among the first scholars to explore social media, described social networks as web-based platforms that allow individuals to create personal profiles within a connected system. These platforms enable users to view and interact with the profiles of others within their network. Their research marked a significant milestone in the digital and mobile transformation of human communication.

Social media, in a broad sense, is characterized by several distinctive features. One key aspect is its integration of both user-generated content and interpersonal connections (Boyd & Ellison, 2007). These platforms allow individuals to share personal thoughts and emotions, encouraging deeper social engagement through interactive communication. Additionally, social relationships are developed and sustained through the continual exchange of user-generated content. Social media also facilitates the creation, distribution, and discussion of information, allowing users to filter and evaluate content collectively. Furthermore, social media relies heavily on technological infrastructure (Shirky, 2011). On one side, advancements in technology enhance

the speed and reliability of information sharing; on the other, they support the security and privacy of user data.

Over recent decades, advancements in information technology have significantly expanded the accessibility and usage of various online applications. In this evolving digital landscape, social media has experienced continuous growth and transformation, reshaping how information is shared and consumed. This evolution has contributed to the emergence of a new digital ecosystem that is deeply embedded in everyday social interactions and behavioral patterns. At the same time, the rapid expansion of social media underscores its immense economic potential.

According to a report by We Are Social and Hootsuite, global internet users surpassed 4 billion in 2019, with social media usage rising swiftly. By the end of 2018, approximately 3.48 billion people were engaging with social platforms worldwide. The rise of mobile technology has further accelerated this trend, ushering in the era of mobile social networking. The report also noted that around 5.11 billion individuals accessed the internet via smartphones, with 3.25 billion of them actively using social media through their mobile devices (We Are Social & Hootsuite, 2019). Due to this vast market potential, leading global tech companies have made strategic efforts to expand their user bases and enhance their platforms, fueling further growth in the social media industry. Today, platforms like Facebook, Twitter, Instagram, Weibo, and Myspace play a central role in people's daily routines and leisure activities.

Academic/Neutral Tone:

- Defining Social Media and Its Core Characteristics
- The Evolution and Features of Social Media
- Foundational Perspectives on Social Media

Slightly More Analytical:

- Social Media: A Technological and Social Phenomenon
- Understanding Social Media Through Early Scholarship
- Key Elements and Functions of Social Media Platforms

Research Methods Adopted to Instagram Studies:

Quantitative analysis has long been a conventional approach in academic research. However, the vast volume and complexity of data generated by social media platforms have prompted the need for innovative methodological strategies that are better suited to studying digital interactions in today's environment (Luke & Haase, 2017). This section presents a literature review focusing on the various research methods scholars have employed to explore Instagram from multiple analytical viewpoints. This study adopts a qualitative research approach to examine the development, features, and social impact of Instagram as a photo-sharing platform. The research is based on secondary data collected from academic journals, industry reports, and credible online sources. Key studies, such as Jin et al. (2015), provide foundational insights into Instagram's role in shaping visual communication and online social networking.

To analyze user engagement and the app's growth trajectory, historical data was reviewed, including user statistics from its launch in October 2010 to its rapid rise in popularity. The research also includes a comparative analysis of Instagram's features—such as photo editing tools, sharing capabilities, and community-building elements—relative to other social media platforms.

The data collection process involved:

- Reviewing peer-reviewed articles and case studies on Instagram's impact on digital culture.
- Analyzing usage data and reports from platforms like Statista and SimilarWeb.
- Evaluating app store reviews and user feedback to understand user satisfaction and functionality.
- By synthesizing this information, the study aims to provide a comprehensive understanding of Instagram's role in the evolution of visual-based social networking.

III. MODELING AND ANALYSIS

Model With Instagram's growing popularity, an increasing number of scholarly publications have focused on the platform in recent years. These studies span across various academic fields. A preliminary search conducted

on the Web of Science database, using "Instagram" as a keyword in titles, abstracts, and keywords, and covering the period from 2010 to 2019, revealed a total of 1,226 relevant publications. Among these, the fields of Computer Science, Communication, and Business emerged as the three dominant areas of research interest (see Figures 1 and 2).

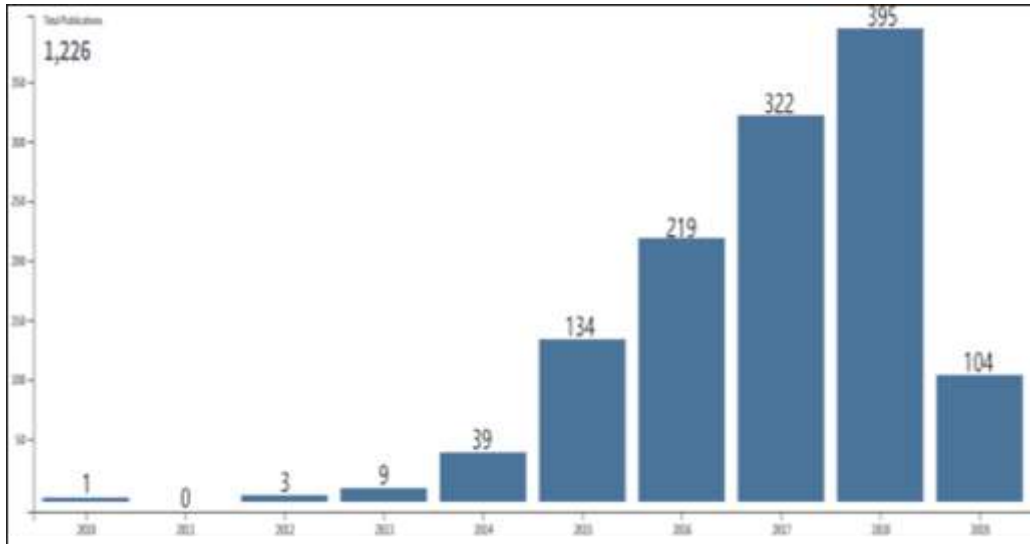


Figure 1: Numbers of publications in "Instagram" research on WoS (2010-2019)

Field: Web of Science Categories	Record Count	% of 1,226
COMPUTER SCIENCE INFORMATION SYSTEMS	202	16.476 %
COMPUTER SCIENCE THEORY METHODS	158	12.887 %
COMMUNICATION	156	12.724 %
ENGINEERING ELECTRICAL ELECTRONIC	132	10.767 %
COMPUTER SCIENCE ARTIFICIAL INTELLIGENCE	98	7.993 %
BUSINESS	79	6.444 %
COMPUTER SCIENCE INTERDISCIPLINARY APPLICATIONS	74	6.036 %
SOCIAL SCIENCES INTERDISCIPLINARY	67	5.465 %
EDUCATION EDUCATIONAL RESEARCH	62	5.057 %
PSYCHOLOGY MULTIDISCIPLINARY	59	4.812 %

Figure 2: Proportion of "Instagram" research in different fields on WoS (2010-2019)

IV. RESULTS AND DISCUSSION

With the advancement of internet technologies, social media has experienced rapid growth, leading to the emergence of complex online social ecosystems. It is anticipated that in the near future, social media will not only transform how individuals communicate but also influence broader aspects of daily life. Instagram, as a modern mobile-based social networking platform, has successfully attracted a large and dedicated user base due to its clear target audience, comprehensive features, and user-friendly interface. This paper presents a literature review on Instagram, with a particular emphasis on the research methods employed by scholars to gather and analyze data related to the platform. Based on the analysis, it is evident that researchers commonly obtain data through various methods, including API data extraction, online and offline surveys, and face-to-face interviews. In recent years, social listening tools and web scraping techniques have also become increasingly popular for gathering real-time and large-scale user-generated content from Instagram. Once the data is collected, both quantitative methods—such as statistical modeling, regression analysis, network analysis, and sentiment analysis—and qualitative methods—such as content analysis, discourse analysis, and ethnographic observation—are employed to examine the behaviors, trends, and patterns associated with Instagram use.

Some studies focus on user engagement metrics, hashtag performance, and influencer impact, while others explore psychological aspects such as self-presentation, identity formation, and social comparison. Additionally, advanced tools like facial recognition, machine learning algorithms, and visual analytics are being leveraged to analyze visual content and user demographics. Case studies and cross-platform comparisons further enrich the analysis by contextualizing Instagram within broader social media ecosystems.

Through the integration of these diverse data sources and analytical techniques, researchers are able to construct a multidimensional portrayal of Instagram—capturing not only its technological structure and functional capabilities but also its cultural, social, and psychological impact on users.

Table 1: Comparison of displacement of Research Methods Used In Instagram

Comparison of Research Methods Used in Instagram Studies			
Category	Method/Tool	Purpose	Example Use
Data Collection	API Crawling	Collect real-time- / public data	Extract posts, hashtags, user activity
	Surveys & Questionnaires	Understand user behavior/preferences	Get detailed, personal insights
	Face-to-Face Interviews	Get detailed, personal insights	Explore identity or self-presentation
Quantitative Analysis	Regression Analysis	Examine correlations/trends	Study effects of filter use on engagement
	Data Modeling	Predict behavior	Forecast post performance
	Network Analysis	Explores social conn.	Map of influencer-follower networks
	Sentiment Analysis	Assess-emotional tone of posts/comments	Track audience reaction to campaigns
Qualitative Analysis	Textual Analysis	Detect faces/emotions	Demographic profiling, emotion detection
	Contextual/Content Analysis	Study meaning within visual/textual context	Classify post types
Advanced Techniques	Facial Recognition	Automate image or	Demographic profiling, emotion detection
	Machine Learning	In-depth study of spe-	Unefandem, brands, or subcultures
	Case Studies	Contrast across plat-forms, cultures, or g	Compare Instagram with TikTok/Facebook

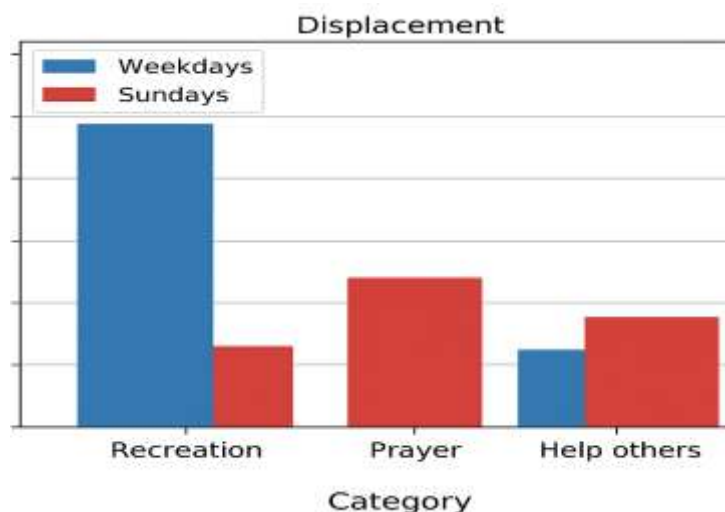


Figure 3: Displacement

V. CONCLUSION

In summary, the rapid evolution of internet technologies has significantly contributed to the expansion of social media platforms, leading to the creation of complex and dynamic digital social ecosystems. Instagram, as a prominent example of a mobile-based visual social network, has gained substantial user engagement through

its well-defined target audience, streamlined interface, and multifunctional features. This review highlights the diverse range of research methods applied to studying Instagram, including API data extraction, surveys, and interviews for data collection, followed by both quantitative and qualitative techniques for analysis.

Researchers have employed statistical tools, modeling, content analysis, and contextual interpretation to explore the platform's various dimensions. Additionally, the use of advanced technologies such as facial recognition, case studies, and comparative methods has enabled deeper insights into user behavior and platform influence. These multifaceted approaches collectively offer a richer and more holistic understanding of Instagram's role in shaping digital interaction and communication trends.

VI. REFERENCES

- [1] Constine (2018) reported that Instagram reached one billion active monthly users as of June 2018, marking a significant increase from 800 million users recorded in September of the previous year. This milestone was highlighted in a TechCrunch article available at:
<https://techcrunch.com/2018/06/20/instagram-1-billion-users/>
- [2] De Veirman, Cauberghe, and Hudders (2017) examined how marketing efforts on Instagram are influenced by the number of followers an influencer has and how the alignment between the influencer's content and the product affects audience perception. Their study, published in the International Journal of Advertising, found that both follower count and product fit can significantly impact consumers' attitudes toward a brand.
- [3] Djafarova and Rushworth (2017) investigated how the perceived credibility of online celebrities on Instagram affects the purchasing decisions of young female users. Their findings, published in Computers in Human Behavior, suggest that trustworthiness and authenticity in influencer profiles play a key role in shaping consumer behavior. The article is available at:
<https://www.sciencedirect.com/science/article/abs/pii/S0747563216307506> Gyusoo Kim and Seulgi Lee, "2014 Payment Research", Bank of Korea, Vol. 2015, No. 1, Jan. 2015.
- [4] Ferrara, Interdonato, and Tagarelli (2014) analyzed user popularity and topic interests on Instagram by examining patterns of content engagement and user behavior. Presented at the 25th ACM Conference on Hypertext and Social Media, their study provides insights into how thematic interests influence online visibility and user interaction on the platform (pp. 24–34).
- [5] Hu, Manikonda, and Kambhampati (2014) conducted one of the earliest studies analyzing the types of photos shared on Instagram and categorizing users based on their posting behavior. This research was presented at the Eighth International AAAI Conference on Weblogs and Social Media and offers foundational insights into content trends and user segmentation on the platform.
- [6] Jacobs, Prabhu, Monaco III, Tonetti, and Agarwal (2018) explored how patients perceive gamma knife stereotactic radiosurgery by analyzing discussions and posts on platforms like Twitter and Instagram. Their findings, published in Interdisciplinary Neurosurgery, highlight how social media can reflect public opinion on medical procedures. The article is accessible at:
<https://www.sciencedirect.com/science/article/pii/S2214751918300781>