

An Analysis of Motivation for Altmetrics Data Generation and Data Availability of Chinese Academic Books: A Case Study of “Short Reviews” on the Douban Reading Platform (Postprint)

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Abstract

[Purpose/Significance] This study investigates users’ motivations for posting short comments on “Douban Reading” and attempts to assess the validity of short comments as an indicator for evaluating book impact, aiming to provide reference for the construction of Altmetrics indicators in Chinese academic book evaluation. [Method/Process] Taking the top ten cited Chinese academic books in the ancient classics category published in the CBKCI Statistical Report as samples, this study employs grounded theory to analyze 1,142 “short comments” on these books from “Douban Reading,” exploring the generation motivations of short comments and the usability of corresponding short comment data. [Results/Conclusion] User motivations for generating short comments encompass six main categories: discussion, sharing, entertainment, external pressure, emotional catharsis, and information acquisition. Among them, the “discussion” motivation is the most prominent, with its two sub-motivations—“expressing personal experiences or thoughts related to the book” and “expressing personal interpretations or insights about the book”—accounting for over 40% of all short comment data. This indicates that users are not merely copying sentences or chapters from the book, but rather attempting to identify and disseminate its most valuable parts; such short comment data can thus be utilized to evaluate the value of Chinese academic books. Conversely, motivations including “sharing,” “entertainment,” “external pressure,” “emotional catharsis,” and “information acquisition” relatively poorly reflect users’ attitudes and cognition toward the book and should not be incorporated into Altmetrics evaluation indicators for Chinese academic books.

Full Text

Preamble

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Generation Motivation and Data Availability of Altmetrics Data for Chinese Academic Books: A Case Study of “Short Comments” on the Douban Reading Platform

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Abstract: [Purpose/Significance] This study explores users’ motivations for posting short reviews on “Douban Reading” and attempts to assess whether these short reviews can serve as an effective indicator for evaluating book influence, aiming to provide reference for the construction of Altmetrics indicators in Chinese academic book evaluation. [Method/Process] Using the top ten cited ancient Chinese academic books from the CBKCI statistical report as samples, this paper employs grounded theory to analyze 1,142 “short comments” on these books from the Douban Reading website, investigating the generation motivations of short comments and the availability of corresponding data. [Results/Conclusion] User motivations for generating short comments include six main categories: discussion, sharing, entertainment, external pressure, emotional venting, and data acquisition. Among them, the “discussion” motivation is the most prominent, with its two sub-motivations—“expressing personal experiences or ideas related to the book” and “expressing personal interpretations or opinions about the book”—accounting for over 40% of all short comment data. This indicates that users are not merely copying sentences or chapters from books but are attempting to identify and disseminate the most valuable parts of books. Such short comment data can be used to evaluate the value of Chinese academic books. In contrast, motivations such as “sharing,” “entertainment,” “external pressure,” “emotional venting,” and “data acquisition” are relatively less effective in reflecting users’ attitudes and cognition toward books and should not be included in Altmetrics evaluation indicators for Chinese academic books.

Keywords: Chinese academic books; Altmetrics data; data generation motivation; data availability; Douban Reading platform; short comments

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Books, as systematic, integrated, high-density, and long-form knowledge presentations, constitute an important component of the academic communication system. Evaluating books is a crucial step in promoting the healthy and sustainable development of book publishing and the academic ecosystem [1]. Book evaluation requires not only assessing academic influence from the perspective of formal communication but also evaluating social influence from the perspective of informal communication [2]. Altmetrics is an evaluation method that has

emerged in the Web 2.0 environment, with its indicator data primarily sourced from social media, providing a new perspective for measuring the social impact of academic achievements [3].

2 Related Research

2.1 Altmetrics Data Generation Motivation

The motivation behind Altmetrics indicator data directly affects the validity of the indicators [5]. Therefore, only by deeply understanding the purposes of research participants in accessing data in open social media spaces can we more accurately assess the role of Altmetrics indicators in research evaluation. Consequently, this study takes Chinese academic books as its research object and attempts to conduct an in-depth analysis of the motivations behind Altmetrics short comment data generation, aiming to provide reference for the construction of Altmetrics indicators in Chinese academic book evaluation.

Despite the tremendous value embedded in Altmetrics, its reliability, operability, and applicability remain subjects of debate. For instance, scholars at the “InMetrics We Trust?” workshop discussed issues such as the value of Altmetrics, its potential roles, and unintended consequences of improper operations in research assessment [4]. Compared with traditional bibliometric data, whether Altmetrics data from informal communication can withstand scrutiny in evaluation still requires the test of time.

Similar to how the availability of traditional citation metrics is affected by citation motivations, understanding the motivations of Altmetrics data creators is fundamental to comprehending Altmetrics indicators [6]. Previous studies have investigated user motivations for forwarding and liking behaviors on popular social media platforms like Facebook, saving and bookmarking behaviors on academic social media platforms like Mendeley, and motivations for posting tweets, exploring factors such as conformity motivation [7], profit motivation [8], community participation motivation [9], and interest motivation [10]. Delving into the context of Altmetrics data generation and understanding user motivations behind the data is an important current research focus, though different scholars employ different classification standards for motivations in various studies.

Regarding user motivations for posting tweets on Twitter, T. H. H. Htoo et al. [11] categorized them into discussion, sharing, promotion, and acquisition, further subdividing them into 15 sub-motivations. J. C. Na [12], drawing upon H. Shema et al.’s [13] classification of blog citation motivations, divided psychology users’ motivations for posting English science tweets into ten categories: discussion, criticism, recommendation, triggering, extension, self-promotion, debate, data provision, ethics, and others. Based on analyses of relevant studies [15-18], K. Schnitzler et al. [14] summarized users’ motivations for adding tags to tweets as: exchanging opinions with like-minded users, gaining new followers, and making tweets more likely to be retweeted. They summarized motivations

for @mentioning others when posting tweets as ensuring specific users receive the tweet and encouraging them to retweet it, while motivations for bookmarking tweets were summarized as interest, among others. D. Boyd et al. [19] found that users retweet tweets to preserve them for future personal access. E. Mohammad et al. [20] surveyed 860 Mendeley users and found that motivations for tagging documents include pre-citation, updating knowledge reserves, and use for teaching activities. S. Y. Syn et al. [21] discovered that Facebook and Twitter users' primary motivations for forwarding literature are to provide information to others, learn new things, support community interests, and enjoyment. Y. K. Huang et al. [22], through qualitative and quantitative mixed analysis, found that users post book reviews online mainly out of motivations to share, vent negative emotions, engage in social interaction, and participate in product-related activities. Zhang Hui et al. [23], based on uses and gratifications theory, categorized blog comment motivations into community participation, emotional communication, entertainment, and time-killing. H. Yu et al. [24] conducted content analysis on the top 1% of Weibo posts with Altmetrics indicators, broadly categorizing motivations for posting science-related Weibo into four aspects: providing superficial introductions to disseminate papers, highlighting or detailing academic uses of papers, discussing practical applications of papers, and highlighting surprising or interesting parts of papers.

For user forwarding and liking motivations on popular social media Facebook, K. Baek et al. [25] divided Facebook users' forwarding motivations into six categories: information sharing, convenience and entertainment, time-killing, interpersonal utility, control, and promotion, and explained the generation mechanism of Altmetrics data through theoretical research on Altmetrics motivations. S. Haustein et al. [26] analyzed social media behaviors from the perspectives of citation behavior theory and social behavior theory to interpret the nature of Altmetrics. C. Y. Chin et al. [27] explored the "like" motivations of 743 Facebook users based on motivation theory, roughly categorizing them into hedonic motivation, utilitarian motivation, compliance motivation, conformity motivation, and belonging motivation.

Regarding research on user saving and bookmarking motivations on academic social media platforms like Mendeley, J. Jians et al. [28] categorized motivations for tagging documents and adding them to discussion groups in Mendeley into sharing, exchanging, and building collaborative networks.

2.2 The Role of Generation Motivation in Altmetrics Data Availability

Since Altmetrics was formally proposed in 2010, scholars have continuously focused on whether and how corresponding data can be applied to academic evaluation. Scholars [21-22] generally believe that the most direct way to understand the connotation of Altmetrics indicators and judge data availability is to explore the generation motivations of Altmetrics data—that is, for what purposes users leave traces of research activities on social media platforms. Methods such as content analysis [29] and interview and questionnaire surveys [30-31] can be

used.

Wang Pengfei et al. [32] conducted content analysis on Sina Weibo and found that most posts were forwards or simple restatements of paper content, indicating that Weibo authors only paid general attention to papers without providing additional information. They also found that some Weibo posts reflected authors' evaluations, reflections, and applications of papers, representing deep-level transmission of research purposes and functions. S. Lemke et al. [33] surveyed researchers' usage purposes across 18 social media platforms and found that mentions on Facebook and Twitter reflected public dissemination to a greater extent than mentions on academic blogs and academic networks.

Relatively more studies have explored the availability of Altmetrics data using Twitter indicators as objects. M. Thelwall et al. [34] conducted content analysis on a small sample of science-related tweets and found that most tweets mainly described superficial information about literature without explaining content, and that mention volumes were primarily caused by automatic retweeting. Therefore, the authors concluded that such data hardly reflect the academic value of literature. L. Bornmann [35] conducted content analysis on tweets related to Hirsch's 2005 H-index paper and found that 37 were simple retweets or restatements, 6 simply mentioned the H-index, 2 discussed personal H-index, and 2 mentioned the H-index when using other metrics, with only 4 discussing article details and expressing personal opinions. J. C. Na [12] found through tweet analysis that 53% of tweets cited scientific findings from paper summaries, 12% contained only titles and links, and 19% were retweets. Most science tweet authors maintained a neutral attitude toward the papers they tweeted, meaning that most tweets did not convey in-depth critical thinking and discussion about research literature and could not directly reflect the academic value of literature. Liu Xiaojuan et al. [36] identified 19 user motivations and introduced user behavior theory to explain and analyze the indicator value reflected by user motivations. Through content analysis, they explored the application value of Twitter mentions and found that not all Altmetrics indicator data generated by motivations have high application value in research evaluation. Six user motivations—conformity, entertainment, unintentional behavior, simplified expression, passive behavior, and community participation—actually produce negative effects, reducing the application value of indicators, which partially answers the question of Altmetrics data availability.

In summary, research on Altmetrics data generation motivations has gradually emerged. Analyzing data generation motivations helps to understand the connotation of Altmetrics indicators at a more granular level and further judge whether data is effective as a research evaluation indicator. However, different scholars employ different classification standards for motivations. Most studies explore users' operational motivations for literature on various Web applications and social media platforms, such as forwarding and liking on popular social media Facebook, saving and bookmarking on academic social media like Mendeley, and tweeting by Twitter users. Systematic research on the production motiva-

tions of Altmetrics data for Chinese academic books is clearly insufficient and lacks theoretical support. How are Altmetrics data for Chinese academic books generated on social media? What are the data generation motivations? Can Altmetrics data for Chinese academic books be used for influence evaluation? These questions require further investigation.

Based on this, this study attempts to take the Douban Reading platform as an example to conduct exploratory research on the generation motivations of Altmetrics data for Chinese academic books, focusing on analyzing the role of user comments on the academic and social value of books themselves.

3 Research Design

3.1 Research Method

This study primarily follows the grounded theory research strategy [37] to analyze users' motivations for posting short comment data on the Douban Reading platform. Grounded theory is a qualitative research method that induces and guides results regarding a phenomenon through systematic procedures [38]. This study will use this theory to analyze the generation motivations of short comment data on the Douban Reading platform, and through data collection, analysis, coding, and theoretical modeling, ultimately describe the essence and significance of the phenomenon at a theoretical level.

3.2 Data Collection

The *Chinese Book Citation Index* (CBKCI) has a strict selection process for academic books, with one of its content standards being “original, high-level academic monographs” [39]. At the end of 2017, the CBKCI statistical report published four categories of top ten cited Chinese academic books: “top ten cited ancient books,” “top ten cited modern books,” “top ten cited contemporary books,” and “top ten cited foreign/translated books,” along with their citation frequencies. Preliminary searches revealed that compared with the other three categories, the “top ten cited ancient books” had accumulated a richer quantity of short comments on the Douban Reading platform. Therefore, this study selected the ancient Chinese academic books from the “top ten cited books” published in the 2017 year-end CBKCI statistical report [40] as research samples.

Douban Reading is currently a relatively professional and influential mainstream book reading and sharing website in China, suitable as a data source for book Altmetrics indicators in terms of popularity, user activity, coverage of academic books, content maturity, and cross-platform cooperation [41]. Registered Douban users can write and share short comments, with a word limit of 350 characters for short comments, allowing for brief thoughts, complaints, or recommendations. Most active Douban users are reading enthusiasts with good historical accumulation of book reading and high loyalty to the community, making their comments generally professional and referential [42].

Therefore, this study used the “Octopus Collector” to gather short comment data for sample books from the Douban Reading platform, with data collection concluding on December 28, 2019, as shown in Table 2 :

3.3 Short Comment Generation Motivation Analysis

3.3.1 Coding (1) Open Coding. Open coding is a process of “breaking down,” “crushing,” and re-synthesizing data records and abstracted concepts, aiming to gradually conceptualize and categorize the dataset [43]. Following open coding rules, this study coded the 1,142 short comment texts collected from the Douban Reading platform, and through repeated classification and organization of labels, ultimately identified 14 categories. An example of the coding process is shown in Table 3 .

(2) Axial Coding. Axial coding involves analyzing the associations between concepts and categories obtained from open coding, identifying common attributes, classifying them, and discovering and constructing relationships between categories to derive main categories. Axial coding represents further development of open coding categories, helping to understand subcategories of main categories by organizing conditions, contexts, strategies, and consequences. The 14 conceptual categories formed through open coding were further combined and refined, with conceptual content extracted and named, ultimately yielding six main categories: emotional venting, entertainment, external pressure, discussion, sharing, and data acquisition.

(3) Selective Coding. Selective coding involves continuously exploring relationships between categories, raising the level of conceptual abstraction, defining core categories, and incorporating other categories to develop a storyline that explains the entire phenomenon [44]. This study abstracted six main categories during the axial coding stage, and through further analysis of dimensions and attributes, ultimately extracted three core categories: individual-related motivations, book-related motivations, and interest-driven motivations for users posting short comments, as shown in Table 4 .

3.3.2 Theoretical Saturation Test Theoretical saturation refers to the point where additional sampling would not reveal new conceptual categories or generate new theory. To test theoretical saturation, short comment content for other Chinese academic books on the Douban Reading platform was randomly selected for coding analysis. The extracted concepts were all found to be contained within existing categories, with no new categories obtained, indicating that theoretical saturation had been achieved.

4 Results Analysis and Discussion

4.1 Results Analysis

This study conducted grounded theory analysis on 1,142 short comments for ten highly cited Chinese academic books on the Douban Reading platform, categorizing users' motivations for posting short comments into three major types: individual-related, book-related, and interest-driven motivations. Individual-related motivations include entertainment and external pressure; book-related motivations include emotional venting, sharing, and discussion; and interest-driven motivation refers to data acquisition.

(1) Entertainment. Entertainment refers to commenting on books for relaxation and leisure purposes. Users reading books on the Douban platform can satisfy their interests and curiosity, kill time, and obtain enjoyment. Entertainment represents users posting comments after spontaneous reading driven by intrinsic needs. This motivation has received widespread attention in studies by Zhang Hui [23], K. Beak [24], and C. Y. Chin [28]. In this study, its main dimensions are time-killing and leisure. Time-killing positively influences users to post short comments, referring to users having nothing to do or simply using short comments as a way to pass time. Leisure also positively influences users to post short comments, referring to users commenting for relaxation and leisure purposes, killing time through the commenting process. In entertainment motivation, “time-killing” accounts for 16.2% of all short comments, making these comments highly subjective, random, and of uneven quality.

(2) External Pressure. Contrary to entertainment, external pressure refers to posting comments under circumstances of forced reading, where users express dissatisfaction with being compelled to read. This category is primarily explained by forced reading, mainly due to work or thesis requirements necessitating book reading. Similar to this category is the “passive” motivation mentioned in Liu Xiaojuan et al.'s [36] research, where users are suppressed by external factors and forced to comment. For example, the comment “I've only read 1.2% for work, which isn't easy” reflects a user who read and commented due to work requirements. However, data generated by external pressure motivation (accounting for 2.98%) cannot reflect users' genuine attitudes and instead significantly reduces the application value of indicators. Such data can be considered invalid and is not recommended for research evaluation.

(3) Emotional Venting. Users experience positive or negative emotions during reading on the Douban platform and can share positive emotions and relieve negative emotions by posting comments. Generally, short comments posted due to negative emotions triggered by book-related content are called emotional venting. Such negative emotions may arise from poor reading experiences or books being too difficult for users to understand, related to both individuals' education levels and reading abilities and to books' types, difficulty levels, and quality. The emotional venting category (accounting for 1.23%) is primarily understood from users' negative emotions. When users realize that a book does

not meet their expectations or they disagree with its arguments, they express their unpleasant reading experience by posting book reviews on Douban.

(4) Sharing Motivation. Book reading can be divided into deep and shallow reading. Shallow reading refers to browsing or skimming without deep reflection on book content. In shallow reading contexts, users primarily share content about books or simply recommend books to suitable audiences. Since they do not deeply contemplate book content, such short comments do not convey or only superficially convey their viewpoints or interpretations. The sharing category can be understood from three aspects: book content, book introduction, and book sharing. Users posting short comments to emphasize certain sentences, persons, or chapters of a book constitute book content sharing. Such comments typically merely copy book content and cannot reflect users' supportive or opposing attitudes. If users support a book, they hope to simply share it or disseminate it through superficial introductions, constituting book introduction motivation. Users can also share books with specific friends or direct books to their followers by posting short comments, constituting book sharing motivation. The most common motivation in "sharing" is "book content," accounting for 13.31% of short comments, followed by "book introduction" motivation, such as comments like "not bad" or "okay," accounting for 6.22%. Similar to J. C. Na's [12] research, most comments generated by such motivations do not involve deep discussion of books.

(5) Discussion Motivation. Compared with shallow reading, deep reading refers to reading that enters the content context with much profound reflection from users. In deep reading contexts, users sometimes think and discuss alongside historical, social, and life experiences, sometimes feeling excited, sometimes melancholy, sometimes agreeing, sometimes questioning. Therefore, users' "discussion" short comments are posted to express personal interpretations, viewpoints, ideas, criticisms, or doubts about books. This motivation also involves book-related emotional factors. Users can post short comments to express personal preferences, approval, or recommendations for books (book preference); they can also post short comments to criticize or question all or part of a book (book questioning). Additionally, users may simply express personal interpretations or opinions about books (book interpretation) or express personal experiences or ideas related to books (book experience). During book reading, users may post short comments to raise thought-provoking questions (book reflection) or invite other readers for further discussion (book discussion). The most common motivation in "discussion" is "book experience," accounting for 29.51% of short comments, followed by "book interpretation" and "book preference," accounting for 10.86% and 8.23%, respectively. These short comments reveal that users are not merely copying sentences or chapters but are genuinely attempting to identify and disseminate the most valuable parts of books.

(6) Data Acquisition. Data acquisition refers to obtaining materials related to books or other versions of books. Data acquisition can occur at any stage of book reading. Influenced by individual-related factors, users may acquire

materials for interest-driven reasons under both spontaneous and forced reading contexts. Meanwhile, whether in shallow or deep reading contexts—whether for browsing, general reading, or reading with profound reflection—users hope to improve the quality and service of books on the Douban Reading platform by posting comments. Such comments account for only 0.53%, indicating that on the Douban platform, only a very small number of users post short comments for the purpose of acquiring other versions of books. This finding is also confirmed in T. H. H. Htoo’s [11] research, which found that psychology users rarely post science tweets for “acquisition (full text)” motivation. Similarly, Douban users rarely post short comments because they want to acquire materials related to books.

4.2 Model Construction

Careful analysis of the six main categories—entertainment, external pressure, emotional venting, sharing, discussion, and data acquisition—allows for the construction of the following relationships (see Figure 1 [Figure 1: see original paper]): In certain book reading contexts, individual-related factors drive users’ intention to read books, triggering a series of book-related emotional venting, sharing, and discussion behaviors. During reading, users also consider interest-driven factors to acquire book-related materials and post short comments. Among them, individual-related factors can be both direct factors for users posting short comments and indirect factors for book-related and interest-driven factors, meaning that book-related and interest-driven factors are influenced by intrinsic needs and subsequently affect users’ final motivations for posting short comments.

Entertainment and external pressure are individual-related emotional factors that prompt users to post short comments. Users experiencing external pressure from forced reading can relieve dissatisfaction by posting comments. Some users also treat posting comments about books throughout their reading process on the Douban Reading platform as a form of entertainment and enjoyment—the entertainment motivation. Both types of motivations involve users’ emotional experiences during reading, primarily related to users’ purposes for reading books rather than being triggered by book-related content. In contrast, short comments posted for discussion, sharing, and emotional venting purposes can effectively reflect users’ attitudes and cognition toward books. The discussion category includes both supportive short comments, such as those expressing personal preferences, approval, or recommendations, and short comments expressing unpleasant reading experiences, such as those criticizing or questioning all or part of a book. These book-related short comments reflect both users’ supportive or opposing emotional attitudes and their understanding and experience of book content. Additionally, in shallow reading contexts, although users do not deeply contemplate book content, they can still express supportive or opposing attitudes after simple reading—positive (sharing) or negative (emotional venting) emotions triggered by book-related content. Moreover, regardless of

users' reading purposes or stages, they hope to improve book quality and service on the Douban Reading platform by posting comments—the interest-driven motivation also promotes short comment posting.

4.3 Results Discussion

From the overall coding results, “discussion” is the most important motivation for Douban Reading users posting short comments, accounting for 55.87%, followed by “sharing” and “entertainment,” with “data acquisition” being the least common. This shows that users' primary purpose when posting short comments on the Douban Reading platform is to express opinions and engage in discussions, reflecting the nature of the Douban Reading platform. Douban Reading is a professional social reading service platform that encourages user-generated content and comments, having attracted considerable popularity and promoting social reading exchange and discussion among users [45]. Therefore, it is not surprising that users post short comments for discussion and exchange. Second, 21.45% of short comments are “sharing”—forwarding or simply restating book content without clearly expressing approval or questioning, making specific user motivations difficult to judge. Therefore, such motivations are unsuitable as indicators for evaluating the influence of Chinese academic books but can reflect users' general attention to books to some extent. Short comments motivated by “entertainment” account for 17.95%, containing no meaningful content. Similarly, Liu Xiaojuan et al. [36] also indicated that data generated by entertainment motivation (social behavior triggered by entertainment or time-killing) or unintentional motivation (purposeless or unconscious social behavior) has very low application value. Additionally, 1.23%, 2.98%, and 0.53% of short comments are motivated by “emotional venting,” “external pressure,” and “data acquisition,” respectively.

Understanding users' motivations for generating short comment data serves to further evaluate whether Altmetrics data is usable. This study uses “data availability” to represent the degree of fit between user behavior data and academic achievement influence—that is, whether the data itself is applicable for evaluating academic achievement influence in specific contexts. Referring to Nie Lei et al.'s [46] definition of network behavior data applicability, this paper discusses Altmetrics data availability from two aspects: sample representativeness, i.e., the extent to which samples in the data can effectively infer the population; and measurement validity, i.e., the degree to which measurements based on specific data reflect the true meaning of research concepts [47].

Regarding sample representativeness, this study uses the top ten cited ancient books from the 2017 CBKCI statistical report as research samples. CBKCI has a strict selection process for academic books and is an emerging Chinese academic book evaluation tool for “comprehensively analyzing the academic quality and influence of academic books.” Second, this study's data comes from the Douban Reading platform, a relatively successful and mature social reading platform that establishes reading communities centered on books, reflecting users' so-

cial reading orientations in the digital network environment. Its book review function provides rich data resources for studying user interaction behaviors on social reading platforms. Therefore, the sample data is representative.

Regarding measurement validity, this study found through short comment data analysis that 55.87% of short comments contain users' personal interpretations, viewpoints, ideas, criticisms, and doubts about books; 21.45% involve forwarding or simply restating book content; and 1.23% constitute emotional venting triggered by book-related content. The remaining 21.46% are merely for entertainment, external pressure, and data acquisition. About half of the short comments convey users' in-depth discussion and insights about books, which can reflect books' academic and social influence and are applicable for evaluating Chinese academic book influence. The other nearly half of short comment data either simply shares books, disseminates them through superficial introductions, or is generated merely for entertainment, emotional venting, external pressure, and data acquisition purposes, without conveying in-depth critical thinking and discussion about books and cannot directly reflect books' academic value. Therefore, this portion of short comment data is not applicable for evaluating Chinese academic book influence, and corresponding indicators should not be included in the Altmetrics measurement scope.

5 Conclusion and Research Outlook

When Altmetrics was first proposed, scholars regarded it as a potential influence evaluation indicator to compensate for the shortcomings of traditional citation evaluation in terms of social influence. With deepening research, people have realized that metrics such as tweet counts, download counts, and comment numbers cannot fully express the meaning of Altmetrics. Therefore, using Altmetrics data generation motivations on social media platforms to assess the measurement applicability of corresponding data provides a new path for in-depth Altmetrics research.

This study conducted grounded theory analysis on 1,142 short comments for highly cited Chinese academic books and found that users' motivations for posting short comments on the Douban Reading platform can be divided into six main categories: discussion, sharing, emotional venting, external pressure, entertainment, and data acquisition. Unlike T. H. H. Htoo et al. [11] and J. C. Na [12], this study found that the "discussion" motivation (55.87%) is the most important, with its two sub-motivations—"expressing personal experiences or ideas related to books" (29.51%) and "expressing personal interpretations or opinions about books" (10.86%)—accounting for 40.37% of the total. This indicates that nearly half of users do not comment on books through superficial introductions but instead elaborate on books' value or personal experiences related to books, transmitting in-depth discussion and insights about books. The "sharing" motivation (21.45%) ranks second, with 13.31% of users merely restating certain sentences, persons, or chapters from books. Additionally, short comments motivated by "entertainment" account for 17.95%, containing no meaningful con-

tent. Similarly, 1.23%, 2.98%, and 0.53% of short comments are motivated by “emotional venting,” “external pressure,” and “data acquisition,” respectively, having little relevance to book quality and influence and also being unsuitable for inclusion in Altmetrics measurement.

Therefore, if short comment counts alone are used as evaluation indicators, significant evaluation bias will occur. Because 55.87% of short comments on Douban Reading can be used to evaluate books, the availability of other short comments remains questionable. Specifically, short comments based on “discussion” motivation contain users’ in-depth thinking and cognition about books and can be used to evaluate the quality and corresponding influence of Chinese academic books. The other four motivations account for nearly half of all short comments, and short comments motivated by “sharing,” “external pressure,” “entertainment,” “emotional venting,” and “data acquisition” cannot effectively reflect users’ attitudes and cognition toward books. Therefore, these relatively casual comments unrelated to book content should not be included in the Chinese academic book evaluation indicator system.

This paper only takes short comment data from the Douban Reading platform as an example to conduct preliminary exploration of Altmetrics data production motivations for Chinese academic books, with many limitations. First, in terms of data acquisition, Douban has anti-scraping mechanisms, and using Octopus Collector only obtained partial short comments for *Records of the Grand Historian* and *The Analects*. Therefore, this study only represents the basic situation of the collected data, and the small sample size makes the results inevitably partial. Second, this study only uses ancient books from the “top ten cited books” as samples, without considering whether disciplinary categories affect research results. Additionally, although this study employed grounded theory research strategy and remained as faithful as possible to original data, limitations in the researchers’ coding and analytical abilities may have affected strategy application, requiring continued validation of research conclusions in subsequent studies.

Future research could consider expanding to book reviews, reading notes, Douban ratings, and other data, while also conducting comparative analyses of data production motivations from temporal and user perspectives to more deeply study Altmetrics data production motivations for Chinese academic books, providing a solid data availability foundation for Altmetrics evaluation of Chinese academic books.

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Author Contributions:

Wei Jiawen: Responsible for data collection and analysis, as well as paper writing and revision.

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Abstract: [Purpose/significance] This paper discusses users' motivation to publish short reviews on the Douban Reading platform and tries to judge whether short reviews are effective as indicators for evaluating book influence, aiming to provide reference for constructing Altmetrics indicators for Chinese academic book evaluation. [Method/process] Taking the top ten cited ancient Chinese academic books from the CBKCI statistical report as samples, this paper uses grounded theory to analyze 1,142 "short comments" of sample books on the Douban Reading website, exploring the generation motivation of short comments and the availability of corresponding data. [Result/conclusion] Six main motivations for users to generate short reviews are identified: discussion, sharing, entertainment, external pressure, emotional venting, and data acquisition. Among them, the "discussion" motivation is the main one, and its two sub-motivations "expressing personal experiences or ideas related to books" and "expressing opinions or personal explanations on books" account for more than 40% of all short review data. It indicates that users are not just copying sentences or chapters from books but are trying to find and spread the most valuable parts of books. Such short review data can be used to evaluate Chinese academic books. Other motivations like "sharing," "entertainment," "external pressure," "emotional venting," and "data acquisition" are relatively difficult to reflect users' attitudes and cognition about books, and thus should not be included in Altmetrics evaluation indicators for Chinese academic books.

Keywords: Chinese academic books; Altmetrics data; motivation for data generation; data availability; Douban Reading platform; short review data

Note: Figure translations are in progress. See original paper for figures.

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