

The Impact of the “Show IP Location” Policy on Geographical Discrimination Based on the Comments on Mainstream Chinese Youth Video Websites “Bilibili”

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Abstract. A new policy to show IP location is promulgated by the Chinese government in 2022. Since then, mainstream Chinese social media, including video sites and forums, has to display the provincial IP address of the person who posted the video or article, meaning social media users will be able to see where the article is posted from. This paper collects comments from “Bilibili”, a mainstream video site for young Chinese, and analyzes the content of each comment to determine whether they contain geographically discriminatory content. By comparing the number of geographically discriminatory comments on videos before and after the policy enactment, the author found that the new policy has increased the likelihood of geographic discrimination. In fact, users are more likely to notice the address of the commentator when viewing comments and respond to the commentator in a geographically discriminatory way in relation to the comment content. Looking at the downward trend in geographically discriminatory comments, the author concludes that the decline is partly due to a decline in the novelty of new features among Internet users. Meanwhile, the author summarizes four different types of geographic discrimination, including regional stereotypes, opposing viewpoints generated by unbalanced regional development, international stereotypes, and negative nationalist mentality that arises from political reasons.

Keywords: IP Address, Geographical discrimination, China’s Internet policy.

1. Introduction

With the abundance of social media, video sites, and forums on the Internet, Internet users from all over the country and the world can express their opinions and insights on various issues. However, negative and discriminatory sentiments have started to spread from the real world to the Internet. Geographical discrimination is not a recent social phenomenon, at least in China; it is a rather old phenomenon reflected in many ancient texts.

However, discrimination used to occur only face-to-face. Even after the advent of the Internet, Internet users rarely had the opportunity to learn the location of other users. According to the “Regulations on the Administration of Internet User Account Name Information (Draft for Public Comments)” issued in October 2021, Internet platforms should prominently display information about the IP address territory of the account on the Internet. The IP address of domestic Internet users needs to be marked to the province (district, city). IP address territorial information must be marked to the country (region) for overseas accounts [1]. Moreover, in 2022, this provision has been officially put into practice. The policy has just been promulgated, so there is no extensive discussion in the academic community about the impact of this policy.

According to the 49th Statistical Report on the Developmental Status of the Internet in China, published in December 2021, Internet users in China reached 1.03 billion, and the Internet penetration rate reached 73%, an increase of 2.6 percentage points year on year. That means there will be Internet users from all provinces in China [2].

This paper will explore the impact of the “show IP address” policy on the discourse of geographic discrimination. A python crawler is written to capture comments from the most popular video sites used by Chinese youth and analyze the comments individually [3]. The site selected for this experiment is bilibili.com, which young people in China dominantly use. bilibili.com has 267 million monthly active users and 10 million monthly video submissions, and 87% of bilibili.com users are younger than 32 years old [4]. Various buzzwords and Internet harmonics usually accompany

geographically discriminatory comments in Chinese, so filtering for specific keywords is not feasible, and comments can only be parsed line by line [5]. In this study, ten videos before and ten videos after the policy implementation are selected, all of which have 500,000 to 1,000,000 views and at least 500 feedback. By comments with geographically discriminatory statements, the study compares the frequency of geographically discriminatory statements before and after the emergence of that policy [6].

2. Research and Hypothesis

2.1 Data Sample

The website involved in this study is Bilibili.com, a video website for creating and sharing ACG (animation, comics, and games) content in its early days. After more than a decade of growth that has resulted in a user-cantered, creator, and content-centric ecosystem that continues to produce high-quality content, Bilibili.com has become a multicultural community, spanning more than 7,000 circles of interest. According to the Q1 2022 financial report of bilibili.com's parent company, Shanghai Wide Entertainment Digital Technology Co., in the first quarter of 2022, the average monthly active users of Station B grew 31% year-on-year to 294 million. In the quarter, average daily video play approached 3 billion, up 84% year over year; average total daily video time also increased 52% year to year, and average monthly community interactions reached 12.3 billion, an 87% increase year over a month. Users' average daily usage time was as high as 95 minutes, and more than 87% of users were younger than 34 years old. As a result, bilibili.com is the website that best reflects the social entertainment dynamics of China's youth.

On 25 July, Bilibili.com responded to the Chinese government's request to officially display the location of users' IP addresses when they speak.

This research plan involved selecting one video per day for the first ten days that the "show IP location" policy was not in place, which means one video each from 15 July to 24 July. One video per day for ten days after the "show IP location" policy came into effect, i.e., one video each from 26 July to 4 August. To prevent the influence of different topics on content, the study will not select videos involving discrimination between regions and differences between regions to control for independent variables.

2.2 Statistical method

We used a python crawler to crawl comments from the extracted videos, exported comments to a Microsoft excel sheet, checked comments one-by-one to score comments with geographically discriminatory content, and calculated the proportion of comments with geographically discriminatory remarks in the comments. Judgment was made by observing this proportion's trend of increase and decrease.

2.3 Hypothesis of results

This study hypothesized that the Chinese government's "show IP address" policy would significantly increase the proportion of comments with geographically discriminatory comments.

3. Research results and discussions

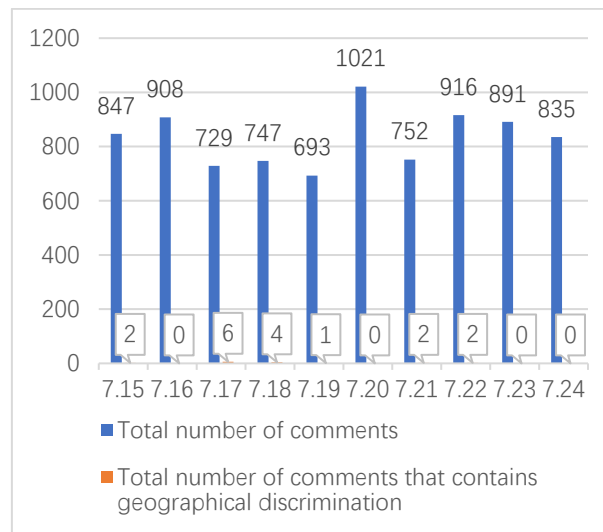


Figure 1 Total number of comments and numbers of comments that contain geographical discrimination 10 days before the policy was enacted (Photo credit: Original)

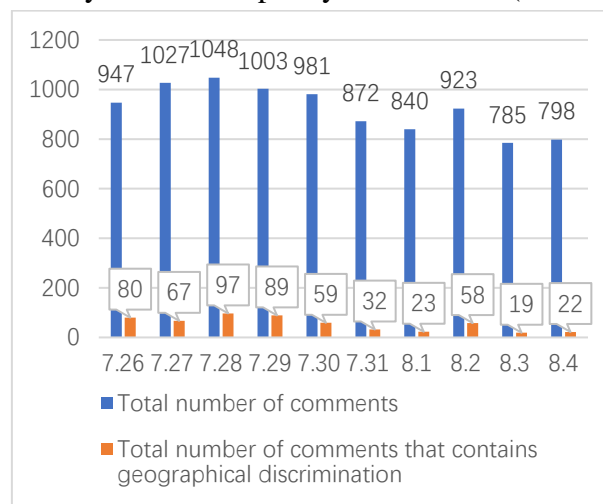


Figure 2 Total number of comments and number of comments that contain geographical discrimination 10 days after the policy was enacted

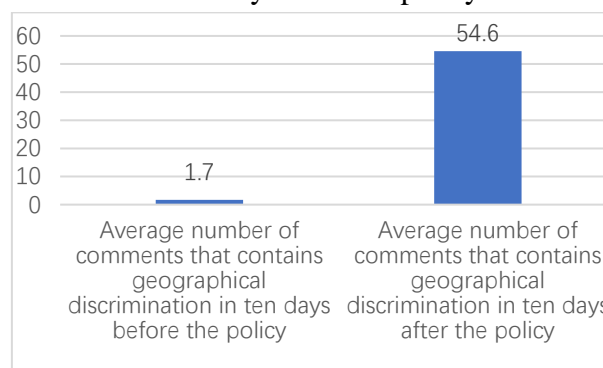


Figure 3 Average number of comments that contain geographical discrimination 10 days before and 10 days after the policy was enacted (Photo credit: Original)

The data in Figures 1, 2, and 3 show that after the “show IP address” policy, there is a significant increase in the number of comments with geographically discriminatory content. Many videos do not contain geographically discriminatory content before the “show IP address” policy. However, after implementing the “show IP address” policy, all ten videos in this experiment have different

percentages of geographically discriminatory content. For example, the video extracted from 7.26, posted one day after implementing the “show IP address” policy, had 8.4477% of all the geographically discriminatory comments, and 80 of the 947 comments as of 15 August had geographically discriminatory comments. A day before the policy was implemented, no 835 comments in the video on 24 July involved geographically discriminatory comments. The videos from 26 July to 3 August all contained varying degrees of geographic discrimination. Among the ten videos taken in the first ten days of the policy, each video contained only 1.5 geographically discriminatory comments on average. After the implementation of the “show IP address” policy, the videos from 26 July to 3 August contained an average of 54.6 geographically discriminatory comments, which is 36.4 times more than before the implementation of the policy.

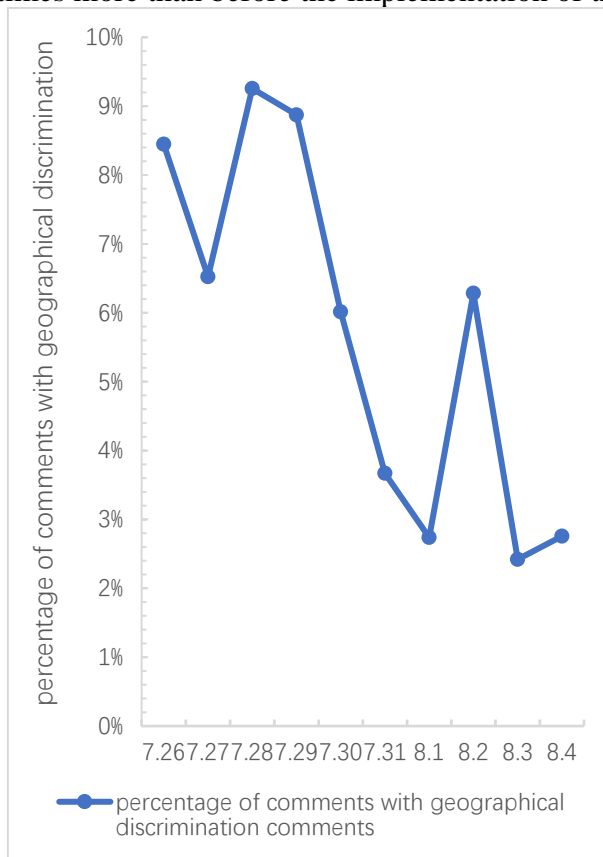


Figure 4 Percentage of comments with geographical discrimination 10 days after the policy was enacted (Photo credit: Original)

However, according to Figure 4, it can be observed that the proportion of comments with geographically discriminatory comments among all comments from 26 July to 3 August after the policy implementation tends to decrease, a phenomenon that is not assumed in the hypothesis. The videos from 26 July to 29 July, i.e., the fourth day after the implementation of the policy, all contained geographically discriminatory content within the comments as a percentage of all comments above 6.5%, while the videos from 29 July to 3 August only 29 July (6.0143%) and 1 August (6.2839%) were close to 6.5%. The trend is primarily downward.

The downward trend may be explained as follows. When the “show IP address” policy was introduced on 25 July, most internet users were relatively new to the new feature, paying more attention to the IP addresses of other users and following “trends” with some geographically discriminatory comments [7, 8]. After 3 to 4 days, the novelty wore off. However, despite the waning novelty, the percentage of geographically discriminatory content in all comments did not drop to the level before the “show IP address” policy was implemented. The author speculates that this is because the IP address is displayed in a relatively prominent position, with a font size only a little smaller than the comment content, making it difficult to ignore this type of information. When other factors

influence the user's judgment of a region, even if the user does not like to follow this negative "trend", he will leave Geographically discriminatory comments.

4. four types of geographically discriminatory comments

This paper concludes four types of geographically discriminatory comments: regional stereotypes, negative psychology due to unequal regional development, international stereotypes, and opposing viewpoints because of political considerations and nationalism publicity.

Regional stereotypes generally arise because some famous events that happened in the past have left such a deep impression in people's hearts that they are hard to forget or even passed on from generation to generation. For example, Chinese people commonly associate people in Henan Province with the act of "stealing manhole covers". This is because, between 2001 and 2004, major Chinese media outlets reported many cases of manhole cover theft in Henan Province [9]. These reports quickly became a staple throughout China, linking the identity of Henan people with manhole cover theft. There are two main reasons for the massive theft of manhole covers in Henan Province. One is because many scrap recycling stations were established 20 years ago, with most Henan merchants and scrap converging from all over. Many Henan bosses will openly collect abandoned manhole covers, so the impression of "stealing manhole covers" further deepened [10]. This regional stereotype has led to a considerable amount of regional discriminatory comments [11].

The second type is the opposing viewpoints generated by unbalanced regional development. In the history of China's urban development, urbanization requires significant capital for infrastructure construction. Those cities that were the first to begin the original accumulation of capital often possessed huge resource advantages. For example, Beijing, due to its important position as the capital of China, the capital of surrounding provinces, such as Shanxi and Hebei, and cities tended to concentrate in Beijing, resulting in an uneven development between the surrounding provinces and Beijing [12]. Moreover, to secure Beijing's position as the capital, Beijing often has vast policy support, causing an imbalance in the moods of the residents of the surrounding provinces. This has led to much regional discrimination, such as residents of Hebei province hating Beijinger, people from northern Guangdong hating Guangzhou, mainland Chinese hating Hong Kong and Macau residents, and so on. It is worth noting, however, that most of the "discrimination" in this case is based on hatred and cynicism towards the rich, as the fact remains that China's younger generation is aware that their attitude often does not influence government decisions [13]. A significant number of the geographically discriminatory comments in this sample were generated by the imbalance in regional development.

The third type is international stereotypes. International stereotypes are not uncommon; for example, Chinese people generally believe that Scandinavians work short hours and are very laidback; French people are very good at enjoying themselves; Americans are primarily middle class and live in single-family houses with a modest garden, and British people are very gentlemanly. This stereotype generally originates from some famous events in history and widely spread stories. In order to gain the attention of a considerable number of middle-aged people, the media tend to make up many relevant stories, making middle-aged people very likely to believe such stories [14]. After all, many middle-aged people in China are generally not very educated. Only a few of the comments in this sample concern international stereotypes [15]. The author believe that as the world becomes more international, this stereotype resulting from lack of information and education will become less common.

The fourth type is the negative nationalist mentality that arises from political reasons. For example, after the starting of the Russo-Ukrainian war, attitudes toward the two countries on the Chinese Internet became rapidly polarized, with some believing that Ukraine had brutally severed its emotional ties with Russia and sold the country to NATO, and others believing that Russia was the source of instability in Eastern Europe, with the two Chechen wars, the Crimean operation and the war in Ukraine all reflecting Russia's violent nature. Since the Russo-Ukrainian war began in March,

the Internet has become increasingly heated with people with two different views, and what was once a centrist has gradually become extreme. In this survey sample, it is not uncommon for the Russian-Ukrainian war to involve negative feelings toward Russia and Ukraine. Other negative mentalities arising from political reasons are primarily due to historical issues, such as negative feelings toward Britain because of the Hong Kong issue, negative feelings toward the United States because of the Korean War, and so on [16].

The author argue that these four types of geographic discrimination have always been prevalent. However, before the “show IP address” policy, users on the Internet could not tell where other users’ addresses were and thus could not vent their negative feelings. However, after the “show IP address” policy was introduced, users’ IP addresses were displayed in a relatively prominent location, making this type of negativity more and more prevalent.

5. Conclusion

Through the study, the authors found that the “show IP address” policy makes Internet users focus too much attention on the IP addresses of other users. Also, because the IP address is displayed in an overly visible place, many users vent their negative emotions for four reasons: regional stereotypes, unbalanced regional development, international stereotypes, and nationalistic negative emotions for political reasons. The “show IP address” policy has significantly increased geographically discriminatory comments. At the same time, the authors suggest that the decline in comments ten days after the implementation of the policy is because Internet users are becoming less sensitive to the new feature, and the related stigma is becoming less popular.

The contribution of this paper is a preliminary analysis of the impact of the newly implemented “show IP address” policy, with the expectation that more scholars will follow to explore the long-term impact and potential drawbacks or advantages of the policy.

The current study covers a short period, and the depth of analysis is shallow. Moreover, it is hoped that future research will look at the impact of the “show IP address” policy over a more extended period.

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