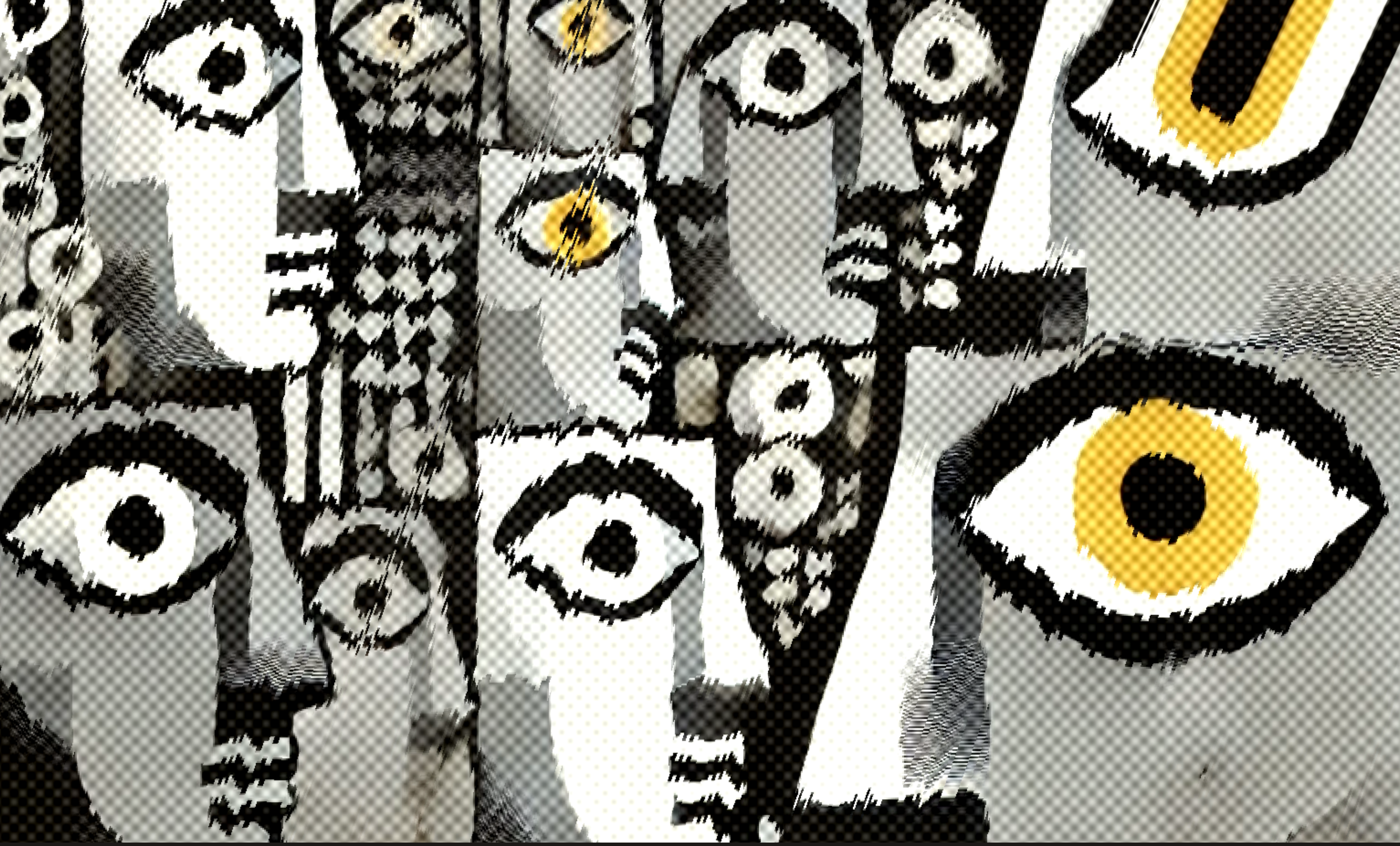

A Silent, Silencing Industry:

The Growing Market of Human-Powered Censorship in China

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Executive Summary

Censorship in China has evolved into a sizable and complex industry comprising an interconnected web of actors and technological systems. The need for ongoing and effective information control among companies operating within a legal landscape criminalizing political expression has led to an increased demand for censorship labor. The author, an Open Technology Fund Information Controls Fellow (who is remaining anonymous due to the sensitive nature of the research) examined the changes and current realities of information control practices by private sector actors in China.

Key Highlights

- Arbitrary and harsh punishments on non-compliant content have brought strong pressure on private companies to strengthen their own censorship capacities.
- People play a significant role in carrying out "content risk control" work, in spite of technological developments in automated censorship.
- Between 2015 and 2022, companies in multiple business sectors in China posted more than 1.7 million censorship-related job ads, varying by different levels of censorship duties. The popularity of social media, especially video-based platforms, has led to dramatic increases in the demand for censorship labor.
- In the Chinese censorship market, there are four major players: traditional content-based companies, such as news and social media companies; nontraditional censorship-requiring companies, who incorporate censorship into the duties of other conventional roles; human resource companies that offer outsourced censorship labor; and state-owned media agencies that offer their own suite of censorship services.
- Censorship tasks were considered part-time duties at the start of the researched time period, but over the seven years quickly evolved into full-time professional work. Though essential to companies, censorship work is considered low-skill labor in China, and is characteristically labor-intensive and underpaid.
- To lower the cost of operating a large censorship team, some companies choose to outsource their censorship work to human resource companies or their own subsidiary companies. The research uncovered over 3,000 human resource companies engaged in the outsourced censorship labor market.
- The increasing demand for outsourced censorship labor has resulted in a prominent trend of geographical redistribution of censorship workforces, from more developed coastal areas, to developing inland regions.

Contents

Introduction 4

Growth of the censorship industry in China 5

Situating this report within the landscape of Chinese censorship research 5

Data and methods 6

Findings 7

Political risks differentiate Chinese censorship from content moderation practices outside of China 7

Censorship jobs in China: low-skilled, low-paid, labor intensive, and normalized as content moderation 8

Factors impacting the growth and geography of the Chinese censorship industry 12

The demand for outsourced censorship labor introduces new players in the censorship market 14

Four players in the Chinese censorship market 16

Future works 17

Introduction

Information control is commonly perceived to be a practice of the state in authoritarian countries. However, in China, the demand for information control labor has turned censorship into a growing and sizable industry driven by a host of non-state actors. The delegation and outsourcing of information control responsibilities to private sector actors by the government has created an enabling environment for new players in the industry to emerge and strengthen the state's capacity to carry out censorship. At the same time, the demand for information control labor has also opened the door for exploitative labor conditions for workers. This research sheds light on the complex censorship landscape of China—a country known to have sophisticated censorship systems. It highlights that censorship in China is an organic and dynamic practice driven by people, and is far from merely being a notorious and faceless system.

Growth of the censorship industry in China

A key driver of the industry's growth has been the need of companies to control information published on their websites, social media or live-streaming platforms. With the establishment of the Chinese Administration of Cyberspace (CAC)—a government institution primarily in charge of information control—in 2014, the Chinese government started to apply stricter regulation on the internet and hold companies responsible for the information published on their platforms, which has prompted the hiring of workers—sometimes in the thousands—to monitor and take down any content that may be deemed a criminal offense. From the operational perspective, this has resulted in censorship work becoming industrialized, as made evident through the development of labor divisions and the geographical shift in concentration of censorship companies from the developed, coastal areas, to the developing, inland provinces.

At the same time, the essential workers undertaking the day-to-day tasks of censoring information are characteristically underpaid compared to similar-level jobs. They also sustain a heavy workload, and the nature of the work negatively impacts their mental health. Media coverage from the ***New York Times***[1] detailing how censorship factories work in China provides anecdotes that illustrate the intensity of the work.

This reality calls for more attention in censorship research to the operation of censorship systems, not only as an intersectional issue relevant to multiple socio-political, economic, and technological fields of study, but also as one with strong relevance to practitioners across diverse sectors working in the pursuit of internet freedom.

Situating this report within the landscape of Chinese censorship research

Current research on Chinese censorship focuses mostly on its technical aspects, such as algorithms and effectiveness, and its impact on Chinese societies and citizen freedoms. However, research into the operations and human component of information control practices is scarce, despite the enormous amount of information control labor in China being undertaken manually.

This research pursues a quantitative approach to understanding the extent of delegation of information control practices to private sector actors by the Chinese government. Through an analysis of online job ads, the author, collaborating with other researchers, investigates how Chinese companies have recruited over one million employees for information control jobs, as well as how the labor market has impacted the evolution of the Chinese censorship industry. Through the lens of censorship operations, rather than the study of censorship's effects alone, this report unveils the critical yet understudied world of the human-powered censorship industry and the market dynamics of Chinese censorship.

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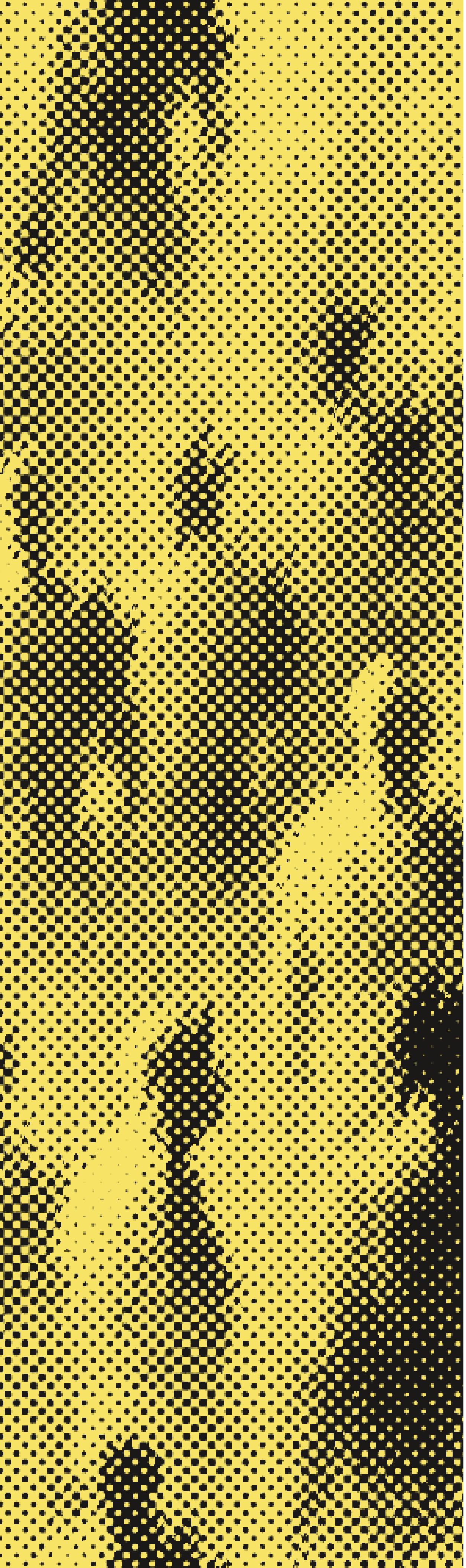
[1] Yuan, L. (2019) Learning China's forbidden history, so they can censor it. New York Times.
Available here: https://www.nytimes.com/2019/01/02/business/china-internet-censor.html



Data and methods

Our data was obtained from various datasets. We used econometrics as our key method of analysis in exploring the relationship between different variables.

Our primary dataset was online job ads published from 2015 to 2022 on major Chinese job-seeking sites. The data we collated included the majority of publicly accessible information, including job title, description, salary, company, location and requirements. To collate the data, we developed a classifier with a pre-trained AI model, which, with multiple rounds of manual cross-checks, was able to identify job ads with full-time, part-time or no censorship responsibility. This classifier identified approximately 560,000 censorship-related job ads published from 2015 to 2022 with high confidence.

Secondly, we used human labeling and GPT-4 collaboratively to extract potential outsourcing relations within the censorship industry. Lastly, we undertook a comprehensive desk review of public news reports, policies and public documents about prominent censorship service providers, as well as official company registration data, public patent data, and announcements from the CAC.

From these datasets, we were able to produce findings in relation to various factors impacting the dynamics of the censorship industry in China. The research surfaced what distinguishes Chinese censorship practices from content moderation practices in contexts outside of China. We were also able to ascertain the scale of demand for censorship employees, how recruiters are framing censorship work and the skills that censorship companies are looking for, how the outsourcing of censorship labor is changing the censorship market, as well as who the key players are that are driving the censorship industry.

Findings

Political risks differentiate Chinese censorship from content moderation practices outside of China

On the surface, the Chinese censorship industry functions similarly to content moderation practices in contexts outside of China. However, what differentiates Chinese censorship from content moderation in Western contexts, for example, is the strong focus on politically sensitive information and the severe risks associated with unstrict information control.

The content targeted in Chinese information control practices is, on the one hand, not very different from what is considered harmful by Western standards, such as, for example, hate speech and child pornography. However, laws in China repressing political expression can criminalize companies in China, sometimes to the point of compromising their survival, for even a single lapse in oversight in publishing a piece of highly forbidden information.

There are countless examples from recent years of how negligence in content moderation brought great loss to a company. In 2016, an article to call Xi Jinping to step down surprisingly appeared on the website of a news media company called Watching News (无界新闻), which led to the arrests of all staff and the suspension of the company.[2] A year later, a famous bike-sharing platform called Bluegogo (小蓝车) used tank icons in their Beijing marketing events in early June. The icons reminded users of the June 4th massacre in Tiananmen Square, and resulted in Bluegogo going bankrupt.[3] In 2022, American automobile manufacturer, Buick, was banned from a big auto show in Shanghai. They had posted an advertisement earlier to promote "a seat that's so comfortable you won't want to leave", which was deemed to insinuate Xi Jinping's presidency for life.[4]

Censorship capacity is therefore an entry bar for content-heavy companies, especially for online platforms that have a lot of user-generated content. The intolerance of sensitive information about the government, and the risk that comes with information control negligence, together, push many companies to build up their own censorship capacity as insurance.

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[2] Jenkins, N. (2016) China is hunting the author of a letter demanding Ji Xinping's resignation. Time. Available here: https://time.com/4273295/xi-jinping-wujie-media-letter/

[3] Tran, K. (2017) The bizarre event that ruined a US$150M company. The Low Down by Momentum Asia. Available here: https://thelowdown.momentum.asia/bizarre-event-ruined-us150m-company/

[4] Feng, J. (2022) Why this Buick ad has been censored in China. Newsweek. Available here: https://www.newsweek.com/general-motors-buick-gl8-century-advertisement-censorship-xi-jinping-1758276

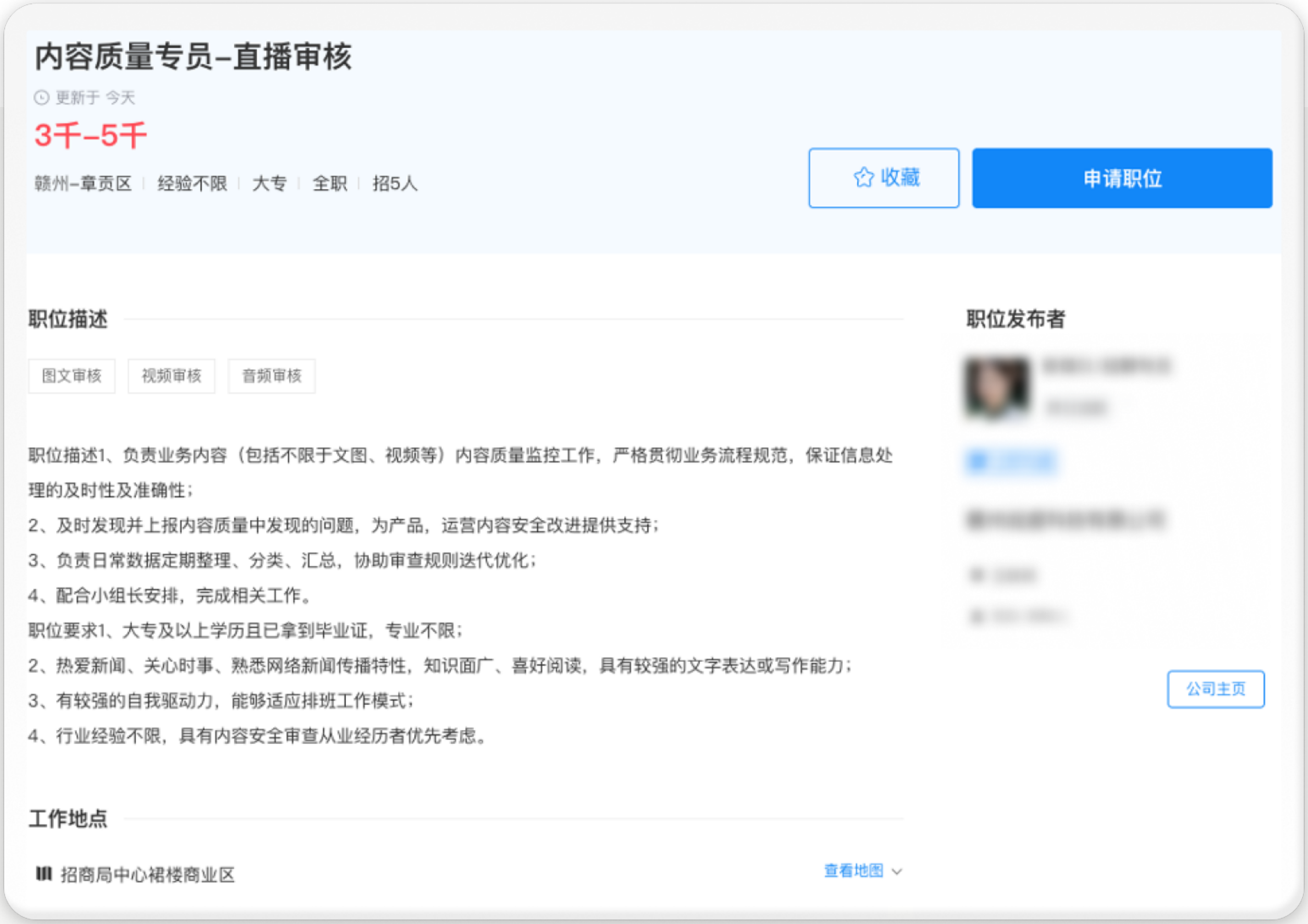
Censorship jobs in China: low-skilled, low-paid, labor intensive, and normalized as content moderation

Censorship work is considered low-skill, time-intensive labor. An analysis of censorship job ads reveals that while companies are often explicit about the job entailing the censoring of political expression, job titles and descriptions are often framed by companies as relating to general content moderation, thereby normalizing censorship work.

Most job ads analyzed were explicit about the censorship role in the title of the job, using terms such as “censorship staff” or “content censor”. However, some censorship job ads attempted to frame the role inconspicuously, using job titles such as “content safety”, “content quality”, “content risk control”, or even “customer service”. This phenomenon suggests a tendency among some companies to normalize censorship work and align it with content moderation. The job description itself is usually blatant about the task of political censorship, yet frames it as a very ordinary job.

Furthermore, censorship work seems, by and large, to have no specialized requirements for candidates, only that they are able to read and understand instructions. While censorship job ads sometimes stipulated the requirement of a basic college-level degree, this was not always the case. A minority of job ads expected candidates to have a good understanding of internet trends and basic knowledge of public affairs. Approximately 2% of job ads required a special language skill other than Mandarin, which was either a foreign language or a local dialect. Political loyalty to the ruling party was also not commonly required by employees—around 1% of all censorship-related job ads had the requirement of being a CCP member. In general, censorship-related jobs fell within a category of low-skill, time-intensive labor.

The job descriptions below provide illustrative examples of the common types of terminology used to describe the role and the requirements of candidates. Given the sensitive nature of the research, the company names and recruiter photos are blurred.



内容质量专员–直播审核

更新于 今天

3千–5千

赣州–章贡区 | 经验不限 | 大专 | 全职 | 招5人

职位描述

图文审核　视频审核　音频审核

职位描述1、负责业务内容（包括不限于文图、视频等）内容质量监控工作，严格贯彻业务流程规范，保证信息处理的及时性及准确性；
2、及时发现并上报内容质量中发现的问题，为产品，运营内容安全改进提供支持；
3、负责日常数据定期整理、分类、汇总，协助审查规则迭代优化；
4、配合小组长安排，完成相关工作。
职位要求1、大专及以上学历且已拿到毕业证，专业不限；
2、热爱新闻、关心时事、熟悉网络新闻传播特性，知识面广、喜好阅读，具有较强的文字表达或写作能力；
3、有较强的自我驱动力，能够适应排班工作模式；
4、行业经验不限，具有内容安全审查从业经历者优先考虑。

工作地点

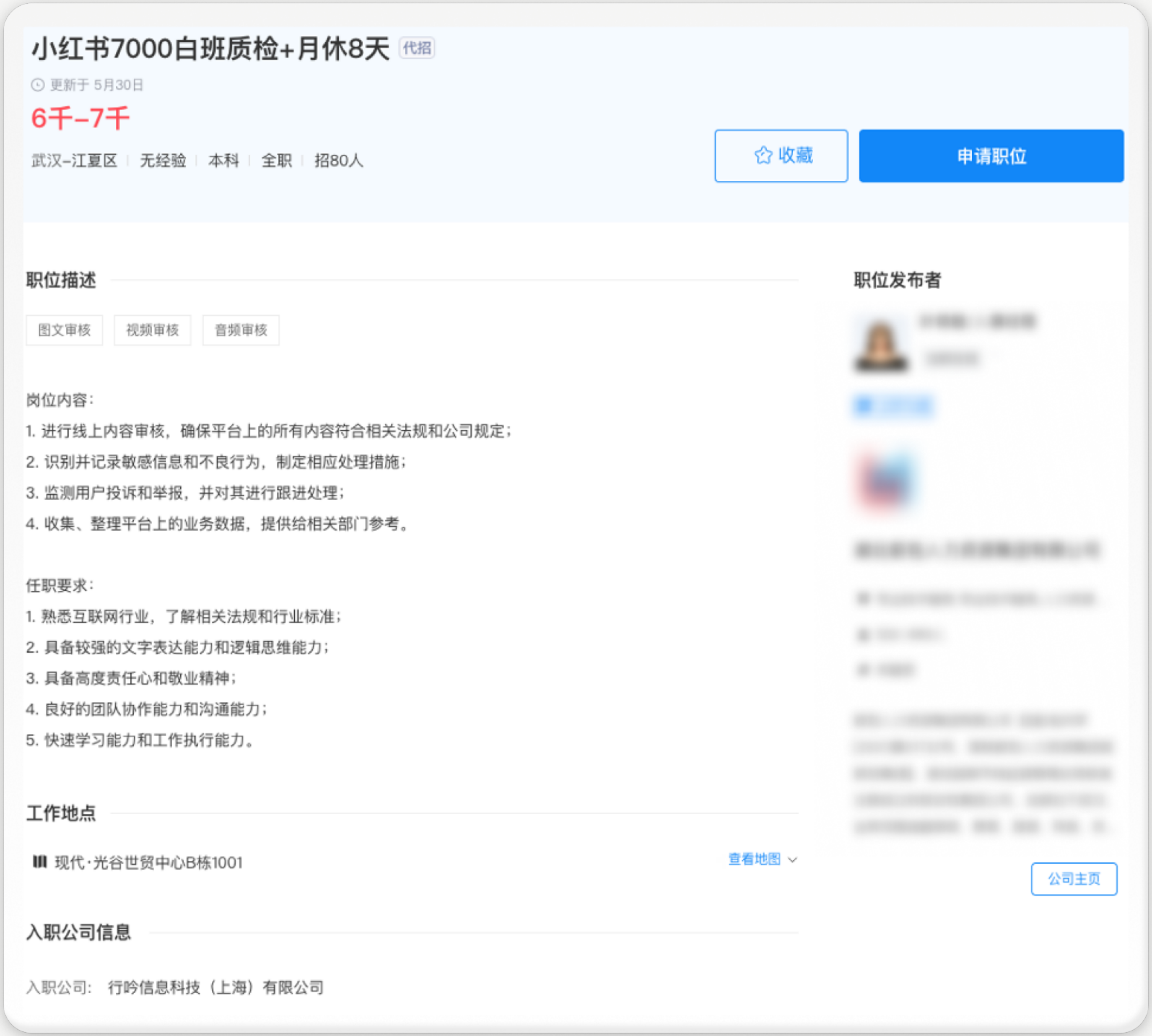
招商局中心裙楼商业区

Job Description

1. Responsible for monitoring the quality of business content (including but not limited to text, images, and videos), strictly following business process standards, and ensuring the timeliness and accuracy of information processing;
2. Timely identify and report issues found in content quality, providing support for product and operational content safety improvements;
3. Responsible for regularly organizing, categorizing, and summarizing daily data, assisting in the iteration and optimization of review rules;
4. Cooperate with the team leader’s arrangements to complete related tasks.

Job Requirements

1. Associate degree or above with a graduation certificate, major not limited;
2. Passionate about news, concerned with current events, familiar with the characteristics of online news dissemination, well-read with a broad knowledge base, and enjoys reading;
3. Strong self-motivation and ability to adapt to a shift work schedule;
4. Industry experience is not required, but those with experience in content safety review will be given priority.



小红书7000白班质检+月休8天 代招

更新于 5月30日

6千-7千

武汉-江夏区 | 无经验 | 本科 | 全职 | 招80人

职位描述

图文审核 视频审核 音频审核

岗位内容：
1. 进行线上内容审核，确保平台上的所有内容符合相关法规和公司规定；
2. 识别并记录敏感信息和不良行为，制定相应处理措施；
3. 监测用户投诉和举报，并对其进行跟进处理；
4. 收集、整理平台上的业务数据，提供给相关部门参考。

任职要求：
1. 熟悉互联网行业，了解相关法规和行业标准；
2. 具备较强的文字表达能力和逻辑思维能力；
3. 具备高度责任心和敬业精神；
4. 良好的团队协作能力和沟通能力；
5. 快速学习能力和工作执行能力。

工作地点

现代·光谷世贸中心B栋1001 查看地图

入职公司信息

入职公司： 行吟信息科技（上海）有限公司

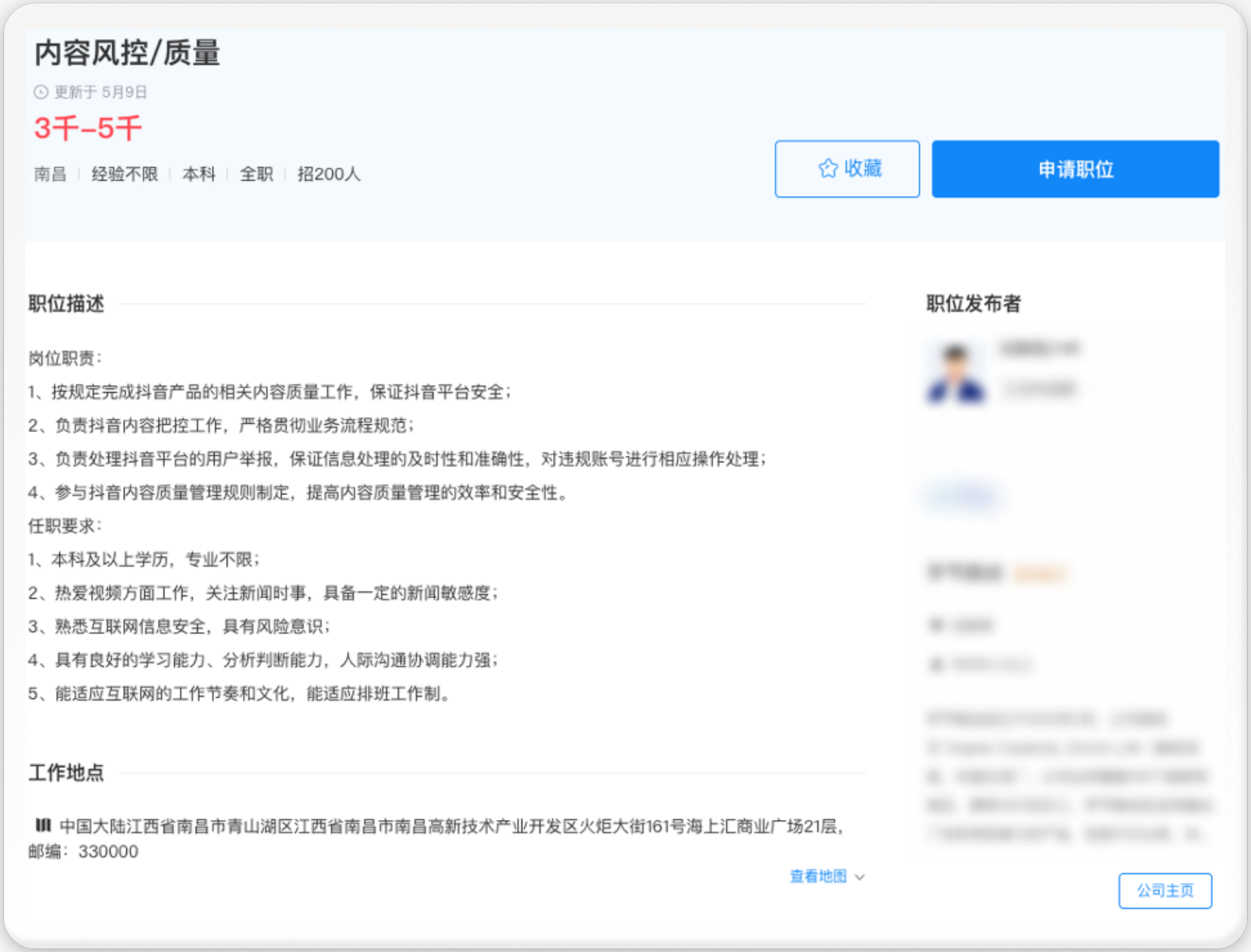
职位发布者

Job Responsibilities

1. Conduct online content censorship to ensure that all content on the platform complies with relevant laws, regulations, and company policies;
2. Identify and record sensitive information and inappropriate behavior, and formulate corresponding handling measures;
3. Monitor user complaints and reports, and follow up with appropriate actions;
4. Collect and organize business data on the platform and provide it to relevant departments for reference.

Job Requirements

1. Familiar with the internet industry and knowledgeable about relevant laws and industry standards;
2. Strong written communication and logical thinking skills;
3. Possess a high sense of responsibility and professionalism;
4. Good teamwork and communication skills;
5. Ability to learn quickly and execute tasks efficiently.



内容风控/质量

更新于 5月9日

3千–5千

南昌 | 经验不限 | 本科 | 全职 | 招200人

职位描述

岗位职责：
1、按规定完成抖音产品的相关内容质量工作，保证抖音平台安全；
2、负责抖音内容把控工作，严格贯彻业务流程规范；
3、负责处理抖音平台的用户举报，保证信息处理的及时性和准确性，对违规账号进行相应操作处理；
4、参与抖音内容质量管理规则制定，提高内容质量管理的效率和安全性。
任职要求：
1、本科及以上学历，专业不限；
2、热爱视频方面工作，关注新闻时事，具备一定的新闻敏感度；
3、熟悉互联网信息安全，具有风险意识；
4、具有良好的学习能力、分析判断能力，人际沟通协调能力强；
5、能适应互联网的工作节奏和文化，能适应排班工作制。

工作地点

中国大陆江西省南昌市青山湖区江西省南昌市南昌高新技术产业开发区火炬大街161号海上汇商业广场21层，邮编：330000

Job Description

1. Complete the related content quality tasks for Douyin products as required, ensuring the safety of the Douyin platform;
2. Responsible for content control on Douyin, strictly implementing business process standards;
3. Handle user reports on the Douyin platform, ensuring the timeliness and accuracy of information processing, and take appropriate actions against violating accounts;
4. Participate in the development of Douyin’s content quality management rules to improve the efficiency and safety of content quality management.

Job Requirements

1. Bachelor degree or higher, major not limited;
2. Passionate about video-related work, keeping up with news and current events, and possessing a certain sensitivity to news;
3. Familiar with internet information security and having a strong sense of risk awareness;
4. Good learning ability, strong analytical and judgment skills, and excellent interpersonal communication and coordination abilities;
5. Able to adapt to the pace and culture of the internet industry and willing to work in a shift schedule.

Given the sensitive nature of censorship work, we were curious about how the salary compensation for this work compared with other similar jobs. To answer this question, we took advantage of the recommendation feature providing suggestions of similar jobs embedded in one of the biggest online job sites, Liepin, to collect hundreds of similar jobs featured on the webpages of censorship-related job ads. The recommendation feature, more technically speaking, is a system controlled by a collaborative filtering recommendation algorithm monitoring user behavior. Using this alternative job list as the control, we conducted several fixed-effects regression analyses. Our results suggested that while part-time censorship jobs generally received similar salaries to alternative jobs, full-time censorship jobs were paid less by over 1,000 yuan on average. Jobs having additional skills requirements, such as language skills, were sometimes compensated more by a few hundred yuan. The low level of salary for full-time censorship jobs has become even more salient in recent years, in the aftermath of the COVID-19 pandemic.

Factors impacting the growth and geography of the Chinese censorship industry

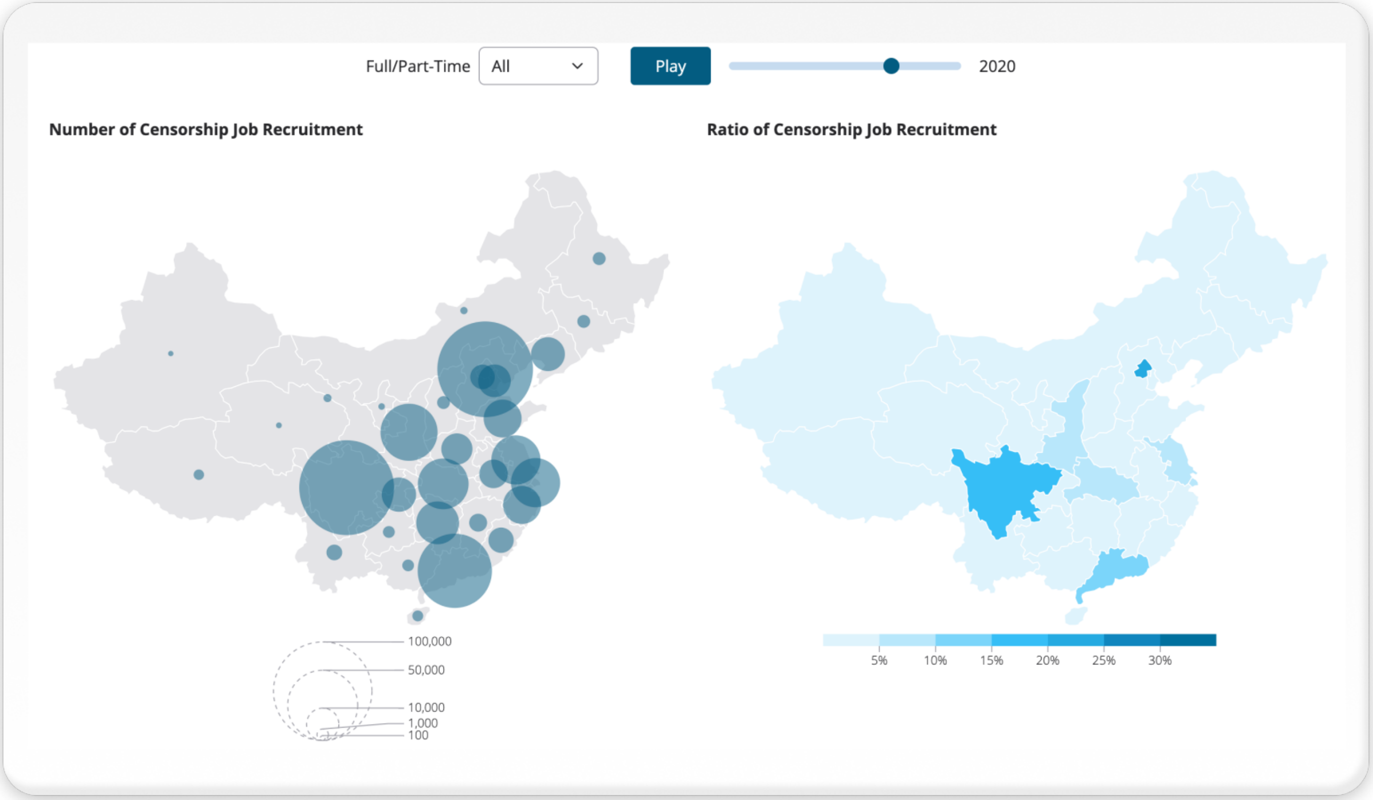
The Chinese censorship industry has evolved to meet the rising demand for information control labor. Not only has censorship-related work become increasingly full-time, companies are increasingly outsourcing information control labor, which has resulted in a shift in the geographical concentration of censorship jobs to developing provinces. Companies with high multimedia content, such as social media companies, remain the highest employers of information control workers.

Between 2015 and 2022, there were more than 1,730,000 censorship-related online job ads in China, and the hiring entities were not only social media companies. At the start of this research period, most censorship-related duties were required as a part-time task to the primary working tasks of jobs such as that of editors or website managers. By 2018, most censorship-related jobs became full-time, in which the primary role of the employee was to prevent sensitive content from appearing on company websites.

Furthermore, censorship jobs were originally clustered in the more developed areas, such as Beijing and Guangdong, where the central government and the primary technology companies, such as Tencent, are located. In the later years of this study, the proportion of censorship jobs available in developing areas increased. Sichuan (especially Chengdu) became the third major hub of the Chinese censorship industry, followed by other provinces, such as Hubei and Anhui. These regions typically have low salaries, good infrastructure, and a large number of college students. This transition also coincided with the rising trend of outsourcing censorship labor. We therefore assume that this redistribution of censorship work into developing areas is associated with the tendency to decrease labor costs.

Companies that own short-video platforms or live-streaming platforms, such as ByteDance and Tencent, are top censorship employers, because multimedia content is the most difficult to moderate. Rising social media companies, such as Bilibili and Xiaohongshu, are also major recruiters of censorship workers. Censorship tool development companies, such as Baidu and Tencent, were also among recruiters identified in the job ads analyzed, and would recruit for software developers.

The image below illustrates the demand for censorship employees across geographical regions of China:


Full/Part-Time
All
Play
2020
Number of Censorship Job Recruitment
Ratio of Censorship Job Recruitment
100,000
50,000
10,000
1,000
100
5%
10%
15%
20%
25%
30%

Screenshot of an interactive visualization of research findings developed by Ura Design

Furthermore, our analysis of patent and software updates, as well as the penalty announcements from the CAC, suggested that the recruitment of information control workers by companies is more of a reaction to changes in the endogenous market and product needs, rather than a significant reaction to the exogenous political sanctions from government agencies. While political pressures drive censorship demands on a macro-level, our research does not demonstrate that specific CAC sanctions directly affected the job ads from punished companies.

In the case of social media companies specifically, our initial hypothesis aligned with that of news reports, which suggested that social media companies would recruit more censorship employees after being penalized for failing to censor politically sensitive content. However, our evaluation of the penalty announcements made by the CAC and their impact could not solidly conclude a direct spillover effect that CAC penalties drive social media companies to increase their recruitment of censorship employees.

We also did not find evidence that technological breakthroughs in text or image analysis, company patents, and updates in censorship software services, have a significant impact on the recruitment of people undertaking censorship work.

The demand for outsourced censorship labor introduces new players in the censorship market

As the demand for censorship work soars, many companies turn to outsourcing as a solution to reduce the cost. Human resource companies have thus entered the censorship market to provide full-time workers who can specialize in censorship. These workers normally get paid less than other staff in technology companies. To date, there are over 3,000 human resources companies that have engaged in the recruitment of censorship workers.

To track the original companies seeking outsourced censorship labor, we analyzed the products referenced in posted job ads on which employees would be expected to work. Leveraging GPT-4, official company registration data, and public records, we were able to link the products mentioned in the job descriptions to the entities owning those products. We then mapped the outsourcing relations between those companies outsourcing censorship labor, which we refer to as demanders, and human resources service providers.

The map below illustrates major outsourcing relations between demanders and providers of censorship labor:

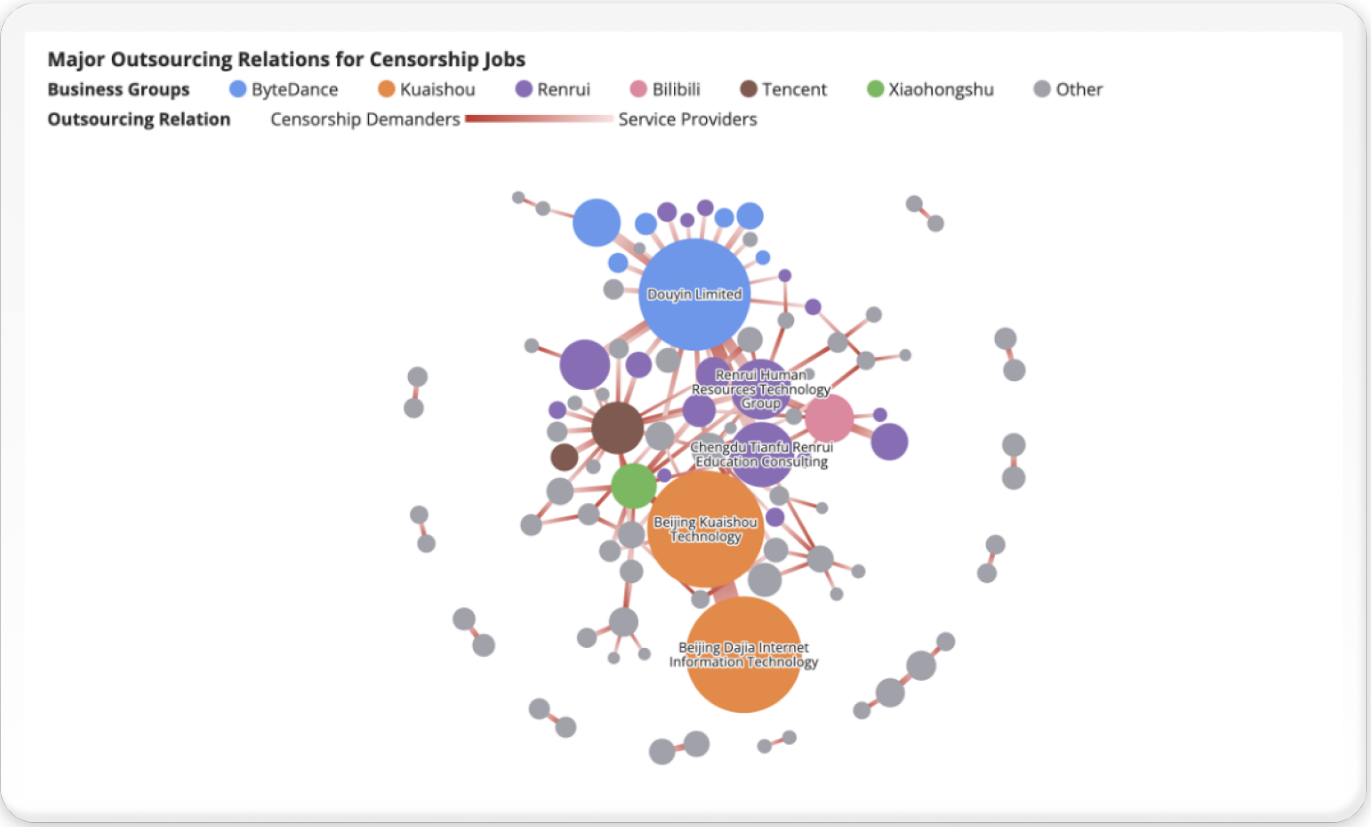


Image caption: Screenshot of an interactive visualization of research findings developed by Ura Design

Prominent companies that largely rely on outsourced labor are ByteDance, Kuaishou, Bilibili, Tencent, and Xiaohongshu. The two most prevalent human resource companies are Renrui (人瑞) and HRPackage (佩琪). Understanding the factors that significantly drive the outsourcing decisions of censorship demanders was outside the scope of this research, but worth future investigation. Despite the high need for censorship labor, a company may not always outsource its censorship tasks. For example, ByteDance once outsourced its censorship to Renrui, but later used a subsidiary company called Jiyunhudong (吉云互动) to take over all its censorship work. As another example, a subsidiary company named Dajiahulian (达佳互联) under Kuaishou, the second largest short-video platform in China after TikTok, seems to have exclusive handling of the censorship operations of its parent company.

Four players in the Chinese censorship market

In this research, we were able to classify the actors demanding censorship work into four categories.

1. The first category is the traditional censorship labor demanders, which include the companies generating news and user-generated content, such as news media and social media companies. These companies are indeed the primary players in the Chinese censorship industry.

2. The second category is the nontraditional censorship labor demanders, which include companies we perhaps would not think of as having censorship roles. The censorship jobs in these companies are usually part-time, where the job descriptions mention the duty to censor some content, but the primary work is distinct from censorship. For example, the operation staff of a vendor doing business on an e-commerce site would be required to censor all product-related information, over and above their primary tasks. As another example, a mall may require its marketing team to censor all marketing materials that would be public during promotional activities. Nontraditional censorship employers may also have jobs listed for conventional roles, such as website operation, which would require some censorship duties.

   We were unable to develop clear statistics for the ratio of traditional to nontraditional censorship employers in the Chinese censorship market, given that the boundary between them is subjective.

3. The third player in the Chinese censorship market is the human resource companies, which are usually contracted by traditional censorship demanders to manage their outsourced censorship labor. We identified over 3,000 human resource companies in our censorship job dataset, which make up 4.2% of all censorship employers, and who posted 10.1% of the total number of censorship job ads collated in this study.

4. The fourth player does not show up in censorship-related job ads, although they themselves do recruit censorship staff. Chinese state-owned media companies are censorship service providers given that they provide censorship-related services to other companies. People's Daily Online is a salient example. This company is a state-owned online news agency based on the original state-owned newspaper People's Daily. It started to participate in the "content risk control" business—a more subtle term for censorship—in around 2017 and subsequently established a service platform called People's Info. This platform highlights its comprehensive censorship systems and offers training services to censorship demanders.

   The absence of publicly-available job ads from People's Daily Online, according to our dataset, suggests that the service they provide is not a direct censorship solution service or outsourced censorship labor. We speculate that the selling point of People's Info is the internal expertise about content regulation and possible relations with relevant governmental institutions, at the cost of a training or consultancy fee.

Future works

The research undertaken by the authors suggests not only that the operations landscape of Chinese censorship is highly relevant to multiple research disciplines and related practices of internet freedom, but that the context is complex, and rich for further directions of study to strengthen our understanding of the human-powered nature of Chinese censorship.

In the limited scope of our research, we found a number of gaps in the literature that warrant attention in future work. For one, future work could further examine the bureaucratism in the operation of information control in both commercial companies and the government. Secondly, a qualitative inquiry into the lived experiences of censorship labor by censorship workers would contribute to our understanding of censorship operations at the micro-level, particularly significant to socioeconomic fields related to labor rights and the mental wellbeing of censorship workers.

On the technical side, we found the study of censorship service tools provided by commercial companies to be a significant gap. Furthermore, the rise of generative Artificial Intelligence (AI) may not only create challenges to the effective censorship of user-generated content and AI models themselves, but may also contribute in disruptive ways to the evolution of the supply of censorship services—especially when the cost of AI-powered moderation reaches a threshold that proves more cost effective than contracting manual labor.

Conclusion

Censorship in China has evolved into a sizable and complex industry comprising an interconnected web of actors and technological systems. The need for ongoing and effective information control among companies operating within a legal landscape criminalizing political expression has led to an increased demand for censorship labor. Despite the significant role that information control workers play in mitigating risk for companies publishing online content, censorship work is framed in online censorship-related job ads as low-skill labor and is characteristically underpaid and labor-intensive. While job descriptions in online job ads are usually explicit about the censorship tasks that the employee would undertake, recruiters often portray the role as that of a general content moderator, with the effect of normalizing censorship as a practice.

Changes with media industries and the evolution of technological products and services have increased the number of information control workers that companies recruit, which has impacted the dynamics of the censorship market. Human resource companies have stepped into the market as a key player offering outsourced censorship labor to companies. The demand for outsourced labor has also resulted in a geographical shift in censorship work, from being mostly clustered in highly-developed provinces, to being concentrated in developing provinces offering an environment conducive to reducing operating costs. Human resources companies were one of four key players identified by the research that are impacting the Chinese censorship industry.

The research sheds light on the understudied phenomenon of human-powered censorship in China, the complexity of which is a call for further investigation and research across multiple and intersecting fields of study. Gaps in the literature warrant attention in future work, not only because of the dynamic and ever-changing nature of this focus area, but also given the extent to which our deeper understanding of censorship operations in China holds the possibility to strengthen work across diverse socio-political, economic, and technological sectors towards the realization of internet freedom.

A Silent, Silencing Industry:

The Growing Market of Human-Powered Censorship in China

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