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SOCIAL MEDIA AND NEWS VIRALITY: A STUDY OF INFORMATION DISSEMINATION PATTERN

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ABSTRACT

The main aim of the study was to examine the complex dynamics of information virality in the digital age, focusing on social media's role in news dissemination. The rise of user-generated content and online news consumption has reshaped communication, with platforms like Facebook, Twitter, and Instagram becoming primary sources for real-time updates. Virality, driven by emotional appeal, timing, user engagement, network structure, source credibility, and visual content, plays a pivotal role in shaping public discourse. The study examined the Diffusion of Innovations Theory and the Uses and Gratifications Theory to provide valuable frameworks for understanding the spread of news on social media. The study noted that news consumption is influenced by factors like self-disclosure and social media fatigue, adds a layer of complexity. However, the study recommended some insights including the increased transparency in platform algorithms and educational campaigns to empower users in engaging with content more discerningly. This study offers insights for navigating the evolving landscape of online content dissemination in the digital era.

Introduction

In the era of digital connectivity, social media platforms have become the epicenter of information dissemination, shaping public opinion and influencing societal narratives. This study investigates the dynamics of information virality within the realm of social media and

news dissemination patterns. Understanding how information spreads is vital in deciphering the impact of social media on public discourse, political landscapes, and cultural trends. With the rise of user-generated content and the acceleration of news consumption through various online channels, the mechanisms governing virality have become increasingly complex. This research seeks to unravel the underlying factors that contribute to the rapid dissemination of information and its subsequent amplification across social networks. By examining the interplay between user behaviors, platform algorithms, and content characteristics, we aim to provide insights into the mechanisms driving the viral spread of news and information in the digital age. From the contagious nature of trending hashtags to the role of influencers in amplifying narratives, this study aims to shed light on the patterns and trends that shape the information dissemination. By exploring case studies, analyzing user engagement metrics, and considering the socio-cultural context, we aspire to contribute to a nuanced understanding of how ideas proliferate in the interconnected web of social media and news platforms. Ultimately, this research endeavors to inform discussions on media literacy, online influence, and the societal implications of information virality in our interconnected world.

The advent of social media marked a paradigm shift in communication. Initially designed as platforms for personal connection and sharing, social media evolved into powerful tools for information dissemination. The early 2000s saw the emergence of platforms like Friendster and MySpace, paving the way for the giants we know today (Castells, 2019). With the introduction of LinkedIn in 2003, Facebook in 2004 and Twitter in 2006 and Instagram in 2010, social media platforms gained prominence as hubs for real-time updates and conversations since their inception (Tufekci, 2017). Initially designed for interpersonal communication, these platforms have transformed into powerful tools for the exchange of information, opinions, and news. According to Kaplan and Haenlein, (2020), the proliferation of smartphones further accelerated the growth of social media, enabling users to access and share information on the go. Today, these platforms serve as primary sources of news for a significant portion of the global population. The ease with which individuals can share information has democratized the dissemination process, challenging traditional media hierarchies.

However, the importance of social media in information dissemination cannot be overstated. Traditional media channels, while still relevant, now coexist with social media, creating a dynamic landscape for the spread of news and information. Social media platforms serve as real-time conduits for breaking news, enabling users to access and share information almost instantaneously according to Castells (2015). This immediacy has reshaped the way we consume news, with events unfolding on our screens in real-time, often before traditional media outlets can report them. Moreover, social media facilitates the democratization of information, allowing individuals to become content creators and news disseminators (Boyd & Ellison, 2017). Furthermore, Castells (2015) noted that social media's impact on shaping public opinion and influencing political discourse is evident in various events, such as the Arab Spring and the Black Lives Matter movement. News goes viral on social media, reaching millions within minutes. This rapid dissemination is not only a testament to the platforms' reach but also highlights their role in shaping public narratives.

As a result, understanding the patterns of information dissemination on social media is crucial in today's interconnected world. The study of virality, or how certain content gains rapid and widespread attention, provides insights into the factors influencing public discourse. As we navigate this digital age, where information is disseminated at an unprecedented pace, it is imperative to comprehend the dynamics of social media and its impact on shaping public opinion. This study seeks to unravel the underlying mechanisms

that drive the virality of content, shedding light on the evolving landscape of information dissemination in the digital era.

Overview of News Dissemination

News dissemination spans for centuries, reflecting the evolution of communication channels and technologies. In ancient civilizations, news was transmitted orally, relying on messengers and town criers. The advent of printing in the 15th century revolutionized news dissemination with the mass production of newspapers, such as Johann Gutenberg's printing press in 1440 (McLuhan, 2016). The 19th century witnessed the rise of telegraphy, enabling faster transmission of news across long distances. The Associated Press, founded in 1846, played a pivotal role in standardizing news reporting and distribution. The 20th century marked the dominance of radio and television, transforming news into a visual and auditory experience. The emergence of cable news networks like CNN in the 1980s further accelerated the speed of news delivery (Starr, 2014). With the internet's proliferation in the late 20th century, news dissemination underwent a seismic shift. Online news platforms, blogs, and social media became powerful tools for instantaneous global communication. The 21st century witnesses challenges like misinformation and fake news, necessitating critical media literacy according to Thompson (2015).

Evolution of News Consumption with the Advent of Social Media

The evolution of news consumption has undergone a profound transformation with the advent of social media. Traditional news sources, such as newspapers and television, have been supplemented and, in some cases, overshadowed by the immediacy and accessibility of social media platforms (Pew Research Center, 2021). This shift has fundamentally altered the way people access, share, and engage with news content. According to Tandoc and Duffy, (2015), social media platforms like Facebook, Twitter, and Instagram have become primary channels for news dissemination, enabling users to access real-time updates from a diverse range of sources. The democratization of information through user-generated content has empowered individuals to participate in news production, fostering a more decentralized and interactive news ecosystem. However, this evolution is not without challenges. The rise of misinformation and fake news on social media has raised concerns about the reliability of information. Algorithms that curate content based on user preferences can create echo chambers, reinforcing existing beliefs and limiting exposure to diverse perspectives (Vosoughi, Roy & Aral, 2018). Despite these challenges, social media has democratized the news landscape, providing a platform for citizen journalism, activism, and global conversations. The impact of social media on news consumption is a complex interplay of opportunities and challenges, shaping the way information is created, shared, and perceived in the digital age.

Social Media

Social media changes frequently. Scott and Jacka (2011) stated that "social media does not have a universally agreed-upon definition." Some researchers characterise it using personal experience, social media exposure, and use. Interactive social media platforms use mobile and online technology (Kavoura & Sylaiou, 2019; Bernard & Dzandza, 2018). This platform helps organisations, groups, and individuals create, share, interact, discuss, and update material in a limited public, private, or semi-public context. It also facilitates communication (Shahbaznezhad, Dolan, & Rashidirad, 2021; Wolf, Sims & Yang, 2018). Public users may utilise social media (Kavoura & Sylaiou, 2019). Companies and individuals may create profiles and interact (Bernard & Dzandza, 2018). Users may read and comment on friend and public posts. They may communicate privately or openly (Agbawe, 2018). Social media

allows organisations, businesses, academics, and libraries to collaborate (Alalwan et al., 2017). Text, graphic, and video material are shared fast and easily (Agbawe, 2018). Terms and links vary per website (Newman, Peck, & Wilhide, 2019).

Baruah (2012) describes social media as online venues for sharing information, ideas, messages, films, and other resources. Social media encompasses blogging and SNS. Individuals, businesses, and institutions may exchange information and services via social media (Ahmed et al., 2019). This creates excellent employment and business partnerships. Digital channels include social media (Bernard & Dzandza, 2018). This platform lets people connect, build connections, and share knowledge (Abbas et al., 2019; Wang, 2011). Communication via social media is popular (Kumar & Nanda, 2019). Social media may help students access information and resources. This may help students, allow users to discuss similar interests, and develop online and virtual communication skills (Bernard & Dzandza, 2018). Social media allows acquiring new skills, exhibiting abilities abroad, and keeping up with local and global happenings (Mingle et al., 2016). Social media users may market themselves, show their affiliations, and follow others (Bernard & Dzandza, 2018).

Types of Social Media

There are numerous social media networks readily available. Social media platforms include Facebook, Twitter, LinkedIn, Instagram (Ogaji et al., 2017), YouTube, Pinterest, Flickr, Snap Chat, blogs, Yahoo, Line, Tango, Skype, WeChat, BBM, Imo, and Viber. Eid and Al-Jabri (2016). Facebook dominates social media and the internet. Harvard undergraduate Mark Zuckerberg founded the platform in 2004. Multiple research, like Ogaji et al. (2017), have revealed that many people utilise Facebook. Studies show that users have 150–200 contacts on Facebook and that 90–94% of university students use it. They usually spend 10–30 minutes on the site. As of February 2021, Facebook has over 2.7 billion monthly users (Facebook.com; Mohsin, 2021). These data suggest that two-thirds of the 4.2 billion social media users worldwide choose Facebook.

YouTube is a search engine and social network (Youtube, 2021; Wagner, 2020). Schwemmer and Ziewiecki (2018) and Mohsin (2021) said the platform is a popular social media platform and second-most-used search engine. According to Mohsin (2021), YouTube is the most accessible site due to its queueing, SEO-friendly keywords, descriptions, and titles. Active users total 2.29 billion (Mohsin, 2021). Over 720,000 hours of videos are uploaded to YouTube everyday (Mohsin, 2021), and over one billion are viewed.

WhatsApp is now the third most popular social media platform with one billion users (Mingle & Adams, 2015). WhatsApp is adaptable and allows phone calls (Hanefeld, Vearey, and Walls, Manji et al., 2021). Many studies (Ogaji et al., 2017) show that WhatsApp is the most popular social networking app.

MySpace is a user-generated network that lets users establish groups, music, videos, contacts, blogs, and personal profiles, according to Boyed et al. (2007). After six years of growth (2003–2009), it became the top social networking site. Adhi, Saskiah, and Widodo (2019) classify Twitter and other social media platforms as microblogging services. The brief messages make it the quickest social media communication strategy. Twitter, however, is short-lived (Dei, Anane-Donkor, & Okyere, 2022).

LinkedIn's focus on professional networking sets it distinct from Facebook and WhatsApp (Badoer, Hollings, & Chester, 2021). LinkedIn users connect with trusted and known professionals (Trust, Carpenter, & Krutka, 2017). LinkedIn lets users create and share

content, conversations, and ideas in virtual communities (Mingle & Adams, 2015). It also lets users connect with others who share their goals (Sharma & Shukla, 2016).

The use of social media allows consumers communicate and share information (Tandoc, Ferrucci, & Duffy, 2015). They help college students communicate and share knowledge. These capabilities include sharing videos, links, and photos and altering status updates. Online connections with classmates, families, friends, and acquaintances are also made easier by these platforms. They often mention classmates, family, friends, and acquaintances (Smock, Ellison, Lampe, & Wohn, 2011).

Information Dissemination Patterns in Social Media

The patterns of information flow on social media are dynamic, influenced by user behavior, algorithms, and the nature of the content itself. One prominent pattern is the viral spread of information. Virality is driven by the shareability and relatability of content. When users find a post engaging or resonant, they are more likely to share it, amplifying its reach exponentially. This phenomenon has been extensively studied, with research suggesting that emotional appeal, novelty, and practical utility are key factors in determining a post's virality (Berger & Milkman, 2012). However, the dynamic nature of social media platforms has led to the emergence of diverse dissemination patterns that influence how information is spread and consumed including:

Virality and Trending Content: One prominent pattern in information dissemination on social media is the concept of virality. Viral content spreads rapidly through networks, reaching a large audience in a short time. Factors contributing to virality include emotional appeal, relatability, and novelty (Berger & Milkman, 2012). Platforms like Twitter and Instagram rely heavily on trending topics, emphasizing the importance of understanding how content gains traction and captures users' attention.

Network Diffusion: Information dissemination also follows network diffusion patterns, where content spreads through established social connections. Users with a high number of followers or friends can significantly impact the reach of information as it travels through their social network (Weng et al., 2013). Understanding network structures is crucial for predicting the trajectory of information within social media ecosystems.

Algorithmic Amplification: Social media platforms utilize algorithms to curate users' content feeds based on their preferences and engagement history. Algorithmic amplification influences the dissemination of information by prioritizing certain content types or sources, contributing to filter bubbles and echo chambers (Pariser, 2011). This pattern shapes users' information consumption experiences.

Community Engagement: Some information dissemination patterns revolve around community engagement, where specific interest groups or communities play a central role in sharing and discussing content. These communities create a sense of belonging and shared identity, fostering the exchange of information within their defined boundaries (Marwick & Lewis, 2017).

Trending Topics and Hashtags: The use of trending topics and hashtags is a prominent information dissemination pattern. Users engage with content related to popular hashtags, contributing to the visibility and spread of information (Zappavigna, 2012). Hashtags serve as a categorization mechanism, enabling users to discover and participate in ongoing conversations.

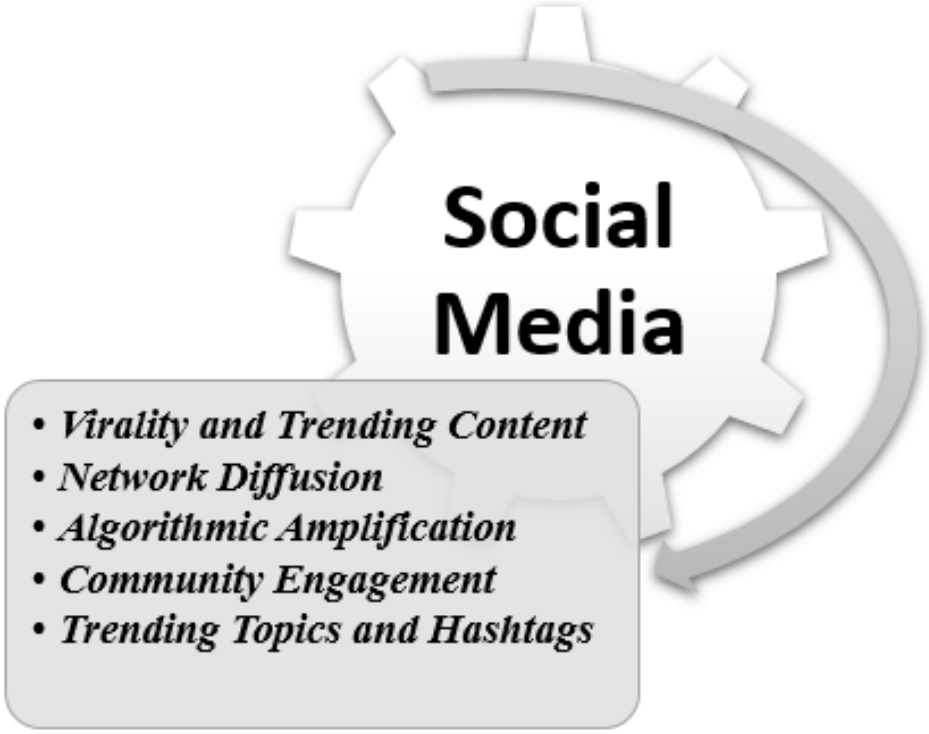

Figure 1: Social Media Information Dissemination Patterns
Source: Author's Construct

News Virality on Social Media

In the fast-paced world of social media and news consumption, virality has become a key metric that shapes public discourse and influences opinions. Virality refers to the rapid and widespread sharing of content across social media platforms, leading to increased visibility and engagement. Understanding the factors that contribute to virality is crucial for content creators, marketers, and news outlets aiming to capture the attention of online audiences. Several elements contribute to the virality of content. Firstly, emotional appeal plays a significant role. Content that evokes strong emotions, whether positive or negative, tends to be shared more widely. Studies have shown that people are more likely to engage with content that triggers an emotional response (Berger & Milkman, 2012). Additionally, relatability and relevance enhance virality. Content that resonates with the audience's experiences, values, or current events is more likely to be shared. Social currency, the idea that people share content to enhance their own image, also contributes to virality (Berger, 2013). Moreover, the timing and format of content play pivotal roles. Timely and visually appealing content is more likely to capture attention and be shared across platforms. The rise of short-form video content on platforms like TikTok and Instagram has further transformed the landscape, with users gravitating towards easily digestible and entertaining videos (Hempel, 2020). From a news perspective, headlines play a crucial role in determining virality. A compelling headline that sparks curiosity or controversy can drive increased clicks and shares. Social media algorithms also play a role, as platforms prioritize content that generates engagement, creating a feedback loop that perpetuates virality (Vosoughi et al., 2018). However, the dynamics of social media and news virality are complex and multifaceted. Understanding the interplay of emotional appeal, relatability, timing, and format is essential for anyone seeking to navigate and leverage the ever-evolving landscape of online content dissemination.

Many studies, like Tellis et al. (2019) and Babi-Rosario et al. (2020), demonstrate that social interaction, information exchange, and emotions influence online virality. In a 2020 literature review, Ismagilova et al. examined users' perceptual, consuming, personal, and social reasons for sharing news. Previous study has examined how reliable online platforms distribute real news (Aral & Zhao, 2019). However, false news consumption is driven by different factors and mindsets than real news consumption (Zhou and Zafarani 2020). Conversely, news virality literature is scarce. Talwar et al. (2019) found that people with higher self-disclosure, online trust, fear of missing out, and social media fatigue are more likely to spread fake news on social media. Suntwal et al. (2020) and Stefanone et al. (2019) demonstrate that confirmation bias, source endorser credibility, and argument quality affect fake news transmission. Friggeri et al. (2014) examined false news across many news genres and found that intermittent rumours remain unexplained. Vosoughi et al. (2018) evaluated true and fraudulent news dissemination. False news travels faster, wider, deeper, and more than accurate news. Zhao et al. (2020) also found a similar pattern in the first layer of shares. Guess et al. (2019) found that age effect, partisanship, and ideology affected false news during the 2016 US presidential election. In 2019, Grinberg et al. examined how disinformation propagated during the 2016 US presidential election. Del Vicario et al. (2016) created a theoretical social network model to explore internet disinformation. Their study indicated that network homogeneity and polarisation affect information-sharing cascade size. Deceptive news may propagate, according to Tornberg (2018)'s network simulation model. Zubiaga et al. (2018) review literature on false news detection.

Factors Influencing the Virality of News on Social Media

The virality of news on social media is influenced by a multitude of factors that shape the way information spreads across online platforms. Understanding these factors would help in comprehending the dynamics of information dissemination in the digital age. Below are several factors observed in influencing the virality of news on social media:

- **Emotional Appeal:** Content that evokes strong emotions, whether positive or negative, tends to go viral more often. Studies suggest that emotional arousal enhances information sharing on social media (Berger & Milkman, 2012).
- **Timing and Relevance:** The timing of a news story's release is critical. Relevant and timely content gains more traction as users are more likely to share information that is current and applicable to ongoing discussions (Stieglitz & Dang-Xuan, 2013).
- **User Engagement:** Social media platforms employ algorithms that prioritize content based on user engagement. Posts with higher likes, shares, and comments are more likely to appear in others' feeds, contributing to increased visibility and potential virality (Bakshy, Hofman, Mason, & Watts, 2011).
- **Network Structure:** The structure of users' social networks plays a role in virality. Research indicates that information spreads differently in closed networks (e.g., Facebook) compared to open networks (e.g., Twitter), affecting the speed and extent of virality (Weng et al., 2013).
- **Source Credibility:** The credibility of the source significantly influences the likelihood of news going viral. Users are more likely to share information from trustworthy sources, as credibility enhances perceived value and reliability (Friggeri et al., 2014).

- **Visual Content:** Visual elements, such as images and videos, increase the shareability of content. Visuals capture attention quickly, making users more likely to share and engage with the content (McGarty et al., 2016).

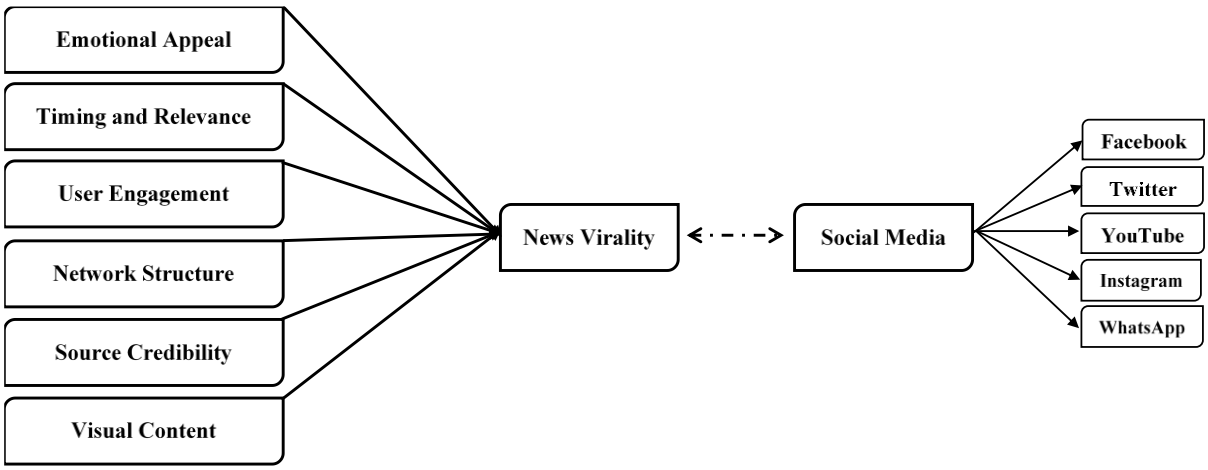

Figure 2: Factors Influencing News Virality on Social Media
Source: Author's Construct

Table 1: Literature review on the virality of news on social media

Article	Research Objective	Methodology	Modelling Approach	Main findings	Content features			Virality Prediction
					Writing Style	Emotional traits	Writing complexity	
Friggeri et al. (2014)	Examine the spread of rumours on Facebook	Observational data with 16,672 individual cascades, Containing 62,497,651 shares	Propagation Network model	Rumour cascades run deeper in the social network than reshare cascades in general	No	No	No	No
Del Vicario et al. (2016)	Analyse how Facebook users consume information about scientific and conspiracy news	Observational data with 5032 science news and 3538 conspiracy news from Facebook	Cluster analysis and Percolation Model	Content-selective exposure is the primary driver of content diffusion and generates the formation of homogeneous clusters. But, although consumers of scientific information and conspiracy theories exhibit similar consumption patterns with respect to content, the cascade patterns of the two differ	No	No	No	No
Törnberg (2018)	Study the relationship between echo chambers and the viral spread of misinformation.	Simulation based on a theoretical model, without empirical data	Network model	It finds an " echo chamber effect" : the presence of an opinion and network polarized cluster of nodes in a network contributes to the diffusion of complex contagions, and there is a synergetic effect between opinion and network polarization on the virality of misinformation	No	No	No	No
Vosoughi et al. (2018)	How do fake and true news spread differently in social media.	Observational data with 126,000 rumour cascades spread by~3 million people more than 4.5 million times	Logistic Regression model	Fake news is more likely to be share than true news.	No	Yes	No	No
Esteban-Bravo et al. (2022)	Explore the spreading of fake news based on its content, and how key features in the title and body text of a piece of news explain its diffusion	Observational data with 5757 fake news and 9665 true news items from 4 opensource databases.	Zero Inflated Negative Binomial Model + Machine Learning classification models.	In general, we find that the diffusion of true news seems aligned with. By contrast, the diffusion of fakes follows a different pattern, driven by strongly negative feelings such as fear, anger, and anticipation.	Yes	Yes	Yes	Yes

Table 1 provides an overview of the studies focusing on the virality of news. These papers shows different methodological framework to explain news virality diffusion based on its content and showed that these elements are different in terms of trueness and virality.

Theoretical Framework

Diffusion of Innovations Theory by Everett Rogers (1962)

The Diffusion of Innovation (DOI) Theory, proposed by Everett M. Rogers in 1962, is among the most historical ideas in the discipline of social science. The word "viral" is derived from the field of communication and refers to the gradual and widespread growth in popularity and dissemination of a thought or product within a certain social system or community. The paradigm has been a basic foundation for substantial research in several fields. Dooley (1999) and Stuart (2000) identified many disciplines, including as political science, public health, communications, history, economics, technology, and education, that are pertinent to Rogers' theory. This theory is extensively used for the adoption and dissemination of new technologies. Rogers' theory of innovation diffusion is very relevant for examining the adoption of technology in educational settings, especially higher education (Medlin, 2001). Rogers (2003) often used the terms "technology" and "innovation" interchangeably because of the prevalent occurrence of technological advancements in diffusion studies. Rogers (2003) described rejection as the "failure to adopt an innovation" (p. 177), whereas adoption is defined as the "complete utilisation of an innovation as the optimal course of action." Rogers defines diffusion as the process of transmitting an innovation via certain channels over time among individuals within a social system (p. 5). Sahin (2006) delineates the four essential constituents of innovation spread as: innovation, communication channels, time, and the social system.

Innovation-Decision Process

Rogers (2003) defined the innovation-decision process as a task that entails the collection and examination of information. The objective of this activity is to mitigate any uncertainty about the merits and drawbacks of an innovation. Rogers delineates the innovation-decision process as including five distinct processes. The process consists of five stages: (1) knowledge, (2) persuasion, (3) decision, (4) implementation, and (5) confirmation. These stages often occur in a consecutive manner. This approach is seen in Figure 3.

Figure 3: Rogers's innovation-decision process for individuals
Source: Rogers (2003)

Knowledge Stage: The individual becomes aware of the innovation and gains an understanding of how it functions.

Persuasion Stage: The individual forms a positive or negative attitude toward the innovation based on information and opinions from others.

Decision Stage: The individual decides to adopt or reject the innovation. This decision is influenced by various factors, including perceived advantages, compatibility with existing values, and the simplicity of the innovation.

Implementation Stage: The individual puts the innovation into use. This stage involves experimentation and trying out the innovation in practical situations.

Confirmation Stage: The individual evaluates the outcomes of the innovation decision and seeks reinforcement from others. This may lead to the innovation's continued use or its abandonment.

Adopter Categories

Rogers (2003) provided a definition for adopter categories as "the categorization of individuals within a social system according to their degree of innovation." This category include individuals who are innovative, quick to embrace new ideas, part of the majority that adopts ideas early, part of the majority that adopts ideas late, and those who are slow to adapt new ideas. Each adopter group has comparable levels of innovativeness. Innovativeness refers to the extent to which an individual or entity embraces new ideas at an earlier stage compared to other members of the system (Sahin, 2006). The assimilation of a novel notion, behaviour, or object (referred to as "innovation" in LaMorte 2022). Acceptance does not occur instantaneously or simultaneously within a social structure. Instead, it is a protracted process in which some individuals are more predisposed to adopt the innovation compared to others. Scientists have discovered certain characteristics in those who adopt an innovation at an early stage compared to those who adopt it at a later stage. When marketing an invention to a certain demographic, it is crucial to identify the characteristics of that group that might either facilitate or hinder the adoption of the innovation. Although the majority of people fall into the intermediate categories of the five adopter groups, it is crucial to comprehend the characteristics of the target market. Various strategies are used to advocate for a concept and appeal to certain groups of adopters. Rogers also said that his ability for invention helped him understand the essential and desirable behaviour throughout the process of making judgements concerning innovation. Consequently, he classifies clients into several groups based on their degree of originality. Figure 4 displays the Gaussian distribution.

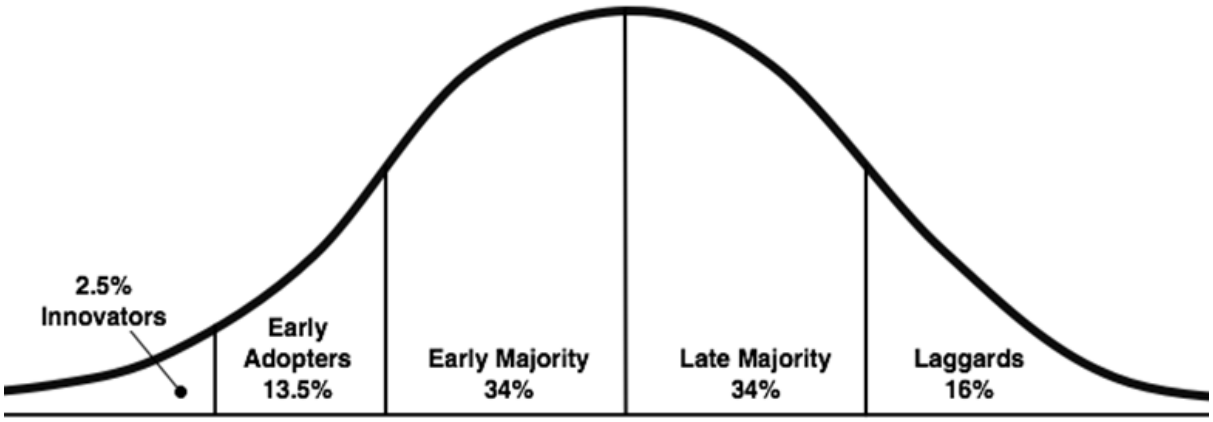

Figure 4. Adopter Categorization on the Basis of Innovativeness
Source: Rogers (2003)

Innovators: These are the first individuals to adopt an innovation. They are risk-takers, have a high tolerance for uncertainty, and are often leaders in their social networks.

Early Adopters: Early Adopters follow the Innovators. They are respected individuals who adopt innovations relatively early in the diffusion process. Their opinions are valued, and they serve as opinion leaders within their social groups.

Early Majority: This group adopts an innovation before the average member of a society. They deliberate longer than Early Adopters but are not as risk-averse as the next two categories.

Late Majority: The Late Majority adopts innovations after the average member of a society. They are skeptical of change and may adopt only when the innovation has become a social norm.

Laggards: Laggards are the last to adopt an innovation. They are traditional and often have a high level of resistance to change.

The process by which an individual embraces a new idea or practice, and by which the spread of this idea or practice is achieved, comprises the following stages: recognition of the need for the innovation, determination to either accept or reject the innovation, first use of the innovation to assess its effectiveness, and ongoing utilisation of the innovation. There are five primary elements that affect the adoption of an invention, and each of these factors varies in significance among the five adopter groups.

1. Relative Advantage - The degree to which an innovation is seen as better than the idea, program, or product it replaces.
2. Compatibility - How consistent the innovation is with the values, experiences, and needs of the potential adopters.
3. Complexity - How difficult the innovation is to understand and/or use.
4. Triability - The extent to which the innovation can be tested or experimented with before a commitment to adopt is made.
5. Observability - The extent to which the innovation provides tangible results (LaMorte, 2022).

However, understanding these adopter categories helps in tailoring communication into different segments of the population during the diffusion process. Overall, the Diffusion of Innovations Theory remains influential in fields such as marketing, technology adoption, public health, and organizational change.

Implications to the Present Study

In the context of the present study, the Diffusion of Innovations Theory helps explain how news content becomes viral on social media, considering the characteristics of the news, adopters, and communication channels. This theory has broad implications and can be applied to various contexts of information dissemination patterns on social media. Examining the implications from the Innovation-Decision Process to the Adopter Categories in the context of "Social Media and News Virality" helps in understanding how these dynamics contributes to refining strategies for enhancing information diffusion and promoting more effective communication in the digital age.

A. Innovation-Decision Process:

- Knowledge: In the initial stage of the Innovation-Decision Process, individuals become aware of the innovation. In the context of social media and news virality, this corresponds to the awareness phase where users are exposed to information.
- Persuasion: Users engage with the content, and the persuasion stage involves forming an opinion about the innovation. In the study of information dissemination on social media, this phase involves discussions, comments, and interactions that contribute to the persuasion process.

B. Adopter Categories:

- Innovators and Early Adopters: These categories are crucial for the initial uptake of information. Innovators are typically the first to embrace new ideas, and early adopters follow suit. In the context of social media, these individuals play a key role in sharing and promoting content, contributing to the early stages of virality.
- Early Majority and Late Majority: As the majority of users start adopting the information, it reflects the broader acceptance of the content. Understanding how the early and late majority engage with information on social media helps in predicting the trajectory of virality.

C. Communication Channels: The theory emphasizes the role of communication channels in the diffusion process. In the context of social media, the choice of platforms, influencers, and the nature of content can significantly impact how information spreads. Understanding these channels is essential for designing effective dissemination strategies.

D. Critical Mass and Tipping Point: The concept of critical mass, where there is a sufficient number of adopters for the innovation to become self-sustaining, is relevant to social media virality. Identifying the tipping point at which information reaches critical mass helps in predicting and influencing the extent of virality.

E. Continuous Innovation and Reinvention: The Diffusion of Innovations Theory suggests that innovations evolve over time. In the context of social media and news virality, it's essential to note that information is continually adapted, shared, and reinvented to maintain relevance and engagement.

However, applying the Diffusion of Innovations Theory to the current study provides a theoretical framework to predict the dynamics of virality. It helps researchers and practitioners understand the patterns, identify influential factors, and design strategies for effective communication and engagement.

Uses and Gratifications Theory (UGT) by Blumler and Katz (1974)

The Uses and Gratifications Theory (UGT) is a framework used to analyse the motivations and behaviours of people as they actively seek out different forms of media in order to fulfil certain needs. It prioritises the needs and interests of the audience and is based on the principles and theories found in literature on communication. The concept seeks to elucidate how humans employ media to fulfil their desires. The needs encompass cognitive functions (acquiring information, knowledge, and understanding), affective functions (including emotion, pleasure, and feeling), personal integrative functions (including credibility, stability, and status), social integrative functions (such as interaction with family and friends), and tension-related functions (such as escape and diversion). The approach emphasises people' media use rather than its impact on them. The media use of audience members is influenced by their desires and goals, and actively participating in the communication process may either enhance, obstruct, or otherwise affect the satisfactions and outcomes associated with exposure. UGT, often used in fields such as political research and message transmission, may also be applied to the study of human psychology, including desires, motivations, influence, learning, and social media usage. The central concept of the Uses and Gratifications Theory (UGT) posits that individuals actively choose media sources that align with their own needs

and desires, hence resulting in personal satisfaction. The fulfilment of fundamental needs is crucial for the continuation and preservation of human life. Pleasure is identified as a factor of media utilisation and recurrent media use, as stated by Whiting and Williams (2013). Hence, social media users have the ability to establish connections with an extensive number of persons worldwide, perhaps reaching millions or even billions. The UCT prioritises the autonomy of consumers and acknowledges that media may be used for diverse objectives and in various ways. The concept posits that the existence of ultimate truth is nonexistent. In this scenario, the user has absolute autonomy in determining the impact of media on themselves, since they have the ability to choose how the media influences them. Individuals get education, social engagement, leisure, knowledge, diversion, and pleasure from media, which they also use for interpersonal communication. Assuming that the consumer has a clear goal and intention, UGT allows the consumer to choose which media to consume. The UGT is based on the following five assumptions (Dei et al., 2022):

1. A focused audience that use media to achieve their goals.
2. An audience member attempts to connect their desire for pleasure with a particular media choice.
3. Media outlets compete with each other to meet demands.
4. Researchers can accurately assess people' usage by taking into account their awareness of media intake, interests, and motives.
5. The evaluation of the value of media material is in the hands of the viewer.

Furthermore, cell phones and the internet have emerged as prominent channels of communication, serving the widespread media demands of consumers, as well as fulfilling their interpersonal needs, such as emotional bonding and engagement. Users may then film movies, get material and access the Internet, create charts, initiate phone conversations, and take pictures.

Implications to the Present Study

The Uses and Gratifications Theory focuses on the active role of media consumers in choosing and using media for their own gratifications and needs. Applying this theory to the current study presents some several implications:

- User-Centric Approach: UGT emphasizes that individuals actively choose media based on their needs and desires. In the context of social media and news virality, this suggests that users engage with and share news content on social media platforms because it fulfills specific gratifications such as information-seeking, entertainment, social interaction, or personal identity reinforcement.
- Understanding Audience Motivations: People choose to share particular news content on social media, UGT suggests that people consume media for various gratifications such as surveillance, personal identity, integration and social interaction.

- User-Generated Content and Interactivity: UGT acknowledges the active role of users in creating and sharing content. In the context of social media, users not only consume but also produce and disseminate news content.
- Gratifications and Emotional Responses: UGT highlights that media use is driven by gratifications such as entertainment and emotional satisfaction. The theory helps understand how news content triggers emotional responses and fulfills gratifications, influencing the likelihood of sharing. Content that elicits strong emotional reactions may have higher virality potential.
- Media Choices and Selective Exposure: UGT suggests that individuals actively select media to meet their needs. Exploring how users selectively expose themselves to news content on social media based on their preferences and gratifications helps in understanding these selective exposure patterns and the factors influencing the dissemination of news on social media.

However, applying the Uses and Gratifications Theory to present study on social media and news virality provides a user-centric perspective, emphasizing the active role of individuals in the dissemination of news content. This approach deepens the understanding of the motivations, preferences, and behaviors that contribute to the patterns of information dissemination on social media platforms.

Conclusion

In conclusion, the study examined the intricate dynamics of information virality within social media, dissecting the factors shaping the rapid dissemination of news and information in the digital age. The evolution of news consumption, driven by user-generated content on platforms like Facebook, Twitter, and Instagram, has transformed the landscape, creating a decentralized and interactive news ecosystem. Virality, influenced by emotional appeal, timing, user engagement, network structure, source credibility, and visual content, plays a pivotal role in shaping public discourse. News consumption, driven by different factors and mindsets, adds complexity to the understanding of virality. The Diffusion of Innovations Theory and the Uses and Gratifications Theory provide valuable frameworks for comprehending the dynamics and motivations behind the spread of news on social media. As social media continues to evolve, insights from this study offer guidance for navigating and leveraging the ever-changing terrain of online content dissemination in the digital era.

Recommendations

Based on the findings of the study, the following recommendations were deemed necessary:

1. Given the significant influence of platform algorithms on information virality, there should be increased transparency in how these algorithms operate. Social media platforms should provide users with clearer insights into how content is prioritized and promoted. Additionally, there is a need for educational campaigns to enhance users' understanding of how algorithms work, empowering them to make informed decisions about what they engage with and share.
2. To mitigate the spread of false news, social media platforms should invest in and promote tools that help users verify the credibility of sources. Implementing features like source credibility indicators or fact-checking labels can assist users in differentiating between reliable and unreliable

information. Encouraging users to critically evaluate the sources before sharing can contribute to a more informed online environment.

3. Social media platforms should establish and enforce ethical guidelines for content creation, especially in terms of emotional appeal and relevance. Encouraging responsible content creation that avoids manipulation of emotions, misinformation, or sensationalism can contribute to a healthier online environment. Platforms can collaborate with content creators to promote ethical storytelling and discourage practices that exploit emotional triggers for virality.

4. Utilize theoretical frameworks like the Diffusion of Innovations Theory and the Uses and Gratifications Theory to inform communication strategies. By understanding the dynamics of virality through the adoption process, adopter categories, communication channels, and user motivations, practitioners can refine their approaches. These theories offer valuable insights into the psychological and behavioral aspects of information dissemination, guiding strategies for effective communication in the digital age.

Contribution to Literature

This study contributes to the literature by comprehensively examining the dynamics of information virality in the digital age. It explored the evolving landscape of social media and its impact on news dissemination, shedding light on the factors driving virality. Incorporating the Diffusion of Innovations Theory, it offers a theoretical framework to predict and understand virality dynamics. Additionally, the Uses and Gratifications Theory provides a user-centric perspective, enriching our understanding of motivations and behaviors influencing social media and news engagement.

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