

The domestication of short videos: Experiences of the elderly users from Nanjing, China

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Abstract: This study explores the domestication of short videos among elderly users in Nanjing based on domestication theory to enable an understanding of the appropriation, objectification, integration, and conversion of these technologies into their everyday lives. Employing qualitative research, the study involved administering semi-structured interviews to 15 participants who are at least 60 years of age. The study is concerned with the factors influencing elderly people's usage of short video platforms, the difficulties they encounter, and the roles that short video platforms play in their social relations, schedules, and self-presentation. According to the research findings, the initial adoption of short video platforms is first initiated by family members or due to the novelty factor, while long-term usage by the elderly is often a part of recreation, communication, and education. In this sense, participants expressed the benefits of short videos, including social integration and the connection between generations, despite technical restrictions and content-related issues. This study provides a range of methodical recommendations for platform creators and regulatory bodies to improve elderly users' digital engagement and integration.

Keywords: Domestication, Elderly users, Short videos, Social relations.

1. Introduction

Two-thirds of the elderly population (aged 60 and above) in the world live in developing countries, and by 2050, this proportion is expected to rise to four-fifths [1]. According to the seventh national census data released by the National Bureau of Statistics of China in May 2021, the proportion of the population aged 60 and above in China is currently 18.7%, while those aged 65 and above account for 13.5% China Statistics Bureau [2] indicating a more severe level of population aging in China.

In 2024, the 54th "Statistical Report on the Development of China's Internet" pointed out that short video users accounted for 95.5% of the overall internet population, making it a universal application. As of that year, the proportion of new internet users aged 60 and above in China had increased to 20.8%. Among the internet applications newly used by these users, short video apps made up 37.3%.

Short video platforms have gained popularity among internet users due to their short, simple, and fast communication features, as well as their novel and diverse content. Among various short video apps, apps like *Douyin*, the Chinese version of *TikTok* Luo, et al. [3] has become the largest short video platform in China and one of the most popular social media platforms, with 715 million monthly active users. The average time spent by users per month is 41.4 hours QuestMobile [4] and it is known for its highly visual nature.

The elderly population is often regarded as "digital refugees" [5]. He believes that "digital refugees" are groups that are distanced from digitalization due to social, economic, cultural, and other factors. However, as society continues to change, the lifestyle and habits of the elderly, who were once

marginalized by the wave of new media, have undergone significant transformation. As the aging population grows, the elderly, once regarded as "digital refugees," have now become the largest user group in the mobile internet market. Dasgupta, et al. [6] research has shown that the anxiety elderly people feel about using new media can be reduced through experience accumulation and group training activities.

Through new media, elderly people can stay updated on the daily lives of their younger family members and share photos and videos with friends they rarely meet [7]. While a large number of elderly people still remain outside of the digital world, the trend of elderly people using new media is becoming increasingly evident.

In the eyes of many elderly people, short videos provide them with valuable and essential aspects of life. They are used to gather information, communicate, and engage in cultural and social activities [8]. However, as these technologies become more widespread, there is a relative lack of knowledge on how to integrate and adapt them into the daily lives of the elderly.

Most of the current research on short video usage among elderly groups in China is based on cross-sectional quantitative studies aimed at quantifying usage patterns. While these methods help identify patterns, they do not take into account personal experiences and cultural backgrounds when it comes to elderly people's use of technology. Further qualitative research, particularly from theoretical perspectives such as domestication theory, is crucial for better understanding the actual experiences, reasons, and challenges faced by the elderly. This serves as the theoretical foundation for the study, which aims to fill this gap by investigating the acceptance of short videos among elderly people in Nanjing. The study explores the following questions: What motivates elderly people in Nanjing to use the *Douyin* short video platform? How do they integrate these platforms into their activities? What social and cultural factors influence their usage behavior?

The research aims to grasp the usage context of short video platforms among the elderly users, including the acceptance, assimilation, and incorporation processes in Nanjing. Explore the impacts of short videos on social interactions, personal identities, and intergenerational interactions. Investigate the role of short videos in shaping social interactions, self-expression, and inter-generational relationships.

Achieving these objectives of the study will help to fill the gap in theoretical knowledge regarding the elderly users' technologies usage and the specifics of their socio-cultural utilization in the context of China's cities.

2. Literature Review

2.1. Domestication Theory and Its Application to Digital Media

The domestication theory provides an overly diverse outlook that focuses on factors like circulation, acceptance, and normalization of technologies in everyday life [9]. It was first employed in the research examining the household media technology and has been used later in analyzing digital and mobile media regarding technology in practice [10].

The theory of domestication has been developed as an analytical framework to explain how people and households integrate technologies into their everyday practices. It was first used to study technologies for humanities at home but in the recent past has been employed widely in the study of digital and mobile media [9]. Domestication theory comprises four phases: appropriation, which involves getting knowledge and taking ownership, objectification, an acceptance stage involving integration into daily lives, incorporation which is the development of usage behavior and conversion which is a positive or negative transformation process. The theory emphasizes the interaction between technology, its users and the context of usage.

Subsequent research has also shown the flexibility of domestication theory for use in different technological domains. For example, Deng, et al. [11] studied the process by which elderly people adopted the mobile health application through a comparison of old-age and middle age rate of mobile technology adoption. They found that the process of domestication was contingent upon the perceived

important usage of the technology and how it fits into people's daily lives. Along the same line, Hargreaves, et al. [12] analyzed the adoption of smart home devices using the lens of domestication theory and identified several tensions between the technological advancements and actual adoption, especially among elderly people. Collectively, these studies point to the fact that technology adoption is a complex process that occurs over time and can be shaped by the cognitive processes of a particular person, as well as culturally related factors.

However, the domestication theory can be applied to various contexts, and there are a limited number of publications that address the use of short video platforms based on this theory, especially among elderly users. Haddon [9] proposed that domestication theory could be used to look at emerging technologies but there is currently the lack of knowledge on how the elderly deal with the specific characteristics of short videos, particularly, the algorithm-induced personalization and content generation based on participation. This study aims to fill this gap by investigating the domestication of short videos among elderly users in urban China to enable understanding of how they develop usage and how the short video platforms help or harm them.

2.2. Elderly Populations' Use of Digital Platforms Globally and in China

One of the emerging trends that has been widely explored in recent research is elderly people's use of digital platforms, a trend noted due to shifting demographics of ageing people. This shift is facilitated by the increasing ageing population of technologically savvy people who have either worked with or engaged in the innovation of some form of technology. This increases their likeliness of appropriating, objectifying, incorporating and converting to emerging technological innovations such as short video social media platforms as they age. Karavidas, et al. [13] found that elderly people's use of computers or mobile phones improved their life satisfaction, with female elderly individuals having less knowledge of new media and lower confidence in using new technologies. Christina [14] suggested that after retirement, the strongest needs among the elderly are media information and communication interaction. Research has revealed the positive influence of digital media on the elderly, like increased social interaction, increased life satisfaction, and information [15]. According to the systematic review by Hill, et al. [16] the major incentives encouraging the elderly users engaged in ICT use were communication with family and participation in online forums.

In the Chinese scenario, Internet celebrities and social media applications such as *Douyin* and *Kuaishou* have altered the elderly's relationship with new media. Yao, et al. [17] determined that entertainment, education, and social connection are the main reasons seniors in China use short video platforms. These platforms also offer the facilities of self-presentation, through which the users can post the content or disseminate it to wider audiences [18]. However, there are still issues such as low digital literacy and issues with usability of the technology [19]. According Au [19] the aging population are among the biggest portion of the Chinese people who are left behind by technological adoption because of issues like digital literacy and usability of the technologies.

Nevertheless, there is limited knowledge on elderly users regarding short videos since most of the existing work revolves around broader categories of digital engagement, including social media or mobile health applications. Aspects like domestication of short videos require more focus due to the short videos' characteristics, including brevity, the primary use of visuals, and recommendations based on algorithms. In addition, studies just present objective data about usage patterns in their quantitative analysis, but in qualitative analysis, such as interviews, life stories, and socio-cultural contexts, more can be understood about elderly users.

Socio-Cultural Factors Influencing Technology Adoption Among the Elderly

Socio-cultural factors are the main influences that affect the acceptance of digital technologies among elderly populations. They include family structure and roles, societal perceptions of elderly persons, and cultural beliefs on technology. In collectivistic societies such as China, the family context significantly influences interactions with technology among the elderly [20]. In turn, younger members of the family help elderly people get acquainted with the digital platforms and support them in the

process [21]. This trend is evident in interaction between younger generations and the elderly in mobile applications like WeChat, an instant messaging application launched by Dai, et al. [22].

Kim and Merriam [23] conducted a media literacy study on elderly people's use of computers, concluding that media learning is a form of social participation for the elderly, and that the surrounding environment plays a significant role in promoting this group. Niehaves and Plattfaut [24] combining the digital divide theory, studied the factors influencing elderly people's use of media, identifying learning ability, media usability, and media expectations as important influencing factors.

These socio-cultural factors are useful especially with regards to the short videos where participation and interactiveness are common. For instance, sending short videos to relatives or participating in challenges featured on a given platform can help foster interactions between generations. However, the impact that is created by these activities and how elderly users can either embrace or resist them is still unknown. This research intends to contribute to this discussion by exploring the socio-cultural factors associated with the use of short videos among elderly residents in Nanjing.

While significant progress has been made in understanding elderly populations' use of digital technologies, there are several gaps that contemporary research must address. For example, previous studies have mostly concentrated on overall digital environments or certain tools, such as social networks, mobile devices and mobile applications. Short videos, as a trend that has emerged recently, have not undergone adequate research focus. Yet, short videos have recently experienced a significant boost of popularity even among elderly users. The characteristics of short videos that are algorithm-based and participatory need to be discussed separately because of their features, potential influence on different population demographics and threats.

However, most studies to date are based on quantitative approaches and employ self-administered questionnaires and statistical comparisons of usage profiles and constraints. These studies, therefore, do present quantitative data, but they lack information that is qualitative in nature, such as the reasons and perceptions of elderly users and the socio-cultural factors influencing technology acceptance among the population demographic. Additionally, while prior research with China's elderly has examined the influence of familial structure and cultural perceptions, few have concentrated on urban environments like Nanjing. Urban environments also come with their own risks and benefits when using technologies which include high access to internet connectivity and diverse social circles. Studying these perspectives is important for achieving results that are specific to certain population groups.

Finally, although domestication theory has been used to analyze other forms of social media and other digital technologies, it has only been sparingly applied to the context of short videos. Domestication theory is especially applicable when discussing elderly users since it focuses on the social, cultural and contextual factors that influence technology use. This is accompanied by an acknowledgment of the active role of users in governing their relationship with technology and stands in contrast to other constructs such as digital divide and technological determinism [9]. Analyzing how elderly users engage with short video platforms using this framework can contribute to understanding processes of technology acceptance and implementation. Therefore, with these gaps in mind, this study provides a deeper insight towards the domestication of short videos particularly among the elderly, with emphasis on the socio-cultural context of Nanjing in urban China.

3. Research Method

This research uses qualitative method with specific interest in the experiences that senior citizens in Nanjing undergo every time they use apps like *Douyin*. The decision to use the qualitative method of data collection does not only stem from the fact that technology often has an impact on the everyday lives of its users but also because the domestication process entails capturing the lived experiences of these users [25]. They argued that the method enables the research to delve deeper into how the participants incorporate, use, and respond to the short videos as a part of their daily existence. Semi-structured interviews allow for both comparability between participants' accounts and variation to

reveal their individual narratives [26]. This method is particularly relevant to the aims of the study as it involves asking participants about their reasons, difficulties, and views regarding short video platforms and their incorporation into daily life, therefore generating qualitative data through the lens of the domestication theory.

According to Article 2 of China's Law on the Protection of the Rights and Interests of Elderly People, the age threshold for being considered elderly is 60 years old. That is, any citizen of the People's Republic of China who is 60 years or older is considered an elderly person. Therefore, this study selected 15 participants aged 60 or older, all of whom reside in Nanjing.

Nanjing is one of the cities in China to have entered the aging population trend relatively early. According to the *2023 Nanjing Elderly Population Information and Aging Services Development Report*, by the end of 2023, the population of Nanjing's permanent residents aged 65 and above was 1.5287 million, accounting for 16.01% of the total population. The population aged 60 and above was 2.0972 million, accounting for 21.97% [27].

As a major city in the Yangtze River Delta region of China, the Nanjing municipal government regularly organizes activities to help elderly people stay informed about the latest developments in technology, assisting them in keeping up with the digital age. Therefore, this group was selected because they are increasingly engaging with digital technologies, as well as due to the unique social and cultural context of Chinese cities.

1. **Recruitment Method:** The participants were recruited using the snowball sampling technique whereby the initial contacts were made with the elderly individuals. Other participants were volunteers, and caretakers of community centers and community-based organizations offering care for elderly people in Nanjing. This method was selected due to its effectiveness in identifying the particular age group that may be difficult to reach. It also assisted in trust because the referrals are from trustworthy and known people within the community [28].
2. **Participant Anonymity:** To maintain their anonymity, each participant was given an ID number and a code name like P1, P2, P3 to P15. Basic information including age, gender and their employment history was obtained as a form of background check for their answers.
3. **Participant Diversity:** The sampling tried as much as possible to be diverse in terms of socioeconomic status, educational attainment, and digital technology proficiency. This diversity helps to have a wider perspective towards all the factors affecting the domestication of short videos among the elderly population of Nanjing.

3.1. Data Collection

3.1.1. Location and Duration of Interviews

To build rapport and comfort, some participants invited the researcher to come to their homes or popular recreational places as these settings were considered familiar to the elderly participants. The interviews took place from July to September 2024, with each interview lasting approximately 40 to 50 minutes so as to give enough focus on the various topics while at the same time, not make the participants too tired or bored.

3.1.2. Ethical Considerations

- i. **Informed Consent:** As for the subjects, they were given an information sheet about the purpose of the study, the procedures, and the measures taken to ensure confidentiality. In conducting the interview, written consent was sought and obtained from all the participants.
- ii. **Confidentiality:** All audio recordings and transcripts were securely kept and all sensitive information was deleted from the data.
- iii. **Voluntary Participation:** All the participants were told that they have the freedom to pull out from the study at any time with no harm done to them.

3.1.3. Recording and Transcription

Participants were asked for permission to record interviews, which was then transcribed and analyzed in detail. The process of comparing the audio files and the transcripts was done to check for the level of accuracy and omission of some parts of the conversations.

3.2. Thematic Analysis

Data analysis encompassed a thematic method, which was underpinned by the stages of the domestication theory. This type of thematic analysis is particularly appropriate when conducting a study based on theoretical frameworks within the context of qualitative data analysis [29].

3.2.1. Coding Process

- i. Transcripts were first read and re-read to achieve familiarity with the data.
- ii. Initial codes were generated, focusing on key aspects of domestication theory: acquisition, commodification, assimilation, and transformation. For instance, codes underneath appropriation involved 'family introduction' or 'adoption out of curiosity'.
- iii. Codes were then organized into broader themes that aligned with the stages of domestication.

3.2.2. Validation of Themes

To enhance the reliability and credibility of the identified themes, the study employed peer debriefing with colleagues and comparisons with the literature. Patient quotations were employed to substantiate the study results to add credibility and richness to the outcomes.

The steps described above to get data for this study were intended to address the methodological challenges of effectively researching short video domestication among elderly residents in Nanjing. Collectively, the choice of conducting semi-structured interviews, managing snowball samples, and using thematic analysis that is precedent by the domestication theory offer a strong methodological foundation for capturing the dynamics of technology users and their socio-cultural environments. These insights will help in achieving a better understanding of the current status of elderly users and their behavior in the digital environment, as well as in identifying key areas for improving digital inclusion and participation.

4. Analysis of Data

4.1. Appropriation

4.1.1. Common Entry Points

The elderly participants stated that their first encounter with short-video applications was through their social circles, which emphasizes the role of family, peers, and society in enhancing the process of technology adoption among elderly people. These points of access give rise to how short videos have been contextualized within intergenerational relations, communal interactions, and health-owned approaches.

4.1.2. Family Influence

Friends and family members including kids and grandchildren greatly impacted the elderly users' initial contact with short video social media platforms. Sometimes, it was done out of concern and with a view to keeping older relatives amused, informed. For instance, the younger relatives not only downloaded the apps on the elderly users' phones but also offered some initial directions regarding account creation and settings.

"I started using Douyin because my daughter installed it for me to watch videos whenever I felt lonely and she guided me through the steps of using it."(P7)

Another reason for the family-driven adoption was to create intergenerational relationships.

Through the same social media apps, elderly users felt connected to the lifestyle and activities of the young generations of their families. These small cooperation in sharing and discussing short videos helped families to focus on the similarities and feel that they belong to the same group. This was especially the case when physical contact with families and relatives was prohibited during the COVID-19 pandemic, as this enabled people to stay connected and keep interacting despite physical barriers.

“During the COVID-19 pandemic, I stayed at home alone and couldn’t go out. I would record some cooking videos and post them on Douyin. Sometimes, I also shared them with my kids and friends, and they would give me likes.”(P4)

4.1.3. Peer Influence

In addition to family, friends, and the community, the social factor of peer motivation also contributed to the use of short video platforms among the respondents. Many of them said that they became aware of these platforms either from relatives, friends or even other elderly people during parties, meetings or recreational activities.

“I learned about Douyin from a friend within the Community Senior University. She brought up a very entertaining video for me, which is why I needed to watch another one on my own.” (P2)

This positive word-of-mouth escalation not only led to more people signing up for the platforms after hearing or being informed about it by friends and family but also resulted in them also becoming promoters, encouraging a virtuous cycle of adoption as they recommended the platforms to other peers.

The social aspect of these recommendations also helped elderly users feel more comfortable experimenting with new technologies that they may not have prior experience using. The fact that others in their age group had been able to interact with short videos made them confident that these platforms were friendly and entertaining.

4.1.4. Health-Related Content

Health-related content emerged as one of the most significant factors influencing the use of short video platforms and mobile apps among the elderly. For instance, Douyin apps contain countless videos that give elderly people recommendations, hints, and tips on how to behave in case of chronic diseases, how to exercise, and to support mental health. The type of content that was especially popular for elderly users was the health-related one as many of them tried to find ways to feel better and stay healthy.

“I developed a liking for short videos after seeing a clip from Douyin on exercising for arthritic pain. It was as if the video taught me the exercises with such easiness. I had begun to perform the exercises on daily basis and followed daily recommendations from the short video creators.” (P13)

These types of vides motivates them to learn even more health tips. These participants considered these platforms as relatively convenient and graphically effective as compared to books or entertaining health related programmers aired on the television.

Sometimes, such Health-related content also had a functional application, particularly in handling one’s and one’s family’s health issues. Peer or younger relatives often received such videos from elderly users, making it a circulation of knowledge. Not only did it encourage the continued use of the short video platforms, but also framed them as active participants in their social networks.

4.1.5. Social Integration

The need to be socially engaged also played a crucial role in ensuring that the users in the elderly age group engaged in short video platforms. Some of the participants felt that through these platforms, they could easily be able to connect with family, friends and even strangers despite the age differences and other social divides, and form meaningful relationships. The concern for ‘not missing out’ was also evident as elderly users involved themselves in sharing videos, engaging in platform challenges, or even responding to comments and likes making them feel more socially included.

“If I am sharing a funny video with my grandchildren, you know they will be quick to respond. It makes me feel like I am part of their world.” (P5)

Short video platforms also acted as places where users with similar interests such as hobbies and culture could meet and interact. Some people become active in certain communities where topics related to traditional Chinese medicine, local history, or folk music were discussed. These computer-mediated interactions supplemented their face-to-face interactions, thus establishing an integrated cyber-social life.

“When I see a video I like, I leave a comment below, and my comments can be seen by others. They give me likes, and through this, I’ve made several new friends.” (P6)

Furthermore, the smaller file sizes and ease of use for short videos meant that these features were well received by the elderly, who sought simple methods of interacting with the internet. As compared to long-form articles or niche applications, short videos offered instant utility and could be sampled with minimal effort, establishing themselves as an easily accessible form of technological engagement that resonated well with elderly users.

“I think watching Douyin short videos is the most convenient. Using those movie apps is too complicated, and movies and TV shows are too long. By the time you get to the end, you’ve already forgotten what happened at the beginning.” (P10)

What is notable is that elderly users managed to overcome these barriers using common entry points, such as family and peer support, content related to health issues, or the desire to find social rehabilitation. The factors discussed above collectively give credence to the relational and contextual factors that undergird the domestication of short video platforms among the elderly.

4.2. Objectification

4.2.1. Integration into Physical and Social Spaces

Once elderly users adopted short video platforms, these technologies became seamlessly integrated into their physical and social environments, shaping their everyday practices. Smartphones emerged as the primary device for accessing platforms like Douyin due to their portability and widespread availability. A smaller subset of participants preferred tablets, appreciating their larger screens, which reduced strain on aging eyes and simplified navigation.

“I switched to using a tablet because it’s easier to see the details and scroll without pressing the wrong buttons.” (P15)

The physical spaces where participants used these platforms reflected their personal routines and preferences. Many participants described watching short videos during leisure hours in private spaces such as their bedrooms, living rooms, or gardens. These settings provided a comfortable and distraction-free environment where they could immerse themselves in content. For instance,

“In the evenings, I sit in my favourite chair and watch Douyin videos until I feel relaxed enough to sleep.” (P1)

Beyond private spaces, short video platforms also made their way into social settings. Participants often shared videos during gatherings with friends or family, turning individual consumption into a collective experience.

“In our weekly mahjong group, we sometimes take breaks to show each other funny or interesting videos we found. It’s become part of our routine.” (P9)

This practice highlights how short video platforms fostered social interactions and strengthened bonds among peers. The convenience of accessing short videos anywhere and anytime further contributed to their integration into daily life. For example, participants mentioned watching videos while commuting, waiting at clinics, or during outdoor activities. These instances illustrate the adaptability of short video platforms to various contexts, enhancing their appeal to elderly users.

“I often watch short videos while waiting for the bus, so I don’t feel anxious.” (P5)

“As long as there’s free Wi-Fi, I can watch them. Besides at home, I also watch them when I go to the hospital for rehab treatments every week.”(P8)

4.2.2. Challenges in Mastering New Technology

While using short video platforms, the participants experienced immense obstacles in their adjustment to using these new technologies. Such difficulties pointed to the need to sustain assistance and enhance the layout and features of these interfaces for elderly individuals.

4.2.3. Navigating Interfaces

Some of the challenges encountered were general confusion on the layout of the features of short video apps. Some of the notable complaints were that the interfaces were too cluttered, sometimes with very small icons or hard to comprehend menus.

“Initially, I was confused about where to click on the website to look for videos that I was interested in and this led to frustration.” (P3)

This was compounded by a lack of user-friendly guides or tutorials, which meant some users had to rely on guesswork to figure out simple operations.

4.2.4. Managing Updates

Another challenge is the frequent app updates that make it difficult to settle on a particular approach, especially when testing an app or feature that is likely to receive updates more often than others. Some participants mentioned that updates changed the location and available features, which interfered with the learned experience they had developed before.

“Each time the application updates, I need to struggle to find out where things are again’. It is tiresome, and at times I feel overwhelmed and just give up.” (P8)

These feelings were especially acutely felt by individuals who could be categorized as the least tech-savvy in the population, who saw updates as obstructions rather than improvements.

4.2.5. Avoiding Unwanted Content

The recommendations given by the algorithm sometimes suggested unwanted (inappropriate or irrelevant) videos which participants stated that was not very helpful. Several respondents reported experiencing challenges with screen-out mechanisms that excluded content material that was not of interest or had no qualms.

“I was getting stuck with videos that have loud music or topics I disliked, and I did not know how to avoid them.” (P1)

This issue underscored the importance of offering more choices and providing better instructions on how to filter content.

4.2.6. Strategies for Overcoming Challenges

In order to deal with these challenges, participants often turned to support from younger users, other relatives, friends or junior acquaintances. Close relatives, specifically, plays an important role in providing necessary assistance to the elderly users regarding certain aspects of the app functionality and getting solutions to some of the problems they face while using the apps.

“My daughter was the one who showed me how to filter things that I consider undesirable.” This made my experience much better because I could focus on the videos I enjoy.” (P4)

Challenges were also solved through peer networks. Some of the participants can recall discussing tricks and tips that help them during their usage of the platforms during the social events and peer meetings.

“Well, in my book club, it is not only literature that we debate but also tips on the use of the Douyin app.’ It has become an essential and entertaining addition to our meetings.” (P6)

Some participants managed to discover their own ways of dealing with technology restrictions that were in place. For example, they modified their app preferences to turn off notifications or saved and turned-on notifications for favorite creators to easily find preferred content. Several went to the extent of writing down instructions on how to do certain formations on the blackboard, recorded lessons on how to record videos and where to save clips for later use.

“I’ve saved all the videos I like, and whenever they’re updated, I can see them as soon as I open the app.” (P12)

“Look at my notes; it records how to shoot and edit videos. I specially went to learn it, and by writing it down, I don’t have to worry about forgetting. Whenever I’m unsure about how to do something, I can just take it out and check.” (P11)

Altogether, these measures represent the capability of elderly users to cope and effectively engage the short videos platforms despite the obstacles. They also highlight the need for the availability of positive support systems and easy-to-navigate interfaces to address social concerns of elderly people when using the online platforms.

Through inviting short video platforms into their physical spaces and social lives, it was evident that elderly users were able to actively mediate such technologies. But overcoming these obstacles will prove to be vital in the efforts of making video-sharing services more accessible and accommodating to this group.

4.3. Incorporation

4.3.1. Role of Short Videos in Daily Routines

Participants noted that watching short videos was a part of their daily schedule and was useful for both entertainment as well as for practical purposes. Most shows during morning time were informative as it included matters like health tips, news among others while at night there were entertainment programs among others.

“Before going to sleep, I watch nature videos (landscapes) to help me relax.” (P9)

4.3.2. Changes in Communication Patterns

Another behavior that was impacted by short video platforms was the way the participants interact with their families and friends. Observations from the study revealed that there was a prevalent use of videos in communication among elderly users and this was particularly the case where the videos were used to initiate conversations or pass on opinions.

“I share videos related to health with my daughter – that is how I show her I care.” (P2)

Moreover, some participants stated that they belonged to certain online communities based on common interests, including traditional healing or music. Such interactions helped them to be more socially active and alleviated loneliness they would have otherwise experienced.

4.4. Conversion

4.4.1. Identity and Social Standing

The short video had a positive impact on participants’ self-identity and perceived social ranking. Older users expressed feelings of accomplishment of learning about a modern technology which was new to them and mostly related to the younger generation.

“My grandchildren respect me most because I can use Douyin just as they do.” (P15)

4.4.2. Self-Expression Through Video Sharing

The making and sharing of videos was considered a form of self-actualization to some of the participants. Such videos may include personal accomplishments, favorite interests, or cultural traditions.

“I upload videos of my calligraphy—it’s a way to keep my art alive and share it with others.” (P13)

4.4.3. Perceptions by Younger Generations

The young ones within the family found it acceptable whenever the elderly users consulted with short video platforms, as this was interpreted as flexibility and willingness to try other things. This vibrant relationship promoted inter-generational interaction and shared responsibilities. But some participants reported that they sometimes feel ignored by the younger generation of users who find their taste in content rather old-fashioned.

“Sometimes my grandson shares interesting videos with me. My son thinks I’m wasting time and feels that I should go to the park more often for a walk.” (P10)

“My son and daughter never like the short videos I post. They don’t like them and think filming people dancing in the square is boring; they see it as an activity for older people.” (P6)

4.4.4. Challenges in Self-Perception

However, some elderly users commented about being addicted to short videos for social interactions and entertainments despite the discoveries made from using the app.

“At times, I thought I am spending too much time watching videos rather than communicating with my loved ones.” (P14)

5. Discussion and Conclusion

The results of the study echo the four stages of the domestication theory, namely appropriation, objectification, incorporation, and conversion. These stages offered a theoretical model to understand how elderly residents of Nanjing incorporated short video platforms into their daily lives.

As pointed out in the appropriation stage, the involvement of family members, especially the young relatives, was found to influence the process significantly. An elderly person’s involvement in using certain platforms like *Douyin* and *Kuaishou* relied on their family’s persuasion, thereby showing that familial relationships played a crucial role in the use of technology [9]. Moreover, awareness of what is currently trending in terms of technological innovation and the desire to access particular genres of content, including health tips, also played a critical role in the adoption.

The objectification stage established how short video platforms were integrated in the physical and social contexts of participants. The target audience mostly used smartphones and tablets to access videos and this was done both individually and in social groups. This paper revealed that participants exchanged materials during the meetings demonstrating how technology consumption was a social process meaning that it was not only people’s decision to adopt the new technologies but also one that was influenced by the interaction with others [10]. In the incorporation stage, it is also noted that short videos have become an everyday necessity. Most of the individuals involved admitted that they utilized these platforms to entertain themselves, to learn something, and also as means of communication. This stage showed how it fit different functional chores, health education, relaxation, and affiliation.

Lastly, the conversion stage captured the impact of short video usage on identity and relationships among elderly members of the Nanjing community. Elders discovered technological competency as an opportunity to assert their independence and pride, which positively impacted their social status in their households. Sharing home-made videos also served as a way for them to express themselves and preserve their respective cultures. But a few participants complained of being so engrossed in the screens, thus making them portray the negative effects as well as the benefits of technology in their lives.

5.1. Socio-Cultural Implications

5.1.1. Impact on Social Inclusion and Intergenerational Relationships

Short video platforms positively impacted social integration by allowing elderly users to engage in shared digital culture and interact across generations. Watching videos with younger family members allowed for communication and better understanding of each other. For example, participants observed

that receiving videos elicited responses and made them feel interconnected with their grandchildren [21]. Besides kinship relations, short video platforms helped create communities for elderly users to connect with like-minded individuals. Such encounters allowed overcoming isolation; participants felt they belonged, consistent with Yang, et al. [30] who demonstrated that digital connectivity has a positive impact on quality of life in senior citizens.

Nevertheless, there were concerns regarding social paradigms and seniors using technological apparatuses as identified in the study. A number of respondents received rather dismissive attitudes from ‘newer’ users who deemed their content choices as old-fashioned. It is crucial to challenge such stereotypes to foster digital inclusiveness.

5.1.2. Addressing Digital Literacy and Accessibility Challenges

The study highlighted key challenges relating to technology adoption, such as having a hard time comprehending interfaces, dealing with updates, and blocking materials that elderly users do not need. These challenges are not unique to this study but are consistent with current understandings of digital literacy across elderly populations [19]. The interviewees stated that these barriers were overcome with help from other relatives or friends, which points out the crucial role of social support in technology acceptance. However, such reliance also indicates the necessity of having more open and easily-accessible platforms for the designs. Software developers should consider creating easy-to-use interfaces with easy-to-navigate content and well-explained instructions that will suit elderly people.

Furthermore, both policymakers and community organizations can entrust their contribution to narrowing the digital divide by providing digital literacy programs. These initiatives should cover technical competencies and self-confidence relating to entrepreneurship and new technologies.

Some of the findings of this study are in line with previous research on elderly technology adoption, but they contribute knowledge on short video platforms, especially in urban China. This research confirmed the previous findings Bergschöld, et al. [31] regarding the positive impact of social media and other digital platforms on older adults’ outcomes for social connectedness and mental health. Engaging in brief videos throughout the daily lives of elderly for educational, recreational, and social purposes reflects the modern global tendencies in digital adoption.

Family members’ involvement in technology adoption is in tandem with the study conducted by Yao, et al. [17] in support of intergenerational support in addressing the digital divide. Furthermore, the choice of health-focused content falls in line with Zhang, et al. [8] analysis of elderly users of digital platforms, where health education stood out as the main driver.

Unlike previous studies, this research examines short videos as a specific category of digital platforms and underscores their distinct features, including length, the recommendation system based on the algorithm, and audience interaction. The above characteristics make short videos suitable to be watched by elderly persons especially those done in a short time while they are bored.

Moreover, the research findings present a rich picture of the socio-cultural factors that shape technology domestication in urban China. This is in contrast to what is highlighted in literature that is based on doing research in rural or even Western setting towards the use of digital media. For instance, there is evidence showing that participants in cities like Nanjing enjoyed more internet access and were more exposed to diverse content, making it easier for them to interact with short videos.

Some of the methodological and theoretical weaknesses pointed out in the literature are relevant to this study include the scarcity of qualitative research on elderly users’ interactions with short videos and the failure to consider domestication theory in studying this phenomenon. More specifically, the next study explicates how short videos are appropriated, objectified, incorporated, and converted, which enables a richer understanding of technology use among elderly populations.

The discovery of short videos in the homes of elderly residents in Nanjing also depicts the social interactions between technologies and users with socio-cultural environments. Despite the many benefits that these platforms afford to the user in the aspect of social inclusion, education and

entertainment, there is a need to focus on issues pertaining to digital literacy and access in order to fully harness their potential.

To consider the domestication of short video platforms among elderly people in Nanjing, this study applied the theoretical framework of domestication to examine how new technologies are adopted, incorporated, and mediated in users' everyday lives. The study showed that family influence and curiosity were the main factors that led to the adoption of platforms such as *Douyin* and *Kuaishou* initially. The elderly also integrated the platforms into their everyday lifestyles for uses ranging from health, education, entertainment, to fellowship. Even when faced with obstacles like learning how to use applications or handling updates, participants exhibited the ability to adjust and persevere through leveraging help from friends, family, or peers.

The study contributes to the growing body of literature on elderly users and digital platforms by addressing a critical gap of channeling the existing knowledge about short videos to focus more on elderly users. In contrast to most prior research, which targets younger users or more general categories of social media, this study offers insights into how short video apps address the specific challenges and cultural environments of aging populations in urban China. By adopting the domestication theory, it showcases the agency that elderly users bring in their engagement with technology, a factor that negates conventional perceptions of older individuals as passive in their use of technology.

Advisable for the platform developers to consider the following designs to make the platform accessible for elderly users. Intuitive interface and design that does not require constant learning since it is difficult for elderly people to learn new things. Use large icons since the eyes of the elderly people may not be as sharp as those of young people. Provide specific tutorials for elderly users can also facilitate the process of finding short videos interesting and helpful, and special settings that allow users within the age group to block certain content can protect them from unwanted videos. Additional utilities like voice command or text resizing options can also benefit those with such requirements.

The government and grassroots organizations involved in policy development and implementation should ensure strategies are developed and implemented towards promoting digital literacy to the elderly. These strategies should extend to not only confidence and engagement in digital contexts but also cover the technical aspects of using digital technologies and the critical aspects of data security since elderly populations are highly vulnerable to cyber manipulations and crimes.

This study provides insights into the domestication of short videos by elderly consumers, but future studies can investigate the impact of watching these short videos on the elderly's mental and physical health in the long run. It is possible that comparative cross-sectional assessments between urban and rural populations could discern disparities in the advancement and use of technology making research in these areas necessary. Furthermore, understanding the new algorithm-driven user identity in the context of the elderly and the possibilities of the new short video platforms would give more nuanced perspectives on the opportunities and threats. Therefore, furthering studies in these areas will help guide future investigations on promoting digital inclusion and on examining how short video platforms can be beneficial tools rather than barriers to elderly audiences.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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Appendix A.

Interview guide.

Motivations for Using Short Videos

1. How did you first know about short video platforms like Douyin or Kuaishou?
2. What motivated you to start using these platforms?
3. What types of content do you enjoy watching the most?

Daily Routines Involving Short Videos

4. How often do you use short video platforms?
5. At what times of the day do you usually watch videos?
6. Are there specific routines or habits associated with your use of these platforms?

Perceived Benefits and Challenges

7. What do you enjoy most about short video platforms?
8. Have you faced any challenges while using these platforms (e.g., technical difficulties, irrelevant content)?
9. How do you address these challenges?

Social Interactions via Short Videos

10. How have short video platforms influenced your communication with family or friends?
11. Do you share videos with others or participate in online communities?
12. Have these platforms changed how you perceive your relationships with younger generations?

Appendix B.

Demographic details of participants.

Participant ID	Age	Gender	Previous occupation	Digital literacy level	Primary content interest
P1	71	Female	Home maker	Low	Cultural performances
P2	66	Female	Retired accountant	High	Entertainment and humor
P3	68	Male	Retired factory worker	Low	News and current events
P4	72	Female	Retired nurse	Medium	Health and exercise routines
P5	65	Male	Retired business owner	High	Economic updates and news
P6	69	Female	Artist	Medium	Hobbies (Crafting, painting)
P7	75	Male	Retired engineer	Medium	Technology tutorials
P8	70	Male	Retired taxi driver	Low	Music and cultural performances
P9	67	Female	Retired librarian	Medium	Book reviews and cultural talks
P10	74	Male	Retired carpenter	Low	DIY and home improvement.
P11	63	Female	Government official	High	Local governance and news
P12	68	Male	Retired banker	Medium	Financial education
P13	65	Female	Retired music teacher	Medium	Musical performances and therapy
P14	69	Male	Retired journalist	High	Current affairs and documentaries
P15	72	Male	Retired shopkeeper	Medium	Marketing and trade insights