

The Two-Way Impact of Generation and Digital Platforms --An Example of Generation X/Y/Z

Zhiyi Chen^{1,#,*}, Weizi Wang^{2,#}, Mingyang Liu^{3,#}, Zimu Li^{4,#}

¹School of Economics, Henan University, Kaifeng, 475001, China, 13825825771@163.com

²School of Economics, Xiamen University, Xiamen, 361005, China, weiziwang888@gmail.com

³Chongqing Foreign Language School, Chongqing, 400050, China, 3252657658@qq.com

⁴School of Economics, Wuhan Textile University, Wuhan, 430000, China, 2969993976@qq.com

#The authors contributed equally.

*Corresponding author's email: 13825825771@163.com

Abstract:

This paper explores the intricate interplay between digital platforms and generational preferences, focusing on how social media platforms shape the preferences and behaviors of users across Generation X, Y, and Z in both China and the United States, respectively. By conducting a SWOT analysis and comparing the usage patterns and characteristics of these generations, the study aims to unravel the factors that contribute to the dominance of specific social media platforms within each generation. The analysis draws on empirical data from multiple sources, including statistical reports from the China Internet Network Information Center (CNNIC), and industry websites such as Statista and HubSpot. By quantifying user behaviors and analyzing the evolution of digital platforms, the paper reveals that each generation's dominant platform reflects its unique characteristics, shaped by their social, historical, and technological contexts. Furthermore, the study highlights the bidirectional influence between generations and digital platforms, with platforms adapting their mechanisms and content to cater to users' proclivities, while users, in turn, are molded by the information they consume. Overall, this paper contributes to the understanding of how generational differences intersect with digital marketing strategies, offering insights into the competitive advantages that propel certain platforms to become the favorites of their respective generations.

Keywords: Digital platforms, Social media, Generational preferences, Consumer behavior, Bidirectional influence.

1. Introduction

1.1 Context

When you read this article, how much time has passed since you put down your cell phone? Do you remember what you just read on your phone? Nowadays, people spend more and more time on their cell phone's apps, or digital platforms, and there is always a digital platform that attracts people to spend the most time on, which makes them want to stop, and at the same time, they are constantly influenced by the contents of it. In our daily life, we may have encountered different concepts and internet habits from our elders or other generations. People of different generations often use different digital platforms that fit their online habits. People are constantly shaped by the information they are exposed to, and in the current technological era, people are surrounded by digital

platforms, so digital platforms have different impacts on people with different usage habits. Different generations are defined by their platforms, while at the same time their dominant platforms at that era are also somehow chosen by their generations.

All three generations and those digital platforms of their time are in this circle. It starts like the chicken and egg question. Why do platforms start to shape the culture of these generations, and why did these generations choose these certain platforms. Why are these certain platforms chosen and how can they replace the former dominant ones and flourish. At the same time, in order to win among the competitors, the digital platforms of each era improve their mechanisms and contents according to the usage habits and character traits of the users of this era.

But what has not been specifically discussed in the literature are "seed" which successfully started the cycle and

became the interactive media. What those shared competitive factors that are decisive to the winning platforms are matters, and that competitive advantage kickstarts the two-way interaction between contents and habits or preferences. We could say that the “Why” question for what causes different generation’s form of favorite media is not well answered but is also not very necessary - we generally accept that there is always an interactive relationship.

1.2 Methodology

In the analysis section, the passage firstly divides the research object into three parts, that is, generation X, Y and Z, and then divides them into two parts of the United States and China, respectively, from the perspective of consumer characteristics, platform characteristics and so on to carry out a SWOT analysis and comparison of why a certain social media can stand out at that time and thus gain the preference of the consumers. In addition, the passage adds social media strategies and data to the SWOT analysis to reinforce the point and make the logic more coherent. Comparison between different eras are also included to provide a more representative and authoritative picture of the factors that make social media stand out. The frequency of clicking on different digital platforms and the time and money spent on different digital platforms by different generations are taken as variables, and the characteristics of different generations are quantified by analyzing relevant data. Secondly, the passage analyzes the relevant literature to find out the characteristics of the digital platforms corresponding to different generations. Finally, the article analyzes the characteristics of different digital platforms through SWOT comparison to find out the reasons for their popularity among different generations.

1.3 Generational Groups

Based on the available literature, generational groups have been clearly delineated: Generation X (born 1965-1980); Generation Y (also known as Millennials, born 1981-1996); and Generation Z (born 1997-2012) [1]. Based on the popular platforms of each generation aged 18-30 in China and the United States, this paper defines each generation as follows: Generation X refers to those who use AOL (emerging in 1989) in the United States and BBS (Popularized in China since 1994) in China when they are young; generation Y refers to those who use Facebook (emerging in 2004) in the United States and Weibo (emerging in 2009) in China when they are young; generation Z refers to those who use TikTok (emerging in 2017) in the U.S. and Douyin (emerging in 2016) in China at a young age. This paper takes the contents of each platform as input, and the characteristics of each generation as out

put, and then applies SWOT analysis and other methods, through comparative analysis, to come up with the reasons why digital platforms can stand out in the corresponding generation.

2. Literature Review

2.1 Generational Cohort

Age has been demonstrated to be a key determinant affecting the behavior of users to accept online shopping and their intent to make purchases online [2,3]. However, it is difficult to define groups with distinctive characteristics based on age alone. In terms of market segmentation, generation is more effective than segmentation by age alone [4], because generation segmentation is more stable and connected than age segmentation [5]. Mannheim introduced the concept of generational groups and explored their role in social structure and cultural change [6]. Generational groups are composed of individuals born within similar time periods who share specific social and historical experiences. These experiences shape their worldviews and patterns of behavior. Intergenerational differences are pronounced, stemming from the distinct social environments and challenges they face during their formative years [7]. Individuals from different generations are nurtured in unique technological epochs, which naturally leads to a variety of online behaviours, preferences, and, as a result, their reaction to initiatives in digital marketing to be varied [8]. Identical generations develop shared values, beliefs and behaviors among group member. In the consumer context, these differences may lead to differences in buying patterns and shopping behavior [9]. Therefore, it is important to consider generational differences to analyze digital marketing.

2.2 Mechanisms by which digital market influences consumer behavior

The extensive use of the Internet and mobile devices has made digital marketing an increasingly influential factor in consumer choices. The literature has shown that the ease with which consumers can access information significantly impacts their behavior, allowing them to make more informed and quicker purchasing decisions. The open distribution of information and intensified media exposure are identified as key trends affecting consumer behavior, with the latter being particularly influential [10]. Lee noted that perceived risks play a role in the adoption of trading platforms, suggesting that how consumers perceive potential risks can affect their engagement with these platform [11]. Solomon outlined the consumer perception process, which includes exposure, attention, and interpretation. Exposure is the initial encounter with a

stimulus, followed by attention, which varies in degree, and then interpretation [12]. In response to this process, platforms have enhanced their push algorithms to capture consumers' attention more effectively, thereby influencing their choices. Repetition is highlighted as a critical factor in gaining consumer attention by Alison Munsc, who also suggests that product and service ratings on platforms significantly influence customer behavior. Remarketing, or retargeting, is a strategy that targets individuals who have shown interest in products or services, contributing to brand awareness, sales, and customer engagement [13]. These insights from the literature underscore the multifaceted impact of digital marketing on shaping consumer preferences and behaviors.

2.3 Generation X

Generational differences play a pivotal role in shaping online shopping behaviors, with Generation X—individuals born between 1961 and 1979—exemplifying a cohort marked by high levels of education, technological proficiency, skepticism, and pragmatism [14-16]. Despite their technological aptitude, studies suggest that the likelihood of Generation X engaging in online shopping diminishes with age, possibly due to heightened risk perceptions and traditional barriers that become more salient as they age, thus inhibiting online purchasing activities [17]. Nonetheless, Generation X remains an important demographic for marketers to target, given their increased purchasing power driven by higher disposable incomes and more leisure time [18]. It is also noteworthy that Generation X appears to be less influenced by brand affiliations and has a comparatively lower propensity to recommend brands compared to Generation Y and Millennials, indicating a unique set of consumer motivations and behaviors that require tailored marketing approaches [19].

This synthesis highlights the complex interplay between generational characteristics and online shopping tendencies, emphasizing the need for a nuanced understanding of Generation X's consumer behavior to effectively engage this demographic in the digital marketplace.

2.4 Generation Y

Generation Y or the Millennials are a very special generation. They were born at a turning point in the development of computers, they were born surrounded by computer technology, but at the same time grew up with the rapid development of computers [20]. As a result, this generation is characterized by a strong sense of uncertainty and social pressure, but it is also driven by a high level of energy and hope [21]. Because they can constantly adapt to change and modernization, Millennials are using the Internet with increasing frequency; for example, online

shopping, which is growing in popularity, is also positively correlated with the age of the generation [18]. However, due to prolonged periods of time under uncertainty, they are more inclined to operate within existing structures than those that keep changing, and more specifically, they are technologically savvy but always faced with managerial challenges, and are more eager for a stable life [22]. In order to live a life of purpose, they appear to have a stronger focus on work, and more applications of the web are to gather information and focus on content; therefore, email, which is more relevant to work, has had a huge impact on them, and their focus on content has allowed advertising and data marketing to be successfully popularized among this group [23].

2.5 Generation Z

Compared to generation y and earlier generations, generation z was born into a mature digital age, so they did not have the pressure of adapting to the changing times, so when the internet was already mature, generation z preferred to use social media for entertainment, shopping and socializing, and social media and search engines and video remarketing had the biggest impact on them [23]. For example, facebook had a great impact on this generation, after becoming proficient in computer technology, they used this more as a pastime, so surfing music and socializing became the biggest part of the purpose, thus the z-era can be said to be the generation that developed their self-esteem and individuality the most [24]. The preference for advertisements can also reflect the characteristics of Generation Z. As more and more information piles up, it becomes harder for Generation Z to focus on long advertisements, and the advertisements that really appeal to them are the ones that are emotional or humorous or pop-music themed, or show celebrities or admired people; this further demonstrates that the center of attention of the Internet in Generation Z has shifted from study and work to more of a recreational and entertainment focus [13].

The existing literatures are only devoted to the study of the impact of digital marketing on the behavior of generations or the choice of generations on digital marketing, while ignoring the bidirectional shaping influence between generations and digital marketing. However, this paper starts to study the connection and interaction between the two from the perspectives of GENERATIONS and DIGITAL MARKETING respectively. Secondly, the former studies all analyze the relationship between generations and digital marketing as a whole from the theoretical point of view, lacking a clear comparison, this paper uses different platforms to refer to different generations, aiming to argue the results more intuitively.

3. Methodology

3.1 Source of data

The data for the study are mainly derived from the first, thirty-sixth and fifty-third Statistical Report on the Current Status of Internet Development in China published by the China Internet Network Information Center (CNNIC) in 1997, 2015 and 2023, respectively. These three reports show the change and development of the size of Chinese Internet users and contain important information about the use of certain functions such as online shopping. Meanwhile, the websites Statista and HubSpot also provide trends and data on the use of social media features. Finally, the website Our World in Data uses different Chinese and American social media as independent variables in order to show trends in the number of users on each platform, as well as the popularity of social media by age group. As the topic of the article is about the dominance of social platforms, the exact degree of dominance brought by these data, as well as the age groups dominated and the context of the era of network development in which they are located, provide a solid basis and help in the analysis of the article. News or statistics websites such as quick-r, Tencent News, Streaming.com and The Paper also have a lot of records related to social media users, which are also recorded in the article, thus improving reliability and completeness.

3.2 Analysis methods

This article focuses on three SWOT analyses of the dominant social media outlets in each of the three eras, x, y, and z, in the respective regions of the U.S. and Chinese eras, to analyze their respective external and internal strengths and weaknesses, in order to bring in their strategies to the point of being able to discover the most important reasons that really make them popular and dominant among a cer-

tain generation.

3.3 Variables

3.3.1 Independent variables

The main independent variable is the characteristics of the platform, but this is influenced by many other factors, such as the interaction with consumer characteristics, as well as external and internal elements such as the context of the times, economic factors, etc., which also influence and shape the characteristics of the platform.

3.3.2 Dependent variables

The dependent variable is the development of the platform, because the ultimate result of our study is to find out what really influences the platform to dominate the market and to develop well.

4. Analysis

4.1 Descriptive Analysis

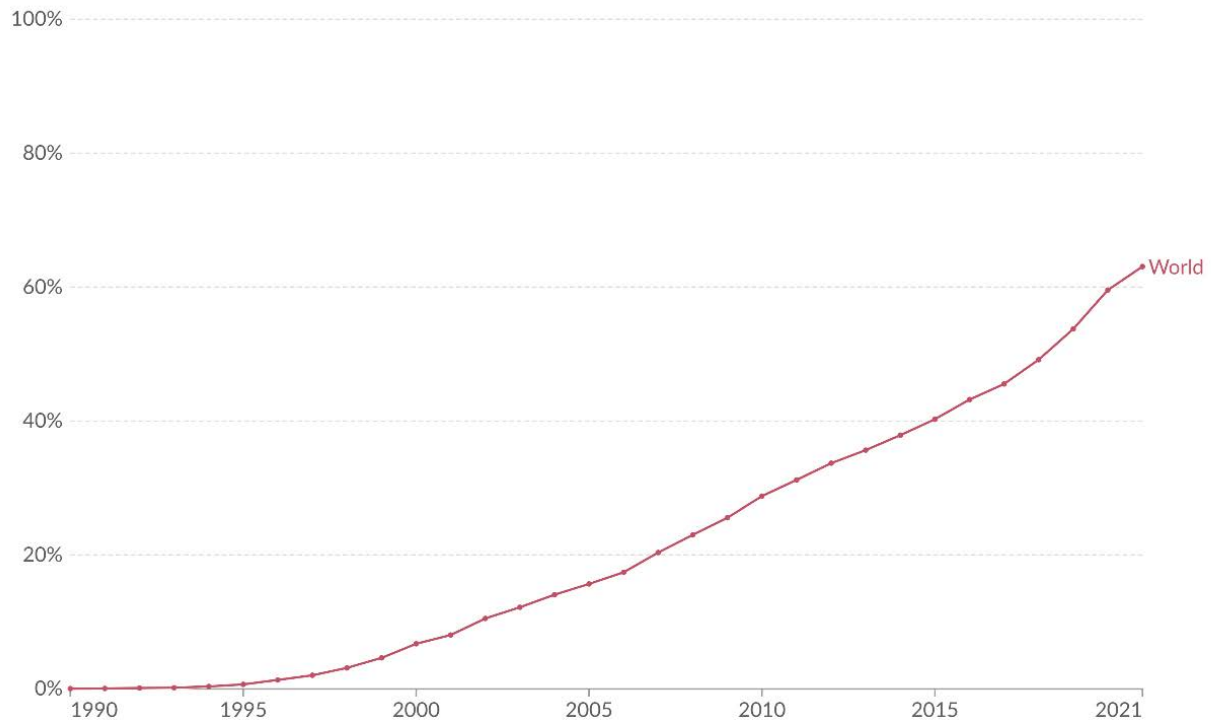
4.1.1 Share of the population using the Internet

According to the data published by the World Bank in the International Telecommunication Union constitutes a line graph reflecting the number of Internet users in the world as a percentage of the world's population in each of the years from 1990 to 2021 about 31 years, from the graph we can see that more and more people in the world are using the Internet, i.e., the number of people who will be affected by the The number of people who will be affected by online platforms such as digital platform is increasing. Meanwhile, according to the graph, the growth rate of the world's Internet users was slow during 1990-1995, and the growth rate from 1995 to 2021 is more balanced, and the world's Internet users have been growing steadily at a uniform rate every year (see Figure 1).

Share of the population using the Internet



Share of the population who used the Internet in the last three months.



Data source: International Telecommunication Union (via World Bank)

OurWorldInData.org/internet | CC BY

Figure 1. Share of the population using the Internet

Source: Our World in Data; World Bank. (<https://data-bank.worldbank.org/home.aspx>)

4.1.2 Share of US adults who use the Internet, by age

According to a study published by Pew Research Center in 2021 on the percentage of U.S. adults using the internet from 2000 to 2021, it's clear to see that regardless of age group, the trend is increasing year over year. The fastest upward trend is among those 65 and older, from about 15 percent in 2000 to about 75 percent in 2021, likely due to the rapid growth of the Internet during this period and the

resulting penetration of older adults who had little exposure to the Internet earlier in their lives. 18-29 year olds are the slowest to rise, from about 70 percent in 2000 to about 98 percent in 2021, likely due to the fact that this generation was born and raised in the United States, and is now the oldest. This is probably due to the fact that the youth market is becoming saturated, as this generation was born and grew up with the Internet. However, the overall percentage size contrast has not changed over the 21 years, with younger generations using the Internet at higher rates among adults (see Figure 2).

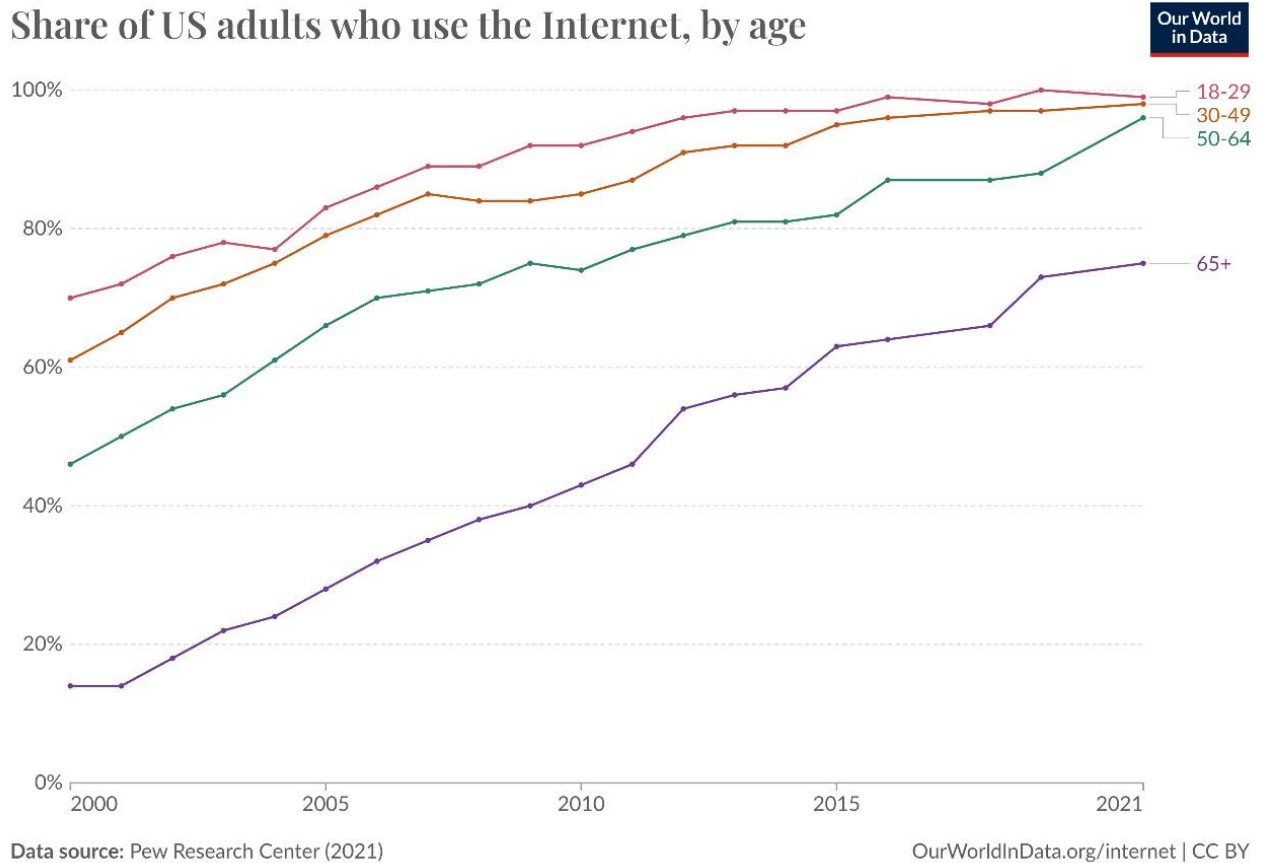


Figure 2. Share of US adults who use the Internet, by age

Source: Our World in Data; Pew Research Center. (<https://www.pewresearch.org/internet/fact-sheet/internet-broad-band/>)

4.1.3 The way each generation looks for information

According to a HubSpot Blog Research study of more than 600 U.S. adults on preferred methods of searching for answers to questions, the percentage of people using social media to search for answers to questions has gotten progressively higher as the years have passed - from the x century to the z century - possibly due to the growth of the internet, where communication between people has become easier and more effective, and people are more

interested in social media. It is possible that due to the development of the Internet, communication between people has become more convenient and effective, people trust and use social media more frequently, and are more and more deeply influenced by social media. Although the proportion of search engine is gradually decreasing, it still occupies the majority of the proportion, which should be due to the fact that search engine is originally created for the answer of the question, and naturally it should be the most common way to solve the problem. However, in such a situation, social media can occupy an objective part, which is more reflective of the increasing influence of social media on people (see Figure 3).

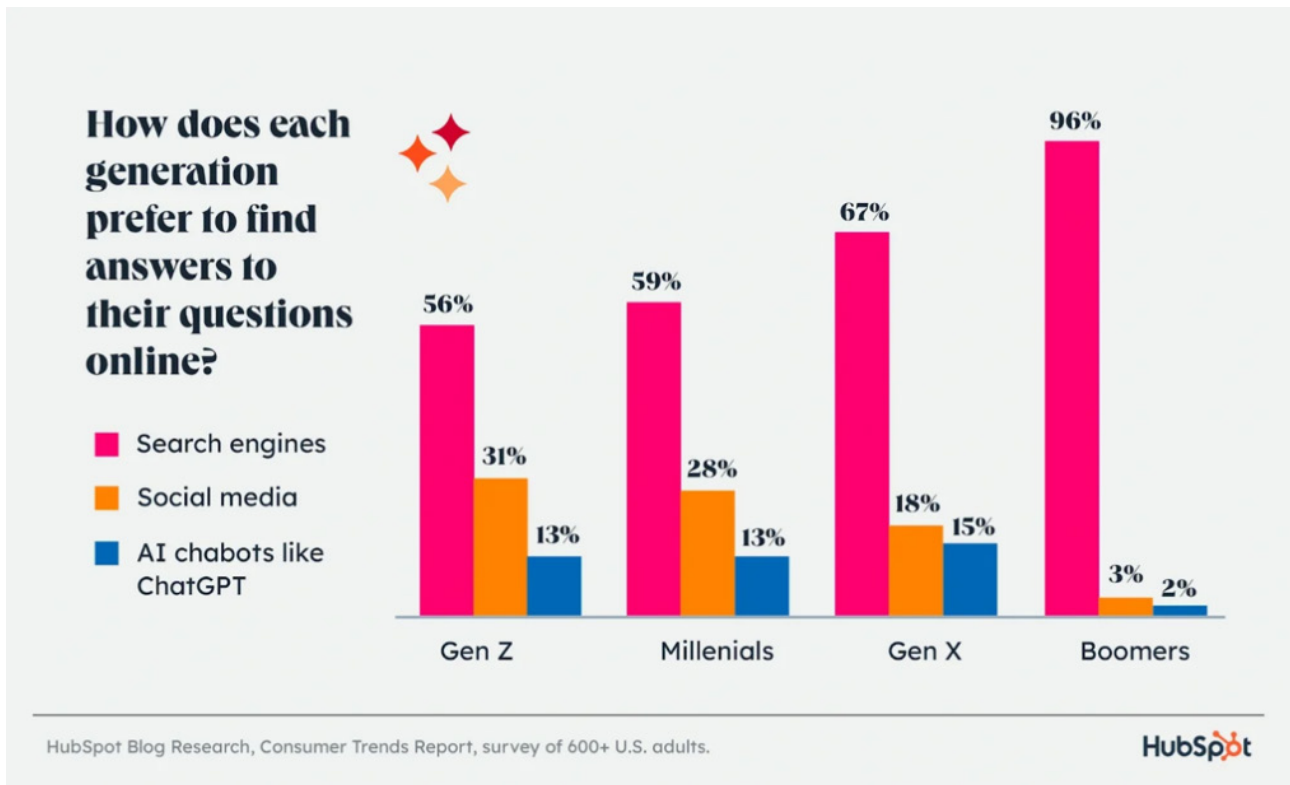


Figure 3. How does each generation prefer to find answers to their questions online?

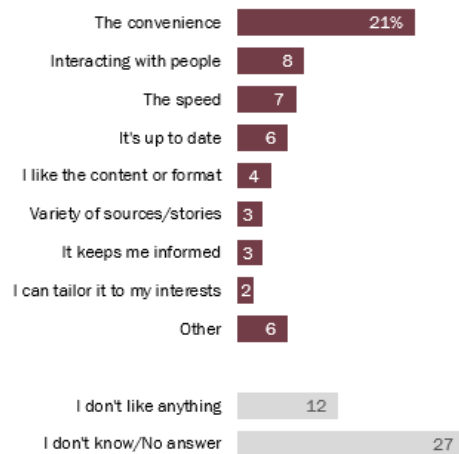
Source: HobSpot. (<https://blog.hubspot.com/marketing/state-of-consumer-trends-repor>)

4.1.4 Social media consumers most like to use to keep up with the news

According to the Pew Research Center’s 2018 publication on the aspects of social media consumers most like to use to keep up with the news, the largest number of people (27%) surprisingly didn’t know exactly why, which rather serves to underline the fact that social media’s impact on people is all-encompassing and profound, even if many people aren’t sure of the specific benefits or advantages, but choose social media anyway perhaps to go with the flow or simply because the impact of social media is so profound. And the second highest ranking (21%) is pointing out the convenience of social media to find out the news, which is one of the major advantages and innovations of social media over previous ways of finding out the news such as newspapers. The last ranked (2%) is the ability of social media to be tailored to interests, indicating that this technology is not so mature and widely used in 2018, and this indirectly explains why tiktok or Douyin have succeeded in the age of z. It is precisely this point that has been developed to the extreme, and it is an unprecedented innovation (see Figure 4).

Social media news consumers like convenience, speed and social interaction

% of social media news consumers who say the thing they like most about getting news on social media is ...



Note: Numbers may not add up to 100% because of rounding.
Source: Survey conducted July 30-Aug. 12, 2018.
"News Use Across Social Media Platforms 2018"

PEW RESEARCH CENTER

Figure 4. Social media news consumers like convenience, speed and social interaction

Source: Pew Research Center. (<https://www.pewresearch.org/journalism/2018/09/10/news-use-across-social-media-platforms-2018/>)

4.2 SWOT Analysis

This paper uses three separate SWOT tables to explore

how these platforms became dominant.

4.2.1 Generation X : AOL & BBS

Table 1. SWOT of AOL & BBS

Strengths	Weaknesses
1. Sharing of information 2. “Carpet-bombing” marketing strategy 3. One-stop service 4. User-friendly interface 5. Content push 6. Anonymity 7. Real-time interactivity	1. Technologically backward 2. User attrition 3. Single business model 4. More conservative in product and service innovation
Opportunities	Threats
1. Mobile Markets 2. E-commerce and online shopping	1. Prior and Emerging Competitors 2. Changes in user habits 3. Technological changes

AOL and BBS are the most representative platforms of generation X in US and China. As the Figure 5 shows, in

2001, AOL held a much higher market share and number of users than any other platform.

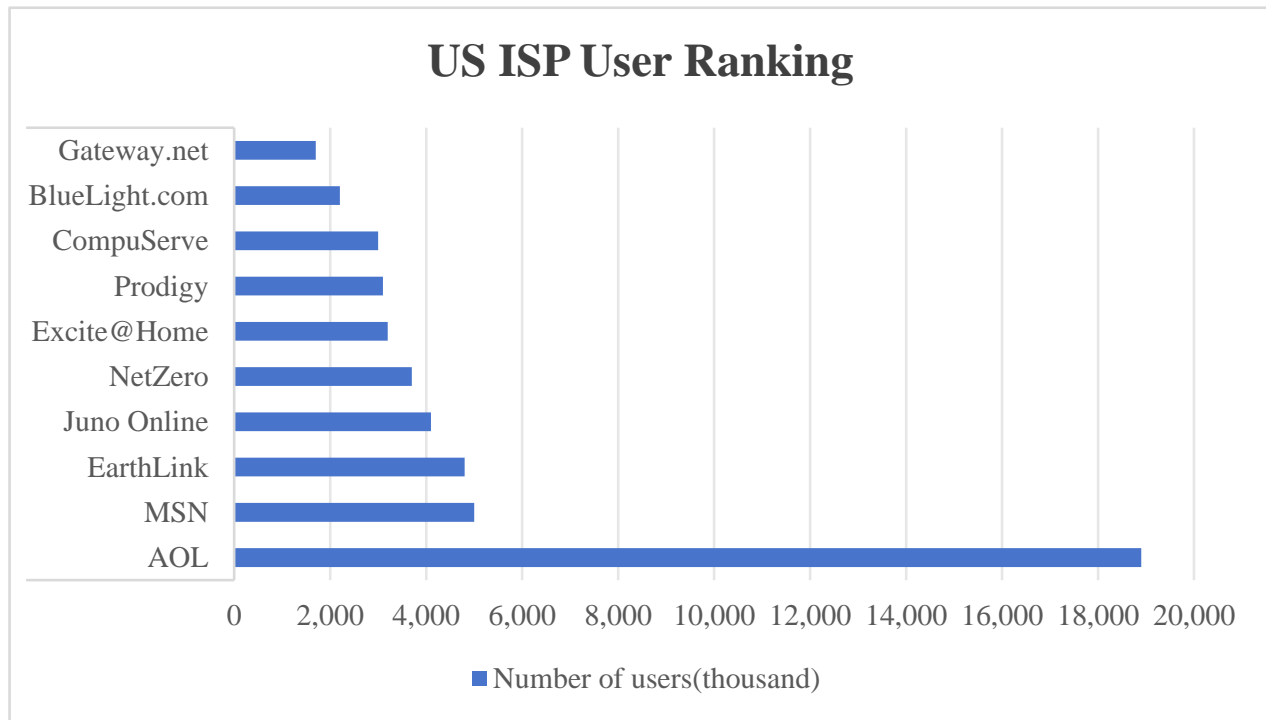


Figure 5. US ISP User Ranking

Source: US ISP.

According to Table 1, the first reason why they became the leaders is that they can serve the purpose of information sharing, users can share files, resource links, etc. on BBS to promote the dissemination of knowledge and information. The second one was the “carpet bombing”

marketing strategy, in which AOL attracted new subscribers by distributing large numbers of floppy disks and CD-ROMs. This strategy flooded the market, making most people aware of the platform’s existence and interested in it. The third is the One-stop service. It provides a wide range of content and services, including news, email,

online chat, online games, online education and online shopping, forming a fully functional online platform. The fourth one is their user-friendly interface. It has provided a user-friendly experience through continuous iteration and improvement, allowing users to easily browse news, send emails, and communicate online, despite the early AOL and BBS interface being relatively rudimentary. The fifth is the content push. The platforms' product design is based on content push. Users can browse various types of information pushed by the official platform according to their interests. This "out-of-the-box" experience was very popular at the time. The sixth is anonymity. Although not all of them provide anonymous posting functions, users can usually choose to participate in discussions anonymously or using nicknames, which increases the freedom of communication. This virtual username feature allowed for more active user interaction on the platform, and most later platforms chose to adopt this feature as well. The last one is the real-time interactivity, which allows users to post information and respond in real time, enabling instant online communication and discussion.

With the popularity of smartphones, the rise of Mobile Markets and the increasing demand for mobile applica-

tions, AOL has developed more mobile applications to meet the needs of users on their mobile devices. As the E-commerce and online shopping growth, AOL has also tried to add online shopping services to expand its business.

However, due to the lack of innovation and backward technology, AOL and BBS failed to keep up with the development of mobile Internet and social media in time, and lost their users faster. Coupled with their single business model, they mainly relied on the subscription model to monetize in the early days, with low returns, they are facing the risk of being eliminated. They face competitors such as Google, Twitter, and Sticky, who have significant advantages in terms of technological innovation and user base. Besides, with the change of user habits, especially young users are more inclined to use social media and instant messaging tools, the traditional service model of AOL and BBS is challenged. In addition, the rapid development of new technologies, such as mobile Internet, cloud computing and artificial intelligence, poses a threat to their traditional business model.

4.2.2 Generation Y : Facebook & Weibo

Table 2. SWOT of Facebook & Weibo

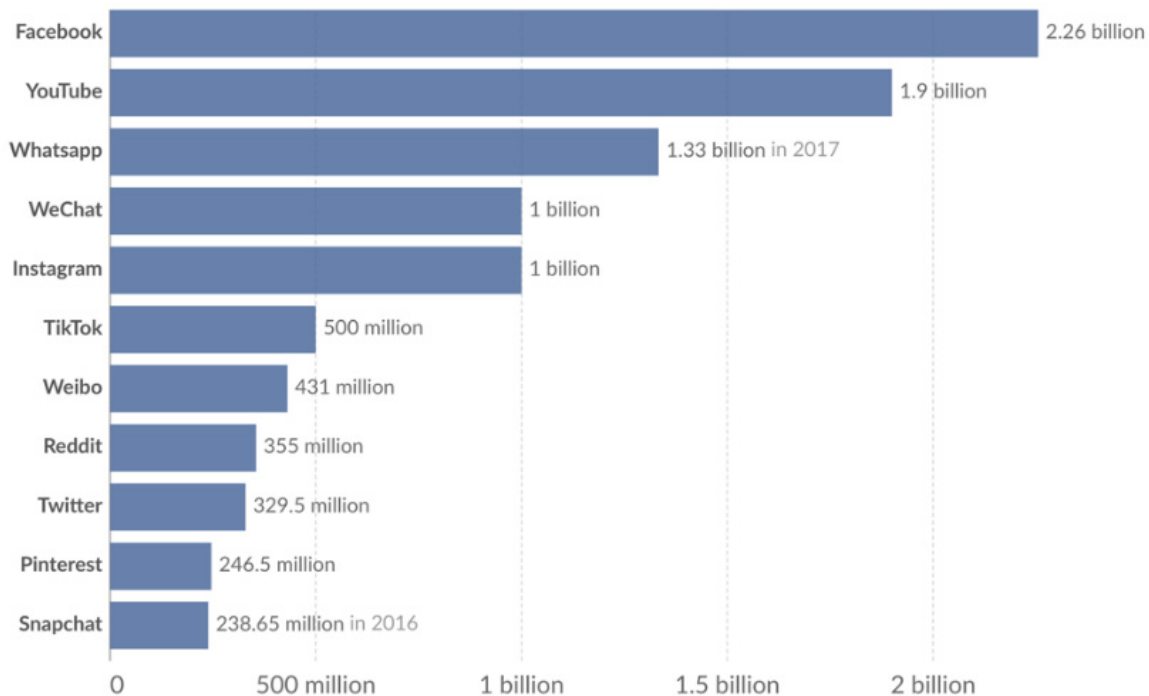
Strengths	Weaknesses
<ol style="list-style-type: none"> 1. Group Functions 2. Multimedia sharing 3. Likes function 4. Large amount of user data 5. Hot Spot Correlation Mechanism 6. Transmissibility and instantaneity 7. Celebrity and KOL effect 8. No Addees Inerface 	<ol style="list-style-type: none"> 1. Privacy and data protection 2. User growth is nearing saturation 3. Too many advertisements 4. Dissemination of false information
Opportunities	Threats
<ol style="list-style-type: none"> 1. Emerging Markets Expansion 2. Content Innovation 3. Enterprise cooperation 	<ol style="list-style-type: none"> 1. Social media competition intensifies 2. Increased regulatory pressure 3. Changes in user preferences

For generation Y, the most popular platforms in US and China are Facebook and Weibo. As the Figure 6 shows,

Facebook leads the way among 2018 platforms in terms of users.

Number of people using social media platforms, 2018

Estimates correspond to monthly active users (MAUs). Facebook, for example, measures MAUs as users that have logged in during the past 30 days. See source for more details.



Source: Statista and TNW (2019)

OurWorldInData.org/internet • CC BY

Figure 6. Number of people using social media platform, 2018

Source: Our World in Data, Statista and TNW.

According to Table 2, the first factor that attracted a large number of users to Facebook and Weibo was Group Functions. Through Facebook and Weibo, users can interact with others by adding friends, joining interest groups, and following public figures or organizations, thus enhancing social communication. This contributes to a sense of community and belonging among users. The second factor is Multimedia sharing. These two platforms provide a wealth of multimedia sharing functions, allowing users to upload and share photos, videos, music, etc. This multimedia sharing feature allows users to more intuitively display their lives and experiences, while also being able to appreciate and participate in other users' creations and sharing, resulting in strong user participation. The third is Like Function. Facebook was the beginning of the like feature, which can simplify what used to be a complex expression of emotions through phone calls and comments into just a heart. The fourth is their large amount of user data, allows for in-depth data analysis to optimize product offerings and ad placements. The fifth one is Hot Spot Correlation Mechanism, due to the motivation of network effect "FOMO", people are afraid of missing out. This Mech-

anism will have users checking the hot search over and over again to keep themselves from falling behind in society. The sixth is their Transmissibility and instantaneity, the information on these two platforms is geometrically exponential spread, and people can get information about what's happening around the world at any time, which connects the whole world quickly. The seventh is the Celebrity and KOL effect. Many celebrities, opinion leaders and businesses interact with their followers through Weibo, enhancing the attractiveness and activity of the platform. Eighth, Facebook and Weibo have chosen to keep their pages simple while competing platforms have worked hard to add all sorts of fancy frills and features to their interfaces. Since consumers tend to choose platforms that are simple, easy to understand, and easy to use when choosing a product [25], these two platforms stand out among their contemporaries.

There are still areas of the world where Internet penetration is low but growth potential is high, and Facebook and Weibo can further develop emerging markets. The large user base determines a great possibility for quality content generation. By supporting the creation and distribution of original and premium content, Facebook and Weibo can

improve content quality and user stickiness. At the same time, both platforms can work with more businesses to provide customized social media solutions that enhance business user engagement.

Privacy and data protection are issues that Facebook and Weibo need to pay strict attention to due to the huge amount of data they hold. In particular, Facebook has been criticized for data breaches and privacy violations that could damage its brand image and user trust. Besides, in some developed regions, Facebook’s user growth is nearing saturation and new user growth strategies need to be explored. What’s more, in an effort to increase revenue, Facebook may overload ads, which could affect the user experience and lead to user churn.

These platforms have had many competitors over the course of their development, however they have all beaten them either by learning their competitors’ knack for win-

ning, or by acquiring competitors. Facebook has acquired eight platforms back and forth over the course of its development, eliminating a potentially large competitor by acquiring Instagram during its fast-growing infancy. In 2014, Facebook acquired WhatsApp again, gaining huge market share in the mobile messaging space and eliminating the threat WhatsApp could have posed to its monopoly. Approaching Generation Z, emerging social media platforms such as TikTok are attracting a large number of young users, posing direct competition to Facebook. Younger users may be more inclined to use more private or novel social platforms, which could affect Facebook’s appeal. At the same time, tighter regulation of social media globally could limit Facebook’s operational freedom and data usage.

4.2.3 Generation Z: TikTok & Douyin

Table 3. SWOT of TikTok & Douyin

Strengths	Weaknesses
<ol style="list-style-type: none"> 1. Highly immersive services: “Recommended for You” 2. Short videos with all sorts of fantastic reversals and highlights 3. Automatic Continuous Play Popup Mechanism 4. Streaming live banding 5. Easy to become an internet celebrity 6. Vertical Video 	<ol style="list-style-type: none"> 1. Homogenization of content 2. Highly technology-dependent 3. Content quality varies 4. Copyright issues
Opportunities	Threats
<ol style="list-style-type: none"> 1. International market expansion 2. New Business Models: VR/AR 3. Popularization of Mobile Phones 	<ol style="list-style-type: none"> 1. U.S. Government Repression 2. Competition for short video platforms is fierce

The most influential platforms in Generation Z are tiktok and Douyin in US and China. Tiktok has over one billion active users across the world, and that number continues to grow, and currently, it is the most downloaded free

entertainment app in the Apple app store. As the Figure 7 shows, according to Sensor Tower data, TikToks sits at the Top 1 mobile app downloads worldwide in the June 2024 list.

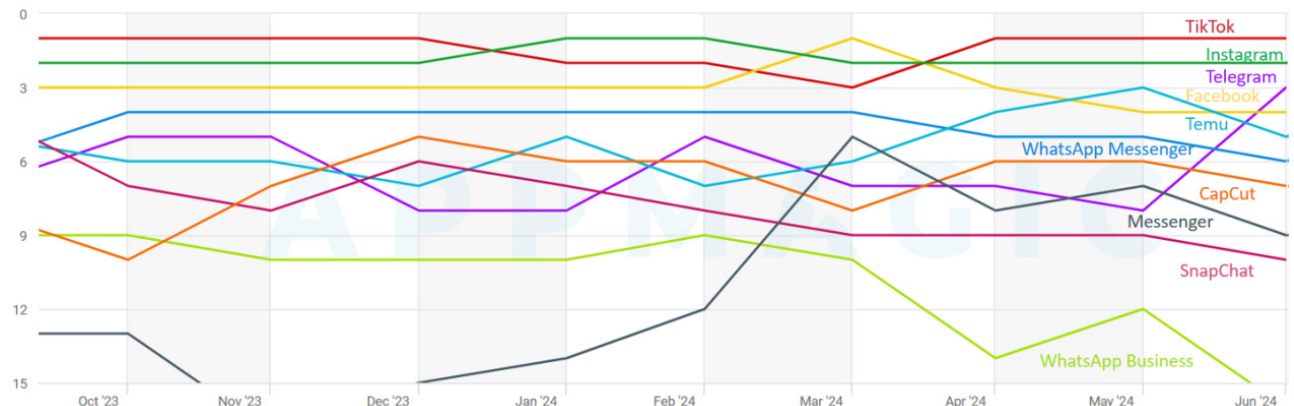


Figure 7. 2024 Web Platform Ranking

Source: AppMagic.

According to Table 3, Douyin and Tiktok have successfully found the triggers to make people addicted. First of all, highly immersive services that maximize the user's time on the site, thus providing insights into the user's psychological profile, and thus altering the "Recommended for You" page to create addictive behaviors. Everyone's Douyin and Tiktok will gradually evolve into something they like more, thus increasing addiction. Secondly, Douyin and Tiktok mainly contains short videos with all sorts of fantastic reversals and highlights. In the age of information explosion, generation z's attention tends to be fragmented, and these short videos can grab their attention within seconds. Thirdly, Automatic Continuous Play Popup Mechanism applies accurate algorithmic recommendation so that users can browse their favorite content without searching by themselves, which increases the length of users' usage and thus enhances user stickiness. Fourth, the use of live streaming bandwagons in Douyin and Tiktok has attracted significant financial flows. Fifth, Douyin and Tiktok give users an expectation that everyone has a chance to be an internet celebrity. This helps to motivate users to actively publish their works on the platform and to try to innovate and optimize the content of their works, thus improving the quantity and quality of the platform's works. Lastly, vertical video brings huge traffic to Douyin and Tiktok. Douyin's data shows that its vertical advertising can increase the play completion rate by 9 times compared to the horizontal version, visual attention by 2 times, click-through rate by 1.44 times, and the interaction rate (likes and comments) by 41 percent. Vertical screen video also shows great potential in advertising and marketing. Snapchat's ad test found that vertical screen video has 9 times higher ad completion and 2 times higher visual attention than horizontal screen video. This shows that vertical screen videos have significant advantages in attracting users' attention and improving advertising effectiveness. According to QuestMobile, smartphone users hold their phones vertically rather than horizontally 94% of the time; 52% of cell phone users are accustomed to locking the screen orientation to vertical. This suggests that users prefer to view their phones in portrait orientation when using them, and Tiktok and Douyin have captured this well.

Tiktok as Douyin's platform has achieved some success globally, but there are still a lot of potential markets waiting to be developed. In addition, the new technology brings new business models, in addition to the existing advertising and bandwagon model, Tiktok and Douyin can also explore virtual reality (VR), augmented reality (AR), etc. Furthermore, the 53rd Statistical Report on the Internet Development in China released by CNNIC shows that

as of December 2023, 99.9% of Chinese internet users access the internet via mobile phones. The proliferation of smartphones has allowed Douyin, which was designed with mobile users in mind from the outset, to swiftly align with the tastes of Generation Z, a demographic that has grown up with a mobile phone in every hand.

Douyin and Tiktok have become a favorite of generation z, but there are still some weaknesses. firstly, as the platforms become more popular, the content may become homogenized, which affects the user experience. Secondly, their main functions rely on algorithms and technology, which could have a serious impact on the platforms in the event of technical vulnerabilities or hacking. In addition, although the content on Douyin and Tiktok is diverse, some of the content is of low quality, which may affect the user experience and the image of the platform. Finally, they are prone to copyright issues, as some of the content on the platforms may be involved in copyright disputes and carry legal risks.

4.3 Counterfactual Hypothesis

This paper uses the counterfactual hypothesis method to prove the impact of the aforementioned platforms on their corresponding generations by negating and re-characterizing the facts that have already occurred in the past.

4.3.1 AOL & BBS's impact on generation X

Hypothesis 1: If AOL and BBS did not exist Without AOL and BBS, society and consumers would face a series of changes. Firstly, in terms of social interaction, people would have to rely more heavily on traditional communication methods such as phone calls, letters, or face-to-face conversations. The rise of online socializing was largely driven by these early internet service platforms, which provided people with cross-regional and instant communication. Without them, people might find it more difficult to maintain long-distance relationships, and the expansion of their social circles would be limited. For consumers, the shopping experience would also undergo significant changes. In an era where e-commerce was not yet prevalent, consumers primarily relied on brick-and-mortar stores for shopping. While AOL and BBS did not directly offer shopping services, they laid the foundation for the rise of e-commerce and fueled the development of online shopping platforms. Without these platforms, consumers might rely more heavily on traditional shopping methods, such as visiting physical stores or ordering goods through phone calls or mail. Lastly, from a broader perspective, without internet service platforms like AOL and BBS, the overall digitalization process of society might have been hindered to some extent. These platforms played a crucial role in promoting the popularization and

application of internet technology, laying the groundwork for subsequent internet development. Without them, we might not have witnessed such a prosperous and diverse internet ecosystem as we do today.

Impact on generation X

The promotion of information sharing by AOL and BBS has made generation X accustomed to acquiring and disseminating knowledge and information online. Content pushing may expose generation X to information overload, making it difficult to filter out valuable content, while they may become accustomed to passively accepting pushed content, reducing the incentive to actively seek out information. Anonymity allows generation X to express its views and emotions more freely, reducing social pressures and risks. However, anonymity can also lead to cyberviolence and inappropriate behavior, affecting the health of the online environment. The real-time interactive approach satisfies generation X's socialization needs, but it may also make them overly reliant on online socialization, which affects their real-life relationships.

4.3.2 Facebook & Weibo's impact on generation Y

Hypothesis 2: If Facebook and Weibo did not exist

If Facebook and Weibo had not been created, firstly, in terms of information dissemination, access to news and information will become more limited, with Facebook and Weibo playing an important role in aggregating and distributing information in generation Y, making it easy for users to access a wide range of news and information. Without these platforms, users may need to actively seek and filter information and spend more time and effort to screen and verify the authenticity of information, and the efficiency and speed of information dissemination may also be affected. Secondly, Facebook and Weibo are important sources for generation Y to get reviews of goods and services. Without these platforms, consumers might have to rely more on recommendations from friends, family, or offline experiences to make purchase decisions, and the social functions on e-commerce platforms (such as product reviews, sharing of purchases, etc.) would become even more important. Thirdly, brands and companies might rely more on traditional media advertising, offline events, and other methods to promote their products and services. Lastly, the diversity and inclusivity of public discourse might decrease to a certain extent.

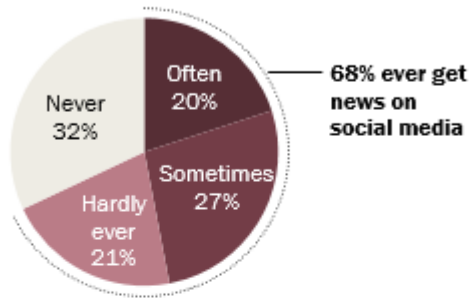
Impact on generation Y

The prevalence of Facebook and Weibo has changed generation Y's social habits. First, Facebook and Weibo have broken geographical barriers, enabling individuals to

connect with people from all over the world. This kind of cross-border and cross-cultural exchange has broadened the concept of "friendship" beyond geographical proximity or traditional social circles [26]. By joining groups of shared interests, following interesting pages or accounts, generation Y can meet people who share similar hobbies and values, thereby enhancing the diversity of their social circles [27]. Outside of Facebook and Weibo, people may only have 10 deep friends, but the real-time communication and interaction features of Facebook and Weibo allow people to get to know 100 people. These platforms have enabled generation Y to broaden their range of contacts and to open themselves up more readily on the Internet. Furthermore, social interactions on Facebook and Weibo have made the definition of "friendship" more diverse and inclusive. People no longer define friends solely based on traditional factors such as blood ties, geography, or academic backgrounds, but instead pay more attention to the compatibility of shared interests, values, and lifestyles. As social relationships continue to evolve and change, the definition of friends will also undergo dynamic changes. On these platforms, people can easily add new friends, delete those who are no longer in contact, or re-establish connections with old friends. This flexibility has made the concept of "friendship" more dynamic and open. Additionally, Facebook and Weibo created the Hot Spot Correlation Mechanism based on people's fear of missing out mentality, and then the popularity of these two platforms in turn contributed to generation Y's FOMO mentality. In addition, Facebook and Weibo have brought the lives of celebrities closer to people, which has created a frenzy of star-chasing among generation Y and accelerated the development of the market for celebrity-derived products. Generation Y may derive satisfaction or develop anxiety by comparing their own content with that of others, affecting their self-perception and mental health. In addition, Facebook and Weibo have reduced the cost of spreading false information, generation Y has become less likely to trust online information and has become more cautious in judging information. The Figure 8 below shows Americans' attitudes toward social media news. Finally, Facebook and Weibo lead to an increase in societal productivity by improving the efficiency of teamwork and communication. According to the data in Feenstra et al. 2015 and Penn World Table 2021, which reflect the productivity of people in 2017 and 2019 (see Figure 9; Figure 10), respectively. These two graphs illustrate the increase in productivity from 2017 to 2019 as the popularization and use of digital platforms spreads.

About two-thirds of Americans get news on social media

% of U.S. adults who get news on social media ...



But most social media news consumers expect news there to be inaccurate

% of social media news consumers who say they expect the news they see on social media to be ...



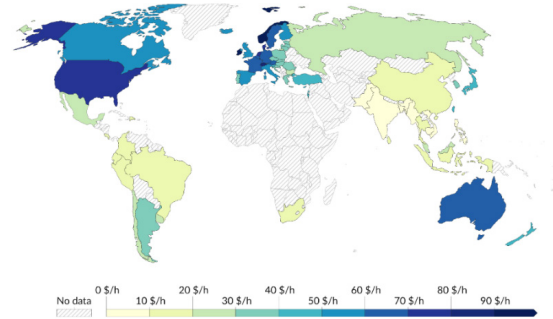
Note: No answer responses not shown.
Source: Survey conducted July 30-Aug. 12, 2018. "News Use Across Social Media Platforms 2018"

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Figure 8. Percentage of Social Media News Consumers Expect

Productivity: output per hour worked, 2017

Productivity is measured as gross domestic product (GDP) per hour of work. This data is adjusted for inflation and differences in the cost of living between countries.



Data source: Feenstra et al. (2015), Penn World Table (2021) | OurWorldInData.org/economic-growth | CC BY
Note: This data is expressed in international-\$ at 2017 prices per hour.

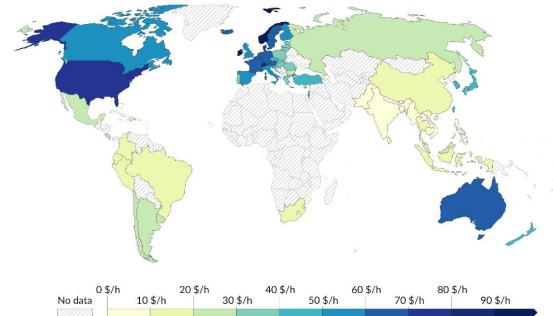
1. International dollars: International dollars are a hypothetical currency that is used to make meaningful comparisons of monetary indicators of living standards. Figures expressed in international dollars are adjusted for inflation within countries over time, and for differences in the cost of living between countries. The goal of such adjustments is to provide a unit whose purchasing power is held fixed over time and across countries, such that one international dollar can buy the same quantity and quality of goods and services no matter where or when it is spent. Read more in our article: What are Purchasing Power Parity adjustments and why do we need them?

Figure 9. Productivity: out per hour worked, 2017

Source: Pew Research Center.

Productivity: output per hour worked, 2019

Productivity is measured as gross domestic product (GDP) per hour of work. This data is adjusted for inflation and differences in the cost of living between countries.



Data source: Feenstra et al. (2015), Penn World Table (2021) | OurWorldInData.org/economic-growth | CC BY
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Figure 10. Productivity: output per hour worked, 2019

Source: Our World in Data, Feenstra et al. (2015), Penn World Table (2021).

4.3.3 TikTok and Douyin’s impact on generation Z

Hypothesis 3: If TikTok and Douyin did not exist
Firstly, without TikTok and Douyin, information dissemination would rely more heavily on traditional media such as television, radio, and news websites, potentially slowing down the speed of information spread and reverting to more traditional formats. Content creators would also shift towards producing longer videos, image-text combinations, and other more diversified content forms to satisfy user needs. Secondly, in terms of entertainment choices, users might spend less time watching short videos and

instead seek out movies, TV series, games, and other forms of entertainment. In social interaction, users would rely more on traditional social platforms like WeChat and Weibo, and community cultures may no longer revolve around short video challenges and internet memes, instead evolving into new interaction patterns and community characteristics. Furthermore, brand marketing would have to reassess its marketing channels, reducing its reliance on short video platforms and turning to traditional marketing methods such as TV advertisements and social media advertising. At the same time, consumers' purchasing decisions would be influenced by more traditional factors, such as product reputation and price promotions, rather than solely being influenced by live streaming sales and user-generated content (UGC) on short video platforms.

Impact on generation Z

As cutting-edge contemporary platforms, they also face a number of threats. For example, TikTok faces the risk of a total ban in the U.S. in 2024, affecting its operations and user base in the country. Furthermore, the competition among various short video platforms is very fierce, and even some platforms that were initially focused only on graphics and long videos have launched short video features, such as RED and Bilibili, and these competitors may pose challenges in terms of user experience and business model, crowding out Douyin and Tiktok's market.

TikTok and Douyin's highly immersive services and automatic continuous play popup mechanism may confine generation Z to an information cocoon, exposed only to content similar to their own interests and perspectives, which may limit their exposure to and ability to understand different perspectives. The fast pace and exciting content of short videos makes generation Z more inclined to consume media content quickly rather than thinking deeply or focusing on a topic for an extended period of time. The various mechanisms of TikTok and Douyin were developed in response to generation Z's fragmented attention span, and their popularity may then, in turn, make generation Z even more susceptible to being attracted to a wide range of exciting content, leading to further fragmentation of attention and difficulty in focusing on a single task for extended periods of time. Generation Z, who are used to using TikTok and Douyin, can spend a lot of time watching videos without realizing it, leading to a weakened sense of time, which affects their daily lives and work efficiency. The autoplay mechanism makes it easier for users to become addicted to the platform, forming a dependency on Jitterbit, reducing time and opportunities for other activities.

5. Discussion

5.1 Results

Through a wide range of data collection and comprehensive SWOT analysis, it can be summarized that the one key reason why each generation's dominant social media can be successful is that they have their own innovative point of adapting to the trend of the times, for example, BBS and AOL gave people a platform to communicate and share information, which was exactly what people needed in the early stage of the development of the network. But at the same time, these social media are also gradually eliminated by the times because there are new software will continue to innovate, so as to occupy the digital market, and these ate a period of time to the welfare of the times of the software have trouble updating the system to adapt to the new trend, so that the popularity of the software will be constantly replaced. This also gives all the social media inspiration: must be in line with the trend of the times and have their own unprecedented innovation, and to be constantly updated to adapt to the trend of the times, or will always be replaced by more innovative software. Additionally, platform and generation have a two-way relationship that shapes and influences each other. Platforms build their mechanisms to attract users based on the qualities of the generation, and the platforms popularity among each generation also plays a role in shaping the habits of thought and behavior of its corresponding generation.

5.2 Importance and meaning

Until this article, few articles have systematically analyzed and researched the various dominant social media in the United States and China over such a long time span, across three generations, to explore common structural denominators that drive success and domination. This kind of comparative analysis is important for all the social media that are developing or lagging behind, and it also allows users to get the social media software that suits them better and meets their needs.

5.3 Suggestions

With the relentless march of technological progress, digital platforms are witnessing a surge of diverse and innovative forces. Emerging technologies such as artificial intelligence (AI), blockchain, 5G communications, and the Internet of Things (IoT) are fundamentally transforming our digital interactions. To bolster their competitive edge and secure a dominant position in the market, digital platforms ought to: Initially, in the realm of technological integration, there should be an enhanced amalgamation of AI, machine learning, blockchain, IoT, and 5G to deliver

more intelligent and expeditious services. By harnessing the power of big data and AI, platforms can provide a more tailored user experience and bespoke services that cater to the variegated demands of their user base. Subsequently, the employment of augmented reality (AR) and virtual reality (VR) technologies can significantly augment the real-world interactivity, fabricate entirely immersive virtual environments, and furnish lifelike visual and auditory stimuli. Furthermore, enabling user interaction with virtual entities through gestures and voice commands can engender an immersive experience, thereby escalating user engagement and fidelity, and prompting users to invest more time and resources on the platform. Moreover, platforms ought to foster the creation of user-generated content and ensure the provision of high-caliber original content. Cross-platform compatibility should be a priority to ensure a frictionless user experience, which in turn can augment user retention. In addition, the research presented in this paper has observed that previous platforms have often subordinated social responsibility to the imperative of outperforming in the competitive landscape. Mechanisms such as vertical screens and push notifications have been identified as contributing factors to prolonged mobile phone usage and the potential for internet addiction. An overemphasis on social responsibility might, therefore, erode a platform's competitive standing. However, the evolving societal context is placing increasing importance on social responsibility [28]. Consequently, future digital platforms must integrate a strong sense of social responsibility into their competitive strategies. This includes adhering to a user-centric philosophy, prioritizing privacy protection, and ensuring transparency and security in data handling. Adopting prudent operational tactics and striving for continuous improvement and regulatory compliance can earn the trust of the market and the public. Nevertheless, striking an equilibrium between mechanisms designed to captivate users and the preservation of their physical and mental well-being remains a subject that necessitates further exploration. Future research endeavors could delve into this area. By adopting these approaches, digital platforms can not only secure a competitive advantage but also ensure their long-term viability, achieving a harmonious synthesis of economic prosperity and social accountability.

5.4 Limitations

All of the analyses in this article are based on other literature or qualitative analyses, and because much of the data is difficult to find and may be inadequate or inaccurate, the quantitative analyses are missing, and as a result, the suggestions and even the analyses of the article are not very accurate. Future studies could continue to conduct

quantitative research in this area so that we can provide more accurate analysis and suggestions.

6. Conclusion

This study digs deeply into the dynamics that have shaped the dominance of social media platforms in the United States and China across three distinct generations—Generation X, Generation Y, and Generation Z. By using a diverse range of data sources, including the data from International Telecommunication Union, as well as insights from websites like Statista, HubSpot, and Our World in Data, this study provides a nuanced understanding of the evolution of social media platforms and their impact on various generations.

Through the application of SWOT analyses, we have unpacked the intricate interplay between a platform's internal strengths and weaknesses, and the external opportunities and threats that it faces. For Generation X, platforms like America Online (AOL) and Bulletin Board Systems (BBS) thrived on their ability to foster information sharing and community building amidst the nascent stages of the internet. Their 'carpet-bombing' marketing strategies and one-stop service offerings, coupled with user-friendly interfaces and anonymity, propelled them to prominence. However, their eventual decline was hastened by technological obsolescence, limited innovation, and the emergence of more agile competitors. Generation Y witnessed the ascendancy of Facebook and Weibo, platforms that capitalized on multimedia sharing, group functions, and the influence of social media celebrities and key opinion leaders (KOLs). The massive amounts of user data collected by these platforms enabled them to refine their offerings and tailor them to individual preferences. Nevertheless, their continued dominance is challenged by issues related to privacy and data protection, user growth saturation, and increased competition. Moving into Generation Z, platforms like TikTok and Douyin have capitalized on the preference for short-form video content and immersive experiences. Their ability to harness the power of algorithms and create personalized content feeds has endeared them to this digitally native generation. However, managing user addiction and ensuring healthy online habits remains a challenge that these platforms must address.

This study underscores the importance of continuous adaptation and innovation in the fast-paced digital landscape. The dominance of any social media platform is fleeting, and only those that can evolve with changing technologies, user preferences, and regulatory environments will endure. Additionally, the intricate relationship between platforms and generations highlights the need for platforms to understand and cater to the unique needs and

expectations of each generational cohort.

Despite the richness of the findings presented in this study, it is important to acknowledge its limitations. Primarily, the reliance on qualitative data and the absence of a robust quantitative analysis limits the scope and generalizability of the conclusions drawn. Future research should strive to incorporate a more balanced approach, combining both quantitative and qualitative methods, to provide a more comprehensive and nuanced understanding of the dominance of social media platforms.

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