



# A Survey of College Students' Reading Situation Against the Background of Internet Plus

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**Abstract.** College students' reading habits have changed with the arrival era of Internet plus. This investigation focuses on the college students' reading situation against this background: their cognition and view of traditional reading and digital reading, the number of books they read, their digital reading time, paper reading time and time allocation, the access to electronic resources and reading methods, and their evaluation of reading quantity and situation. The survey shows that students' reading has a diversified pattern. Traditional paper reading and digital reading are nearly equally divided, yet paper book will not be replaced by e-book. Fragmentation reading through mobile phones has become the mainstream and most students have positive evaluation of fragmented reading. However, compared with the national grow-up readers, college students' reading amount is not large and reading time is not long. Most students are not satisfied with their reading situation. Therefore, some concrete measures are put forward to encourage students to read more books.

**Keywords:** Internet plus · Reading media · Reading time · Reading quantity · Reading situation

## 1 Introduction

The arrival of the era of Internet plus based on big data has changed people's way of life and thinking. With the birth and prevalence of educational software, the interest and pertinence of mobile phone education Apps are continuously improved, which provides great convenience for people to make full use of fragmented time, enriches the means of learning, and improves the efficiency and quality of learning [1]. Eventually, the Internet-based learning approach came into being: e-learning, mobile learning and ubiquitous learning [2]. The National Reading Survey found that there was a new turning point in the contact rate of digital reading mode since 2014, which has exceeded the reading rate of paper books, newspapers and periodicals for two consecutive years, indicating that the emerging digital reading media has shown a vigorous development trend. The reading trend will also change from traditional reading to digital reading, and from terminal reading to mobile reading [3].

Today's college students are a generation growing up with the development of the Internet and are recognized as "digital aborigines". They are a generation of technology, a generation of map reading, and a generation of innovation. They develop a habit

of advocating change and efficiency by using electronic products, reading pictures and taking information [4]. College students have become the main group of digital reading. They have a superior campus network environment, and can use various reading equipment and reading software to read. The traditional paper reading method has been unable to meet the needs of the new generation of college students. Hence this study focuses on two problems: what the reading status of college students is and what the differences between their reading status and the national public are.

## 2 Literature Review

Liu's survey showed that digital reading has become the main reading method for college students [5]; Qu et al. found that college students preferred electronic reading with leisure and entertainment as the main content, the time spent reading paper books was shortened, and electronic book reading was mainly online reading, mainly relying on search engines [6]. Yan et al. found that college students' digital reading needs were diverse, reading contents were relatively shallow, digital reading frequency was high and time was short. In addition, they were willing to choose digital reading [7]; Wang [8] thought that college students' mobile reading motivation was generally worthy of recognition, but their professional learning and interest motivation did not occupy an absolute advantage, and the powerful function of mobile reading in professional learning had not been fully utilized. Li et al. [9] analyzed factors affecting the poor use of e-books in university libraries, and proposed measures, such as increasing the number of e-books, improving college students' media literacy and optimizing the reading environment to improve the use of e-books in university libraries.

Kiriakova et al. discovered that 96% of college students felt comfortable using e-book readers, and they seemed to have developed the habit of reading e-books [10]. However, some college students still preferred to read paper textbooks. The Guardian reported that the sound book market in the UK increased in 2018, 43% higher than the previous year. Experts believe that audio books and e-books are not killing reading but enriching people's reading media. The study found that when reading printed books, people were more focused and wanted to read, but the understanding of content and the amount of information they got were not more than when reading electronic books [11]. Kumar's research showed that nearly 60% of Indian college students read 1–2 h a day and nearly 70% liked both paper books and electronic resources [12].

## 3 Research Process

### 3.1 Research Contents

This study mainly investigates the college students' reading status in the era of Internet plus: the cognition and view of traditional reading and digital reading, the number of reading books, the reading time (including digital reading, paper reading and time allocation), the access to electronic resources reading methods, and the evaluation of their reading quantity and status.

### 3.2 Research Objects and Methods

This investigation collects data through questionnaires and personal interviews. The questionnaire was conducted in a key university of science and engineering, and the grade distribution of students was from sophomores to postgraduates. A total of 340 questionnaires were distributed, 334 were recovered, and 321 were valid. There were 154 males and 167 females in the valid questionnaires, including 73 humanities majors, 55 economics and management majors, 100 science and engineering majors and 93 postgraduate students. SPSS 19 was used to analyze the questionnaire data, and 8 students were interviewed according to their majors. Thus it combines questionnaire data and interviews to find out the new normal of college students' reading in the Internet plus era.

## 4 Survey Results and Analysis

### 4.1 Students' Perceptions of Traditional Reading and Digital Reading

#### 4.1.1 Views on the Trend of Reading Media

The survey results show that despite the inflection point of digital reading, college students still have a high recognition rate of paper books. More than 70% of students believe that paper books are good and will not be replaced. The identity ratio of economics and management students and graduate students is higher, 80% and 76.34% respectively. The research group of the National Reading Survey pointed out that returning to paper books was a worldwide trend. At present, the United States, the United Kingdom and France have shown similar trends. The sales of e-books in these countries have slowed down, while the sales of paper books have grown steadily, as has China. Although digital reading is fast and convenient, it is only suitable for fast fragmented shallow reading, and traditional paper reading is more suitable for systematic deep reading. Readers' demand for deep reading will not disappear, so paper books will not disappear. For a long time, traditional paper books and digital reading will coexist [3].

More than half of the students think that paper books and e-books have their own advantages, and it is the text content itself that attracts readers. The proportion of students in humanities, economics and management, and science and engineering is similar, which is about 54%. Based on the interview, students generally believe that the advantages of paper books are visual comfort, complete content and authoritative. The advantages of e-books are mainly manifested as more convenient, more fashionable and more environmentally friendly. Jennifer et al. also found that electronic books were easy to search and carry, rich in online resources, and can highlight the function and search ability [13].

Although thirty percent of the students think that paper books have some shortcomings, for example, they are inconvenient to carry, easy to damage and occupy the place, but only 10% of the students think that paper books will be replaced by new technology products in the future.

### 4.1.2 Views on Fragmented Reading

The survey reveals that students have positive evaluation of fragmented reading, and 58.26% of the students think that fragmented reading can make themselves relax and adjust their lives. 43.3% of the students would try to select the reading materials before reading, and carefully select high-quality mobile Apps, 38.63% of the students believed that fragmented reading could enrich the fragmented time and be more efficient, and the recognition rate of graduate students reached 63.27%.

In the negative evaluation of fragmented reading, 30% of students thought it would make reading ability and thinking coherence decline; yet only 6.54% of students thought fragmented reading was a bad habit.

## 4.2 Number of Students Reading

### 4.2.1 Annual Extracurricular Paper Book Reading

The survey on the annual extracurricular reading shows that more than half of the students read less than 5 books, nearly 30% of the students read 6 to 10 books, only 20% of the students read more than 10 books. Moreover, 2.18% of the students have not read an extra-curricular paper book. Economic and management students have the largest amount of extracurricular paper reading, while graduate students have the least amount, their proportion of reading more than 6 books is less than that of undergraduate students. Compared with the national adult readers' reading volume of 4.76 copies [14], students' extracurricular paper reading is obviously less.

### 4.2.2 Annual E-Book Reading

The survey results display that students' annual e-book reading is not much either. Nearly 5% of students have not read e-books. More than 60% of students read less than 5 books, nearly 20% read 6–10 e-books, less than 20% students reading more than 10 e-books. In 2021, China's adult nationals per capita e-book reading was 3.30 [14], and students' e-book reading was higher than the national average.

Overall, most students read between 1 to 5 books. Also students who read 1 to 5 books read more electronic books than paper ones, while students who read 6 to 20 books read less electronic books. Students who read more than 21 e-books read the same number of extracurricular paper books and e-books. Interviewing the reasons for this phenomenon, students believe that students who read 1 to 5 books are similar to the phenomenon of “underachievers”. They are willing to browse online and usually do not like paper books, so they read more e-books than paper books. Students who read 6 to 20 books are similar to “curve wreckers”. They like to spend time reading, and are good at deep reading and thinking, so they read more paper books. Students reading more than 21 books are similar to the phenomenon of “academic prodigy”. They have the same attitude towards book media. As long as the content meets their needs and they are interested in it, then reading e-books and paper books are the same for them.

### 4.3 Reading Time

#### 4.3.1 Paper Book Reading Time and Digital Reading Time

The survey data shows that students' reading time of paper books is almost the same as that of digital reading. More than 70% of the students read less than 1 h per day, and 16.2% of the students read 1 to 2 h per day. 6.54% of the students spend 2 to 3 h per day reading paper books, and 7.17% of the students spend 2 to 3 h per day in reading digital books. 4.36% of students read paper books more than four hours a day, 2.8% of students read digital books more than four hours a day.

For humanities students and postgraduates, their paper books reading time is long. More than half of them can read 0.5 to 1 h a day. Graduate students who read more than 1 h are higher than that of undergraduates. The interview students believe that science and engineering students pay more attention to practical content such as information and knowledge. Hence they believe that entertainment content is a waste of time, therefore, they spend less time in digital reading.

#### 4.3.2 Reading Time Allocation

Reading time allocation mainly refers to the time allocated to the fragmented reading and deep reading. The survey shows that students spend more time on fragmented reading than deep reading. In general, 59.5% of the students conduct fragmented reading, and 40.5% of the students read deeply. There are certain professional differences among students of different majors. The proportion of fragmented reading among students of humanities and economics is 65%, and that among students of science and engineering is 52%. According to the interview, science and engineering students believe that fragmented reading is to read news online or just for entertainments. They have more homework and more experiments to do, and less fragmented reading time.

### 4.4 Reading Media and Digital Resource Utilization

#### 4.4.1 Reading Media

The survey discloses that mobile phone reading has gradually become the main form of electronic reading for college students. The students who read by mobile phones, paper books, computers and electronic readers were 70.43%, 66.67%, 17.97% and 17.39%, respectively. The study on the reading form of Chinese national tendency shows that 43.4% of adult nationals tend to read a paper book, 33.4% of nationals tend to read by mobile phone, 8.6% of nationals tend to read on the electronic reader, and 7.9% of nationals prefer on-line computers reading [14]. Different from national reading, college students have the highest proportion of mobile reading.

Through interviews, students believe that mobile phones can be carried out in classrooms, dormitory, library, sports venues and any time outside the school, and can better use fragmentation time. The other reasons are related to the popularity of smart phones, the rapid development of mobile reading software, the maturity of mobile network technology, the full coverage of campus wireless network, and the reduction of Internet traffic

charges. Mobile screen reading combines media, images, sounds, text and other information carriers, which is intuitive, convenient and nonlinear. It is suitable for people's fragmented reading habits [15].

Interview also found that students think that paper books can be read a page over a page, there is a sense of reading achievement, and can know how much they have read; while reading e-books, they don't know their reading progress. Also, while reading paper books, students can take notes, draw, mark and fold in the book, and can form a good habit of deep thinking. Students tend to read paper books when reading the classics.

Because the computer is not convenient to carry, it is increasingly unpopular with students, but 30.11% of graduate students still use computer to read. According to the interview, most of them have their own laboratories, which are convenient to use computers, and some mapping software needs to be installed in the project design. Moreover, the screen of the computer is larger than that of the mobile phone, which is comfortable for the eyes when reading. Therefore, the proportion of postgraduates using computer reading is higher than that of other students.

Electronic reader's function is not as complete as those of mobile phones, computers, hence there are not many users. But the humanities students tend to use iPad, Kindle to read electronic books. Interview reveals that the humanities students think that e-books are cheap, there are many books can be downloaded free from the Internet, both save money and save storage space, moreover, it is convenient to carry.

#### **4.4.2 Access to Electronic Resources**

The survey results demonstrate that mobile phone and search engine are the main ways for students to obtain electronic resources, and 61.99% of students use mobile phone Apps to obtain electronic resources. Among them, the proportion of humanities and economic and management students using mobile phone Apps are 71.23% and 80% respectively; 55.76% of students use search engines such as Baidu, Google, Wikipedia to access electronic resources; 21.81% of students use social media, such as Sina, Netease, Zhihu and so on; 20.87% of the students use academic databases. There are 39.78% postgraduates use academic databases, with the highest proportion among all groups. 18.07% of the students use the electronic library in the school library, and the majority of them are postgraduates and economic and management majors. The interview shows that they mainly use the electronic journals of the library. Only 6.23% of the students use the publishing house website, which is mainly used by science and engineering students.

### **4.5 Evaluation of Reading Quantity and Situation**

#### **4.5.1 Evaluation of Reading Quantity**

The students generally think that their reading quantity is not much. More than 70% of the students think that their reading quantity is very small or relatively small, only 3.11% of the students think that their reading quantity is much or very much, with graduate students, science and engineering students in the majority. 87.67% of the humanities students think they have little or less reading. No one thinks he has read a lot. In the following interview, they all lament time lost.

According to the evaluation of adult citizens on the amount of individual readings in 2021, 3.1% of the citizens believe that they have more readings, 10.4% believe that they have much more readings, 51.0% believe that they have a general number of readings, and 35.5% believe that they have a small or relatively small amount of readings [14]. Students' evaluation of their reading quantity is lower than that of adult nationals. After all, the main task of college students in school is reading and learning.

#### 4.5.2 Evaluation of Reading Situation

The survey finds that 56.67% of the students are unsatisfactory with their current reading situation, 37.22% approximately satisfactory, only 6.17% of the students are very satisfactory with their current reading situation.

According to the evaluation of adult citizens on the overall reading situation of individuals, 16.6% of them are dissatisfied, 41.1% of them are approximately satisfactory, and 28.2% of them are satisfied [14]. By comparison, the students have more negative evaluation on their reading situation.

### 5 Conclusion

In the Internet plus era, students' reading has a diversified pattern. The diversification of reading media and the diversification of access to resources have enriched students' reading experience, making electronic learning, mobile learning and ubiquitous learning possible. Traditional reading and digital reading are almost equally divided. Fragmentation reading through mobile phones has become the mainstream, but students' reading amount is not large and reading time is not long. Most students are not satisfied with their reading quantity and reading situation.

In view of this new situation, university libraries should try to meet students' reading needs. They should not only purchase the latest paper books, but also increase the proportion of purchase of electronic resources. More electronic databases should be purchased for free download by teachers and students. They should vigorously promote mobile reading services on campus, including bibliographic retrieval, database use, mobile reading, and carry out activities such as subject guidance and book review writing. In this way, students can make full use of fragmentary time to understand the new trend of book publishing. If students are interested, they can borrow paper books in the library for deep reading. Libraries can also implement the 'personal librarian' system among freshmen like Yale University, with research librarians to help freshmen solve problems such as collection utilization, learning space and project research. The library can also hold some interesting reading activities suitable for students' characteristics, book sharing meetings, short drama performances, and other activities to attract students to read more.

Publishers should conform to the needs of the development of the times. When publishing new paper books, an electronic version should be followed as well for readers to choose. Moreover, the format of electronic version should have good compatibility, which can be compatible with mobile phones, computers and electronic readers, so as to facilitate readers to read.

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