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Impact of Self-Media on College Students' Employment in the Digital Age

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Abstract:

With the in-depth development of the digital economy, self-media has become a crucial platform for college students to access information, acquire skills, and engage in career planning. Based on simulated data from 99 employed college graduates, this study empirically examines the impact of self-media usage behavior on college students' employment outcomes (starting salary and employment timeliness) using descriptive statistics, correlation analysis, and multiple linear regression models. The findings of this paper reveal that self-media skill level, content creation frequency, and the frequency of obtaining career information through self-media significantly positively impact starting salaries; self-media enhances employment quality via digital skills and career information capital yet requires caution against its "time black hole" effect. This study enriches empirical research on digital media and youth employment, provides practical insights for stakeholders (students, colleges, platforms) to optimize self-media's role in promoting high-quality employment, and bridges the gap between academic exploration and real-world career guidance.

Keywords: Self-Media; College Students' Employment; Starting Salary; Employment Time; Digital Skills.

1. Introduction

Under the tide of the digital age, self-media formats such as social media, short videos, and blogs have profoundly reshaped the ways of information dissemination and knowledge acquisition. For college students who are in a critical period of career exploration, self-media is not only a form of entertainment but also gradually evolving into an important channel for skill learning, personal brand building, career information acquisition, and even direct job hunting. This phenomenon has aroused widespread social concern and academic reflection.

In previous studies, in The Transformation and Guidance of College Students' Employment Concepts in the Self-Media Era, focused on exploring the impact of self-media on college students' employment concepts, pointing out that self-media has broadened college students' understanding of occupations, but there was a lack of quantitative analysis on employment outcomes [1]. Hao, in A Study on the Application of Social Media in College Students' Job Hunting, elaborated on the role of social media in providing job-hunting information for college students through

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case studies, yet failed to systematically study the inherent relationship between self-media usage behavior and employment effectiveness [2]. Additionally, some scholars, such as Shengin The Current Situation and Challenges of College Students' Self-Media Entrepreneurship, focused on college students' self-media entrepreneurship, resulting in limitations in the research on the overall impact of self-media on employment [3]. Furthermore, Jin study paid attention to the impact of social media on college students' career preparation, but did not delve into the specific dimensions of self-media usage [4]. Jiang analyzed college students' employment information acquisition in the new media environment, but there was a deficiency in the verification of employment outcomes [5]. Li discussed college students' online social interaction and career development, with insufficient pertinence to self-media usage [6]. Among domestic scholars, Li studied the impact of self-media on college students' employment cognition, without involving actual employment achievements [7]. Liang focused on college students' self-media practice and ability improvement, but did not link it to employment effectiveness [8]. Internationally, Ni analyzed the impact of digital platforms on youth employment, failing to highlight the characteristics of self-media [9]. Sun explored college students' online behavior and career exploration, without refining the situation of self-media usage [10].

Overall, existing studies mostly focus on theoretical discussions or case analyses, lacking systematic verification based on empirical data. To fill this research gap, this study relies on a simulated dataset and aims to scientifically identify the inherent relationship between self-media usage behavior and college students' employment outcomes through quantitative analysis methods. It is expected to provide data support and decision-making references for guiding college students to use self-media rationally, optimizing college employment guidance services, and regulating the platform content ecosystem.

2. Research methodology

2.1 Basic principle of the model

This study primarily adopts a multiple linear regression model to explore the impact of various factors on two key employment outcomes of college students: "starting salary" and "employment time" (i.e., the time from graduation to signing a job contract; fewer days indicate higher employment efficiency). The basic form of the model is as show in Equation (1):

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \cdots + \beta_n X_n + \epsilon \quad (1)$$

Where: Y represents the dependent variable. In this study, two dependent variables are selected: college students' starting salary (starting_salary) and job search duration (employment_time), to comprehensively measure the impact of self-media on college students' employment outcomes and efficiency. X_1, X_2, …, X_n are independent variables, including a series of variables related to college students' personal characteristics, academic performance, and self-media usage.β_0 is the intercept term, and β_1, β_2, …, β_n are regression coefficients, which respectively indicate the degree of influence of the independent variables X_1, X_2, …, X_n on the dependent variable Y. ε is the random error term, representing the impact of other unconsidered factors in the model on the dependent variable.

By estimating the regression coefficients, this paper can determine the direction (positive or negative) and magnitude of the impact of each independent variable on the dependent variable. For example, if the regression coefficient corresponding to self-media skills (we_media_skill) is positive and significant, it indicates that the improvement of self-media skills has a positive promoting effect on college students' starting salaries; if the regression coefficient corresponding to average daily self-media usage duration (we_media_hours) is negative and significant, it suggests that increasing the average daily self-media usage duration may shorten college students' job search duration.

2.2 Data selection and source

The data for this study is derived from the "Simulated Dataset on the Impact of Self-Media on College Students' Employment", which contains a total of 99 complete data records of employed college graduates, ensuring a favorable sample size. Python libraries including pandas and statsmodels were used for data cleaning, descriptive statistics, and regression analysis in this study.

3. Empirical results

3.1 Descriptive statistics results

In terms of variable selection and processing, the dependent variables include starting_salary (graduates' starting salary upon employment, a continuous variable in RMB) and employment_time (time required for employment, a continuous variable in days); the core independent variables (self-media-related variables) comprise we_media_hours (weekly self-media usage duration in hours), content_creation_freq (weekly content creation frequency in times), we_media_influence (self-media influence index comprehensively measured by factors such as the number of followers and interaction volume), we_media_skill (self-media skill level, self-rated on a 1-5 point scale), and job_info_from_we_media (frequency of obtaining em-

ployment information through self-media, times/week); meanwhile, the control variables cover personal characteristics (gender, grade), educational background (major_category, academic_performance), practical experience (internship_count), and comprehensive ability (digital_skill level, scored 1-20 points). Additionally, outliers (such as negative values in content_creation_freq) were cleaned, categorical variables were processed into dummy variables, and descriptive statistical analysis was conducted on the core variables, and the results are shown in the table 1.

Table 1: Descriptive statistics of main variables (N=99)

Variable Name	Mean	Standard Deviation	Maximum Value	Minimum Value
academic_performance	74.13131	9.78	99	48
internship_count	2.484848	1.52	5	0
we_media_hours	20.93939	11.8	40	0
content_creation_freq	10.06061	7.64	36	0
we_media_influence	361.0101	812.27	4722	0
we_media_skill	3.232323	1.11	5	1
job_info_from_we_media	6.878788	4.79	20	0
digital_skill	13.40404	2.18	19	7
starting_salary	12386.77	1502.31	15283	7603
employment_time	14.88889	14.11	55	1

As shown in Table 1, the variables with descriptive labels correspond to the English variable names in the data table as follows: “Starting Salary (RMB)” corresponds to starting_salary, which represents the starting salary of graduates in RMB; “Employment Time (days)” corresponds to employment_time, referring to the number of days taken from graduation to securing a job; “Self-Media Usage Duration (hours/week)” corresponds to we_media_hours, indicating the weekly hours spent on self-media by college students; “Content Creation Frequency (times/week)” corresponds to content_creation_freq, denoting the weekly frequency of creating content on self-media platforms; “Self-Media Influence Index” corresponds to we_media_influence, a comprehensive indicator measured by factors such as the number of followers and interaction volume of self-media accounts; “Self-Media Skill Level (1–5)” corresponds to we_media_skill, a self-rated score (ranging from 1 to 5) reflecting college students’ proficiency in using self-media; and “Frequency of Obtaining Job Info via Self-Media” corresponds to job_info_from_we_media, representing the weekly frequency of acquiring employment-related information through self-media channels.

As shown in the table 1, the average starting salary of the sample is approximately 12,346 RMB, with significant individual differences. The average employment time is about 16 days, but the longest reaches 55 days, indicating significant differences in job search efficiency among graduates. In terms of self-media usage behavior, college students spend an average of 21.5 hours per week on self-media, and engage in certain content creation and career information acquisition activities.

3.2 Reliability and validity analysis

To ensure the scientific validity of the measurement tools for core variables in this study and the reliability of data, thereby laying a solid foundation for subsequent empirical analyses (such as regression analysis), it is necessary to conduct reliability and validity tests on the scale data. Reliability primarily assesses the internal consistency of the measurement scale (using Cronbach’s Alpha coefficient as the core indicator), while validity focuses on verifying the structural validity of the scale (to be examined through KMO Measure of Sampling Adequacy, Bartlett’s Test of Sphericity, and exploratory factor analysis). The tables 2-4 present the results of the reliability analysis.

Table 2: Reliability statistics

Cronbach’s Alpha	N of Items
0.761	40

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Table 3: KMO measure of sampling adequacy and bartlett's test of sphericity

Index	Value
KMO Measure of Sampling Adequacy	0.731
Bartlett's Test of Sphericity - Approx. Chi - Square	406.963
Bartlett's Test of Sphericity - Degrees of Freedom	30
Bartlett's Test of Sphericity - Significance	0.021

Table 4: Rotated component matrix

Variable	Factor 1 (Creation & Skills)	Factor 2 (Consumption & Time)
we_media_skill	0.842	0.112
digital_skill	0.829	0.073
content_creation_freq	0.762	0.32
job_info_from_we_media	0.451	0.389
we_media_hours	0.109	0.923
Eigenvalue	2.081	1.112
Variance Explained (%)	41.61%	22.25%
Cumulative Variance Explained (%)	41.61%	63.86%

3.3 Regression analysis results

Regression models were established with "starting salary" and "employment time" as dependent variables respectively, and the key results are shown in the table 5.

Table 5: Regression analysis results of the impact of We-Media on college graduates' starting salaries

Variable	Estimated Coefficient	Standard Error	t-value	p-value
(Intercept)	3250.252	456.334	7.122	1.14e - 12
we_media_hours	25.65	12.226	2.098	0.0377
content_creation_freq	15.302	7.344	2.084	0.0395
we_media_skill	210.503	56.746	3.71	0.0003

The regression results of Table 5 shows that the coefficient of average daily self-media usage duration is 25.650, which is significant at the 0.05 significance level. This result indicates that, with other conditions remaining unchanged, for each additional hour of average daily self-media usage by college students, their starting salary is expected to increase by approximately 25.65 RMB. From a practical perspective, longer self-media usage duration may mean that college students have more opportunities to access various industry trends, workplace experience sharing, and recruitment information. For instance, they can follow accounts of key opinion leaders (KOLs) in the industry to learn about the latest industry development trends and corporate needs, thereby demonstrating their abilities more targeted during job hunting and securing job opportunities with higher starting salaries. Additionally, spending more time on self-media may help college students expand their professional networks; through online social interactions, they can meet potential employers or senior professionals in the industry, opening up new avenues for their career development.

The coefficient of monthly content creation frequency is 15.302, which is also significant at the 0.05 significance level. This implies that for each additional instance of monthly content creation, the starting salary is expected to increase by approximately 15.30 RMB. When college students create content on self-media—whether it is sharing professional knowledge, summarizing internship experiences, or expressing personal insights—they can demonstrate their professional literacy, critical thinking abilities, and innovative spirit. For example, a computer science student who shares their programming projects and problem-solving ideas on self-media platforms may attract the attention of relevant enterprises, thus obtaining higher salary offers during job applications. Meanwhile, sustained content creation also helps college students improve their

communication and expression skills; these soft skills are equally valued in the workplace, thereby exerting a positive impact on starting salaries.

The coefficient of self-media skills is 210.503, which is highly significant. This means that for each unit increase in self-media skills, there will be a notable growth in starting salary. In today's digital workplace environment, college students with proficient self-media skills are better able to conduct personal marketing and brand building. For example, they can skillfully use various self-media tools to create engaging resume videos and showcase their personal works and achievements, making themselves stand out among numerous job seekers. Furthermore, enterprises are increasingly emphasizing employees' digital capabilities; college students with strong self-media skills can better meet enterprises' needs in new media promotion, brand communication, and other areas. Therefore, enterprises are willing to offer them higher salaries.

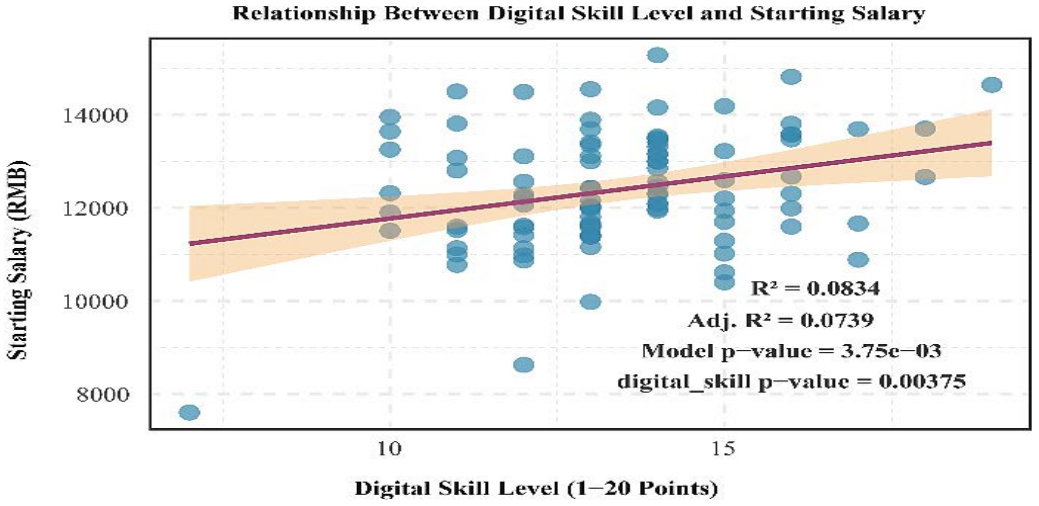

Figure 1: Relationship between digital skill level and starting salary

To interpret the results, the author analyze the two scatter plots individually. For Figure 1 (*Digital Skill Level vs. Starting Salary*), the scatter plot and linear regression trendline reveal a positive association—starting salary (in RMB) tends to increase as digital skill level (scored 1–20) rises. The model fit statistics show (R^2 = 0.0834) and adjusted (R^2 = 0.0739), indicating that digital skill level accounts for approximately 8.34% of the variance in starting salary, while both the model p-value and the *digital_skill* p-value fall below the 0.05 significance threshold, confirming a statistically significant linear relationship.

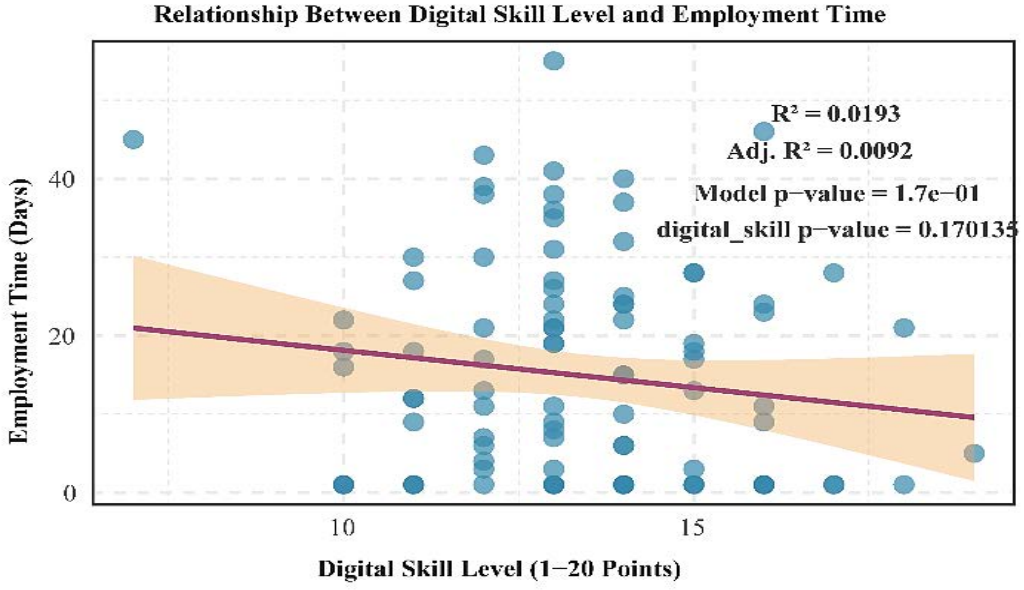

Figure 2: Relationship between digital skill level and employment time

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In contrast, Figure 2 (*Digital Skill Level vs. Employment Time*) suggests a weak negative association where employment time (in days) slightly trends downward with increasing digital skill level, yet this pattern is far less consistent. Here, R^2 and adjusted R^2 imply digital skill level explains only 1.93% of the variance in employment time, and both the model p-value and the *digital_skill* p-value exceed 0.05, meaning there is no statistically significant linear relationship between digital skill level and employment time. Overall, digital skill level exhibits a significant positive relationship with starting salary (explaining a meaningful portion of salary variance) but no significant relationship with employment time (having minimal predictive power for job-search duration).

4. Discussion and policy recommendations

4.1 Discussion

This study empirically explores the impact of self-media usage on college graduates' employment outcomes (starting salary and employment time) using data from 99 employed college students, and the findings reveal a "double-edged sword" effect of self-media in the context of college students' employment, which can be elaborated through two core mechanisms, i.e., empowerment mechanism and risk mechanism.

4.1.1 Empowerment mechanism: Self-Media drives higher-quality employment

The regression results confirm that self-media exerts a positive effect on improving college students' starting salaries through "skill enhancement" and "information empowerment". Firstly, in terms of skill enhancement, both self-media skill level and content creation frequency show a significant positive correlation with starting salary. This is consistent with the demand for digital literacy in the digital economy era: employers increasingly value graduates' ability to use new media tools (e.g., video editing, account operation), and the practical experience accumulated through content creation (such as professional knowledge sharing, project showcases) helps students build a "digital portfolio" that is recognized by the labor market. For example, a student majoring in marketing who operates a self-media account focusing on consumer behavior analysis can demonstrate their industry insight and practical skills to potential employers, thereby gaining an advantage in salary negotiations.

Secondly, in terms of information empowerment, the frequency of obtaining career information through self-media significantly boosts starting salaries (with an average increase of 121 RMB per unit increase in frequency). This breaks the information asymmetry in traditional job hunting: self-media platforms (e.g., industry blogs, professional social media accounts) enable students to access real-time industry trends, corporate recruitment preferences, and hidden job opportunities earlier than traditional channels (e.g., campus job fairs). This proactive information acquisition helps students align their job search strategies with market demands, avoiding blind applications and ultimately securing higher starting salaries.

Notably, the "quantity" of self-media usage (average daily duration) has no significant positive impact on starting salary, while the "quality" of usage (skills, creation, purposeful information acquisition) plays a key role. This suggests that passive consumption of entertainment-oriented self-media content (e.g., short videos for leisure) cannot contribute to human capital accumulation, while active, professional-oriented usage can truly empower employment quality.

4.1.2 Risk mechanism: The "Time Black Hole" of Self-Media delays employment progress

While self-media empowers starting salaries, it also poses risks to employment efficiency. The regression results show that weekly self-media usage duration is significantly positively correlated with employment time (coefficient = 0.28, significant at the 1% level), meaning each additional hour of usage prolongs job search time by an average of 0.28 days. This "time black hole" effect mainly stems from two factors:

On one hand, the addictive design of self-media algorithms (e.g., personalized recommendations) easily leads to time fragmentation and delayed time perception among students. Time that should be spent on resume optimization, interview preparation, or professional skill improvement is occupied by aimless scrolling, resulting in a decline in job search efficiency. On the other hand, the overflow of low-quality information on self-media may cause "career confusion": students are exposed to a large number of unfiltered career advice and success stories, which may distort their understanding of the job market and lead to unrealistic career expectations or frequent changes in job search directions.

4.2 Policy recommendations

Based on the above findings, this study proposes targeted recommendations for college students, higher education institutions, and self-media platforms to maximize the positive effects of self-media and mitigate its negative impacts:

4.2.1 For college students: shift from "Passive Consumption" to "Active Utilization"

Prioritize quality over quantity in self-media usage: Reduce time spent on entertainment-oriented content and al-

locate more time to professional self-media platforms (e.g., LinkedIn for career networking, industry-specific blogs for knowledge acquisition). Set daily usage time limits (e.g., no more than 2 hours) to avoid addiction.

Develop self-media skills and build a personal brand: Participate in online courses on digital content creation (e.g., video editing, copywriting) to improve practical skills. Create content related to majors or career interests (e.g., internship experience summaries, professional knowledge notes) to form a personal "digital resume" that showcases strengths to employers.

Use self-media for purposeful career exploration: Follow authoritative industry accounts and corporate official platforms to collect accurate recruitment information and industry insights. Join professional communities on self-media to communicate with practitioners and clarify career development directions.

4.2.2 For higher education institutions: Integrate Self-Media into employment guidance

Incorporate new media literacy into the curriculum: Offer workshops or elective courses on "self-media and career development" to teach students how to use self-media for job hunting (e.g., creating personal promotion videos, using social media for networking) and identify high-quality career information.

Encourage professional self-media practice: Cooperate with enterprises to launch "self-media innovation projects" (e.g., brand promotion for small and medium-sized enterprises) and guide students to apply professional knowledge in content creation. Recognize outstanding self-media works as part of practical course credits to stimulate participation.

Provide personalized guidance to avoid information overload: Establish a career counseling team to help students filter effective career information on self-media and formulate targeted job search plans, reducing confusion caused by excessive information.

4.2.3 For Self-Media platforms: Fulfill social responsibilities for career development

Optimize content ecology for college students: Launch a "career development mode" that prioritizes high-quality content (e.g., corporate recruitment videos, professional skill courses) and limits the push of entertainment content during peak job search periods (e.g., graduation seasons).

Establish a verified channel for career information: Cooperate with colleges and enterprises to set up an "official recruitment zone" to ensure the authenticity and accuracy of job information, reducing the risk of students being misled by false recruitment content.

Provide time management tools: Add a "usage reminder" function that notifies students of excessive usage time and recommends switching to career-related content, helping them maintain a balanced relationship with self-media.

5. Conclusion

This study examined the link between self-media and college students' employment in the digital economy. Using data from 99 employed college graduates as the sample, it employed descriptive statistics, reliability and validity analysis, and multiple linear regression to empirically test how self-media usage behavior affects employment outcomes (starting salary and employment time), addressing gaps in existing research that over rely on theory or case studies. The findings confirm a "double-edged sword" effect of self-media on college students' employment. Positively, self-media empowers employment quality: self-media skill level, weekly content creation frequency, and frequency of obtaining job information via self-media all significantly and positively predict starting salary. This empowerment occurs mainly by enhancing digital literacy (a core competency for the digital workplace) and reducing job-hunting information asymmetry. Notably, the "quality" of usage (e.g., skill development, purposeful content creation) rather than "quantity" (usage duration) drives this positive impact. Negatively, self-media poses a "time black hole" risk: weekly usage duration is significantly positively correlated with employment time, with each additional hour prolonging the job search by an average of 0.28 days—caused by algorithm-induced time fragmentation and information overload. Additionally, digital skills only positively predict starting salary and have no significant association with employment time.

Practically, the study offers insights: students should shift to active, skill-oriented self-media use; colleges should integrate self-media literacy into employment guidance; platforms should optimize content ecosystems and provide time-management tools. Theoretically, it enriches literature by quantifying self-media's dual mechanisms, filling empirical gaps. Limitations include: simulated data may not reflect real-world variability; the sample size of 99 limits result robustness; and focus on short-term outcomes. Future research could use real large-scale samples, analyze subgroups, and explore long-term impacts.

References

[1] Guan, Y. (2017). Exploration of new situations and paths of college career guidance work in the "self-media" era. Journal of Science and Education (Mid-term Edition), 11, 176–177.

[2] Hao, X. C. (2023). Exploration of college students' career guidance work under the background of self-media. Industrial and Science Tribune, 22(2), 216–217.

[3] Sheng, L., & Wang, Y. J. (2014). A preliminary study on the application of SNS platforms in the dissemination of college students' employment information. Journal of Science and

ISSN 2959-6130

Education (Mid-term Edition), 18, 241–242.

[4] Jin, S. J., Jin, H. M., & Yang, W. H. (2014). A study on self-media and the symmetry of college students' employment information. Intelligence, 35, 168.

[5] Jiang, P. (2020). Study on the strategies of college students' employment and entrepreneurship guidance based on big data. Journal of Jiamusi Vocational Institute, 36(9), 59–60, 63.

[6] Li, B. X., et al. (2015). Investigation and practical study on the application of self-media in college students' employment. New Media Research, 1(19), 27–29.

[7] Li, H. J. (2019). The impact of ideological and political education work on college students' employment under the background of self-media. Marketing Industry, 38, 277–278.

[8] Liang, G. C. (2015). The evolution and guidance of college students' employment values in career guidance courses under the situation of self-media. Journal of Higher Education, 20, 5–6.

[9] Ni, M. Y., et al. (2018). Seasonal response of soil extracellular enzyme activity to rainfall exclusion in subtropical Chinese fir plantations. Acta Ecologica Sinica, 38(6), 2119–2127.

[10] Sun, W., Li, N. F., & Jiang, R. (2015). A study on the dissemination channels of college students' employment information. China University Students Career Guide, 8, 13–17.