

# The Impact of Internet Use on Gender Role Perceptions: An Empirical Analysis based on CGSS2021

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**Abstract:** This study aims to investigate the impact and path of Internet use on gender role concepts by conducting an empirical study based on CGSS2021 data. Multiple linear regression was used to analyze the influence of Internet use on gender role perceptions, and the mediating effects were tested on the mediating variable of economic status. The results showed that Internet use had an impact on gender role perceptions and Internet use affects gender roles through the path of socioeconomic status.

**Keywords:** Gender role concept; Internet use; Socioeconomic status

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## 1. Introduction

Gender equality is one of the key issues concerning society and academia, which is related to economic development and people's well-being. To a large extent, the realization of gender equality needs to be promoted by the transformation of gender role concepts. China is changing from the traditional gender role concept of "men outside and women inside" and "men leading and women following" to the modern gender role concept of gender equality<sup>[1]</sup>. In the field of gender equality, China has long been committed to the cause of gender equality, taking gender equality as a basic state policy, continuously promoting gender equality and women's development in all fields, and significantly narrowing the gender gap. However, gender stratification persists in areas such as education, income, occupation, and housework<sup>[2]</sup>. Therefore, it has important theoretical and practical significance to study how to promote the formation of gender equality concepts and the equality of family division of labor. In recent years, the rapid development of digital technologies such as the Internet and their applications may accelerate the shift in gender roles. Previous studies have generally found that education is an important factor in shaping the concept of gender roles. Compared with education, the Internet has unique

advantages in information and knowledge acquisition, cultural dissemination, social communication, and so on. Scholars therefore believe that with the continuous advancement of the digital process, the development of the Internet will have a profound impact on the concept of gender roles<sup>[3]</sup>. However, empirical research on how the Internet promotes gender role change is still insufficient. The marginal contributions of this paper are as follows. First, in terms of research content and perspective, previous studies mainly analyzed gender inequality in education, income, and occupation, while there were relatively few empirical studies on gender role concepts, especially the new changes brought by the Internet to gender role concepts need to be tested. This paper empirically analyzes how the Internet affects gender roles and family division of labor to present advances in gender equality concepts and practices, thereby enriching and expanding research on gender equality issues.

## **2. Literature review and research hypothesis**

### **2.1. The conceptual definition and theoretical basis of the concept of gender roles**

Gender is a concept introduced by the West, also known as gender role attitude, or simply referred to as gender concept. This concept originates from gender theory, which is an important achievement in the development of the women's movement and feminist research<sup>[4]</sup>. The subordinate status of women is not determined by the physiological basis, but is constructed by the social culture permeating the power relationship of men over women, and the social gender roles of men and women can be changed in the process of social and cultural changes<sup>[5]</sup>. At the same time, gender theory also reveals the hierarchical relationship, that is, social gender is not a symmetrical difference between men and women, but an asymmetric and unequal relationship<sup>[6]</sup>. The traditional concept of gender roles holds that the differences between male and female gender temperament and social division of labor are fixed and natural: male has the masculine temperament of bravery, and strong leadership ability, and female has the feminine temperament of tenderness, love children and dependence; Men belong to the public social sphere, women should stay in the family to take care of husband and children; Men have the dominant voice over women, and it is a harmonious relationship between men and women. The concept of division of labor is the core element of gender role attitude. According to the comparison with the traditional concept of gender roles, this study believes that the concept of equal gender roles is a gender role attitude with modern characteristics, and individuals hold an equal and free attitude toward role division, behavior, and gender status of men and women, emphasizing the equality and freedom of the division of labor, status, and power of women and men in society and family. Both sexes can choose their roles and behaviors independently, breaking gender stereotypes.

### **2.2. Internet use and gender role concepts**

According to the digital divide theory, people who use the Internet as the main source of information have a better ability to obtain information, which will affect their social and economic status and narrow the income gap. In addition, Internet use can enhance people's concept of gender equality through access to diverse information. With the continuous progress of digital technology with the Internet as the core, social development has entered the digital era, and the Internet and its application have expanded the channels for people to obtain information and exchange, which may have a profound impact on the concept of gender roles and make them more equal<sup>[7]</sup>. From the perspective of economic effects, existing studies have found that digital technologies such as the Internet and digital economy have an impact on employment, income, consumption,

and so on, which often have gender differences. For example, the digital economy has a greater role in promoting women's employment than men's and thus alleviates the gender employment gap and income gap<sup>[8]</sup>. Xu is optimistic about the Internet, believing that it has alleviated people's gender stereotypes to some extent<sup>[9]</sup>. Pan takes a slightly different view, arguing that certain features of the Internet do help promote gender role equality; however, improper application of it will also hinder the formation of attitudes towards equal gender roles<sup>[10]</sup>.

Accordingly, the following hypotheses are proposed in this study:

Hypothesis 1: Respondents' views of gender roles on the Internet as the main source of information tend to be egalitarian.

Hypothesis 2: Socioeconomic status mediates the effects of Internet use on perceptions of gender roles.

### **3. Research design**

#### **3.1. Data source**

In this study, the data from the China General Social Survey in 2021 (CGSS2021 for short) was adopted. Since the main content of this study is the impact of Internet use on gender role concepts, the data were processed by variables according to the research content, and the number of valid cases after processing was 7649.

#### **3.2. Variable selection**

**Dependent variable:** The dependent variable in this paper is the respondents' concept of gender role, which is measured by the following four questions: (1) Men put career first, women put family first; (2) Men are naturally more capable than women; (3) Marrying well is better than doing well; (4) Women should be laid off first in a bad economy. The answers to the questions are divided into five grades: "fully agree, somewhat agree, indifferent, somewhat disagree, and completely disagree", with the values ranging from 1 to 5. This study assigns reverse values to the first four questions, and the higher the final score, the more the concept of gender roles tends to be egalitarian. Since the measurement contents and standards of the above four items are inconsistent, the sum cannot be obtained by a simple summing method. To reflect the relative importance of the four different issues to the concept of gender roles, this paper uses factor analysis to extract a common factor, that is, the total score of the gender role concept, and converts the factor value into an index between 1 and 100. After conversion, the mean and standard deviation of the total score of gender role perception were 59.15 and 22.20.

**Independent variable:** The independent variable in this paper is Internet use, which is measured by "Internet as the most important information source." When the variable is processed, it is treated as a dummy variable, and the value of Internet as the most important information source is 1, and the value of Internet as the most important information source is 0.

**Mediating variable:** The mediating variable in this paper is socioeconomic status, which is measured by "respondents who are currently engaged in work." ISEI is used to process this variable and it is treated as a continuous variable.

**Control variables:** This paper selects other variables that may have an impact on the concept of gender roles as control variables, including (1) years of education, continuous variables. (2) Household registration, virtual variable (urban household registration = 1). (3) Marital status, dummy variable (married = 1).

## 4. Empirical analysis

### 4.1. The impact of Internet use on perceptions of gender roles

It can be seen from **Table 1** that in Model (1), no control variable is added, and it is found that the independent variable Internet use has an impact on the dependent variable gender role concept, and the regression coefficient is 12.131, which indicates that the respondents who use the Internet as the main source of information are 12.131 units higher than the respondents who use the Internet as the non-main source of information. This coefficient is significant at the level of 0.1%, which indicates that the respondents who use the Internet as the main source of information tend to be more equal in gender roles than the respondents who use the Internet as the non-main source of information. In Model (2), after the addition of control variables, the influence of Internet use on the concept of gender role still presents a clear positive correlation, and the regression coefficient is 4.655, which indicates that, when other variables are controlled, the concept of gender role of the respondents who use the Internet as the main source of information is 4.655 units higher than that of the respondents who use the Internet as the non-main source of information. This coefficient is significant at the level of 0.1%, which indicates that the respondents who use the Internet as the main information source still tend to be more equal in gender role concepts than the respondents who use the Internet as the non-main information source after the addition of control variables.

According to the multiple regression model of Internet use and gender role concept in **Table 2**, Hypothesis 1: Respondents' gender role concept of the Internet as the main source of information tends to be egalitarian.

**Table 1.** Multiple regression model of Internet use and gender role perceptions

	Model (1)	Model (2)
	Gender role concept	Gender role concept
Internet use	12.131*** (0.506)	4.655*** (0.511)
Years of schooling		1.738*** (0.058)
Registered permanent residence		3.335*** (0.494)
Marital status		-4.221*** (0.501)
_cons	51.549*** (0.401)	41.339*** (0.676)
N	7649	7649
$R^2$	0.070	0.218
adj. $R^2$	0.070	0.218

Note: Standard errors in parentheses; <sup>+</sup>  $P < 0.10$ , <sup>\*</sup>  $P < 0.05$ , <sup>\*\*</sup>  $P < 0.01$ , <sup>\*\*\*</sup>  $P < 0.001$

### 4.2. The influence of socioeconomic status as a mediating variable

In this study, the mediating variable socioeconomic status was tested for its mediating effect. **Table 2** shows the mediating effect test of socioeconomic status in the process of Internet use's influence on gender role

perceptions. The regression coefficient of Internet use on gender role perception was 12.13 (total effect); The regression coefficient of Internet use on socioeconomic status was 11.01 (indirect effect). All the above coefficients were significant at the significance level of 0.001. Internet use can not only directly affect gender role concepts, but also indirectly affect gender role concepts through economic status. The mediating effect of economic status accounts for 90.73%, indicating that Internet use is mediated by economic status and ultimately affects gender role concepts. Hypothesis 2: It is established that socioeconomic status plays a mediating role in the influence of Internet use on gender role perceptions.

**Table 2.** Testing the mediating effects of socioeconomic status

Dependent variable	Intermediate variable	Influence utility	Independent variable: Internet use
Gender role concept	economic status	Total effect	12.13***
		Direct effect	1.12
		Indirect effect	11.01***
Proportion of mediating effect (%)			90.73

Note: Standard errors in parentheses; <sup>+</sup>  $P < 0.10$ , <sup>\*</sup>  $P < 0.05$ , <sup>\*\*</sup>  $P < 0.01$ , <sup>\*\*\*</sup>  $P < 0.001$

## 5. Summary and discussion

The gender role concept is an important variable to measure gender equality. A large number of studies have studied the influencing factors of the gender role concept from the perspective of education level. This paper studies the influencing factors of gender role concept from the perspective of Internet use and tests the mediating effect of economic status to jointly explore the influencing factors and path research of gender role concept. The results show the following.

First of all, the use of the Internet will have an impact on the concept of gender roles. The respondents who use the Internet as the main information source tend to have a more egalitarian concept of gender roles than the respondents who use the Internet as the non-main information source. Secondly, socioeconomic status plays a mediating role in the process of the influence of Internet use on the concept of gender roles. Respondents who use the Internet as the main information source will have an impact on their socioeconomic status, and then affect their concept of gender role.

Based on the above analysis, whether we explore the impact of the Internet and socioeconomic status on gender roles from the perspective of the digital divide, or explore the impact of gender differences on gender roles from the perspective of social gender theory, there is still gender role inequality in China, and its development still needs to be continuously promoted. However, from the perspective of the overall situation of society, due to the popularity of the Internet, people's concept of gender roles gradually tends to be egalitarian. Therefore, vigorously promoting the popularization and use of the Internet and promoting the equal development of men and women in access to resources may have a significant effect on the development of gender roles.

## Disclosure statement

The author declares no conflict of interest.

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