Analysis of reading transfer behavior of wechat readers based on self-determination theory

Yan Han, Cong Zhang*

Beijing Institute of Graphic Communication, Beijing, China

Corresponding author, e-mail: 2214780882@qq.com

Abstract:

In recent years, with the widespread adoption of mobile internet, user reading habits have shifted from paper to digital formats, and digital reading platforms, such as WeChat Reading APP, have seen rapid growth. WeChat Reading, which uses WeChat friend relationships as a social context, offers unique insights into the motivations behind users 'reading behavior changes. This study analyzes the reading behavior shift of WeChat Reading platform users through in-depth interviews, using self-determination theory to explore the intrinsic motivational connections between the functions of digital reading platforms and user behavior shifts. The findings indicate that the technical advantages, information visualization, and social features of the WeChat Reading platform can meet users' needs for autonomy, competence, and relationships, respectively, thereby facilitating the transition from paper books to e-books.

Key words:

self-determination theory; wechat reading; reading behavior; transfer behavior;

1 Foreword

With the widespread adoption of mobile internet and 5G, user reading habits are shifting towards mobile devices. The rise of e-books has revolutionized traditional reading methods, making digital reading increasingly popular and altering people's reading habits. In the past, we relied on buying or borrowing physical books to satisfy our reading needs, but now, through the internet, we can read on mobile smart devices. According to the' 2022 China Digital Reading Report,' in 2022, the number of digital readers in China reached 530 million, a 4.75% increase from the previous year, with the growth trend of digital readers aligning closely with that of internet users1. The widespread use of mobile internet technology has greatly enhanced our daily lives, and the diverse digital reading platforms have significantly improved the overall reading experience. The rapid rise in the rate of electronic reading among the general public has, to some extent, reduced the time spent on paper-based reading. We have entered an era of mobile reading, where electronic reading via smartphones is expected to become the predominant reading method for young people in the future.

According to the 19th National Reading Survey Report released by the China Academy of Press and Publication in 2022, 2 the comprehensive reading rate among adult citizens across various media continues to grow. The digital reading method contact rate has reached 79.6%, with a noticeable increase in readers preferring mobile and e-books, while the proportion of readers who prefer paper books has decreased. The rise

in digital reading has boosted both the overall reading rate and the contact rate for digital reading methods, leading some readers to shift from a preference for paper books to a strong interest in digital reading. Therefore, it is crucial to explore the key factors influencing the shift from paper books to e-books, understand the motivations behind users' e-book transition behavior, and better grasp the development trends of digital reading to promote nationwide reading.

The development of social media has prompted the highly competitive mobile reading industry to embrace social features, leading to the emergence of various digital reading apps. Beyond basic reading functions, platforms like WeChat Reading have introduced interactive and social features, which are growing rapidly. The WeChat Reading APP has surpassed 300 million registered users and boasts over 30 million monthly active users2. Unlike short social interactions among strangers, WeChat Reading users are closely connected to their real-life social networks through the WeChat platform. For example, WeChat Reading offers a friend circle feature that allows users to share and recommend books with their WeChat friends, view their bookshelves and reading times, and engage in interactive exchanges. This feature connects the reading platform with users 'real-life social circles, enabling WeChat Reading to form a stable online reading ecosystem based on strong connections. Unlike traditional paper books, digital reading platforms provide users with opportunities for real-time communication with other readers. Users can mark their thoughts in the book and easily find like-minded readers through reading groups. Therefore, research on the WeChat Reading App can enhance our understanding of users' reading behavior shifts.

2 Literature Review

Self-determination theory, proposed by American psychologists Deci and Ryan in the late 1970s, is a motivational theory that explores human behavior. It posits that individuals make free choices about their actions after fully understanding environmental information and personal needs3. This theory emphasizes the psychological aspects of the audience, focusing on internal motivations that influence behavior. It identifies three fundamental psychological needs: autonomy (Autonomy), competence (Competence), and relatedness (Relatedness)4. Deci and Ryan argue that autonomy is the sense of making independent choices, which brings a sense of self-control and satisfaction when fulfilled; competence is the feeling of being competent in one's activities; and relatedness is the need to maintain relationships with others, fostering a sense of mutual respect and reliance5. By fulfilling these three internal psychological needs—autonomy, competence, and relatedness—the theory aims to transform external motivations into actions. Self-determination theory has evolved over more than 40 years and was officially incorporated into social media usage research in 2014.

The development of user reading behavior research requires theoretical guidance. For instance, Lu Zengkai used the use and satisfaction model to study the motivations and satisfaction of college student internet users in mobile reading, identifying five key motivations: convenience, friendly interaction, reading experience, knowledge entertainment, and personal expression6. Li Junjun and colleagues developed a theoretical model of dynamic user experience behavior and proposed research hypotheses based on the ECM-ISC model, conducting user experience studies in the field of mobile digital reading7. Most existing literature focuses on single reading behaviors, such as paper or electronic reading, with little attention paid to the transition from paper to mobile reading. However, with the continuous development of the Internet, the number of mobile

reading users has surged, making the study of this transition increasingly important. Early research on user transition behavior primarily focused on marketing and consumer behavior, where scholars defined user transition behavior as the process of replacing an existing service provider with another one8. Few researchers have examined the motivations behind user transition behavior from a reading perspective. E-books, as the primary medium for digital reading, are a potential revolutionary technology for promoting nationwide reading. Some scholars suggest that factors such as age, gender, and reading preferences influence users' choices of reading media, but there is a lack of research on the deep connections between behavior and psychology. The WeChat Reading APP is a product of the rapid development of mobile reading. Leveraging its social network based on WeChat friend connections and a wealth of book resources, it has successfully entered the top tier of digital reading platforms. According to existing literature, most studies on WeChat Reading focus on its marketing model, community research, and types of reading behavior. Few studies delve into the deeper psychological connections with the platform's features, exploring the intrinsic motivations behind users' shifting reading behaviors.

Therefore, the problem of this paper is to study the influencing factors between users 'transition from paper reading to mobile reading and understand the psychological factors that affect users' transfer behavior from the perspective of self-determination theory.

3 Research technique

Based on the framework of self-determination theory, this study uses semi-structured interview method to focus on the study of the use motivation and behavior of wechat reading platform users. Three dimensions of autonomous needs, competence needs and relationship needs are extracted. These needs attract users to e-book reading due to their rich attractions.

Researchers randomly selected 15 WeChat Reading App users from social media platforms (see Table 1). These users had transitioned from reading physical books to e-books. The sample included long-term users of the WeChat Reading App who rarely read physical books, a small number of users who switched back to physical books after using e-books, and those who continued to read physical books even after switching to e-books. Among the 10 respondents, 4 were male and 6 were female. Their educational backgrounds ranged from junior college to bachelor's degree or higher, with 3 having a junior college degree, 4 having a bachelor's degree, and 3 having a master's degree. The respondents were employed in various roles, including students, teachers, corporate employees, and freelancers. Their ages ranged from 21 to 33 years old.

The interview content primarily consists of three sections. First, it investigates the basic usage of the WeChat Reading App by respondents, including total reading time, frequency of use, number and composition of friends. Second, it examines how users utilize the social features of WeChat Reading, such as whether they annotate or share their thoughts while reading, whether they browse others 'comments and interact, and whether they follow new book friends. Lastly, it explores how various platform functions, such as reading rankings, reading badges, and visible bookshelves, influence users' reading behavior.

Based on the above interview content, an interview outline was designed to conduct one-to-one interviews with 10 respondents, and according to the interview results, the functional characteristics of wechat reading

platform were analyzed to analyze the influence on users 'psychology, and the motivation of users' reading transfer behavior was explored.

Table 1 Basic information of respondents

number	sex	Age (years)	occupation	Total reading time (hours)
S1	woman	33	liberal professions	488
S2	woman	22	undergraduate	393
S3	man	24	postgraduate	361
S4	woman	27	Enterprise staff	352
S5	woman	26	Enterprise employee	320
S6	man	23	liberal professions	270
S7	man	28	Enterprise employee	243
S8	woman	21	undergraduate	190
S9	woman	25	postgraduate	185
S10	man	22	undergraduate	37

The interviews were conducted through face-to-face conversations, telephone interviews, and WeChat chats. The researcher recorded key points using audio recordings and notes during the interviews. Before the interviews, the researcher informed the respondents about the research design and purpose, obtained their informed consent and trust, and then selected an appropriate interview method for individual interviews, with each session lasting no more than 20 minutes.

After the interview, the researcher transcribed the entire interview process into a verbatim transcript within 24 hours and analyzed it in conjunction with the interview notes. The process is as follows: (1) Organize all textual materials from the interview to form an outline of the interview results. (2) Conduct a detailed analysis of each sentence in the text. (3) Identify key sentences in the interview data that are relevant and meaningful to the research topic. (4) Analyze and summarize the meanings conveyed by these key sentences. (5) Confirm the identified themes with the interviewees. (6) Explain the essential causes of the phenomenon. (7) Provide the final results to the interviewees to ensure the authenticity of the content.

4 Research and discussion

In recent years, with the advancement of network information technology, digital reading has become a primary means for people to acquire knowledge and information, meeting the reading needs of users in the new era. The shift from paper books to e-books is a gradual process, driven by the continuous accumulation of various elements. On digital reading platforms, users who choose to read based on personal preference are more motivated, often feeling a sense of accomplishment upon finishing a book. WeChat Reading, leveraging the social connections of the WeChat platform, places users in a highly socialized reading environment, fulfilling their relational needs.

(1) Technical advantages meet users' independent needs

The theory of self-determination suggests that when people achieve their need for autonomy, they often experience a sense of satisfaction and joy from self-control. The evolution of reading tools reflects changes in how users select reading media and methods across different social contexts. The advancement of the Internet

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has created favorable conditions for the continuous innovation of reading products. For readers, paper books can meet their basic reading needs. However, mobile digital reading through new media platforms can leverage the Internet's boundless and open nature to offer users a wider range of choices. WeChat Reading APP, a digital reading software, primarily provides book reading. The widespread adoption of emerging technologies like 5G and big data has not only facilitated the transformation and upgrading of the digital publishing industry but also significantly shortened the production cycle of digital content9. The vast number of digital reading products available on the platform has gradually become the preferred reading method for mobile users. Users can search for book titles on the platform, which offers a vast selection of books, meeting their needs for independent book selection. Respondent S1 noted that in the past, reading paper books was not only inconvenient to carry but also required frequent purchases, which WeChat Reading changed. WeChat Reading allows users to earn unlimited reading cards and book coins by interacting with friends, which successfully attracts readers, fulfilling their need for free reading and motivating them to read more. In addition, the diverse additional features and the clean interface design of WeChat Reading have become key factors for users to continue using mobile reading products, providing a great reading experience. As users' reading habits shift from paper books to e-books, this more open and portable reading environment facilitates the transition in their reading behavior.

(2) Information visualization meets the needs of users

The need for competence involves believing in one's ability to succeed and achieve success on challenging tasks10. According to Maslow's 'Hierarchy of Needs' theory, after people have met their basic physiological, safety, emotional belonging, and esteem needs, their motivation shifts to the need for self-actualization. The changes in reading motivation reflect the users 'growing value recognition after their various needs are met9. As a social reading app, WeChat Reading features an information visualization function on its platform, such as liking friends' reading updates, viewing their reading duration, and clicking on their reading thoughts. Information visualization means that users 'information and the content they produce can be discovered and viewed by others on the platform. Interviewee S4 mentioned that when they know their friends can see their reading duration, they naturally want to show more of it to demonstrate their value. Additionally, multiple interviewees indicated that they use these visualization functions to understand their friends' reading status and may engage in 'performance' behavior due to the visibility of this information. Both Goffman's dramaturgical theory and Merleau-Ponty's situation theory highlight that people tend to embellish their impressions based on different contexts11. Therefore, users also use the display of relevant information to present themselves during their use of WeChat Reading. Interviewee S3 noted that WeChat Reading allows users to mark their reading thoughts in the book at any time, which is visible to other readers. When their thoughts receive likes from others, it gives them a sense of competence, motivating them to continue reading. In contrast, reading paper books is typically a solitary activity, lacking in interactive communication. In the age of digital media, readers have evolved from mere recipients and consumers of information to active producers, participants, and disseminators12. Their needs have shifted from a single reading focus to a more diverse, open-ended, and task-oriented approach, which in turn drives changes in how users engage with reading media.

(3) Social functions meet the needs of users' relationships

The need for connection refers to the desire to feel connected with others, aiming to establish a sense of

mutual respect and reliance5. The WeChat Reading platform's information visualization feature also provides users with the option to set their visibility levels, allowing them to choose how much of their reading information and activities they want to share. Users manage their visibility primarily by controlling the display on their home page bookshelf and the sharing permissions for their reading updates. In this interview, over 80% of respondents said they would check their friends' reading information. Individuals shape their self-image through the presentation and visibility of their reading information, as respondent S1 put it: "I know others will see my bookshelf, so I don't read books that might be misinterpreted." When constructing their self-image, users consider social relationships, which can lead them to reveal more of their true selves due to the' weak ties 'with strangers or to embellish their impressions due to the' strong connections 'with WeChat friends. At the same time, individuals also construct the image of others in their minds by checking their reading information. Respondent S8 mentioned that if she sees a book she has read on her friend's bookshelf, she feels an inexplicable fondness for that person. Specifically, WeChat Reading's social features help meet users' relational needs; when seeing that a friend shares similar interests, it can easily create a sense of recognition, known as the 'in-group effect' 13. In the era of paper book reading, such relational needs are often hard to satisfy. Offline reading places readers in an independent reading environment, where the lack of understanding others 'reading situations makes it difficult to strengthen connections through reading. In interviews, deep users of WeChat Reading mentioned that they previously felt their interests were niche and found it hard to find people who shared similar reading experiences. It was only in the' small circles 'on WeChat Reading that they discovered like-minded book friends, fulfilling the social needs they lacked in real life. As WeChat Reading once used in its slogan ——' Let reading no longer be lonely. 'The social features of WeChat Reading allow users to meet their social interaction needs while reading, truly realizing' making friends through books' 14.

5 Epilogue

This study focuses on WeChat Reading users, using semi-structured interviews to explore the psychological motivations behind their shift from paper books to e-books. In addition to its rich reading resources, WeChat Reading's diverse, personalized, and social features meet the evolving needs of users in the new media era, leading to a transformation in their reading habits. However, some respondents noted that paper books remain an essential tool for reading. Readers should also be aware of the potential risks associated with e-books. For instance, respondent S10 mentioned, "When my WeChat friends are blocked, I opt for private reading because a public bookshelf seems to invade my personal space." Moreover, social digital reading platforms like WeChat Reading can lead to reading anxiety. Seeing friends' extensive bookshelves and long reading hours can cause prolonged over-concern, leading to a poor reading experience. Respondent S9 expressed feeling pressured when seeing friends read many books while they themselves are reluctant to do so, experiencing anxiety and uncertainty about whether to read. The excessive display of personal information on these platforms can also make users overly concerned about their virtual image, such as the ranking system for reading time, which can frustrate lower-ranked users and contradict the original purpose of social reading.

In terms of research insights, this paper examines the intrinsic motivation connection between the WeChat Reading Platform and users 'transition from paper books to e-books, offering a new perspective on user behavior change. However, the study has certain limitations. Due to time and cost constraints, the sample size

could be expanded. The results might be limited by the selection of interviewees, leading to theoretical biases or omissions. Additionally, the study did not use other methods like direct observation or questionnaire surveys to support the semi-structured interviews. Therefore, future research should broaden the scope of participants and employ multiple methods to verify the findings, exploring the factors influencing users' reading transition behavior.

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