Rational and irrational factors that predict the continued intention to engage in digital reading: a perspective from China

Yun Wu[1] and Mengru Sun [1,2*]

[1] College of Media and International Culture,
Zhejiang University, Xihu District, 310058, Hangzhou, CHINA

[2] School of Media Studies & Humanities,
Zhejiang University City College, Gongshu District, 310015, Hangzhou, CHINA

e-mail: yunwuzju@126.com; *sunshineru@zju.edu.cn (corresponding author);

ORCID: Y. Wu: 0000-0003-3309-4069

M.Sun: 0000-0002-8444-2126

Abstract

Few studies have examined factors, including irrational factors, that affect the continued intention of digital reading. This research attempts to propose an integrated framework to understand the continued intention to engage in digital reading. Based on weighted and calculated needs for new media and the technology acceptance model, the current research empirically investigated continued digital reading using an online survey. The research examined two rational factors—technology characteristics (perceived ease of use, perceived usefulness, and relative advantage) and individual motivations (perceived needs and perceived value)—as well as two irrational factors (emotional preference and perceived herd behaviour).This study found that the perceived ease of use and relative advantage of digital reading, as well as users' perceived needs (information needs and social needs), perceived value (perceived benefits), and the irrational factor of perceived herd behaviour could predict the continued intention to read digitally. We provided a theoretical framework for understanding the mechanisms of the continued intention to engage in digital reading. The research provided theoretical and practical enlightenment for the development and promotion of digital reading.

Keywords: Digital reading; Continued intention; Rational factors; Irrational factors; New media.

INTRODUCTION

Reading is of great significance to the development of individuals and society. Since its establishment in 1995, World Book and Copyright Day has encouraged more people to read and write (UNESCO 2021). With the emergence of the Internet and new technologies, digital reading has invaded and become part of people's daily lives (Gil-Flores, Torres-Gordillo and Perera-Rodríguez 2012). Digital reading refers to the process of obtaining information or transmitting cognition in digital form by relying on various digital platforms or terminals (Kusolpalin et al. 2017). In recent years, smartphones have also continued to be upgraded, with extensive coverage of mobile networks and Wi-Fi, making digital reading more accessible and popular for most readers (Chen, Lin and Chen 2021;

Reiber-Kuijpers, Kral and Meijer 2021). In the past two decades, the rapid advancement of digital reading has even changed the way most people obtain information as society enters the "screen reading era" (Snyder 2003).

For a long time, society has given meaning and value to reading beyond its actions and carriers, and it is also an important criterion for measuring personal qualities and literacy (Artelt, Schiefele and Schneider 2001). However, the popularity of the Internet and mobile terminals has allowed digital reading to replace some of the functions of paper reading (Rowsell and Burke 2009; Xing, Peng and Mao 2020). By reading fragmented text messages on the Internet, or listening to and watching audio and video programmes, it is convenient for individuals to find a variety of ways to obtain information (Lai and Chang 2011).

While research on how to promote digital reading is conducive to raising the overall reading rate, whether readers would engage in continued digital reading remained unexplored. The popularity and promotion of digital reading in China have occurred relatively late. But since the beginning of the 21st century, the access rate of digital reading has been increasing rapidly (Wang and Jin 2020). While the reading rate of traditional paper books by Chinese readers has experienced a process of initial decrease and then gradual increase, digital reading has become an increasingly significant reading style and an important part of social and cultural life. In 2020, the book reading rate of Chinese residents was 59.5 percent, but the digital reading rate reached 79.4 percent (Chinese Academy of Press and Publication 2021).

In the fields of communication and information management science, many studies have focused on the adoption and diffusion of new information and communication technologies (ICTs) (Davis, Bagozzi and Warshaw 1989; Rogers 2010; Zhu and He 2002). Many theories also try to explore and explain the mechanisms that influence the diffusion of new ICTs, such as the theory of reasoned behaviour (Ajzen and Fishbein 1975; Wu 2020), the technology acceptance model (Davis, Bagozzi and Warshaw 1989; King and He 2006), the theory of planned behaviour (Ajzen 2020), the diffusion of innovations theory (Dearing and Cox 2018; Rogers 2010), the social cognitive theory (Bandura 1989; Schunk and DiBenedetto 2020), and the Weighted and Calculated Needs for New Media (WCN) (Zhu and He 2002). These classic theories, originally from different disciplines, are used to study the process of the adoption and use of new ICTs and have verified the effectiveness of various new ICTs in different contexts. However, most of these theories were based on a rational perspective, especially the theory of reasoned behaviour. They assumed that humans are rational and that individuals' social behaviours are affected by self-control, not by unconscious inducements or force (Ajzen and Fishbein 1975). Therefore, these theories have limited explanatory power for irrational factors. Indeed, when people make choices and judgments, they are usually not completely rational (Klick and Mitchell 2006). They make decisions under the combined influence of rational and irrational factors. As for digital reading behaviour, it does not only integrate the functions of traditional reading to promote learning, knowledge, and education, but also has the functions of fashion, social interaction, and leisure and entertainment (Samsuddin et al. 2021). Therefore, it can be said that users' digital reading behaviour has both rational and irrational factors. When constructing the theoretical framework of this study, we introduced the concept of perceived herd behaviour and emotional preference by referring to the definitions of irrational factors in previous studies (see Figure 1). The following research question is put forth in this study: Could all perceived technology characteristics, individual motivations, and irrational behaviours predict readers' continued intentions to engage in digital reading?

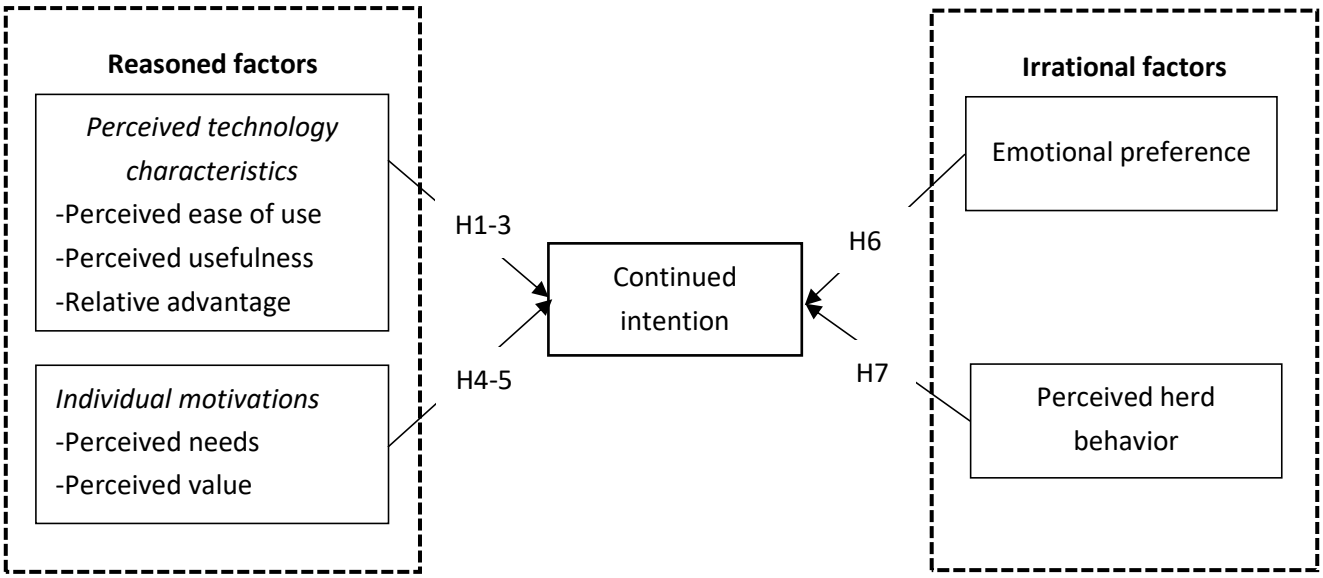

Figure 1: The Proposed Digital Reading Model

Note. Theories adopted in the present work included theory of reasoned behaviour (Ajzen and Fishbein 1975), the technology acceptance model (Davis, Bagozzi and Warshaw 1989), the diffusion of innovations theory (Rogers 2010), and the weighted and calculated needs for new media (Zhu and He 2002).

LITERATURE REVIEW

Perceived Technology Characteristics of Digital Reading

Integrating the diffusion of innovations theory and the technology acceptance model, this research mainly examined three factors of the users' continued intention to engage in digital reading: perceived ease of use, perceived usefulness, and relative advantage. First, Rogers' diffusion of innovation theory was developed to explain the process of innovation in society. Rogers (2010) divided the innovation dissemination process into five stages: knowledge, persuasion, decision, implementation, and confirmation. The factors that influence the diffusion of innovation included the characteristics of innovative technology, the characteristics of the individual adopter, and the characteristics of the social system. Among these, the characteristics of innovation technology include relative advantage, compatibility, complexity, testability, and observability; the characteristics of the individual adopter include personality characteristics and social characteristics; and the characteristics of the social system include response to changes, innovation compatibility, and assessment of the impact. According to this theory, the characteristics of innovative technology consist of people's subjective understanding of the characteristics of innovation, including relative advantage, which refers to the degree to which a new technology is better than the original technology (Rogers 2010). When investigating the proliferation of specific new ICTs, other types of characteristics could also exert effects. For example, Zhu and He (2002) verified five factors—relative advantage, compatibility, ease of use, results demonstrability, and image—that have a significant influence on the adoption and use of the Internet. Compared with traditional paper reading, digital reading

as an innovative ICT also has certain superior technical features that may attract readers to its adoption and use.

Second, the technology acceptance model (TAM (Davis 1989)) also explained the factors that influence the adoption of ICTs by users. This theory proposes that users' adoption of new ICTs is influenced by perceived usefulness and perceived ease of use. Based on the theory of reasoned action, the TAM asserts that the users' attitude affects the actual use behaviour; that the users' attitude is affected by two independent variables (perceived usefulness and perceived ease of use); that perceived ease of use significantly affects perceived usefulness; and that the two independent factors may be affected by external variables. According to this theory, perceived usefulness reflects people's perception to a degree that which a certain information technology improves their performance, and perceived ease of use reflects people's perception of the accessibility of a certain technology. Comparably, in the context of digital reading, if readers believe that digital reading is easy to use, has more advantages than paper reading methods, and is useful for their work or life, these perceptions will promote the users' continued intention to engage in digital reading.

Based on the above literature, this research proposes the following hypotheses:
H1*:* Readers' perceptions of the ease of use of digital reading can predict their continued intentions.
H2*:* Readers' perceptions of the usefulness of digital reading can predict their continued intentions.
H3*:* The relative advantages of digital reading can predict readers' continued intentions.

Individual Motivations of Digital Reading

Previous studies have argued that perceived needs as well as perceived value are both individual motivations. For example, Zhu and He (2002) posited that social and psychological needs drive individuals to make use of new media to satisfy certain needs that are important for their life goals. In addition, Forzani et al. (2021) established that value was a dimension for assessing digital reading. Therefore, we mainly focus on these two factors to examine the individual motivations in the context of digital reading.

a) Perceived Needs of Digital Reading

Based on the uses and gratifications theory (Ruggiero 2000) and expectancy-value theory (Wigfieldand Eccles 2000), Zhu and He (2002) proposed "Weighted and Calculated Needs for New Media" (WCN) to examine the factors that affected the spread of the Internet in China. The theory argued that when and only when the audience finds that an important need in their lives can no longer be satisfied by the traditional media, and when the audience believes that the new media can meet this need, individuals will begin to adopt and continue to use new media. The WCN also utilized the three variables of perceived technology characteristics (perceived popularity, perceived characteristics, and perceived needs) as predictors that influence Internet adoption and usage by constructing a theoretical framework for this process. In particular, perceived needs refers to those demands that people believe can be satisfied by new media more than by traditional media.

The demand for digital reading is also based on users' perceived needs. Needs of this kind are often regarded as rational needs by researchers (Susanti et al. 2020). Rational needs can be simply understood as a kind of demand generated by concluding, after deliberation, that one really needs a certain product (Self et al. 2008). In the context of digital reading,

readers' needs for digital reading are also mainly rational needs. In the environment of information explosion, people have increasingly higher needs for information acquisition. The emergence of instant messaging technology has aroused in readers a desire for communication and expression when they are reading. Zhu and He (2002) divided the perceived needs of users into browsing news articles, searching for information (including work and life information), pursuing entertainment hobbies, expressing opinions, and improving relationships. We believe that this classification of needs is also comparably applicable to the needs of digital reading. Therefore, the following hypothesis is proposed:
H4*:* Readers' perceived needs for digital reading can predict their continued intentions.

b) Perceived Value of Digital Reading

Customer value is an important concept in the marketing domain. As Drucker (1985) pointed out, what customers buy and consume is not a product, but a value. Zeithaml (1988) later proposed the theory of customer perceived value and defined "customer perceived value" as the perceived benefits and lost costs of the transaction process. The comparison between perceived benefits and perceived sacrifices is the overall evaluation of the utility of a product or service. Furthermore, Woodruff (1997) designed the customer value hierarchy model, wherein customer value is defined as the customers' preference and evaluation of product attributes, product effectiveness, and usage results that help (or hinder) the realization of their goals and objectives in a specific context. Kotler et al. (2019) then put forth the delivered value theory, stating that whereas customer perceived value is the predicted difference between all the values and costs of a product, the delivered value is the total customer value and the total customer cost. More specifically, whereas total customer value consists of the benefits that customers obtain from products or services, which include product value, service value, personnel value, and image value, total customer cost refers to the cost paid by customers to purchase a certain product or service, including monetary cost, time cost, spiritual cost, and physical cost (Bojanic 1996).

In fact, the above theories basically present a similar conception of customer perceived value. They all maintain that customer value is a trade-off between perceived gains and perceived losses. Customers will pursue the maximization of value and always hope to obtain the greatest benefits with the lowest cost when purchasing products or services to satisfy their needs as much as possible. In line with customer value, readers usually weigh the benefits and costs of digital media when they are engaged in digital reading (Wang and Jin 2020). When the perceived benefits are more and the cost is less, that is, the perceived value of digital media reading is higher, and users are more likely to continually use digital reading. Therefore, this research proposes the following hypothesis:
H5*:* Readers' perceptions of the value of digital reading can predict their continued intentions.

Irrational Factors for Digital Reading

Digital reading can be understood in many aspects such as science, art, religion, education, law, politics, and social life (Belk, Ger and Askegaard 2003). Regarding irrational explanations, there are epistemic, psychological, instinctive, behavioural, ethical, and cultural theories (Elliott 1997). Irrational factors generally refer to people's illogical forms of thought, including emotion, belief, the will, the unconscious mind, and the subconscious mind, which have different effects on people's behaviour. Irrationality has been defined as the illogical thinking patterns that appear in the cognitive process and the ability to conduct thinking activities through illogical thought forms (Flett et al. 1991). Irrational factors can be divided into two categories: cognitive irrational factors and regulatory nonrational factors. First, cognitive irrational factors include associations, imagination,

intuition, inspiration, insights, the subconscious mind, and the unconscious mind as the internal structures and specific forms of the cognitive process of illogical thinking. Conversely, regulatory nonrational factors (Klick and Mitchell 2006) consist of those external elements that are indispensable to irrational cognition, such as desires and needs, emotions and moods, interests, beliefs, and volitions, which participate in the regulation and control of illogical thinking and cognition activities (Stanovich and West 2000).

This study focuses on two types of irrational influence on the user's continued intention to engage in digital reading, including the initial emotional preference for new media and the perceived preference of the herd. These two factors have been documented in previous digital reading research (Liu 2005; Kurata et al. 2017; Schugar, Smith and Schugar 2013). First, scholars defined emotional preference theory based on various objections that emotions are believed to be *sui generis* bodily feelings that lack representational or intentional properties (Whiting 2020). Nussbaum (2004) also believed that emotions are forms of evaluative judgment that ascribe great importance to things and persons outside of one's control. Emotions are thus, in effect, acknowledgments of neediness and lack of self-sufficiency. Irrational factors are believed to have an impact on individual decision-making, and initial preferences can control overall choices. He, Zhou and Shen (2015) verified that irrational factors have an impact on the deviation of cognitive value in the scientific research process. In fact, if readers prefer to use a new media device or platform subjectively, they are more likely to read on the new media platform (Loh and Sun 2019).

Second, psychologists' interpretation of perceived herd behaviour is the change of individual behaviour or beliefs caused by group pressure. Asch's (1956) experiment found that subjects will show conformity behaviour in their perceptual judgment. In the context of diffusion, perceptions of social systems provide an approach to identify operational measures such as social norms (Rogers 2010). Diffusion scholars have also used a set of concepts to describe the important role of social norms in the diffusion process, such as "social atmosphere", "social pressure", "cultural fashion", and "bandwagon effects"; their underlying assumption is that the adoption of a new media technology may not be caused by actual needs but by perceived pressure (Rogers 2010). The concept of perceived herd behaviour also assumes that information or technology is regarded as reliable when shared or accepted by many (Sun 2013). Perceived herd behaviour refers to particular behaviours exhibited by a substantial number of people that result from "psychological pressure" on an individual belief (Handarkho 2020). Drawing from this premise, we assume that when many people frequently share specific information on digital reading usage, social media users may adopt it and consider it as the truth, and this may lead to digital reading. Based on the above literature, we propose the following hypotheses:
H6*:* Readers' emotional preference for new media can predict their continued intention to engage in digital reading.
H7*:* Readers' perceptions of herd behaviour related to digital reading can predict their continued intention to engage in digital reading.

METHODS

This research mainly analysed readers' continued intentions and behavioural patterns related to digital reading and verified its predictors. An online survey questionnaire (Appendix) was used to empirically test the seven hypotheses.

Data Collection and Participants

When designing the questionnaire, this study selected factors, based on previous literature, that may affect users' patterns of continued intention to engage in digital reading. We utilized the scales from previous studies to construct the questionnaire. The questionnaire of this research was divided into two parts that measured users' digital reading behaviour, evaluation of digital reading, motivations for digital reading, irrational factors for digital reading, and demographic information.

This study employed the survey service of an online survey company to distribute and collect the questionnaires (i.e., Baidu Mobile Testing Centre in Cloud survey service). The company distributed and collected questionnaires from the large Baidu's user base. The survey was conducted two days on 24 and 25 May 2017 across China. Before the official release of the survey questionnaire, five experts in the field of reading were invited to give suggestions on the conceptual dimensions, overall structure, question design, options arrangement, and other contents of the questionnaire. In addition, the authors conducted a pilot study on 100 participants through the company service using the convenient sampling method and revised the questionnaire. Specifically, unnecessary questions were deleted, questions with inappropriate expressions were revised, the sorting and option settings of questions were adjusted.

The sample users of the survey company are all authenticated users. Once cheating is found, the account will be frozen immediately to ensure the validity and reliability of the data. In parallel, the platform also supports the filtering mechanism of invalid questionnaires. For example, clients can set some logical trap questions in the questionnaire. For the instrument used to measure the variables, the present study also received adequate reliability for all scales. The authors paid for the survey service provided by Baidu Mobile Testing Centre, and the incentive fees was mainly paid by the company to the respondents. A total of 515 cases were collected in this survey with some cost, and questionnaires from participants with no digital reading experience were excluded. A total of 470 valid cases were obtained, with a completion rate of 91.3 percent.

Majority of the respondents were males (53.0%, females for 47.0%). The respondents were mainly in the 18–29 age group, which accounted for 52.80 percent. Most of the respondents had a bachelor's degree or above (58.5%). Urban respondents accounted for 75.7 percent, whereas rural respondents accounted for 24.3 percent. Of all respondents, 73.9 percent had a monthly income of less than 6,000 CNY.

Measurement

Continued Intention. From the measurements used in the existing literature (Venkatesh et al., 2003), four items were selected to measure the readers' continued intention to engage in digital reading. Respondents were asked to rate these items on a five-point Likert scale (from 1= strongly disagree to 5 = strongly agree). The reliability of the scale was good, with the Spearman-Brown coefficient = 0.61.

Perceived Ease of Use. Perceived ease of use referred to the readers' subjective perception of how easy it was to use a new technology. This study used six items to measure the easiness of digital reading perceived by respondents (Davis, Bagozzi and Warshaw 1989). Respondents were asked to rate these items on a five-point Likert scale (from 1= strongly disagree to 5 = strongly agree). The reliability of the scale was good, with the Spearman-Brown coefficient = 0.78.

Perceived Usefulness. Perceived usefulness referred to the readers' subjective perception of the degree to which new media technology improved reading performance. This study used six items to measure how useful the respondents perceived new media to be for reading (Davis, Bagozzi and Warshaw 1989). Respondents were asked to rate these items on a five-point Likert scale (from 1= strongly disagree to 5 = strongly agree). The reliability of the scale was good, with the Spearman-Brown coefficient = 0.76.

Relative Advantage. According to Rogers' (2010) theory, relative advantage refers to the superiority of the new technology compared to the original technology. This study used six items to measure the superiority of digital reading (Zhu and He 2002). Respondents evaluated the question on a five-level Likert scale (from 1= strongly disagree to 5= strongly agree). The reliability of the scale was good, with the Spearman-Brown coefficient = 0.73.

Perceived Needs. Zhu and He (2002) summarized six weighted needs for the Internet, including news information, personal life information, work and study information, entertainment hobbies, communication, and expression of opinions. This study used these six items to measure readers' needs for digital reading. We asked respondents to evaluate the degree of satisfaction related to the above six needs for digital reading on a five-point Likert scale (from 1= strongly disagree to 5 = strongly agree). Principal component analysis varimax rotation showed that there were two distinct factors that explained 57.44% of the total variance, with Factor 1 (information needs, Spearman-Brown coefficient = 0.62) and Factor 2 (social needs, Spearman-Brown coefficient = 0.60).

Perceived Value. According to the scale developed by Baird and Thomas (1985), six items were designed to measure the perceived value of digital reading. The participants were asked to evaluate them on a five-level Likert scale (from 1= strongly disagree to 5 = strongly agree). Principal component analysis varimax rotation showed that two distinct factors explained 56.22% of the total variance, with Factor 1 (perceived benefits, Spearman-Brown coefficient = 0.62) and Factor 2 (perceived sacrifices, Spearman-Brown coefficient = 0.63).

Emotional Preference. This study used the question *"Which one of the following media do you like best?"* to measure the respondents' preferences. We simplified the items into two categories, traditional media and new media. Among them, television, radio, and books and newspapers were categorized as the traditional media preference (coded 1), while computer, mobile phone, and tablet computer were categorized as the new media preference (coded 2).

Perceived Herd Behaviour. This study used six items to measure the influence of readers' perceived herd behaviour related to digital reading (Apuke and Omar 2020). Respondents evaluated these items on a five-level Likert scale (from 1= strongly disagree to 5 = strongly agree). The reliability of the scale was good, with the Spearman-Brown coefficient = 0.68.

Demographic Characteristics. This study used demographic information of the participants as control variables, including gender, age, location, education, and monthly income.

Data Analysis

In this study, SPSS version 25.0 was used to analyse the collected sample data. First, we cleaned up the collected sample data. We removed the cases in which "No" was selected for *"Have you engaged in digital media,"* that is, answers from respondents without digital reading experience. There were 470 valid questionnaires obtained from the 515 collected

cases. Hierarchical linear regression was used to analyse the relationship between the set of variables involved in each hypothesis while controlling the demographic characteristics.

RESULTS

Descriptive Statistics

First, for media preference, the questionnaire asked the participants to choose their favorite medium among the six media: television, radio, books and newspapers, computer, mobile phone, and tablet computer. The results showed that more than half chose mobile phones as their favorite medium (64.9%), followed by computers (17.2%), which showed that mobile phones had transcended computers as the most popular new media device. The selection rate of tablet computers was low (1.9%), which showed that because of factors such as price and usage experience, the access stability and popularity of tablet computers for reading were limited. A majority of participants engaged in digital reading 2-3 times a day (n =227, 48.3%), followed by once a day (n =127, 27.0%). Most of participants engaged in digital reading everyday for 15- 30 minutes (n= 207, 44.0%), followed by 11-15 minutes (n =112, 23.8%).

Hypotheses Testing

This research investigated the factors that influence readers' continued intention to engage in digital reading. Building on the existing literature, the theoretical model of this research was constructed, and the reliability of the model was verified. This study used continued intention as the dependent variable, and demographic characteristics, perceived ease of use, perceived usefulness, relative advantage, perceived needs, perceived value, emotional preference, and herd psychology as independent variables. Hierarchical linear regression analysis was used to test the hypotheses, and the results are shown in Table 1.

We conducted multicollinearity diagnosis by calculating the variance inflation factor (VIF) for each variable. The VIF values ranged from 1.056 to 3.206 and were below the threshold value of 5 (Hair et al. 2013). Therefore, multicollinearity was not an issue for this study.

The results showed that the explanatory power of the demographic characteristics variable for continued intention was weak (R^2 = .014). Among the five demographic variables, only income was positively related to the continued intention to engage in digital reading (β = .069, p< .05).

For the hypothetical model, the results showed that perceived ease of use, relative advantage, and perceived herd behaviour could positively predict the continued intention to engage in digital reading (β = .167, p< .001; β = .167, p< .01; and β = .144, p < .001, respectively). Therefore, H1, H3, and H7 were fully supported. For perceived needs, both information needs and social needs could positively predict continued intention (β = .179, p< .001; β = .092, p< .05, respectively), thus H4 was totally supported. For perceived value, only perceived benefits could positively predict continued intention (β = .153, p< .001), but perceived sacrifices could not predict continued intention (β =- .005, p> .05). Thus, H5 was partially supported.

However, results showed that perceived usefulness could not predict continued intention (β = .081, p> .05), thus H2 was not supported. In addition, the results indicated that emotional preference could not predict continued intention (β = -.031, p> .05), thus H6 was not supported.

Table 1: Hierarchical Regression Analysis on Continuance Intention of Digital Reading

	Model 1			Model 2		
Variables	Beta	SE	*t*	Beta	SE	*t*
Individual characteristic						
Gender	.056	.059	1.166	.010	.039	.315
Age	.038	.043	.810	.041	.028	1.313
Residence locale	.027	.007	.555	.039	.046	1.198
Education	.035	.013	.259	.004	.023	.109
Income	.109	.014	2.109*	.069	.009	2.042*
Independent variables						
Perceived ease of use				.167	.049	3.501**
Perceived usefulness				.081	.053	1.522
Relative advantage				.167	.060	3.121**
Perceived needs (information needs)				.179	.040	4.317***
Perceived needs (social needs)				.092	.037	2.460*
Perceived value (perceived benefits)				.153	.043	3.550***
Perceived value (perceived sacrifices)				-.005	.026	-.164
Emotional preference				-.031	.051	-1.024
Perceived herd behaviour				.144	.038	3.816***
R^2	.014			.596***		
Adjusted R^2	.004			.583***		

Note. The dependent variable is physical activity participation. *p< .05, **p< .01, ***p< .001.

DISCUSSION

Nowadays, the rapid development of ICTs has made digital reading an important way to read. With the advantages of rich resources, convenience, and entertainment, the rate of digital reading is still increasing. Based on the theoretical basis of WCN and TAM, this empirical study focused on the continued practice of digital reading from an integrative perspective. In other words, we examined two rational factors—perceived technology characteristics and individual motivations—and two irrational factors. This research constructed a theoretical model to explain users' intention to continue to practice digital reading and its predicting factors (including rational and irrational factors).

Continuance Intention of Digital Reading Model

Previous studies on digital reading have mainly discussed public policy from the macro level, but few empirical studies have investigated digital reading behaviour from individual level. Moreover, factors that influence the continued use of digital reading have yet to be studied. On the basis of WCN and TAM, this study conducted an empirical analysis by testing a theoretical framework of the continued practice of digital reading. In the Chinese context, we found that current digital reading has utilized ICTs including computers, mobile phones, tablets, e-readers, and other electronic devices as terminals. Therefore, in the field of digital reading, the behaviour of digital reading (i.e., users accessing new media terminals and consuming new media reading content) could be considered as a consumer behaviour. Therefore, the concepts in the field of marketing can also be used to explain the adoption behaviour of users. Specifically, this study introduced the factor of perceived value into the model, trying to explain its influence on users' continued intention of digital reading. Furthermore, two irrational factors were incorporated to construct the integrated theoretical framework. Although the effects of perceived usefulness and emotional

preference on continued intention have not been confirmed, the other five hypotheses have been verified through empirical testing.

First, in line with WCN, this study found that perceived characteristics, including ease of use and relative advantage, could predict the continued intention to engage in digital reading (Zhu and He 2002). In addition, echoing TAM, perceived ease of use was verified to have a significant impact on continued intention. This study speculates that because of the currently high penetration rate of new media equipment including computers and mobile phones, people usually know how to use new media and understand its advantages. These factors greatly encourage people to use new media to explore new reading platforms and reading functions.

While previous studies mainly focused on perceived usefulness and perceived satisfaction (e.g., Dai et al. 2020; Huang and Ren 2020), this study examined the role of perceived needs in predicting continued intention. Of the two dimensions of perceived needs, information needs were more predictive of digital reading than social needs. This finding demonstrated that users believe that new media reading can better meet their needs in a broad way, including browsing news articles; obtaining life, work, and learning information; pursuing entertainment and hobbies; communicating; and expressing opinions. Therefore, users prefer to engage in a higher level of digital reading on new media platforms rather than on paper (Hu and Yu 2021). Zhu and He (2002) also coined the concept of "weighted needs," which meant that in the process of competition between new and traditional media, new media would fulfill more needs than traditional media.

A more surprising finding, at least to this study, is that relative advantage is more predictive of digital reading than perceived usefulness. It showed that traditional and new media have a certain substitutability. While previous studies have asserted that perceived usefulness significantly affects the continued intention to use some ICTs (Huang and Ren 2020), this study showed that perceived usefulness could not directly predict the continued intention to engage in digital reading. The study speculates that new media is richer in resources and more convenient to retrieve, provides qualities that are conducive to quickly and easily obtaining reading materials on new media and improving the efficiency of learning and work. When users feel that digital reading is more useful to them than paper reading, they will continue to engage in digital reading. In other words, the relative advantage of digital reading promotes the users' intention to use it. This is in line with media richness theory and previous studies that concluded that the e-book reader can deliver rich information or content (Lai and Chang 2011).

Secondly, this research introduced the factor of perceived value and partially verified it. Among the two dimensions of perceived value, the results indicated that only perceived benefits could predict digital reading, while perceived sacrifices could not. This finding showed that readers pay more attention to profit when using new media to read. Customer perceived value in previous marketing literature mainly refers to the comparison between the perception gained and the perception lost by consumers in the process of consumption. This study thus speculate that low-cost or even free digital reading content attracts users to read and consume on new media platforms, and the pleasant reading experience further encourages users to continue to engage in digital reading. Relatively speaking, the perceived sacrifices have little effect on the intention of use. For example, users are less worried about privacy leakage in new media platforms.

Finally, of the irrational factors, only perceived herd behaviour significantly predicted new media reading, while emotional preference did not predict digital reading. Zhu and He (2002) also believed that people's subjective perceptions of the popularity of new media would lead to more engagement. However, for these two types of media (traditional media and new media), readers do not have preset preferences. Therefore, the study speculates that digital reading is more of a herd behaviour in pursuit of trends. When users decide whether to use new media for reading, they will be affected by the people around them and the social environment. Furthermore, when users feel that more and more people around them are using new media to read, they will also engage in digital reading.

Practical Implications

First, the contact rate and popularity of digital reading are relatively high. Only 8.7 percent of the respondents have never used digital reading, indicating that digital reading has become very prevalent in the society. This is also consistent with the conclusion of the Chinese national reading survey report mentioned above (2021), that is, the contact rate of digital reading is high, and digital reading has become an important part of people's reading style.

Second, the new trend is that digital reading has moved from PC to mobile. Half of respondents chose mobile phones as their favorite medium, far outpacing computers. This is mainly due to the rapid development of mobile Internet and smart mobile devices in recent years, people are more and more inclined to use mobile phones to surf the Internet and deal with business, the increasingly perfect mobile phone functions make mobile phone applications more and more convenient.

Third, users' digital reading behaviour pursues simplicity and efficiency. The survey found that more than three-quarters of people actually read digitally less than three times a day, for less than an hour a day. This shows that reading, as one of the important learning abilities, tends to be "shallow reading" and "extensive reading". Specifically, it may be reflected in the pursuit of speed and pleasure in reading of readers, which has the characteristics of popular culture and consumer culture, and also meets the needs of modern social trends, leisure and entertainment.

Finally, the advantages of new media are all conducive to enhancing users' evaluations of digital reading and then promoting the adoption and use of digital reading. In the future, government and relevant industry organizations should pay more attention to the following aspects of digital reading promotion activities. First, the digitization of publications should be further improved. Under the premise of respecting copyright, various types of paper publications are made into e-books, e-magazines, e-journals, and other forms suitable for reading on new media devices (Lim and Jung 2019). Second, the functions of reading software on new media platforms should be enhanced to improve users' reading experience. The search for reading materials should be made more convenient, including optimizing the layout design and layout settings of new media reading materials, adding functions such as annotating and marking of new media reading software, improving personalized recommendations, and making book classification and ranking recommendations more concise and clearer (Chen, Lin and Chen 2011; Chen and Chen 2014; Ronimus et al. 2014). Third, new media platforms should be used to promote socialized reading, because social needs could also predict more engagement in digital reading. Designers should continuously improve the form, content, technology, and other aspects of the digital reading platform to encourage users to share, interact, and spread reading content on the new media platform (Wang et al. 2004; Wang et al. 2020).

CONCLUSIONS

This study explored readers' intentions and behavioural patterns related to digital reading and verified the factors that affect the continued use of digital reading through empirical research. The study also provided a theoretical framework for understanding the mechanisms of the continued intention to engage in digital reading. Based on related theories and previous studies, the research supported the factors of perceived technology characteristics, individual motivations, and two irrational factors. The research provided theoretical and practical enlightenment for the development and promotion of digital reading.

This study has some shortcomings, and researchers need to be cautious when interpreting its findings. First, although the sample in the present study demonstrated spread characteristics, there were some limitations of the sampling. This study took into account the influence of demographic variables on new media reading intentions, including gender, age, residence locale, education, and income. But the survey was conducted online and used a convenient sampling method. As the total digital reading users were about 981 million in China, the sample size in the present study was quite small. Future research can enhance the sample size and representativeness of the sample and verify the impact of demographic factors on the adoption and use of digital reading. There may also be non-response bias as the participants were not a representative sample of the population, and only citizens who have access to the online survey would answer these questions.

Additionally, this research reviewed the previous literature and selected two irrational factors, initial emotional bias and herd psychology, as the research variables. However, as mentioned earlier, irrational factors also include subjective needs, desires, interests, and intuitions. Future research can explore the explanatory power of other irrational factors that may influence the continued use of digital reading.

ACKNOWLEDGEMENT

This work was supported by the National Social Science Fund of China (No: 21FXWB009) and Major Programme of National Social Science Fund of China (No: 21&ZD318).

REFERENCES

Asch, S. E. 1956. Studies of independence and conformity: I. A minority of one against a unanimous majority. *Psychological Monographs: General and Applied,* Vol. 70, no. 9: 1–70. Available at: doi: 10.1037/h0093718.

Apuke, O. D. and Omar, B. 2020. Modelling the antecedent factors that affect online fake news sharing on COVID-19: the moderating role of fake news knowledge. *Health Education Research*, Vol. 35, no.5: 490-503. Available at: doi: 10.1093/her/cyaa030.

Ajzen, I. 2020. The theory of planned behavior: frequently asked questions. *Human Behavior and Emerging Technologies*, Vol. 2, no. 4: 314-324. Available at: https://publons.com/publon/10.1002/hbe2.195.

Ajzen, I., and Fishbein, M. 1975. A Bayesian analysis of attribution processes. *Psychological Bulletin*, Vol. 82, no.2: 261-277. Available at: doi: 10.1037/h0076477.

Artelt, C., Schiefele, U. and Schneider, W. 2001. Predictors of reading literacy. *European Journal of Psychology of Education*, Vol. 16, no.3: 363-383. Available at:doi: 10.1007/BF03173188.

Bandura, A. 1989. Human agency in social cognitive theory. *American Psychologist,* Vol. 44, no.9: 1175–1184. Available at: doi:10.1037/0003-066X.44.9.1175.

Baird, I. S. and Thomas, H. 1985. Toward a contingency model of strategic risk taking.*Academy of Management Review*, Vol. 10, no.2: 230-243 Available at: doi: 10.5465/amr.1985.4278108.

Bojanic, D. C. 1996, Consumer perceptions of price, value and satisfaction in the hotel industry: An exploratory study. *Journal of Hospitality & Leisure Marketing*, Vol. 4, no.1: 5-22.Available at: doi: 10.1300/J150v04n01_02.

Belk, R. W., Ger, G. and Askegaard, S. 2003. The fire of desire: amultisited inquiry into consumer passion. *Journal of Consumer Research*, Vol. 30,no.3: 326-351. Available at: doi: 10.1086/378613.

Chen, C. M. and Chen, F. Y. 2014. Enhancing digital reading performance with a collaborative reading annotation system. *Computers & Education*, Vol. 77: 67-81. Available at:doi: 10.1016/j.compedu.2014.04.010.

Chen, J., Lin, C. H. and Chen, G. 2021. A cross-cultural perspective on the relationships among social media use, self-regulated learning and adolescents' digital reading literacy. *Computers & Education*, Vol. 175: 104322. Available at:doi:10.1016/j.compedu.2021.104322.

Chinese Academy of Press and Publication. 2021. *The results of the 18th national reading survey were released.* Available at: www.nppa.gov.cn/nppa/contents/ 280/75981.shtml.

Dai, H. M., Teo, T., Rappa, N. A. and Huang, F. 2020. Explaining Chinese university students' continuance learning intention in the MOOC setting: a modified expectation confirmation model perspective. *Computers & Education*, Vol. 150: 103850. Available at: doi:10.1016/j.compedu.2020.103850.

Davis, F. D., Bagozzi, R. P. and Warshaw, P. R. 1989. User acceptance of computer technology: a comparison of two theoretical models. *Management Science*, Vol. 35, no. 8: 982-1003. Available at: doi:10.1287/mnsc.35.8.982.

Davis, F. D. 1989. Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, Vol. 13, no. 3: 319-340. Available at: doi:/10.2307/249008.

Drucker, P. F. 1985. *Management: tasks, responsibilities, practices.* New York: Harper & Row.

Dearing, J. W. and Cox, J. G. 2018. Diffusion of innovations theory, principles, and practice. *Health Affairs*, Vol. 37, no.2: 183-190. Available at: doi:10.1377/hlthaff.2017.1104.

Elliott, R. 1997. Existential consumption and irrational desire. *European Journal of Marketing*, Vol. 31, no. 3–4: 285–296. Available at: doi:10.1108/03090569710162371.

Flett, G. L., Hewitt, P. L., Blankstein, K. R. and Koledin, S. 1991. Dimensions of perfectionism and irrational thinking. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, Vol. 9, no.3: 185-201. Available at: doi:10.1007/BF01061229.

Forzani, E., Leu, D. J., Yujia Li, E., Rhoads, C., Guthrie, J. T. and McCoach, B. 2021. Characteristics and validity of an instrument for assessing motivations for online reading to learn. *Reading Research Quarterly*, Vol. 56, no.4: 761-780. Available at: doi:10.1002/rrq.337.

Gil-Flores, J., Torres-Gordillo, J. J. and Perera-Rodríguez, V. H. 2012. The role of online reader experience in explaining students' performance in digital reading. *Computers & Education*, Vol. 59, no.2: 653-660. Available at: doi:/10.1016/j.compedu.2012.03.014.

Handarkho, Y. D. 2020. Impact of social experience on customer purchase decision in the social commerce context. *Journal of Systems and Information Technology*. Vol. 22, no.1: 47-71. Available at: doi:10.1108/JSIT-05-2019-0088.

Hair, J. F., Black, W. C., Babin, B. J., and Anderson, R. E. 2013. *Multivariate Data Analysis.* Harlow: Pearson Education UK.

King, W. R. and He, J. 2006. A meta-analysis of the technology acceptance model. *Information & Management*, Vol. 43,no.6: 740-755. Available at: doi:10.1016/j.im.2006.05.003.

Kotler, P., Armstrong, G., Harris, L. C. and He, H. 2019. *Principles of marketing (European Edition)*. London: Prentice Hall.

Lim, H. J. and Jung, H. 2019. Factors related to digital reading achievement: A multi-level analysis using international large scale data. *Computers & Education*, Vol. 133: 82-93. Available at: doi:10.1016/j.compedu.2019.01.007.

Lai, J. Y. and Chang, C. Y. 2011. User attitudes toward dedicated e-book readers for reading: the effects of convenience, compatibility and media richness. *Online Information Review*, Vol. 35, no. 4: 558-580. Available at: doi:10.1108/14684521111161936.

Hu, J. and Yu, R. 2021.The effects of ICT-based social media on adolescents' digital reading performance: a longitudinal study of PISA 2009, PISA 2012, PISA 2015 and PISA 2018. *Computers & Education*, Vol. 175: 104342. Available at: doi:10.1016/j.compedu.2021.104342.

Huang, G. and Ren, Y. 2020. Linking technological functions of fitness mobile apps with continuance usage among Chinese users: moderating role of exercise self-efficacy. *Computers in Human Behavior*, Vol. 103: 151-160. Available at: doi:10.1016/j.chb.2019.09.013.

He, X., Zhou, W. and Shen, L. 2015. A risk evaluation method for the scientific cognitive value deviation due to irrational factors. Paper presented at the *2015 12th International Conference on Fuzzy Systems and Knowledge Discovery (FSKD)*, 15-17 August 2015, Zhangjiajie, China. Available at: doi:10.1109/FSKD.2015.7381991.

Kurata, K., Ishita, E., Miyata, Y. and Minami, Y. 2017. Print or digital? Reading behavior and preferences in Japan. *Journal of the Association for Information Science and Technology*, Vol. 68, no.4: 884–894. Available at: doi:https://doi.org/ 10.1002/asi.23712.

Klick, J. and Mitchell, G. 2006. Government regulation of irrationality. *Minnesota Law Review,* Vol. 90, no. 6: 1620–1663.

Kusolpalin, P., Luyt, B., Munro, Y.L. and Lim, S. P. 2017. Why do children in Singapore read? An exploratory study. *Malaysian Journal of Library & Information Science*, Vol. 18*,* no. 3: 1–12. Available at: https://mjlis.um.edu.my/index.php/MJLIS/ article/view/1871.

Liu, Z. 2005. Reading behavior in the digital environment. *Journal of Documentation*, Vol. 61, no.6: 700–712. Available at: doi:10.1108/00220410510632040.

Loh, C. E. and Sun, B. 2019. 'I'd still prefer to read the hard copy': adolescents' print and digital reading habits. *Journal of Adolescent & Adult Literacy*, Vol. 62, no.6: 663-672. Available at: doi:10.1002/jaal.904

Nussbaum, M. 2004. Emotions as judgments of value and importance. In: Solomon, R. C. eds. *Thinking about feeling: Contemporary philosophers on emotions*, New York, Oxford University Press:183–199.

Ronimus, M., Kujala, J., Tolvanen, A. and Lyytinen, H. 2014. Children's engagement during digital game-based learning of reading: the effects of time, rewards, and challenge. *Computers & Education*, Vol. 71: 237-246. Available at: doi:10.1016/j.compedu.2013.10.008.

Rogers, E. M. 2010. *Diffusion of innovations*. New York:Simon and Schuster.

Rowsell, J. and Burke, A. 2009. Reading by design: two case studies of digital reading practices. *Journal of Adolescent & Adult Literacy*, Vol. 53, no. 2: 106-118. Available at: doi:10.1598/JAAL.53.2.2.

Reiber-Kuijpers, M., Kral, M. and Meijer, P. 2021. Digital reading in a second or foreign language: a systematic literature review. *Computers & Education*, Vol. 163: 104115. Available at:doi:10.1016/j.compedu.2020.104115.

Ruggiero, T. E. 2000. Uses and gratifications theory in the 21st century. *Mass Communication & Society*, Vol. 3, no. 1: 3-37. Available at: doi:10.1207/S15327825MCS0301_02.

Samsuddin, S. F., Mohamed Shaffril, H. A., Mohamed, N. A. and Bolong, J. 2021. Into the unknown: Do people in low literacy rate areas practise digital reading? *Malaysian Journal of Library &Amp; Information Science*, Vol. 26, no. 2: 23–36. Available at: https://ejournal.um.edu.my/index.php/MJLIS/article/view/23410.

Snyder, I. 2003. *Page to screen: Taking literacy into the electronic era.* London: Routledge.

Susanti, V., Sumarwan, U., Simanjuntak, M. and Yusuf, E. Z. 2020. Rational antecedent framework of brand satisfaction in the industrial market: assessing rational perceived quality and rational perceived value roles. *International Review of Management and Marketing,* Vol. 10, no.1: 19-26.

Schugar, H.R., Smith, C.A. and Schugar, J.T. 2013. Teaching with interactive picture e-books in grades K–6. *The Reading Teacher*, Vol. 66, no. 8: 615– 624. Available at: doi: 10.1002/trtr.1168.

Self, R., Rigby, A., Leggett, C. and Paxton, R. 2008. Clinical decision support tool: a rational needs-based approach to making clinical decisions. *Journal of Mental Health*, Vol. 17, no.1: 33-48. Available at: doi:10.1080/09638230701505806.

Stanovich, K. E. and West, R. F. 2000. Individual differences in reasoning: implications for the rationality debate? *Behavioral and Brain Sciences*, Vol. 23, no.5: 645-665. Available at: doi:10.1017/S0140525X00003435.

Schunk, D. H. and DiBenedetto, M. K. 2020. Motivation and social cognitive theory. *Contemporary Educational Psychology*, Vol. 60: 101832. Available at: doi:10.1016/j.cedpsych.2019.101832

Sun, H. 2013. A longitudinal study of herd behavior in the adoption and continued use of technology. *MIS Quarterly*, Vol. 37, no. 4: 1013–1041. Available at: doi:10.25300/MISQ/2013/37.4.02.

UNESCO. 2021. *World Book and Copyright Day*. Available at: en.unesco.org/commemorations/worldbookday.

Venkatesh, V., Morris, M. G., Davis, G. B. and Davis, F. D. 2003. User acceptance of information technology: toward a unified view. *MIS Quarterly*, Vol. 27, no.3: 425-478. Available at: doi:10.2307/30036540.

Woodruff, R. B. 1997. Customer value: the next source for competitive advantage. *Journal of the Academy of Marketing Science*, Vol. 25, no.2: 139-153. Available at: doi:10.1007/BF02894350.

Wang, Y., Lo, H. P., Chi, R. and Yang, Y. 2004. An integrated framework for customer value and customer-relationship-management performance: a customer-based perspective from China. *Managing Service Quality: An International Journal*, Vol. 14, no. 2/3: 169-182. Available at: doi:10.1108/09604520410528590.

Wang, X. and Jin, Y. 2020. Measuring multiple dimensions of Chinese adolescents' attitudes toward reading: introducing the survey of adolescent reading attitudes to Chinese teachers. *Journal of Adolescent & Adult Literacy*, Vol. 63, no. 6: 661–673. Available at: doi:10.1002/jaal.1040.

Wang, H., Fang, Q., Chen, Y., Guan, L., and Dong, T. 2020. Research on the factors influencing the reading motivation of social media users from the perspective of

reading promotion in China. *Libri*, Vol. 70, no. 4: 279-290. Available at: doi:10.1515/libri-2019-0135.

Whiting, D. 2020. *Emotions as original existences: a theory of emotion, motivation and the self.* Camden: Palgrave Macmillan.

Wu, D. 2020. Empirical study of knowledge withholding in cyberspace: integrating protection motivation theory and theory of reasoned behavior. *Computers in Human Behavior*, Vol. 105: 106229. Available at: doi:10.1016/j.chb.2019.106229.

Wigfield, A. and Eccles, J. S. 2000. Expectancy–value theory of achievement motivation. *Contemporary Educational Psychology*, Vol. 25, no.1: 68-81. Available at: doi:10.1006/ceps.1999.1015.

Xing, S., Peng, A. and Mao, Y. 2020. Research on the key perception points in the process of e-book selection. *The Electronic Library*, Vol. 38, no. 5/6: 1053-1071. Available at: doi: 10.1108/el-02-2020-0026.

Zeithaml, V. A. 1988.Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence. *Journal of Marketing*, Vol. 52, no.3: 2-22.Available at: doi:10.1177/002224298805200302.

Zhu, J. J. and He, Z. 2002. Perceived characteristics, perceived needs, and perceived popularity: adoption and use of the Internet in China. *Communication Research*, Vol. 29, no.4: 466-495. Available at: doi:10.1177/0093650202029004005.

APPENDIX

Survey Questionnaire: Continued Intention of Digital Reading

Dear respondents:

The questionnaire aims to provide an in-depth understanding of people's digital reading behaviours today. We cordially invite you to participate in the survey.

The information obtained from this questionnaire is only used for academic research, and the data will be kept strictly confidential. Please feel free to answer according to your own real situation.

Sincerely thank you for your help and support!

Part-1

Q1-1. Have you engaged in digital reading?

- Yes
- No

Q1-2. Which of the following media do you like best?

- Television
- Radio
- Books and newspapers
- Computer
- Mobile phone
- Tablet computer

Q1-3. Your age (years old):

- Below 18
- 18～29
- 30～39
- 40～49
- 50 or above

Q1-4. Your gender:

- Man
- Woman

Q1-5. Your education:

- Middle school or below
- High school
- Some college
- Bachelor's degree
- Master’s degree or above

Q1-6. Your monthly income (CNY):

- Below 1,000
- 1,000～1,999
- 2,000～2,999
- 3,000～4,999
- 5,000～5,999
- 6,000～6,999
- 7,000～7,999
- 8,000～8,999
- 9,000～9,999
- 10,000 or above

Q1-7. Residence location:

- Urban locale
- Rural locale

Q1-8. How often do you engage in digital reading each day?

- less than once a day on average
- Once a day
- 2-3 times a day
- 3-5 times a day
- More than 5 times a day

Q1-9. How long do you engage in digital reading each day?

- less than 10 minutes
- 11-15 minutes
- 16-30 minutes
- 31-60 minutes
- more than 60 minutes

Part-2

Perceived ease of use (1: strongly disagree; 5: strongly agree)

Q2-1. How much do you agree with each of the following statements?

PEU1: Learning how to use digital reading is an easy task for me

PEU2: I think it's easier to find the book I want to read through digital media

PEU3: I can understand how to use digital reading

PEU4: In my opinion, the process of reading using digital media is very flexible

PEU5: It is not difficult for me to be proficient in using digital media to read

PEU6: I think digital media is easier to read and operate

Perceived usefulness (1: strongly disagree; 5: strongly agree)

Q2-2. How much do you agree with each of the following statements?

PU1: The use of new media can facilitate and quickly obtain information and materials

PU2: The use of new media to get more needed information and materials

PU3: Digital reading allows me to use the information and materials I need more effectively

PU4: Digital reading can improve my study/work efficiency

PU5: Digital reading can expand my knowledge

PU6: Digital media is more useful in my reading process

Relative advantage (1: strongly disagree; 5: strongly agree)

Q2-3. How much do you agree with each of the following statements?

RA1: I think the benefits of digital reading are obvious

RA2: There is more information on new media

RA3: Reading text on digital media is easier to copy and share

RA4: Digital reading is more interactive

RA5: Reading in digital media is very vivid with audios and videos

RA6: I think it's easy to introduce the benefits of digital reading to others

Perceived value (1: strongly disagree; 5: strongly agree)

Q2-4. What do you think the experience of digital reading is like?

PV1: Fun and joyful

PV2: Charges little or no fees

PV3: Value for money

PV4: Cause dissatisfaction from other users

PV5: Arouse disgust from other users

PV6: Easy to leak privacy

Perceived needs (1: strongly disagree; 5: strongly agree)

Q2-5. What do you think of new media reading?

PN1: Understand domestic and foreign news events

PN2: Get information about daily life

PN3: Get information about work/study

PN4: Entertainment or personal hobbies

PN5: Enhance communication and interaction

PN6: Express personal opinions and views

Perceived herd behaviour (1: strongly disagree; 5: strongly agree)

Q2-6. How much do you agree with each of the following statements?

PHB1: I like to read in the same medium as my friends

PHB2: I use some kind of digital media to read because I saw my friends use it

PHB3: I have listened to a friend's recommendation to use some digital media to read and are satisfied

PHB4: Hearing people often talk about some kind of digital media for reading, I will want to use it

PHB5: The more online reviews about a certain digital media, the more I will want to use it

PHB6: When I see the news media recommend a certain digital reading media, I will want to use it

Continued intention of digital reading (1: strongly disagree; 5: strongly agree)

Q2-7. How much do you agree with each of the following statements?

INT1: I plan to continue reading on digital media

INT2: I like to read articles on digital media more and more

INT3: I am willing to share review articles on digital media in the future

INT4: I would like to recommend to my friends to use digital media products