Ground Control

Organizing Content Moderation for Social Media Platforms

Dissertation

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Sana Ahmad

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First Supervisor: Prof. Dr. Martin Emmer
Freie Universität Berlin

Second Supervisor: Prof. Dr. Martin Krzywdzinski
Helmut Schmidt University

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Declaration of Independence

I hereby declare that I have completed the submitted dissertation independently and without the use of sources and aids other than those indicated. I have marked as such all statements that are taken literally or in content from other writings. This dissertation has not yet been presented to any other examination authority in the same or a similar form and has not yet been published.

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Outline

List of Abbreviations

ACD	Automatic Call Distribution
AHT	Average Handling Time
AI	Artificial Intelligence
AICTE	All India Council for Technical Education
AITUC	All India Trade Union Congress
CDA	Communications Decency Act
CEO	Chief Executive Officer
ChatGPT	Chat Generative Pre-trained Transformer
CITU	Centre of Indian Trade Unions
CM	Content Moderator
CMH	Content Moderator Hyderabad
CMIE	Centre for Monitoring Indian Economy
CO	Content Operator
COVID-19	Coronavirus Disease 2019
CPIM	Communist Party of India (Marxist)
CPIML	Communist Party of India (Marxist-Leninist) Liberation
CSAM	Child Sexual Abuse Material
CSO	Civil Society Organization
DPE	Direct Prospects Expert
DPITT	Department for Promotion of Industry and Internal Trade
DSMF	Domestic Social Media Firm
FDI	Foreign Direct Investment
FITE	Forum for IT Employees
FY	Financial Year
GDP	Gross Domestic Product
GDPR	General Data Protection Regulation
GPN	Global Production Network
GVC	Global Value Chain
HRM	Human Resource Management
IRUs	Internet Referral Units
ICT	Information and Communications Technology
IJP	Internal Job Posting

ILO	International Labour Organization
INR	Indian Rupee
IT	Information Technology
ITeS-BPO	Information Technology-enabled Services – Business Process Outsourcing
KITU	Karnataka State IT/ ITeS Employees Union
KPI	Key Performance Indicator
LF	Lead Firm
LPA/ LPT	Labor Process Analysis/ Labor Process Theory
ML	Machine Learning
MNEs	Multinational Enterprises
NASSCOM	National Association of Software and Service Companies
NCR	National Capital Region
NDA	Non-disclosure Agreement
NDLF	New Democratic Labour Front
NetzDG	Netzwerkdurchsetzungsgesetz
PTI	Press Trust of India
SDM	Service Delivery Manager
SEZ	Special Economic Zone
SLA	Service-Level Agreement
SMEs	Small and Medium Enterprises
STP	Software Technology Park
SU	Supplier Firm
SU-N	Supplier Firm New
TL	Team Leader
UGC	User-generated Content
UNITES	Union for ITES Professionals
UOM	User Operations Manager
USD	United States Dollar
VPM	Vendor Partner Manager
Y2K	Year 2000

Chapter 1: Introduction

Hailed until recently as the most popular microblogging platform with the number of monthly daily active users amounting to 238 million (Dang, 2022), Twitter is witnessing a striking development in its platform operations. Business insider reports note that more than 30 million users are estimated to leave the platform, with the largest demography of the movers located in the United States of America (USA) (Sweney, 2022). This is not the first time that projections regarding the end of the platform have been made (Speed, 2016). Prevalence of racism (Cisneros & Nakayama, 2015), sexist abuse (Amnesty International, 2018), and general hostility towards marginalized users (The Conversation, 2021) on Twitter have been commonly reasoned for its declining "sociability" (Burgess, 2015) and user growth (Bucher & Helmond, 2018). What is unique this time is that the platform has been bought by the billionaire Elon Musk, known for his right-wing political leanings and who aims to alter the boundaries of free speech on the platform (Zavarise, 2022).

In the aftermath of these developments, many Twitter users are moving to a federated and open source social media called Mastodon. Again, this is not a new development and users had previously taken to Mastodon because of Twitter's "inadequate and opaque policies on hate speech, caste bias, and suspension policies for individual accounts", together with Mastodon's similar user interface as that of Twitter (HT Correspondent, 2019). But similar to the previous times, the recent developments at Twitter, in terms of its acquisition by Musk, the suspension of journalists and other critical voices (Paul et al., 2022) and privileging of certain users (Verma, 2022), are underpinned by the problem of its content moderation practices that decide the contours of public discourse on the platform. Not surprisingly, the shift to Mastodon has heralded hopes for decentralized and community-driven practices of content moderation that are explicitly contrasted against the industrial moderation standards set by central and monopolistic social media platforms (Cohn & Mir, 2022; Schneider & Hasinoff, 2022).

The political-economic environment within which social media platforms have evolved, allow us to see the exemptions from social and legal liabilities, that technology firms (referred to as lead firms from here onwards in this study, by borrowing from the global value chain and global production network theories) operating these platforms, managed. This primarily refers to Section 230 of the United States Communications Decency Act (CDA) that states, "no provider or user of an interactive computer service shall be treated as the publisher or speaker of any

information provided by another information content provider."[1] While the law was designed to encourage providers of interactive computer services to moderate user content without fear of publisher liability, it became commonly used by online marketplaces for protecting themselves from "everything from product liability to obligations under a myriad of state and local rules" (Edelman & Stemler, 2019, p. 143). This was taking place within a culture of privatization of Internet and innovation of new technologies including social media, which were primarily based on the premise of commodification and profit generation (Bolaño & Vieira, 2015).

Although distancing themselves from the social and legal liabilities of production and consumption of content on social media, lead firms exercise governance in the form of content policies and moderation choices. There are two main reasons why the content moderation practices of global lead firms have been criticized: firstly, because of the lack of moderation of extremely harmful content that has found to be prevailing on the platforms (Citron & Jurecic, 2018; CounterView, 2019), and secondly, because of selective and excessive moderation of certain content that results in silencing or even de-platforming marginalized voices (Cohn & Mir, 2022; York & McSherry, 2019). The salient feature underpinning both these practices is the complex character of social media content moderation, which is further convoluted by the underlying economic logics of lead firms. Roberts (2019) calls this "commercial content moderation" and differentiates it from the voluntary and community-based moderation that was prevalent in early Internet communities.

The public shift from Twitter to Mastodon brings anew the problems associated with large-scale social media platforms and the public discourse therein. On one hand, is the issue of freedom of expression that holds significance for different users and stakeholders of social media platforms. This is particularly seen in the use of platforms as important sites of dissent against governments and mainstream media. During the *Arab Spring* in 2011, the popular adage - "the revolution will be tweeted" was anchored in the political movements of Arab and North African protesters who not only took to the use of Twitter, followed by Facebook and YouTube, to communicate the state brutality with the rest of the world, but also to organize and coordinate protests (Howard, 2017; Hounshell, 2011; Kassim, 2012; Parvaz, 2011).[2] Twitter also became

[1] 47 U.S.C. § 230(c)(1) (2012) in Edelman and Stemler (2018).

[2] The original slogan was "the revolution will not be televised" made popular among the 1960s *Black Power* movements in the United States, and later penned as a song and poem by Gill Scott-Heron in the 1970s.

a popular political tool elsewhere, such as during Canada's federal elections, the Ryan Giggs case and media laws in the United Kingdom, and the Kurdish movement in Turkey (Friedman, 2011).

On the other hand, is the issue of the commodification of user data generated by the same public discourse. The economic logics of lead firms have most notably been studied in terms of their rentier activities where user-generated data is sold to advertisers on the platforms in exchange for revenue (Bolaño & Vieira, 2015; Postigo, 2016). Given the extensive reach over users on social media platforms, the advertisement revenues at most big news publishers are consistently decreasing and the majority of all new online advertisement spending is directed to Google and Meta (Garrahan et al., 2017; Wakabayashi & Maheshwari, 2019). But beyond generating advertisement revenues, user data is also key to the processes of "platformisation" and "infrastructuralisation" that allow lead firms to expand and diversify into other business dimensions (Mackenzie, 2019), such as the virtual reality technologies in the case of Meta.[3][4] Nieborg and Helmond (2019) argue that the rise of social media monopolies such as Meta can be explained by their "ambitions beyond the app ecosystem that include investments in global Internet infrastructure and connectivity" (p. 211).

"Essential" to the maintenance of public discourse on social media while also ensuring its commodification, is content moderation (Gillespie, 2018). Instead of being a smooth functioning process, moderation errors continue to take place, risking the reputation of lead firms and their relations with the end-users and multiple partners on social media platforms, but also implying negative implications for the public discourse. From the criticisms already outlined in this chapter, we can see that lead firms err towards over-moderating critical voices and under-moderating genuine harmful content. But why does this happen? And how do lead firms manage these challenges to ensure the continuities in user activities? Existing research on large social media platforms such as Meta, YouTube and Twitter highlight two main issues; first, the issue of scale and second, the issue of context.

[3] As described on the online public newsroom of Meta Inc. Accessible at: https://about.fb.com/news/2021/10/facebook-company-is-now-meta/

[4] The process of platformisation is defined as "the process of constructing a somewhat lifted-out or well-bounded domain as a relational intersection for different groups", and infrastructuralisation is defined as "the process of rendering certain technical operations widely and immediately available" (in Mackenzie, 2019, p. 1994).

Complicated by scale and context

The scalable configurations of platforms allow lead firms to access consumer markets across different geographical and temporal scales (Gillespie, 2018; 2020; Manjoo, 2017; Rieder & Skop, 2021). Around 4.65 billion user accounts or user identities are estimated to be connected to social media platforms (Statista, 2022). And a large proportion of these users are platformed by mainstream social media platforms. The number of monthly users accounts active on Silicon Valley-based Meta's "family" of products including WhatsApp, Instagram, Facebook Messenger, among others, is recorded to be 3.71 billion (Barinka, 2022). YouTube notes that it has over two billion monthly active users, and closely following is the globally-facing TikTok owned by the Chinese technology firm ByteDance, which has witnessed a 45% increase in the number of monthly active users between the period of July 2020 and July 2022 (in Paul, 2022).[5] These platforms not only play a vital role in connecting an enormous number of users across the world today and hosting their communication and information sharing activities in the form of user-generated content, but also exercise enormous global reach and influence in terms of setting the standards for user communication (Gillespie, 2018).

The hosting of diverse voices and interests on platforms across different geographical scales, however, complicates the application of universal content moderation policies (De Gregorio, 2019; Gillespie, 2018; Noble & Roberts, 2017). This has been particularly observed for the policy category *hate speech* that has been confronted with different socio-economic realities of social media users. Take for instance, the temporary banning of civil society members in South Africa on Facebook from voicing their opinions against ideologies of *whiteness* and *heteronormativity* on the basis that they violated the social networking site's content moderation policy on hate speech (Ebrahim, 2017). This was primarily on account of Meta's own governance framework of *protected categories* relating to race, religion, gender, ethnicity, etc., that eclipsed the national and sociohistorical contexts of race and gender; with the result that Meta was thereby widely condemned for policing free speech (Ebrahim, 2017).

Public discourse on most global social media platforms has suffered from inclusive content moderation policies that are sensitive to geographical and socio-historical sensibilities. And the implications of these governance choices are especially felt by marginalized communities and

[5] More information can be found at: https://blog.youtube/press/

critical voices (Ascher & Noble, 2019; Asher-Schapiro & Zidan, 2019; Buni & Chemaly, 2016; Zahra, 2020). Some have argued that this is because of political pressure on lead firms to moderate certain content in exchange for access to the respective consumer markets (McDermott, 2019; Ellis-Petersen, 2021), that includes allowing certain content that dehumanizes certain people. The infamous role of Meta for platforming genocidal calls against Rohingya Muslims in Myanmar, is one such extreme case (Amnesty International, 2022). At the same time, social media *censorship* has also been argued to result from inconsistent content moderation resources across all user geographies (Newton, 2021). Closely connected with the issue of scale is context, where experts note that context sensitivity is challenging because of the enormous scale of content that is generated on these platforms (Caplan, 2018; Marwick & boyd, 2011).

At stake here are questions of consistency and accuracy of content moderation but also sensitivity to nuances inherent in the communicative processes on social media. Lead firms try to address these issues by designing the content moderation apparatus in such a way that it is flexible and amenable to external influences. Existing literature shows this in two ways: firstly, through the changes in content moderation policies on account of user influence and other stakeholders (Gillespie, 2018; Hern, 2013), and secondly, through the *flagging* or reporting activities of users. The first can be observed in the explicit reference to Meta's policies regarding *nudity* and *obscenity*. In the year 2008, 80,000 women were part of an online movement to protest against the removal of content showing breastfeeding women from the platform (Sweney, 2008). After several protests for equal rights for women, Meta adjusted its policies and lifted the "ban" on these images (Rhodan, 2014). On the other hand, at a more implicit level is the flagging mechanism that allows users to report content according to the community standards (informing what users can post on social media). While flagging mechanisms do not scale, they allow the identification of specific categories of harms by introducing them into the content moderation process (Crawford & Gillespie, 2016).

Correspondingly, lead firms and industry experts argue that "only artificial intelligence (AI) can be fast enough, precise enough, and sensitive enough to meet any heightened obligations" of platform moderation (in Gillespie, 2020, p. 2). While automation has been argued to solve the problems of scalability (in Oliva, 2020; Gillespie, 2020) and reduce the response time, especially in terms of regulatory measures such as Germany's "Network Enforcement Act" (*Netzwerkdurchsetzungsgesetz*) or NetzDG (Gorwa et al., 2020), several critics have observed its limits in terms of the context, but also in reproducing and amplifying social bias (Olivia,

2020; Duarte et al., 2017, Gollatz et al., 2018; Noble, 2018; Sap et al., 2019).[6] On the other hand, criticisms have also been directed towards human moderation for its limits to scalability (in Gillespie, 2020) and cultural bias (Klonick, 2017). The large-scale outsourcing of content moderation work to geographies such as India and the Philippines (Ahmad & Krzywdzinski, 2022; Roberts, 2019) has regularly been followed by references to the different cultural backgrounds of moderators and the corresponding moderation errors (in Ahmad, 2019).

The global social media industry is highly fragmented. While content moderation policies and other standards for moderating content are designed by a few highly-paid and in-house employees of lead firms, the large-scale and low-paid service work of *tagging* this content according to the established policies, is undertaken by workers employed by third-party firms. These content moderation value chains often reach into specific labor markets (Ahmad & Greb, 2022), and geographies which supply labor to the global economy at cost-efficient prices. One of these locations is India, a historically established site for servicing different industries across the world (Nadeem, 2011; Taylor, 2015), that has come to supply content moderation services for social media platforms as well. Similar to other lead firms outsourcing work to India, they are able to "devolve risks, costs and flexibility demands down the value chain" and integrate the "spatially dispersed units" into a "co-ordinated or collaborative activity" (Flecker et al., 2013, p. 18). At the same time, while allowing economies of scale, lead firms still have to ensure the quality service delivery in terms of accurate and context-specific content moderation decisions.

Sitting at the intersections of both these industrial solutions and their limitations is the issue of *indeterminacy*. User interaction with platform architectures creates indeterminacies to degrees that can be counterproductive to the business logic of lead firms. This is most notably seen in the contestation of content moderation policies by users and other stakeholders that could risk the reputation of lead firms, but also in the indeterminate ways in which users might use flagging mechanisms for reporting content. Similarly, moderation errors at the level of automation or human labor are rooted in production-related indeterminacies that may either arise from the dynamic character of social media platforms or in terms of technological or labor-

[6] The Netzwerkdurchsetzungsgesetz (NetzDG) or the Network Enforcement Act establishes a legal obligation that in the case that a content is found to be manifestly unlawful based on user complaints, technology firms need to have a process to remove the content within 24 hours or face a fine of up to 5 million euros. Article 1, Section 3 of the Network Enforcement Act.
More information at: https://www.bmj.de/DE/Themen/FokusThemen/NetzDG/NetzDG_EN_node.html

related uncertainties. How lead firms manage with these indeterminacies and the implications for important stakeholders, namely users and workers in this process, are marked by industrial practices of secrecy that is known to veil even basic information on how, by whom and to what ends is content moderation undertaken. The deliberate concealment of their strategies and practices from the public has been argued by lead firms to protect the identities of content moderators (Gillespie, 2017), and to prevent social media users from "game(ing) the system" (Roberts, 2016). Critics however note that this allows firms to evade liabilities for both hosting media content (Napoli & Caplan, 2017) and extracting labor from outsourced content moderators (Roberts, 2019).

The study here is an effort to bring together the two dimensions of content moderation indeterminacies and examine them under the following research question:

1. How do lead firms reduce communication and production-related indeterminacies, and what are the challenges therein?

This question is framed within the larger inquiry of this research to understand the ways in which lead firms moderate user content, so that it allows them to maintain their economic interests, while at the same time ensuring user activities on these platforms. This allows us to more specifically examine how the issues of scale and time are balanced with the issue of context and nuances of user-generated content. Given the multivalent and multilayered character of social media platforms, which is described in the following section, this research question is studied using an interdisciplinary lens that allows the study to peel through the layers of business and communicative logics of social media platforms. The empirical focus of this research, however, is limited to the production process because of two main reasons: firstly, the existing research gap on the production processes of content moderation, particularly the outsourcing landscape in India and the actors and mechanisms involved therein, and secondly, the popular understandings and predictions of content moderation already being or becoming automated. Following from this, the second and third research questions ask:

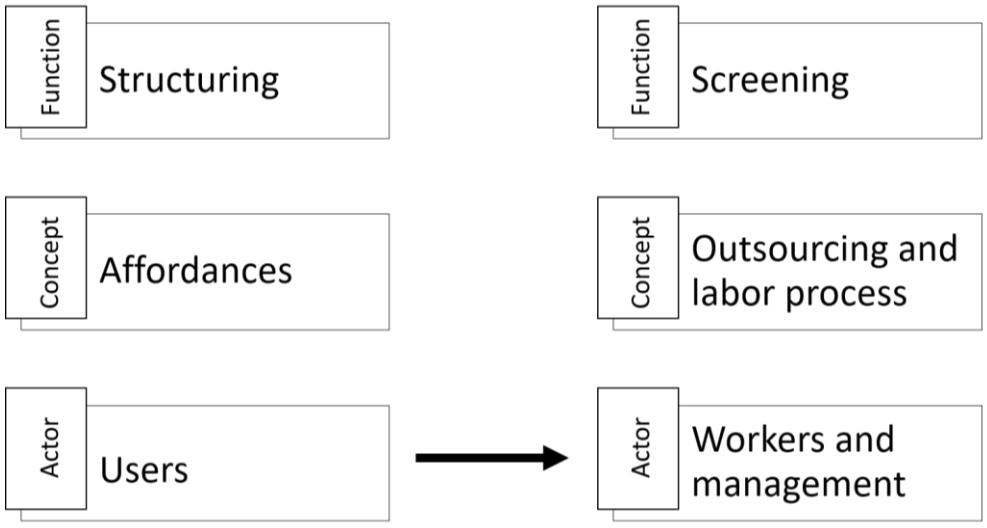
2. What are the outsourcing mechanisms that lead firms use for ensuring quality service delivery, i.e., accurate and context-sensitive content moderation work, from India?
3. And how do these mechanisms structure the workplace dynamics?

The aim of this research is to make a unique contribution in two ways: first, by filling the research gap on content moderation work and workers in India, second, by assessing the implications for users and public discourse on social media platforms.

Content Moderation – a multivalent and multi-layered concept

The treatment of content moderation as a multivalent and multilayered concept opens up possibilities for finding bridges between the two layers of communication and production of social media platforms. Content moderation multivalence refers not just to the immediate function of "screening user generated content posted to Internet sites, social media and other online outlets, in order to determine the appropriateness of the content for a given site, locality, or jurisdiction" (Roberts, 2017), but also expands to include a socio-technical perspective of "structuring (the) participation in a community to facilitate cooperation and prevent abuse" (Grimmelmann, 2015, p. 47). The multilayering of content moderation, on the other hand, refers to the involvement of different stakeholders at different nodes of the content moderation process. The primary actors here are users who are engaged in *flagging* or reporting other user-generated content, and workers who do a bulk of the moderation work in outsourced settings.[7]

Figure 1.1: The multivalence and multilayering of content moderation



By looking at both the functions of structuring and screening of user content, content moderation can be examined as site of different actors involved and its multi-conceptual relevance (figure 1.1). Informed by the two main underlying business logics of generating

[7] While only two valences and layers are examined here, the emerging landscape of social media platforms also shows other processes such as digital literacy programs for users (Sirlin et al., 2021), that could potentially intersect with the content moderation process. However, this is beyond the scope of this study.

advertisement-related revenues and expanding the platform infrastructure, both the structuring and screening functions of content moderation aim to ensure the elimination of indeterminacies at the levels of communication and production respectively. The structuring of user activities is looked at through the concept of *affordances* that highlights the dynamic character of communication on social media platforms. Primarily assessed in terms of the technical features of platforms, affordances offer "action possibilities to the users" (Bucher & Helmond, 2018), which refer to the opportunities and constrains for information sharing and communication activities therein. But instead of being a smooth process, users are also continuously engaging with platform affordances and acting within an inherent tension between the intended use of the platform and their interests in using it. The resulting *user negotiation activities* regarding what, where and how to communicate create indeterminacies, including harmful or unwanted content, that lead firms want to be moderated.

The screening function of content moderation is largely carried out by workers contracted by third party firms. Fragmented into serviceable tasks, content moderation is outsourced to the Information Technology-enabled Services – Business Process Outsourcing (ITeS-BPO) supplier firms in India, where work is undertaken in the back-office section of these firms. To understand why lead firms outsource work to India and how they ensure quality service delivery, concepts are drawn from the global value chain (GVC) and global production network (GPN) theories on one hand, and from the labor process theory (LPT) on the other. The former provides the outsourcing mechanisms of service level agreements (SLAs), automated technologies and institutional arrangements to show the direct control of lead firms over the content moderation service provision. It allows them to reduce the uncertainties in the supply of moderation services, but also results in power asymmetries with the supplier firms.

In term of the labor process theory, the concepts of labor control and agency are used to examine how the labor power of content moderators or their capacity to work is transformed into productive labor. Labor process analysis is particularly useful in its assessment of the active character of labor that is rife with indeterminacies (Thompson, 2010). This allows us to see how labor agency is important for getting work done, in terms of using their skills together with local and tacit knowledge to moderate content that is either complicated or does not have the applicable moderation policy. At the same time, the "double indeterminacy" of labor power, in terms of whether workers produce the required effort and where they park this labor power (Smith, 2006), creates complications for lead firms. They resolve this by standardizing the work process and by checking the quality of work according to the content moderation standards. But

the continuous user negotiation activities result in “infinite permutations in harmful content”, as the former user operations manager of a large lead firm in this study, put it. Correspondingly, lead firms resolve the issue by integrating the user flagging activities into the production process. This can also be seen in figure 1.1 where users are linked to the production process.

The flagging mechanism is underpinned by the affordances of social media platforms, which allow users to exercise their choices against content that is not acceptable to them. But for platforms, *flags* are “data points” that allow identifying “undetectable patterns of user sentiment” and special categories of harm that can be embedded in the moderation systems (Crawford & Gillespie, 2016, pp. 412-413). Flagging mechanisms also include “trusted flagging”, i.e., special flagging functions for certain users and stakeholders such as corporate actors, intellectual property rights-holders, Internet Referral Units (IRUs) of national police forces such as the UK’s Counter Terrorism IRU (Appelman & Leerssen, 2022). Given the scale of user content, the human flagging activities are combined together with automated flagging. The flagged user content is then transferred into the production process.

Figure 1.2: Transferring flagged content to workers

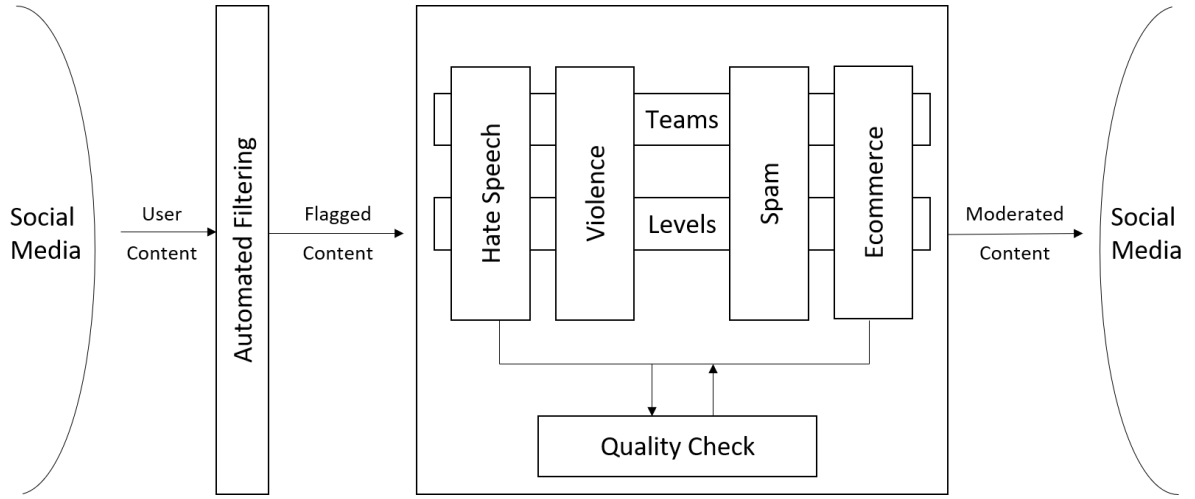


Figure 1.2 centers this core process using a generalized illustration of outsourced content moderation work in India. All user content posted on the social media platforms under examination in this study, passes through automated filtering to check for harmful content such as child sexual abuse material (CSAM) that is checked against a “law enforcement database”

(York, 2022).[8] Following this, content becomes available on the platform, which can then be flagged by other users and through automated means. This content is transferred using automated technologies into content queues such as hate speech, violence, spam and ecommerce where workers dedicated to these queues across different teams and experience levels moderate it.[9] Given that the flagged content could also include unique or complicated content, workers exercise their tacit knowledge that they have developed out of experience in moderating content, together with local skills to moderate such content. Moderated content is then checked for quality by the supplier firms, due to the established SLAs with lead firms and the requirements for certain quantities and qualities of service delivery.

This model of bridging users and workers (figure 1.2) is aimed at resolving the issue of context. To scale it, the technology that transfers the flagged content to workers and constitutes as the main work software in most cases, is embedded with machine learning models. This allows lead firms to record the accurate moderation choices of workers, which is informed by their tacit knowledge and local skills. This has two main implications for the content moderation process: firstly, the continuous improvisation of content moderation policies and standardization of work, and secondly, the complete automation of certain content queues that comprised of extremely harmful content. At the same time, given the dynamic character of social media platforms and implications of harmful content for users and lead firms, workers and their tacit knowledge remain essential to the work process. This can especially be seen from the case of supplier exit from its content moderation project with a large lead firm, and the subsequent transfer of the project, including workers, to another supplier firm in India. This not only goes on to show the clear limits of automation in the content moderation process, but also the direct or ground control of lead firms over the content moderation labor process.

Structure of the dissertation

The outline presented above is structured across the different chapters of this dissertation. To start with, there are three theoretical chapters 2, 3 and 4 informing this study's interdisciplinary setting. Chapter 2 shows that lead firms undertake specific mechanisms to plan the

[8] The automated removal of CSAM functions through the use of the PhotoDNA software that "identifies CSAM and matches it to material in a database based on unique fingerprints, or hashes" (York, 2022).
[9] There are several content queues and not exclusive to just four categories.

communication infrastructure and reduce indeterminacy on the platforms. This is first done by broadly looking at the concept of *affordances* and examining it as a site of both "action possibilities for users" (Bucher & Helmond, 2018) or what I call the user negotiating activities. And second, by specifying attention to the *flagging* or reporting mechanism on social media platforms, which feeds into the content moderation process. Drawing primarily from the media and communications literature, the discussion in this chapter outlines the evolution and operations of social media platforms within an emerging media ecology.

Chapters 3 and 4 pick up on the production process of content moderation and draw out the conceptual tools for explaining the outsourcing and labor process mechanisms, respectively. The discussions in both chapters are informed by the literature on IT-Services in India and elsewhere, given that content moderation work is supplied by ITeS-BPO firms and its overlapping features with service work. Within IT-Services, similar degrees of indeterminacies are observed in the interactive customer service work or call center work. Correspondingly, the three mechanisms of SLAs, automated technology and institutional arrangements are sewed together in Chapter 3 to understand how lead firms ensure quality service delivery, what are the inter-firm governance mechanisms, and if these strategies are influenced by institutional arrangements. The use of these mechanisms in comparable service work has been previously observed by scholars to reduce labor indeterminacy and increase standardization.

Following from this, Chapter 4 outlines the significance of labor process theory as a research approach for examining work in content moderation value chains. Its utility is particularly seen in understanding the capitalist logic of accumulation and the corresponding *control imperative* of management to reduce the labor indeterminacies. Continuous developments in the field of labor process theory and subsequent analyses show that this control is resisted by workers in direct or indirect ways, thereby characterizing the workplace as being *contested*. Correspondingly, at the level of labor control, the three categories of technical, bureaucratic and normative control are outlined. And at the level of labor agency, the three categories of resilience, reskilling and revoking are drawn.

Having outlined the theoretical framework for this study, the research methodology is described in Chapter 5. Given the limited literature on content moderation work in India, a grounded theory approach is taken to draw analysis primarily from the data itself. This constitutes of a mixed methods inquiry with interviews as the main method, followed by a quantitative survey and participant observation. In total, 66 interviews, 99 survey responses and three participant observations were conducted across two research fieldwork phases in India. In the first phase,

36 interviews were conducted with workers, management representatives from supplier firms in India, domestic social media firms, central, state and sector-based trade unions, and civil society organizations. This phase also included observing the recruitment process at three supplier firms. The second phase followed a case study design, and 30 interviews and 99 surveys were conducted with workers who had been affected by the exit of their employer and workers' transfer to another supplier firm to moderate content for the same social media platform. This is followed by a description of research ethics undertaken in the data collection process. The second half of the chapter describes the data analysis process, including the methods of coding, memoing and concept mapping.

The research findings in Chapters 6 and 7 show that labor is crucial to the content moderation process. Instead of directly employing these workers, lead firms outsource this work to supplier firms in India for reasons of labor cost arbitrage and to access local and tacit knowledge regarding user content. The analyses in both chapters are drawn for different kinds of lead firms and supplier firms and their inter-firm governance mechanisms. This allows us to see the format of content, such as videos that require more time for moderation, the use-cultures of social media users, and the moderation policies of the lead firms, factors resulting in specific kind of product complexities and requiring suitable moderation services and skills from India.

In spite of the discernible differences, there exist several overlaps between these value chains. Chapter 6 shows how the three outsourcing mechanisms result in the functional division of content moderation work between lead firms and the suppliers where moderation standards and in most cases work infrastructure are established by the former, and the responsibility for meeting those standards and the management of employment relations is taken by the latter. This observation on asymmetrical inter-firm relationships sits well with the control exercised by lead firms over the design of social media platforms and the flagging activities of users through the platform affordances. The case study presented in this chapter goes on to describe the supplier exit from the content moderation project. It shows how content moderation service provision in India, while a site of enormous flexibility – in terms of labor and market power – for both lead firms and large suppliers, is also a site of asymmetric inter-firm relationship, wherein one supplier can be replaced by another.

Linking the outsourcing mechanisms with the labor process mechanisms in the workplace, Chapter 7 shows how the different forms and dimensions of labor control are applied according to the functions of the lead firms and the supplier firms in the content moderation value chains. Accordingly, technical, bureaucratic and normative forms of control are applied in different

degrees across the control dimensions of the recruitment process, direction of work, monitoring and evaluation and the disciplining and rewarding of workers. Despite the extensive reach of control with high degrees of work standardization, labor agency has been found to be important to manage with unique and complicated content, but also with the psychologically-distressing nature of moderation work. The latter is particularly observed through labor resilience.

Furthermore, this agency evolves in the labor process through the practices of reskilling and revoking where workers aim to change their conditions of work. The case study here shows the robustness of managerial control strategies on one hand, and of labor agency on the other. Clear limits to revoking practices are observed during the supplier exit, on account of external labor market conditions and fear of unemployment during the then COVID-19 lockdown. At the same time, labor coordination with management to transfer work to another firm is underpinned by workers' self-recognition of their knowledge and skills. From this perspective, we can see that content moderation is a site of distinct interests of capital and labor.

Following from these analyses, the conclusion Chapter 8 revisits the media and communications scholarship on social media platforms and links it to the research findings from this study. In doing so, it shows the main contributions for public discourse on social media platforms and suggests future research directions for communication studies. Following this, the next section addresses the future of content moderation work and its automation. This is examined using the "socioeconomic company-level theory" developed by Krzywdzinski (2022), which complicates a simplistic analysis of automation at work. The final section of this chapter makes suggestions at the public policy level to ensure protections and alternatives for social media users and content moderators.

Chapter 2: Social Media Platforms and Logics of Content Moderation

Introduction

In 2019, Meta eventually joined other lead firms YouTube and Apple in banning Infowars, the far-right conspiracy theory and fake news website based in the US, on all its social media products (Martineau, 2019b). Amidst the growing public outrage, the firm took a considerable amount of time to take a stand against the spread of misinformation on its platform and remove the accounts of far-right online leaders such as Milo Yiannapoulos, Alex Jones of Infowars, Paul Joseph Watson along with other three extremists from its sites of Facebook and Instagram. When questioned about the delay in enforcing this decision, the company representative referred to an "extensive" content moderation process for "evaluating potential violators" on its platforms (Martineau, 2019a).

Content moderation is an essential character of social media platforms and its significance is seen in sustaining user engagement and ensuring competitive viability of lead firms operating these platforms (Gillespie, 2018; Napoli & Caplan, 2017; Wise et al., 2006). Instead of being a smooth functioning process, moderation errors continue to take place, risking the reputation of lead firms and their relations with the end-users and multiple partners on social media platforms but also implying negative implications for the public discourse. At stake here are issues of consistency and accuracy of moderation on one hand, and on the other, the sensitivity to nuances inherent in the communicative processes on social media.

The response of lead firms, especially Meta, to the *Infowars* case and the spread of misinformation on its social media platforms shows that they had to address questions related to context of user content including who posted it and within which discourse it was posted. While Meta has argued that its new content moderation *tools* and *policies* are more sensitive to the tone and context of content, especially related to hate speech (Martineau, 2019b), it is unclear which processes inform these moderation tools. How do Meta and other lead firms who argue that scalable technologies are the solution to moderating content at an "enormous scale" and within the "limited time" window permitted by regulatory bodies (Gillespie, 2020), ensure user's freedom of expression while at the same time also removing harmful content on social media?

These questions have animated the public discourse on social media with critics arguing that opaque and inconsistent content moderation practices have negative implications for users, particularly for marginalized and vulnerable communities (Ascher & Umoja Noble, 2019; Ebrahim, 2017; Zahra, 2020). Furthermore, experts have situated these user activities within large-scale data collection models of social media platforms for advertisement-generated revenue (Postigo, 2016), and questioned the "enormous wealth creating power" of lead firms (Mazzucato, 2018) and their business models (Morozov, 2022). The central point of critique underpinning these arguments refers to the social relations on social media platforms that have remained hidden behind the common techno-deterministic examinations of platforms.

The chapter here addresses this and discusses the strategies undertaken by lead firms for resolving content moderation challenges. These strategies are directed at two levels: one, at the level of user activities, and two, at the production level of content moderation work. The focus of this chapter lies on the former and they are discussed again through two angles: first, by broadly looking at the concept of *affordances* and examining it as a site of both "action possibilities for users" (Bucher & Helmond, 2018) or what I call the user negotiating activities, and second, by specifying attention to the *flagging* or reporting mechanism on social media platforms, which is directly linked to the content moderation process. The main argument of this chapter is that lead firms undertake mechanisms to plan the communication infrastructure and reduce indeterminacy by restricting the user negotiation practices on the platforms. It connects well with this study's central argument that the content moderation production process is aimed at eliminating all indeterminacies – including that of labor – with the aim of increasing predictability of the platforms.

The chapter starts with outlining what social media platforms are and how they can be understood in terms of both communicative activities and their "infrastructuralisation" (infrastructure expansion) and "platformatisation" processes (Mackenzie, 2019). This discussion is informed by the commodification processes on social media platforms and the different use values for different stakeholders. Following this, the chapter branches into two sections, where I first discuss the concept of affordances and examine it as a site of distancing between the intended use and the actual use of social media platforms occur. In so doing, two affordances of networking and category shaping are delineated in view of their suitability to the particularities of the platforms.

The second section focusses on the flagging mechanisms on social media where users' reporting and complaining activities are crucial for the content moderation practices. By assessing the

flagging activities of end-users together with the special arrangements such as the *trusted flagging* program, i.e., the prioritization of certain *flaggers* and processes by lead firms, it is argued that these mechanisms serve the function of user knowledge capture and its subsequent integration into the content moderation systems. The concluding section summarizes the conceptual frame outlined in this chapter and specifies its analytical utility to the study.

Commodification of social media

Scholarship on commodification of social media shows the production of two main commodities on the platforms: firstly, the commodity of personalized user experience and the access to networks that is offered to users, and secondly, the "audience commodity" (Smythe, 1977) or user data that is sold to the advertisers. The latter has been extensively covered in media and communication studies within the tradition of commodification of audiences or more specifically their capacities for attention that are exploited by media companies in exchange for advertisement led revenues. There is also increasing attention on the former in view of the valorization of information sharing and communication activities of social media users.

These commodification processes, although overlapping in nature, point to two main functions and use value of social media platforms that are different for end-users than for advertisers. In this vein, Helmond & Vlist (2019) have argued that social media platforms are both "multi-sided" because of their "different use cultures" and "multi-layered" because of their "manifestation across the different architectural levels of platforms" (p. 5). And yet, we can argue that the primary use value or use culture of social media platforms lies in its communication and social interaction feature.

Platforms have been defined as "digital, data-based and algorithmically structuring socio-technical infrastructures that exchange information, coordinate communication or organize work, offer a wide range of services, or distribute digital or non-digital products" (Dolata, 2019, p. 183). Their design is tied together with "online sociality" that includes collective action, user-generated content, communities, connecting or networking, co-operation or collaboration, playing or sharing (Fuchs, 2021, p. 37). This online sociality is based in human agency and social relations that are significant to both the evolving social experiences of meaning and the emerging media ecology (Gitelman, 2006).

Digitization of communication has transformed the media landscape and resulted in altered modes of use, forms of offerings and content and types of organization that separated previous

media practices (Emmer, 2014). Differing from the 20th century mass media such as radio, television, newspaper, magazine, film and others, communication via digital and Internet-based media expands beyond the transmission of data or information and integrates technology within the framework of a social communication process (Höflich, 1994 in Emmer, 2014). From this perspective, social media platforms can be understood as, drawing from Gitelman's (2006) definition of media, functioning at two levels: a medium as a technology enabling communication and a medium as a set of social and cultural practices that have evolved around that technology (in Jenkins, 2006, pp. 13-14).

By addressing the evolving media landscape, we are able to see the various social media technologies that are accessible as mobile applications, desktop software or as websites, and can be categorized by their functions for social networking through Meta, Twitter, VKontakte, LinkedIn; for music sharing through Soundcloud; for sharing videos through Vimeo and YouTube; for posting photos and videos through Snapchat and Instagram; for messaging through WhatsApp, LINE, Telegram and Signal; for community-based forums such as Reddit and 4Chan; for groupware such as Slack, Trello and Discord; for posting blogs through WordPress and Medium, amongst others (Burgess et al., 2017, p. 3). The underlying logic of these technologies is to "facilitate communication and collaboration by users" (Burgess et al., 2017, p. 3).

Scholarship on the political economy of communication has pointed out that digitization has created conditions for the commodification of the "entire communication process" (Mosco, 2009, p. 137) wherein each consumer activity related to information transaction can be monitored, stored and delivered to advertisers (Herman, 2013). Central to this discussion is the radical transformation of modes of consumption and production with the emergence of social media technologies. Primarily interested in examining the exploitation of social media users, *digital labor* has been studied from different vantage points: the examination of unpaid, productive work of users in exchange for *free* access to online media as "free labor" (Terranova, 2000); the leisure-based, user-generating activities of social media users as "audience labor" (Andrejevic, 2002, 2006; Fisher, 2012), and "playbour" (Kücklich, 2005; Scholz, 2012); and the large-scale data user data collection models of social media services for advertisement-generated revenue (Postigo, 2016a).

This critical outlook to user activities challenges a more optimistic view of the "participatory" or even "empowering" activities of users (Jenkins, 2006), which describes the process of media convergence as:

> […] both a top-down corporate-driven process and a bottom up consumer driven process. Media companies are learning how to accelerate the flow of media content across delivery channels to expand revenue opportunities, broaden markets and reinforce viewer commitments. Consumers are learning how to use these different media technologies to bring the flow of media more fully under their control and to interact with other users (Jenkins, 2004, p. 34).

This outlook has given rise to the concept of "participatory media culture" (Jenkins, 2004; 2014) where *participants* or customers using the new digital media or Web 2.0 technologies are able to meander the roles of producer and consumer of media in contrast to traditional media practices that thrived on the principle of media organizations producing content and the audience consuming it (Jenkins, 2014). Compared with the professionalized and institutionalized nature of mediated reality in mass media, these developments have been assessed optimistically by some who have argued that the opportunities for "collaboration" and "co-creation" through new media have resulted in an increased "empowerment" for consumers (Benkler, 2008; Uricchio, 2004 in Deuze, 2007).

While the discussion on meaning-making and participatory activities of users on social media are useful for examining the communicative potential of digitalized media and increased user activities, the choices expressed by users framing their access to and experience of media, are situated within the technological constraints of the platforms. These interests are driven by the capitalist logic of extracting value and thereby problematizing the analysis of mutually beneficial relations between users and media companies (McChesney & Schiller, 2003; Mosco, 2009). In trying to identify how "communication and culture relate to processes of production and reproduction within capitalist society" (Garnham, 1979, p. 123 in Hardy, 2014), scholars have argued that users are essential for the media commodification process.

In the introductory chapter of this study, we have seen the political and economic environment within which social media platforms have originated. With the provision of legal non-accountability through the Section 230 of the Communications Decency Act in the USA Code, social networking websites proliferated, with the early emergence of Six Degrees in the year 1997, followed by other popular sites such as Friendster, Myspace and Orkut, which enabled connections between millions of users worldwide who had access to the necessary infrastructure. By the early to mid-2000s, the current-day social media platforms came into being and the scale of user content further increased. Their proliferation took place alongside the increasing privatization of Internet. The premise of commodification and profit generation

(Bolaño & Vieira, 2015) enabled primarily, among other things, the advertisement model, which allows the tracking and storage of consumer information for the purpose of treating it as advertisable data, i.e., to be sold to the advertisers. This became a common phenomenon across all firms, ecommerce and news firms, and other newly created Internet-based services such as social media technologies, who relied on user activities.

At the same time, the increasing "platformisation" of social media platforms, i.e., "the process of constructing a somewhat lifted-out or well-bounded domain as a relational intersection for different groups" (in Mackenzie, 2019, p. 1994) makes it challenging to assess the underlying logic of capturing user activities on social media platforms from an exclusive advertisement lens. This understanding needs to take place within an emerging media ecology, where from their initial role of "engineering connectivity" (Van Dijck, 2013) platforms have evolved into more complex infrastructures with increasing number of and continuously changing features. Underpinned by the programmable character of platforms, lead firms are continuously modulating the technical features to shape the user activities and sustain those features that achieve higher "metrics of engagement" (Mackenzie, 2019, p. 1997).

Reducing indeterminacies on social media platforms

The material-technical perspectives on social media have highlighted its "platformisation" together with "infrastructuralisation", i.e., "the process of rendering certain technical operations widely and immediately available" (in Mackenzie, 2019, p. 1994) to describe the relationships between different users and the lead firms through the platforms. User activities are necessary to both of these processes and lead firms undertake several strategies to shape, adapt to, and reduce indeterminacies in the classification and organization of data produced from these activities into their systems. Mackenzie (2019) argues that because platforms do not have a "pre-given or determined form", they can therefore be "organised and configured by opacities of capitalisation" (p. 1994). The author analyzes this process as reducing the "margin of platform indeterminacy" (Mackenzie, 2019, p. 1994).

Most media and communication systems today are owned by ICT (information and communications technology) corporations (Hope, 2016). On one hand, this shows the emerging media ecology, such as the acquisition of the video-based platform YouTube by Google, which primarily caters to the search engine market, thereby becoming a "powerful nexus in the unfolding relationship between the *old* and *new* media" (Winseck, 2008, pp. 42-43 in Hope,

2016, pp. 525-6). On the other hand, Facebook's rebranding as Meta Platforms to develop the virtual reality technologies (known as Metaverse), alongside operating the social media platforms of Facebook, Instagram and WhatsApp, represents the expansion and diversification of lead firms into other business dimensions.[10]

A crucial element in the processes of media convergence is that of predictive technologies. Lead firms use centralized software and modelling technologies for classifying and ordering content. This includes the use of predictive models at Meta such as Big Sur, DeepMask and other software to increasingly classify and order user content (Helmond et al., 2019; Mackenzie, 2019). The rise of social media monopolies, especially Meta, can be explained by their "ambitions beyond the app ecosystem that include investments in global Internet infrastructure and connectivity" (Nieborg & Helmond, 2019 p. 211). At the same time, the "organisational implementation of predictive programming work" has suffered from lack of examination, and "its implications for platform programmability are still emerging" (Mackenzie, 2019, p. 1995). What is clear however is that platforms lack in "original content", and are instead "shaped by cross syndication practices and aggregated content" (boyd, 2010 in Gerlitz & Helmond, 2013, p. 1351). Therefore, lead firms are able to integrate decentralized features in the user interface of social media platforms which can shape and be shaped back by their activities. This includes the *Social Plugins* such as the *Like* and *Share* buttons that enable user possibilities to "share, recommend, like or bookmark content, posts and pages across various social media platforms" (Gerlitz & Helmond, 2013, p. 1351). But these technical features also allow lead firms to redirect the social media traffic to their platforms. All this goes on to show that limited by their own original content, lead firms rely on the activities and engagement of users with social media platforms (Bucher & Helmond, 2018; Gerlitz & Helmond, 2013).

Instead of being a smooth process, users are also continuously engaging with platform *affordances*, i.e., the "action possibilities" for users (Bucher & Helmond, 2018), and acting within an inherent tension between the intended use of the platform and their interests in using it. The resulting user negotiation activities regarding what, where and how to communicate can then be understood as creating indeterminacies for the lead firms operating these platforms. In November 2015, when Twitter changed its main feature – the "favorite" button – to the generic

10 As described on the online public newsroom of Meta Inc.
Accessible at https://about.fb.com/news/2021/10/facebook-company-is-now-meta/

like button, the firm aimed to remove the wide range of affordances associated with the previous feature (in Bucher & Helmond, 2018). Maier et al. (2009) note that favorite button did not just serve the user function of bookmarking a tweet, but also offered significant communicative affordances in terms of users being able to maintain relations, show agreement and or even indicate the end of a conversation (in Bucher & Helmond, p. 21). By using a standard feature for *liking* all content across the particular family of social media products, lead firms are able to *afford* from users the "measurement of engagement" and standardize the modes of engagement on all platform products and third-party websites and applications connected to these products (Bucher & Helmond, 2018, p. 25) – a process that can be understood as expanding the infrastructure of social media platforms.

The indeterminacy related to user negotiation activities are most significantly visible in the prevalence of harmful content on social media platforms. Different kinds of harms are articulated by different stakeholders on platforms, such as user content inciting violence, hate and fear, but also online content manipulation to benefit state and corporate interests.[11] With increasing regulatory pressure through NetzDG, Ethiopia's "Hate Speech and Discrimination Prevention and Suppression Proclamation of 2020", India's intermediary liability regulations, Nigeria's "Protection from Internet Falsehood and Manipulation Bill 2019", the E-Commerce Directive by the European Union, amongst others, lead firms are required to remove content deemed as harmful in different nation-states or risk access to the local consumers.

Harmful content is also problematic for maintaining relationships with social media users and multiple partners, including advertisers. For instance, a series of brand safety crises on YouTube with advertisements displaying on barrier-free streaming of inappropriate videos on the child interface of the platform (Maheshwari, 2017), on children's videos infiltrated with pedophilic comments (Wakabayashi & Maheshwari, 2019), and on other problematic content from hate groups (Solon, 2017) was followed by major companies such as AT&T, Johnson and Johnson, Nestle, Epic Games and others pulling out their advertisements from YouTube (Tran, 2019).[12] However, given that advertisement revenues at most big news publishers are consistently

11 The infamous case of Cambridge Analytica where the British firm collected a large number of user profiles and private information available on Facebook, to influence the 2016 US elections caused a massive public uproar.

[12] Brand safety crisis is not just a feature of social media platforms but also affects Google in general which in the year 2016, was placing ads from companies such as Citigroup, Microsoft and IBM on a website related to extremist content (Garrahan et al., 2017).

decreasing and the majority of all new online advertisement spending is directed to Google and Meta, no major change has been observed in the advertisement density on these platforms, and many major advertisers have returned to YouTube (Wakabayashi & Maheshwari, 2019). While YouTube and Meta have different targeting and revenue models, and enable different advertisement strategies, they both offer clients an extensive reach over the consumers, thereby creating a sense of dependency for them (Garrahan et al., 2017).

Reducing indeterminacies through content moderation

Content moderation, while not a new practice given its functions for social and economic interests of communities and commercial organizations on the internet, its execution on social media platforms is multivalent. Unlike the user interface-level definition provided by Roberts (2017), i.e., the "screening of user generated content posted to Internet sites, social media and other online outlets, in order to determine the appropriateness of the content for a given site, locality, or jurisdiction", Grimmelmann (2015) offers a more socio-technically appropriate definition of content moderation as those "governance mechanisms that structure participation in a community to facilitate cooperation and prevent abuse" (p. 47). This allows us to examine the practice beyond the usual governance framework (cf. Gillespie, 2017; Klonick, 2017; Suzor, 2019), to include its function of shaping, adapting to and reducing indeterminacy in user content.

Drawing from the discussion on affordances, we can see that lead firms integrate certain technical features for reducing harmful content and they can be primarily understood as affordances for networking and category shaping. These enable them to set standards for what and how users are supposed to engage on the platforms. The technical features of platforms not only *afford* something to the users but also afford back to the lead firms. This is most clearly visible in the flagging mechanism where users are able to express their concerns regarding content that *violates* the community guidelines. These mechanisms, in turn, feed back into the content moderation systems by identifying the different categories of harm and "undetectable patterns of user sentiment" (Crawford & Gillespie, 2016, pp. 412-3).

The design choices of lead firms allow certain flagging tools or features to be integrated on the platforms such as the "time code stamp" on YouTube and the integration of NetzDG option on user interface of platforms for capturing "user knowledge of the context, publisher, and other details such as the time of and language in which the content has been published on the

platform" (Ahmad & Greb, 2022). Although these features are constantly changing and reliant on user *activity* and knowledge, they are not transparent to them. In fact, opacity is another significant feature of social media platforms, and it finds enormous expression in the outsourcing of content moderation work and related production processes.

Against the promises of lead firms to users, lawmakers and investors of AI as the future of content moderation (Gillespie, 2020), a bulk of content moderation work is outsourced to IT firms in India and the Philippines where external workers moderate the user content on social media. Meta claims to have 30,000 workers moderating content for Facebook, Google is estimated to have 10,000 workers moderating YouTube and other Google products, and Twitter has declared having 1,500 content moderators (Barrett, 2020, Silver, 2018).[13] Labor is crucial to the functioning of the content moderation systems in three ways: one, by processing the flagged reports, two, by correcting the errors made by automated filtering and moderation, and three, by supplying legitimacy to the opaque moderation practices of lead firms.

While lead firms argue that the concealment of their production processes allows them to protect the identities of content moderators (Gillespie, 2017) and prevent social media users from "game(ing) the system" (Roberts, 2016), critics note that these firms are also able to "protect their tech proprietary" while gaining cover from liability (in Buni & Chemaly, 2016). They are also able to create the notion of a "one-to-one relationship of user to platform" that is insulated from any "unpleasant work" taking place in the background (Roberts, 2019). But as argued here, lead firms integrate specific technological and production choices in their content moderation practices for structuring and moderating user activities. This *affords* two opportunities for the lead firms: first, this allows them to capture the tone and context of harmful content, and second, it allows them to reduce indeterminacies related to the user negotiation activities.

Both these affordances for lead firms are underpinned by the two main processes taking place on social media platforms, discussed in this section: first, the generation of advertisement revenues and second, the infrastructuralisation process. It allows them to moderate and shape content at an "enormous scale" and the "limited time" window permitted by regulatory bodies (Gillespie, 2020), but also to ensure the engagement of users with the social media affordances.

[13] These estimations are based on the declaration by lead firms and the validity of these assertions cannot be checked.

The following section discusses in detail the broader concept of affordances and examines them as sites of reducing indeterminacies through the classification and organization of data produced from user activities into platforms. The succeeding section then examines flagging as a specific affordance mechanism for reducing indeterminacies associated with harmful content.

Platforms as affording to and afforded by user activities

The increasing digitalization and application of technologies in different social spheres has been accompanied by the conceptual use of affordances to refer to the action possibilities available to technology users. Its theoretical contribution can be seen in the treatment of technologies as a site of underlying meanings and examining the "symbols and connotations" that technical features of a given medium carry (Bucher & Helmond, 2018, p. 2). From its initial discovery and application in the field of ecological psychology (Gibson, 1982), the concept has been popularly adopted in the field of design studies (Norman, 1988). Its increasing application across various disciplines including sociology, media and communication studies, technology and design studies has been followed by several strands of conceptualization, which have aimed to capture the relationship between technology and the human agency.

Within the media and communications scholarship, five main conceptual directions have been discussed to describe these relations (Bucher & Helmond, 2018): one, "affordances as a relational property" to stress the relationship between the natural environment and the individual (Gibson, 2015), two, "perceived affordances" to determine the "perceived and actual properties of the thing" to the way they are used (Norman, 1990; 1999), three, "technology affordances" to argue for the "material qualities of technology as (partly) constitutive of sociality and communicative actions" (Gaver, 1996), four, "social affordances" to describe how technological properties of a given medium have "enabled" or "constrained" *sociality* in specific ways (Gibson, 2015), and five, "communicative affordances" to refer to the "possibilities for action that emerge from (…) given technological forms" (pp. 4-11).

The affordance approach to social media has been informed by all these categories for assessing the "new dynamic or types of communicative practices and social interactions that various features afford" rather than simply focusing on a particular technology (Bucher & Helmond, 2018, p. 11). These affordances have been discussed across two scales: firstly, in terms of high-level affordances that refer to the "kinds of dynamics and conditions enabled by technical devices, platforms and media", and secondly, in terms of the low-level affordances that are

"typically located in the materiality of the media, in specific features, buttons, screens and platforms" (in Bucher and Helmond, 2018, p. 12). High level affordances imply "structural" character of social media for conditioning the user activities, and boyd (2010) discusses them under four categories of "persistence" that is based on automatic recording and archiving of user content, "replicability" that allows content to be duplicated, "scalability" that ensures the potential visibility of content in networks, and "searchability" wherein users can search for content (pp. 45-46).

Further examination of high-level affordances on social media has offered the categories of "visibility, editability, persistence and association" by Treem and Leonardi (2013) and the categories of "portability, availability, locatability, and multimediality" by Schrock (2015). By bringing together both the abstract high-level affordances and more concrete low-level affordances, we can see "where and when" affordances materialize and "what" they are supposed to achieve (in Bucher & Helmond, 2018, p. 13). Such an argument is more sensitive to the platform character of social media that is subject to constant changes and adaptation towards user activities. It also allows us to remain attentive to the social media dynamism while at the same time addressing the underlying economic logics of platforms.

Instead of being a unidirectional process, users afford both activities and knowledge, which are situated in the socio-cultural logics, back to the platforms. This assessment stems from the argument that that "what designers envision as affordances emerging from their systems and how those affordances are understood by users are two things not necessarily at odds but often separated by the gap that forms between intended use and actual use as performed by users" (Postigo, 2016, p. 335). The corresponding user negotiation practices create indeterminacies for the platforms, which they try to absorb back through modifying the technical features associated with the networking and category shaping affordances, and further standardizing the user experiences and communication activities. From this perspective, affordance offers us a site of examining both the technical features but also the human agency underpinning the user activities.

Correspondingly, this section focuses on two high level affordances of networking and category shaping of social media platforms and examines their continuous materialization through the technical features of platforms. These two categories mirror many of the attributes examined above already by boyd (2010), Schrock (2015), and Treem and Leonard (2013), and demonstrate how they structure the conditions and participation of users. But they also

explicitly show how lead firms are adjusting the communicative potential of platforms and their features to the user negotiation activities.

Networking

The most radical contribution of social media platforms has been the *networking* of users and stakeholders, which is significantly different from information sharing on mass media before. Given that "the Web has always been social" (Scholz, 2008 in Beverungen et al., 2015, p. 474), lead firms have altered the concept of *sociality* by creating "networked environments that foster and house social interactions" (Terranova, 2000 in Postigo, 2016, p. 334), thereby connecting millions of users worldwide on their platforms. The current number of social media user accounts, i.e., user identities created on social media, is estimated to be around 4.65 billion (Statista, 2022). Meta tops the chart with 2.96 billion monthly active users recorded by the firm on its core networking site Facebook (Barinka, 2022).[14]

By integrating the features and functionality of networking within the architecture of social media platforms, users are able to create and network for public and private communication purposes. These features can include "profiles, Friends lists, public commenting tools, and stream-based updates" (boyd, 2010, p. 43), and they allow users to "construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection, and view and traverse their list of connections and those made by others within the system" (boyd & Ellison, 2007, p. 211).

The "networked self" (Papacharissi, 2010) is constantly confronted with their platform environment where they have to know who their audience is, what kind of social context it is, whether it is a private setting with friends or directed to the public, and choose their communication accordingly (boyd, 2010). The specific features of Twitter, including the social buttons, highlight the increased degrees of context collapse and the blurring of the private and public communication, where "users engage in status updates and tweets as, on one hand, forms of self-presentation and social validation to a mass public, and, on the other hand, as forms of self-disclosure and/ or self-expression to specific or intimate users" (Bazarova & Choi, 2014; Marwick & boyd, 2011 in Cisneros & Nakayama, 2015, p. 117). The "flattening" of audiences

[14] The number of monthly users accounts active on Meta's "family" of products including WhatsApp, Instagram, Facebook Messenger, among others, is recorded to be 3.71 billion (Barinka, 2022).

or contexts on Twitter was studied by Cisneros and Nakayama (2015) as creating tensed environments for those users making racist and offensive expressions as they had to negotiate the platform affordances for extending the "cultural logics of race and whiteness" (p. 119).

Category shaping

Social media platforms are also "category shapers" and the study by Bivens and Haimson (2016) shows how the design of certain processes enable the categorization of users' identities. This includes the "sign-up pages, profile pages, and advertising portals" where gender binaries are reinstated or as in the case of race and identity, whiteness is established as the default in (Kolko et al., 2013; Nakamura, 2002 in Bivens & Haimson, 2016, p. 8). Category shaping can also happen at the level of other social categories such as *hate speech*, *nudity*, *misinformation*, *spam, privacy violations, vulgar language, violent extremism* and others that have been identified in the community standards. All social media platforms have publicly accessible community guidelines listed on their page and are aimed at informing users about "what is and what isn't allowed" on their platforms.[15][16][17][18] And yet, *violations* of these guidelines are common and can be explained by two socio-structural causations: one, because of the technological design of the platforms where the standards are not always and easily accessible to users, and two, because user activities, including the meaning-making activities associated with these categories, are located within socio-economic structures that may or may not conform with these category shaping practices of platforms.

The tensions between these intended categories and their actual use is amplified in different geographical settings, where different cultural and local understandings could contradict the social logics imposed by lead firms. For instance, members of the civil society in South Africa were temporarily banned on Facebook from voicing their opinions against ideologies of *whiteness* and *heteronormativity*, on the basis that they violated the social networking site's content moderation policy on hate speech (Ebrahim, 2017). Drawing from its own governance framework of "protected categories" relating to race, religion, gender, ethnicity, and others, Meta's hate speech policy disregarded the national and sociohistorical contexts of race and

[15] https://transparency.fb.com/policies/community-standards/
[16] https://www.youtube.com/intl/en_us/howyoutubeworks/policies/community-guidelines/
[17] https://help.twitter.com/en/rules-and-policies/twitter-rules
[18] https://www.tiktok.com/community-guidelines?lang=en

gender and was widely condemned for policing free speech. Ahmad (2019) examines these community standards as being informed by "Western cultural values" that don't necessarily concur with different cultural logics (p. 12).

Underpinned by the programmable character of platforms, lead firms are continuously modulating the technical features to shape the user activities and sustain those features that achieve higher "metrics of engagement" (Mackenzie, 2019). This allows them to develop "perceived" (Bucher & Helmond, 2018) or "probable" (Postigo, 2016) affordances. In July 2018, the message forwarding feature on WhatsApp was updated to restrict users in India from forwarding any message from an initial 20 times to 5 times. The move, aimed to curb the spread of misinformation on the platform, had implications for both the networking affordance, in terms of affecting the relations between users, and also for the category shaping, in terms of expanding the definition of fake news. The transformatory character of these affordances is also based in social structures where initially the changes were tested in India where misinformation was found to be linked with increasing lynching and mob killings (Goel et al., 2018), and later in Brazil in view of the role of fake news in the presidential elections of far-right leader Jair Bolsanaro (Nemer, 2018). With having achieved a certain margin of engagement but also due to regulatory pressures, the forwarding feature on WhatsApp was eventually expanded to its global users in 2019 (Tambini, 2019).

Flagging mechanisms

By taking the concept of affordance, we can understand the function of content moderation on social media platforms, and how it allows lead firms to capture the tone and context of harmful content and reduce indeterminacies related to the user negotiation activities. At the production level, this takes place largely using workers assisted by automated technologies. At the user level and within the social interaction and communication activities, content moderation is already initiated using the *flagging* mechanisms. Flagging on social media is a process by which users can report potentially offensive content to the lead firms who then direct the flagged content to human moderators (Crawford & Gillespie, 2016).

From this perspective, the technical features associated with flagging are an important site of bridging the user interface with the production process of content moderation. For users, the *affordability* associated with flagging tools lies in expressing their concerns on social media. But for lead firms, *flags* are "data points" that allow identifying "undetectable patterns of user

sentiment" and special categories of harm that can be embedded in the moderation systems (Crawford & Gillespie, 2016, pp. 412-413), and reduce indeterminacies related to moderation errors.

Content moderation takes place at different levels; at the *reactive* and *proactive* levels, *ex ante* and *ex post* levels, and through automated and manual lines of operation (Grimmelmann, 2015). Fundamental to all these categories is if the user content gets moderated before or after its publication on the platform. Ex ante moderation takes place before the content is published, but has already been uploaded by the user on the platform. A majority of this kind of moderation is automated using technologies such as the Microsoft's image-recognizing algorithm PhotoDNA, YouTube's copyright scanner ContentID, etc. Ex post moderation is undertaken both proactively and reactively and relies on human labor. While the former is undertaken at a minute scale, and is mostly applicable for content related to "extremist and terrorist speech" (Andrews & Seetharaman, 2016), the latter is the most common form of moderating user generated content on social media (Klonick, 2017).

The industry-wide standard of ex post reactive content moderation relies on the combined work of professional moderators and users. Increasing conditional liability regimes such as the NetzDG and the EU Code of Conduct require lead firms to respond to content flagged by users and remove it if found to be *manifestly unlawful* (Wang, 2018). *Flags* are the first step in the moderation process and over a million pieces of user-generated content are flagged by users each day across the world (in Klonick, 2017). Increasingly, lead firms have come to prioritize certain types and executors of flagging as part of the *trusted flagging* policies, whereby third parties including civil society organizations, police task forces at Internet Referral Units (IRUs) of national police forces such as the UK's Counter Terrorism IRU and intellectual property rights-holders, are granted special privileges and tools to flag, get reviewed, and even remove certain categories of content from the platforms (Appelman & Leerssen, 2022).

Trusted flagging has received immense push from several regulatory policies such as the EU's eCommerce Directive, the EU Code of Conduct, the US' Digital Millennium Copyright Act and the Digital Services Act, which have attached "binding liabilities to certain types of flagging" on social media platforms (Appelman & Leerssen, 2022, p. 5). While providing a process for *flagging* concerns of users, the program remains seeped in transparency issues with all trusted flaggers signing NDAs with the lead firms. Additionally, these complaints account for a small proportion of all the manual flagging actions on social media platforms, and are overrun by automated content filtering mechanisms (in Appelman & Leerssen, 2022).

While “trusted flagging does not scale”, it does “feed reference files directly into the platform’s automated removal logics” (Appelman & Leerssen, 2022, p. 17). Similar arguments can be drawn for the *Oversight Board* at Facebook, which has created a special process for reviewing “a select number of highly emblematic cases and determine(ing) if decisions were made in accordance with Meta’s stated values and policies”.[19] Critics argue that these special arrangements and the flagging mechanisms in general serve the primary function of providing legitimacy to the content moderation system when lead firms are accused of censorship (Appelman & Leerssen, 2022; Crawford & Gillespie, 2016). Flagging mechanisms may have underlying symbolic value but they also serve an important function of identifying specific categories of harms and introducing them into the content moderation process. The child sexual abuse material (CSAM), underpinned by trusted flagging practices – demonstrates how content reported to civil society organizations (CSOs) such as INHOPE and the National Center of Missing and Exploited Children in the USA, once verified and reported, is “hashed and uploaded to databases as reference files to prevent future uploads” (Appelman & Leerssen, 2022, p. 8).

At the same time, these practices are not transparent and users have often complained about feelings of bias and mistrust as a result of being kept in dark about the “the role of algorithms, other users, law enforcement agencies, other third parties, and internal decision makers in flagging, identifying, or evaluating prohibited content” (Suzor et al., 2019, p. 1537). Stakeholder discussions on online harassment and harmful content on social media have argued for more comprehensive explanations on why particular social media content is moderated, but also expressed concerns on the lack of users’ know-how on certain moderation tools such as blocking and flagging (SFLC, 2016). In response, lead firms have created “new reporting flow” for better describing “sequence of screens users experience as they make selections” for self-resolving the issue, “social reporting” that enables users to report content also to other users in their network, and prioritizing certain content for moderation and increasing the response time (Klonick, 2017, pp. 1638-9).

From the discussion here, we can see that “partnership” with third parties and creation of special mechanisms such as the Facebook Oversight Board compliments the user flagging activities on

[19] More information can be found at: https://oversightboard.com/

social media platforms. While flagging activities are conditioned by terms set by the lead firms, moderation errors continue to take place risking their reputation and their relations with the users and stakeholders of social media platforms. From this perspective, it will not be unfitting to state that lead firms capture the knowledge of content moderation from the users and third parties, and integrate it in the content moderation systems. There are also other mechanisms that firms use to reduce harmful content on social media. This includes the "digital literacy" programs that firms undertake with CSOs and other actors to *teach* users how to *use* the platform tools.[20][21][22]

Conclusion

The main argument presented in this chapter is that lead firms undertake mechanisms to structure user activities and reduce indeterminacy by restricting the user negotiation practices on the platforms. These mechanisms are situated in the social and technical relations on the platforms and are underpinned by the logic of increasing platform predictivity for generating advertisement-related revenue and expanding the platform infrastructure. The mechanisms associated with content moderation are aimed at achieving accuracy and context-sensitive content moderation decisions at an enormous scale. These processes are however not sufficient and lead firms outsource moderation work to external firms. To understand how indeterminacies regarding content moderation are reduced, we have to look at the outsourcing mechanisms and the workplace processes. Given its historically strategic importance for outsourcing IT-services and the growth of content moderation labor market, India is the chosen site for this analysis.

By using the conceptual frames of the outsourcing mechanisms of service-level agreements, automated technologies and institutional arrangements, together with the labor process analysis of control mechanisms for transforming workers' labor power into productive labor, we can see the lead firms' strategies of reducing uncertainty and labor indeterminacy in the content moderation labor process. These strategies highlight their direct control over the outsourced work. The resulting implications for work can be seen in the high degrees of standardization on

[20] https://blog.twitter.com/en_us/topics/company/2019/twitter-launches-new-media-literacy-handbook-for-schools
[21] https://www.facebook.com/safety/educators
[22] https://www.youtube.com/playlist?list=PL9hW1uS6HUftPf6_c0HXeklD5A5rb_Q6r

one hand, but on the other, the continued relevance of content moderators' tacit knowledge and local skills for managing with user negotiation activities on social media platforms. From this perspective, the content moderation process is a site of capital's logic of closing down on all indeterminacies – including that of labor – with the aim of increasing platform predictability.

Chapter 3: Going Global: Outsourcing IT-Services

Introduction

Outsourcing is a core element of content moderation process that allows lead firms to maintain their social media platforms and the business models underpinning them. By restructuring the content moderation work into fragmented tasks, lead firms are able to outsource them to third-party firms or suppliers in remote locations including India. Highly hidden from the public view, this outsourcing is a function of labor cost arbitrage but also to access local labor skills to moderate certain content that is reflective of geographical differences. India constitutes the second largest social media consumer market globally, and the number of social media users in the country are projected to further rise (Murthy, 2022). But it is also an established location for supplying low-cost services to the world. This chapter draws from the literature on service value chains and the export-driven ITeS-BPO sector in India to understand how lead firms ensure quality service delivery from the suppliers.

Outsourcing as a phenomenon has been studied through multiple lens, and its discussion within the world of work has shed light on the creation of new economic geographies and continual changes to the contours of international division of labor (Peck, 2017). Questions such as why firms offshore and outsource work to certain locations and supplier firms, how do inter-firm coordination and governance relationships ensure labor productivity, and what kinds of institutional and economic arrangements facilitate these outsourcing activities, have found significant attention by scholars studying different sectors. This includes valuable contributions from the field of global value chains and global production networks, which have made great strides in explaining the power asymmetries between firms and the upgrading possibilities for supplier firms (Gereffi et al., 2005; Ponte & Sturgeon, 2014; Posthuma et al., 2010; Yeung & Coe, 2015)[23].

Upgrading is an important concept to study the governance mechanisms between lead firms and suppliers. Within the GVC literature, *economic upgrading* refers to the possibilities for suppliers for moving into higher-value activities across four main dimensions, namely process,

[23] Governance here is understood as the coordination mechanisms between two specific firms in the chain, which can explain the global scale of operations, participation of firms in the chains and power asymmetries between them.

product, functional and chain upgrading (Barrientos et al., 2011). Process upgrading refers to when capital is substituted for labor, product upgrading is when the features of a product are increased, functional upgrading is when the supplier functions or activities are enhanced, and chain upgrading occurs when suppliers move to new industries or product markets (Barrientos et al., 2011 in Noronha & D'Cruz, 2020). Economic upgrading is also a site of power asymmetries between the lead firms and suppliers, wherein the former either do not facilitate functional upgrading (Lee & Gereffi, 2015) or at times, limit and hold back the suppliers from the Global South to "climb the value chain" (Khan et al., 2015).[24]

While this chapter does not explicitly engage with the concept of economic upgrading, it does pay attention to the role of skills, technology, and knowledge development of suppliers and host countries, factors that are key to the governance relations between the firms, and upgrading possibilities for suppliers (Humphrey & Schmitz, 2002). The aim of this study is to centralize the issue of labor indeterminacy and not treat labor as a passive commodity, which several GVC and GPN studies have previously done so far (Taylor, 2010). While discussions in this field have resulted in the introduction of the concept *social upgrading* to highlight the "process of improvement in the rights and entitlements of workers" and enhancement of the "quality of their employment" (Barrientos et al., 2011 in Lee & Gereffi, 2015, p. 323), they, again, do not place focus on the agency of workers. Nonetheless, given the importance of upgrading for interfirm governance relations, the concluding section of this chapter indicates its analytical utility in Chapter 6 of this study.

Capital's dependence on certain labor skills and productivity is tied with the problem of labor indeterminacy, which means that the decision regarding the transformation of their labor power into labor and where to park this labor ultimately rests with the workers (Thompson & Smith, 2009, p. 918). Within the field of content moderation, we can understand the criticality of labor indeterminacy in two ways: first, the dynamic character of social media platforms and user negotiation activities, together with an incomplete list of content moderation policies that can inform which content needs to be moderated; and second, the high labor mobility resulting from the psychologically distressing nature of the work and low possibilities for skill development (Ahmad & Krzywdzinski, 2022; Roberts, 2019). Correspondingly, a study of content

[24] The phrase to "climb the value chain" was conceived by Gereffi et al. (2005).

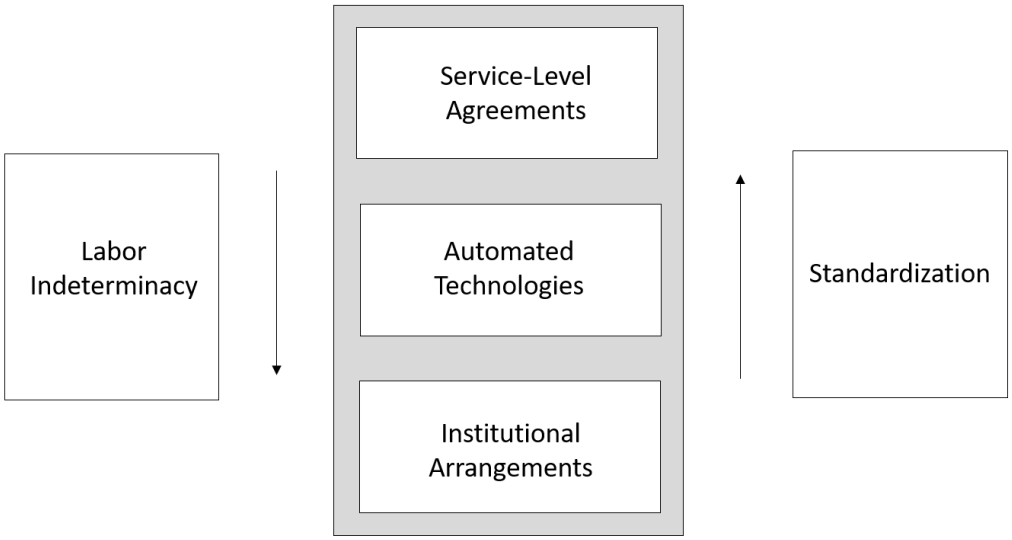
moderation outsourcing has to explicitly consider the significance of labor for managerial strategies of extracting labor value.

Scholars have established labor as the "largest cost component of service activity" that influences the strategic decisions of companies to reorganize and relocate their work to certain locations (Howcroft & Richardson, 2012, p. 123; Remesh, 2008; Taylor, 2010). Often driven by competitive pressures and maximizing shareholder value, firms undertake organizational restructuring and limit their dependence on in-house employees (Fligstein & Shin, 2007). Following the reconfiguration of central tasks to the periphery of the organization (Howcroft & Richardson, 2012), fragmented tasks or modules can be outsourced to external suppliers, instead of outsourcing the whole service processes (Flecker et al., 2013).

Where some have made use of the standardization (quality check) logic to explain the reorganization and relocation of service work (Howcroft & Richardson, 2012), others have argued that such reasoning is not sufficient enough to explain the geographical distribution of work and how lead firms ensure quality service delivery (Flecker et al., 2013; Mayer-Ahuja, 2011). This is best understood from the discussion on global outsourcing of *generic* and low-paid services to India, where scholars have outlined the dual logics of standardization (quality check) and customer orientation underpinning the strategies by lead firms (Remesh, 2014; Taylor, 2015). While the former enables standardized service delivery, the latter draws from local skills and tacit knowledge of workers, especially in front-line, customer service interaction or call center work (Taylor & Bain, 2007; Flecker & Schönauer, 2016).

In a similar manner, content moderation outsourcing is underpinned by the logic of cost efficiency but also necessitates quality service delivery according to the standards set by lead firms. How are these quality assurances met, what are the inter-firm governance mechanisms that ensure this requirement, and if these strategies are influenced by institutional arrangements, are the center of the discussions in this chapter. Correspondingly, the conceptual apparatus provided in this chapter is flagged by three outsourcing mechanisms, namely the service level agreements (SLAs), automated technologies and institutional arrangements. It is argued that these mechanisms are driven by capital's logic of reducing labor indeterminacy and increasing standardization (figure 3.1).

Figure 3.1: Explanatory model of outsourcing mechanisms



SLAs are key to the governance relationships between the lead firms and suppliers, and they specify "detailed metrics" regarding the quantity and quality of work to be delivered by suppliers (Taylor, 2010, p. 6). These agreements are constitutive of bifurcation of control over the labor process between the two sets of firms. And within the services sector, the SLAs are representative of centralization of control with the lead firms, especially controlling the standards for delivering quality service. Along with being subject to SLAs, the outsourced service work is also facilitated using automated technologies which serve the basis for organizing work, micromanagement and performance measurement. By transferring the maximum number of tasks between the workers and codifying their knowledge in the work system, automated technologies support lead firms to extract maximum efforts while at the same time, help in reducing the labor indeterminacy. The arrangements between spatially dispersed locations regarding the extraction of labor value are anchored in institutional arrangements that provide the infrastructure facilities and human capital, but also mediate the capital-labor relations.

These mechanisms form the study's conceptual apparatus for studying the content moderation outsourcing processes. Correspondingly, the structure of this chapter is framed around these three mechanisms and the discussion in each section is informed by the analysis of global service value chains, with specific attention to the Indian ITeS-BPO sector as an established site for providing generic services internationally. The analytical outline of each mechanism is supplemented with the existing state of research on outsourced content moderation activities,

thereby indicating the research gaps this study aims to fill. Finally, on account of supplier exit observed in the research fieldwork, the concluding section of this chapter highlights the applicability of this conceptual frame for explaining capital's flexibility.

Mechanism 1: Service-level agreements

SLAs are key to governing the relationship between lead firms and suppliers as they embody the "quality standards and quantitative requirements that remote suppliers must deliver to lead firms and end customers in the "home" geographies" (Taylor, 2010 in Noronha & D'Cruz, 2020, p. 12). Additionally, SLAs include other essential factors such as the delivery timetable, legal and regulatory compliance measures, the terms of payment, mechanisms of monitoring and dispute resolution, the provisions for confidentiality and non-disclosure, and the conditions for termination (De Bruyn & Ramioul, 2006, p. 27). Depending upon the complexity of the service, the business volumes and the work process type, SLA specifics can be further differentiated (Taylor, 2010).

But most importantly, these agreements "attempt to prescribe the value of labour and performance quality that can be leveraged from workers in remote destinations" (Taylor, 2012, p. 1). By making note of the shortcomings of GVC and GPN studies to adequately address the agency of labor, Taylor (2010, 2012) brings forth the importance of SLAs in understanding capital's strategies of control for reducing indeterminacy in distant locations. Lead firms are confronted with the double indeterminacy of labor power (Smith, 2006) in service value chains, which is caused at the level of both effort and mobility of the workers (Taylor, 2010). The resulting SLAs constitute specific metrics that determine the "exact quantities and qualities of labour power deemed necessary for profitable activity" (Taylor, 2010, p. 13).

The use of "metric-based target adherence" for labor utilization (Bain et al., 2002 in Taylor, 2010, p.7) is common to SLAs in service value chains, and allows lead firms to exercise control remotely over labor on one hand, and on the other, for suppliers to meet these targets. Broadly categorized as quantitative and qualitative targets, they are aimed at ensuring the delivery of high volumes of service while maintaining the quality of the service work. Failure to meet these targets results in intervention by lead firms and revoking the conditions of the SLA regarding financial penalties or even termination of the contract (De Bruyn & Ramioul, 2006; Taylor, 2010). Not surprisingly, scholars studying service value chains have argued that SLAs are symbolic of power asymmetries between the lead firms and the suppliers, where the control

regarding the performance and standards ultimately rests with the former, and the operational tasks such as managing the employment relations lie with the latter (Rubery, 2007 in Flecker et al., 2013, p. 19; Taylor, 2010, 2012).

SLAs in the Indian ITeS-BPO sector

Within the discussion on global service value chains, India is argued to represent a "spatial fix" for providing low-cost services to the world (Harvey, 2006 in Taylor, 2015). Labor's "attributes" by lead firms, such as "its cheapness, its relative availability, its education, its putative linguistic capability" make India an attractive location (Taylor, 2010, p. 14). The export-facing Indian ITeS-BPO sector has profited from the labor cost arbitrage and much of the sector's evolution can be traced based on supplying low-end and labor-intensive services to global capital (Noronha & D'Cruz, 2017; Taylor, 2015).

The ITeS-BPO sector includes both front-line or *voice* and back office or *non-voice* processes, with the former including the customer support work in sales and help-desk work and the latter constituting of accounting, administration, document handling, content or data management, email correspondence, and knowledge processing services supplied to insurance, legal, health and a large variety of industries (Remesh, 2008). When looking at the logics of outsourcing, both kinds of processes are informed by standardization and customer-oriented norms (Korczynski, 2004; Remesh, 2014; Taylor, 2015). On one hand, lead firms require quality and quantity delivery of services, but on the other, they are confronted with customer-related uncertainties that may not be addressed in the tightly-scripted standards (Remesh, 2008).

The inherent problem of labor indeterminacy is most clearly pronounced in front line service or call center work, wherein workers directly interact with the customers and there are more spaces for applying tacit knowledge or experience-based know-how. It has been argued that in back office service work, the space for applying tacit knowledge by workers is altogether reduced, and the increasing use of technology has omitted whatever information on consumers was previously available to the workers (Korczynski, 2004). At the same time, even in this service work, tacit knowledge continues to be significant for completing the tasks (Flecker & Kirschenhofer, 2002). To ensure that the tacit knowledge of workers is extracted according to the standards set by the lead firms, clear requirements are incorporated into the SLAs that include both the qualitative and quantitative targets of expected work.

The qualitative targets include issues related to customer satisfaction, adherence to scripts, fluency, etc., and the quantitative targets include call volumes, average handling times, and other targets in the SLAs. They are aimed at determining the value that workers in the ITeS-BPO firms are supposed to "add" (Henderson et al., 2002) or create beforehand (in Taylor, 2010, p. 12). These metrics and targets enable lead firms to micro-manage work and workers across different production sites and have been argued to be the "core of management control system" in call centers (Taylor, 2010 in Flecker et al., 2013, p. 20). Control is centralized with the lead firms and the standards regarding the stability, continuity and consistency of service work are set by them (Flecker et al., 2013). These get translated into operational governance in the supplier firms where managers and supervisors are tasked with continuous performance monitoring and reporting back to the lead firms (Noronha & D'Cruz, 2020; Taylor, 2010).

The insistence on "operational excellence" by lead firms is accompanied by what has been called an "an obsession with metrics linked to appraisals, rankings, underperformance and so on" that informs the middle management and supervisory practices at ITeS-BPO firms (Noronha & D'Cruz, 2017, p. 7.). Roy et al. (2017) note that "middle managers, and particularly team leaders, are important in this account, because they are that final layer of management, accountable for ensuring that the "deliverables" are indeed delivered on time, at the agreed volume and at the requisite quality" (p. 76). While these have important implications for the labor control applied at the Indian firms for ensuring the extraction of labor productivity, some have argued that the lead firms' attempts at overcoming the problem of labor indeterminacy through imposing specific quantitative and qualitative SLA metrics are rather partial and remain open to influences from external market factors and agency exercised by the workers (Budhwar et al., 2009).

At the same time, with increasing levels of attrition in the sector (Das et al., 2013; Sengupta & Gupta, 2012) and rising annual labor costs with 10-15% (NASSCOM-McKinsey, 2005), supply-side management has adopted "structured approaches" through "tougher performance metrics" (Taylor et al., 2014, pp. 108-9). This is facilitated through the use of the other mechanisms, namely automated technologies and institutional arrangements. These will be described in the upcoming sections of this chapter. But first, the following sub-section outlines the existing literature on SLAs in the content moderation value chains.

Content moderation SLAs

Existing research on content moderation outsourcing in India provides no information on the SLAs between the lead firms and suppliers. At the same time, there is some information on the division of functions between the lead firms and the suppliers in the labor process. Where the suppliers are responsible for human resources management such as "wages, leave of absence, employment benefits, and other administrative tasks", control over the work technology and the moderation policies, which inform the moderation of user content, is centralized with the lead firms (Ahmad & Krzywdzinski, 2022, p. 8). Content moderation policies are particularly representative of standard-setting mechanisms by lead firms, and are key to ensuring quality service delivery and requiring workers to make "rational 'valid' resolutions" (Kahan et al., 2015, p. 372 in Klonick, 2017, p. 1643).

These standards are subject to external influences by users, governments and other social media stakeholders, representing the dynamic social media landscape. The global social media monopoly Meta's history of outsourcing shows that the company drew from the tacit knowledge of workers in its initial offshoring hub in the Indian city of Hyderabad, as it did not have clear standards for moderating content (in Klonick, 2017). To be clear, this work was still mostly standardized and repetitive in nature as opposed to more discretion-requiring moderation sourced from the hubs in USA and Europe (Klonick, 2017; Roberts, 2019). Instead, workers were required to moderate content through its "observable characteristics", such as the use of "Feel Bad" standard for certain forms of sexualized content that depended on factors like whether a person was clothed or in a sexual position (Klonick, 2017, pg. 1642). Clearly, there were implications for the outsourcing process as a large subset of flagged content was removed. Following the public outcry however, Facebook representatives blamed it on the cultural differences of Indian moderators (in Klonick, 2017).

From their initial offshoring hubs in India (Klonick, 2017), lead firms have increasingly moved on to supplier diversification strategies, i.e., using different suppliers, for sourcing highly standardized content moderation services from remote locations, including India. Where some workers have the possibility to exercise their discretion and contribute to the moderation policies, albeit depending upon how the work is organized and the SLAs, these decisions are fed into the regularly updating content moderation policies (Ahmad & Krzywdzinski, 2022). Most of this discretionary work is economically devalued (wages and promotion) and together with poor working conditions, it results in a high attrition rate. The constant labor churn through

recruiting new workers however guarantees the completion of targets set by lead firms (Ahmad & Krzywdzinski, 2022).

Given the similar degrees of labor indeterminacy in service value chains, it can be expected that SLAs play an important role in governing the content moderation value chains and supply of content moderation services. Do these SLAs then also increase lead firms' control over the labor process and does that create power asymmetries between them and suppliers? What kind of implications do the SLAs have on the labor process? These are some of the research gaps on content moderation process that this study will answer in the analytical Chapters 6 and 7. The following section looks at second outsourcing mechanism of automated technologies and its utility to interfirm coordination and governance.

Mechanism 2: Automated technologies

Capital's logic of accumulation and search for surplus value pushes it to "constantly revolutionise the production of goods and services" (Thompson, 1990 in Thompson & Laaser, 2021, p. 146). And technology is integral to this task in two ways: first, by reaching economies of scale and second, by reducing uncertainties in the service delivery (Howcroft & Bergvall-Kåreborn, 2019; Miozzo & Ramirez, 2003; Taylor & Bain, 1999). In fact, technology has been central to radically transforming clerical work into highly controlled call centers that "became large-scale sites of mass service delivery" (Batt & Moynihan, 2002; Carter et al., 2011; Ellis & Taylor, 2006, p. 110). Made possible by the fragmentation of work and "clear interfaces" (Flecker et al, 2013), the resulting work is characterized by work intensification, standardization and reduced labor discretion.

The changes associated with the use of technology in service work have largely been studied across two dimensions: first, the automated routing of tasks to workers located across different time-zones and second, the monitoring of workers and control over their performance. In terms of the first finding, qualitative advances in information networking technology, such as the "digitalisation of telecommunications networks, optical fibre technologies and, later, connectionless architectures based on Internet protocols" (Miozzo & Ramirez, 2003; Cave et al., 2002 in Ellis & Taylor, 2006, p. 109), have been central to the "transferability of the techno-economic system of the call center" to offshore standardized processes (Thompson & Laaser, 2021, p. 150). With "further integration of computer and non-voice technologies," the call center came to be known for its key innovation of Automatic Call Distribution (ACD) system,

allowing calls to be automatically routed to available workers within and between call centers (Ellis & Taylor, 2006, p. 109).

Along with the issue of dynamic scale economies, experts have noted that services provision is generally characterized by high intangibility of quality service delivery caused by "asymmetric information and product differentiation" (Sapir, 1987 in Miozzo & Ramirez, 2003, p. 63). This uncertainty gets manifested in issues related to relocation of service work, different management, and the external technological and security infrastructure. The control imperative of capital to reduce the uncertainty and labor indeterminacy in the extraction of the labor value (Thompson, 2010) underpins the application of scalable technologies in the outsourced service processes. Together with the SLAs, automated technologies enable centralization of control over the labor process by monitoring workers in real time.

Informed by lead firm standards regarding stability, continuity and consistency of service work, automated technologies facilitate close monitoring of work and workers, resulting in intensification of work and extension of time (Dunkel & Schönauer, 2008; Feuerstein, 2013; Taylor, 2010). The increased monitoring of workers in the workplace has been accompanied by some noting of its similarity to Jeremy Bentham' prison Panopticon that allowed "supervisor's power" to be "rendered perfect" (Fernie & Metcalf, 1998, p. 9). Critics however note the limitations of this analysis by showing on one hand, the continued presence of on-floor supervision monitor workers and ensure the service delivery, but on the other, also by showing the limits of labor internalization of control (Bain & Taylor, 2000).

Drawing on their qualitative case study of a Scottish call center firm, Callaghan and Thompson (2001) show the use of the ACD software for systemizing control in both directing and pacing the speed of work, but also in assisting the management in monitoring and evaluating the work of customer service representatives. The "public sharing of individual performance statistics" to the call center workers and their team leaders is also used for creating internal competition between different teams and pressurizing them to perform better (Callaghan and Thompson, 2001, p. 24). At the same time, the use of automated technology in service value chains is also to record the activities of workers and enable lead firms the "remote access to all information for a task, centralized information storage as well as workflow systems" (Flecker & Schönauer, 2016, p. 15). While this allows the codification of certain labor knowledge in the software to increase modularization of service work, i.e., breaking the production process into modules, (Flecker et al., 2013; Flecker & Schönauer, 2016), it is also limited by the nature of service work and existence of labor indeterminacies (Holtgrewe, 2008). This is most notably seen in

the case of service outsourcing to India and the requirement for local skills and tacit knowledge. This is discussed below.

Automating service delivery from India

The Indian ITeS-BPO sector holds an important location in the global economy to supply services that are not only cost-efficient but also draw upon local skills and tacit knowledge to service firms across the world (Poster, 2007; Remesh, 2014; Taylor, 2015). And technology has been crucial to the evolution of the sector, especially in the transition from *bodyshopping* to the establishment of offshoring and outsourcing centers in India (Nath & Hazra, 2002; Fernandez-Stark et al., 2011).[25] Research on call centers in India shows that through the use of technology, lead firms are able to connect geographically separated workers and spatially dispersed activities within "tightly bound" processes (Taylor & Bain, 2004 in Flecker & Schönauer, 2016, p. 21). This functional integration has enabled lead firms to direct and monitor workers without being present at the production sites (Prasad & Prasad, 1998 in Noronha & D'Cruz, 2020).

The use of automated technologies in call centers has been shown to simplify customer-worker interactions and increase work standardization (see Bain et al., 2002; Baldry et al., 1998; Taylor and Bain, 1999). While this draws from task fragmentation, and directing and monitoring workers without being present at the production sites, it also facilitates some amount of codification of labor knowledge through the capture of labor activities. Codification of labor knowledge is described as the "conversion of 'tacit knowledge' (Polanyi & Sen, 1966) or 'working knowledge' (Harper, 1987) into a usable form for all organisational members" (in Flecker & Schönauer 2016, p. 45). It allows high degrees of work standardization and labor flexibility. At the same time, researchers have also argued that the codification process, especially through technology, is complicated by the cultural background of workers, on one hand (Flecker & Kirschenhofer, 2002), and more generally by the fact that this knowledge resides in the workers themselves (Flecker & Schönauer, 2016). Correspondingly, the work is organized in such a way that includes the functions of suppliers in supporting workers to exercise their knowledge.

[25] Bodyshopping was a practice of recruiting Indian software programmers and analysts by foreign firms in the 1980s and early 1990s, as a temporary onsite arrangement.

Drawn primarily from the SLAs, supplier functions aim to ensure the "quantitative metrics (e.g. average call handling times) and qualitative standards (e.g. customer satisfaction scores)" at workplace (Noronha & D'Cruz, 2009a; Taylor, 2010; Taylor et al., 2014, p. 108). This also includes ensuring that workers, particularly in the customer service work, make use of their tacit knowledge or experienced-based know-how in servicing customers, and addressing uncertainties in situations that are not addressed in the standards (Remesh, 2008). The discussion on labor control in Chapter 4 explains the supplier firm strategies for achieving these objectives.

Despite the limits, we can see that centrally controlled automated technologies can direct workers with tasks around the clock and monitor their work by recording their working time and targets (Flecker et al., 2013). The increased use of the automated functions of the work software result in high degrees of standardization to ensure mass production of service commodity (Miozzo & Ramirez, 2003), and tightly integrates geographically dispersed workers within the labor process (Taylor & Bain, 2004). At the same time, the dependence on local skills and customer-orientated knowledge (Remesh, 2008; Taylor, 2015) creates room for indeterminacies, which is partially addressed by lead firms through the use of automated technologies. At the same time, the existing research on use of automated technologies to manage with the dual logic of outsourcing service work to India, is rather limited. Its particular relevance is felt for content moderation for large-scale content and user negotiation activities on social media platforms. The following sub-section explores this using the existing literature.

Content moderation and automated technologies

With the aim of limiting the subjective influence of workers, lead firms use standardized processes in the content moderation process by applying "one set of content standards (policies) for the entire world" (Monica Bickert, Facebook's head of global product policy in Buni & Chemaly, 2016, p. 201). As we can see from the sections on SLAs, the content moderation practices of lead firms are based on improvisation of their content moderation policies. On accounts of increasing user diversification and complexity of content generated, both Meta and Google gradually separated the moderation tasks from the policy development teams in the company headquarters, and were able to outsource the work to Menlo Park and Texas in the US and Dublin in Ireland (Klonick, 2017).

In the beginning, workers were employed directly at the offshored offices of the lead firms. And they worked closely with the workers by training them and simultaneously developing their moderation guidelines (Klonick, 2017). This meant that they did not have clear standards for moderating content and instead relied on workers to use their tacit knowledge. Research shows that Meta based certain moderation policies on the general "Feel Bad" standard (Klonick, 2017, p. 1642) Several challenges arose for the firms as a large subset of flagged content was removed by workers. As mentioned before in this chapter, Meta blamed the moderators for their cultural influence on the content moderation decisions (Klonick, 2017).

By developing the content moderation technology with sophisticated customer-facing extensions, technology companies have increasingly been able to capture content-related knowledge from social media users through flagging or reporting mechanisms (Crawford & Gillespie, 2016, also in Chapter 2). The flagged content is codified into specific content queues such as hate speech, violence, spam and others, and transferred to the labor process according to the different language skills and expertise of the workers (Ahmad & Greb, 2022; Ahmad & Krzywdzinski, 2022). By making use of the social media user knowledge, lead firms are able to legitimate the hidden work of content moderation (Crawford & Gillespie, 2016). But most importantly, they are able to capture the dynamic public discourse on social media, integrate it into the technological systems, and transfer it to the outsourced workers in India. Ahmad and Greb's (2022) article shows how this arrangement results in continuous standardization of tasks and extended control over working times in a German IT-Services firm supplying content moderation services to a global lead firm (also part of this study).

Investigate media reports have provided insights into Meta's use of in-house automated technologies such as the *Single Review Tool* for regularly updating the workflows and policies of moderation work in supplier firms in USA and in Germany (Newton, 2019; Reuter et al., 2019). And at least one report has shown the integration of a machine learning extension in Meta's content moderation technology (Dachwitz & Markus, 2019). While critics have demonstrated the inefficiency of current automated moderation technologies (Mack, 2019; Gillespie, 2020), there is also evidence on the use of machine learning techniques "to identify new instances of harassment, hate speech or pornography" (Gorwa et al., 2020 in Gillespie,

2020, p. 3).[26] The research here aims to contribute to the limited studies on automation in content moderation work and their implications for workers.

Mechanism three: Institutional arrangements

Scholars have rightly pointed out that not all work that is enabled by information and communication technologies is "amenable to delocalization", and the "placelessness of digital work" has to be "actively produced" (Flecker & Schönauer, 2016, p. 25). This means that the "economic landscape" has to be structured in specific ways that allows capital to capture value from the "skills of the workforce, the physical environment, and the technological infrastructure" (Herod et al., 2007 in Howcroft & Richardson, 2012, p. 121). Correspondingly, two fields of inquiry have branched out from this aspect: first, the weakening of state in view of the increasing power of transnational chains to "make markets, set prices, and determine the worldwide distribution of labour" (Novelli & Ferus-Comelo, 2010 in Noronha & D'Cruz, 2017, p. 19); and second, the retained control of government over the land and labor, and surplus generating processes (Chatterji, 2013 ; Noronha & D'Cruz, 2016; Smith, 2015).

Policies of deregulation, liberalization and privatization have aided the transnational flow of capital and strengthened the course of globalization. But unlike the "myth" of the state being unable to influence global investments (Liu & Dicken, 2006 in Noronha & D'Cruz, 2016, p. 153), national policies and initiatives are crucial for laying down the rules of competition (Smith et al., 2002) and even facilitating "strategic coupling" or "decoupling" between suppliers and lead firms (Horner, 2014; Yeung, 2016). Further on, states are also actively involved in calculated negotiations with firms over investment projects. Both states and firms are interested in maximizing their own value capture from the production processes, with the former attracting investment on its territories and the latter seeking comparative advantage from different regulatory regimes (Coe et al., 2008; Liu & Dicken, 2006 in Noronha & D'Cruz, 2016a).

Studies on states' engagement with global capital shows the role of national policies and instruments regarding "wage setting, tariffs, taxes (and tax concessions), infrastructure provision, education, training and research, and spatial planning (such as the establishment of

[26] Against tech companies' promises of AI as the future of content moderation, critics have shown that most technology firms undertake a "sophisticated version of pattern matching", i.e., "comparing new content to a blacklist of already known examples" (Gorwa et al. 2020 in Gillespie, 2020, p. 3).

free trade zones and business hubs)" (Neilson et al., 2014 in Noronha & D'Cruz, 2016a, p. 154). These activities are aimed at "embedding" the transnational activities in the national economy with different degrees of state criteria that MNEs have to adhere in being able to gain access to the "desired assets" (in Noronha & D'Cruz, 2016, p. 154). This field of research is informative of the processes of economic governance that sustain accumulation.

In terms of mediating capital-labor relations, scholars studying the effects of globalization on labor rights have shown that instead of taking an active role, states have supported national accumulation and assumed that it will result in societal change. However, lax labor laws together with prioritizing the interests of lead firms and suppliers, have meant non-guarantee of labor protection in the global value chains (Noronha & D'Cruz, 2020; Wright & Kaine, 2015). Existing research on outsourced work to the Global South shows the state "complicity" in facilitating uneven development (D'Costa, 2011) with issues of bad employment practices and environmental degradation as attributable effects (Clarke & Boersma, 2017). The following section contextualizes this discussion in terms of the Indian ITeS-BPO sector and the role of state policies and institutional arrangements therein.

Institutional arrangements in the Indian ITeS-BPO sector

Claiming a staggering share of 55 percent of the global outsourcing industry, India holds a leading position in the global offshore IT services market (Noronha & D'Cruz, 2020). Several strands of analysis show that advancements in communication technologies and globalization, along with the "decoupling of hardware from software" initiated the global rise of the Indian software industry (Arora et al., 2001; Noronha & D'Cruz, 2016a in Noronha & D'Cruz, 2020: 11). With what started in the 1980s and early 1990s as a temporary onsite recruitment of Indian software programmers and analysts, or what is more commonly known as *bodyshopping*, eventually lead to establishing offshoring and outsourcing relations with India, involving either completely owned subsidiaries or third-party providers. The move to outsourcing was primarily motivated by low labor costs and sustained later by the Y2K-related developments and the eventual technology boom in the 1990s (Nath & Hazra, 2002; Fernandez-Stark et al., 2011).

Apart from the global strategies of MNEs, the role of state has been significant to boost the Indian IT and related services industry for attracting foreign investment. From its initial role as an active regulator, with even adopting a protectionist stance towards the industry, the Indian state eventually shifted to a more supportive role at the onset of the liberalization of Indian

economy (Heeks, 1996; Nollen, 2007; Parthasarathy, 2004). And in order to position the industry at a global spot, policies at both the national and state-level were brought into effectuation. At the central level, it was the 1999 National Telecoms Act that allowed for the de-regulation and privatization of the telecoms industry. Following this, the central government has enacted various measures to attract foreign direct investment (FDI) in the country (Taylor, 2015).

Noronha and D'Cruz (2016a) outline three main ways in which the governments at different levels in India have facilitated the growth of the ITeS-BPO sector: first, by providing infrastructure facilities, second, by developing human capital, and third, by mediating the capital-labor interests. Unique to the Indian state's embracement of the private capital was the creation of the software technology parks (STPs), starting in the 1990s by offering "data communication facilities, uninterrupted electricity, concessional land, centralized air conditioning, tax free status for 100 percent export-oriented firms, financial and marketing support, and financial incentives for firms to provide offshore services" (Aggarwal, 2013; Chatterji, 2013; D'Costa, 2011; Parthasarathy, 2013 in Noronha & D'Cruz, 2020, p. 16). In fact, the STPs were instrumental in the shift from *bodyshopping* services to offshore services. Resultingly, several outsourcing or offshoring hubs in the states of Chennai, Delhi NCR (National Capital Region), Mumbai, Hyderabad and Bengaluru have emerged in India as the "new global workplaces" (Upadhya & Vasavi, 2008, p. 22).

Contrary to the early optimism preached by IT industry stalwarts, very few Indian IT companies are able to enter product development, and IT services continue to represent the bulk of IT business (Mayer-Ahuja & Feuerstein, 2017). This export-driven growth, enabled further by state policies in the field of higher education, has had implications for the domestic *talent pool*, and the IT labor market in India continues to be precipitated by low-end skills (Mayer-Ahuja & Feuerstein, 2017; Rani & Basant, 2004). While trade associations such as the NASSCOM (National Association of Software and Service Companies) takes pride in presenting India as the "largest source of digital talent for the world", a closer look at the skill level of the estimated six hundred thousand "digitally-skilled employees" shows that only a tiny proportion, i.e., 5-10%, holds expert-level skills, while a majority, i.e., 60-65% has generic skills (NASSCOM, 2019, p. 17). Not surprisingly, the global capital is *spatially fixated* on India for supplying mostly low-end and low-paid services (in Taylor, 2015).

In terms of its role in mediating capital-labor interests, the state has backed employer interests of non-cooperation with the trade unions. The sector's characterization of state-sanctioned labor

flexibility (Penfold, 2009) can be seen from its blanket exemption from the Standing Orders Act, 1946, and protection of workers from employee abuse. Additionally, exemptions have been made in several Indian states from the Shops and Establishment Act, which has resulted in company operations for 365 days a year, seven days a week and 24 hours a day (Chatterji, 2013; Noronha & D'Cruz, 2016a, p. 160). In fact, the ITeS-BPO sector can be defined by absence of unions and third-party intervention on account of attracting and retaining foreign direct investment in India (Noronha & D'Cruz, 2009).

The withdrawal from regulating the sector has been based on the perception that "the IT industry is best left to private initiatives and responses to market signals" (Chandrasekhar, 2003 in Noronha & D'Cruz, 2016a, p. 159). On one hand, this has allowed companies to self-certify regarding their compliance to labor laws, and on the other hand, it has pushed the responsibility of labor welfare on to the workers themselves. Resultingly, most IT-Services sector employees believe that unlike the blue collared workers, labor laws are not applicable to them (D'Cruz & Noronha, 2010; Sarkar & Mehta, 2010). At the same time, certain legislative measures such as the Industrial disputes Act, 1947, the Trade Union Act, 1926, and the Factories Act, 1948, continue to be applicable to the industry. The problem of enforcement limits these laws to their performative function (Penfold, 2009). In the absence of collective wage agreements and social security provisions, labor has been left to shoulder the risks of the short-term investments by global capital (Noronha & D'Cruz, 2020).

Enabling the content moderation service provision

There has been no previous examination of the role of state and institutional arrangements in the content moderation service delivery. At the same time, it is important to understand these aspects given that all supplier firms covered in the existing literature are based in certain locations in India that benefit from state policies. Meta opened its first outsourced content moderation hub in the city of Hyderabad – an established geographical cluster in India for supplying IT-Services (Klonick, 2017, p. 1634). And most of the standardized and repetitive moderation work was undertaken in this location, with moderation tasks requiring more discretion being sourced from the hubs in USA and Europe (Klonick, 2017).

With increase in scale and geographical reach of social media platforms, content moderation outsourcing has expanded to include SMEs such as Bengaluru-based Foiwe Info Global Solutions, Hyderabad-based Infoesearch ITES Pvt Ltd, and subsidiaries of large MNEs such as

Cognizant Technology Solutions, Genpact in Hyderabad and Accenture India in Mumbai (Banerjee, 2020; Chaudhuri et al., 2014; Kar & Sarkhel, 2017; Mendonca & Christopher, 2018). From this perspective, similar institutional arrangements can be expected for the content moderation service delivery as well. At the same time, the data collected for this research shows the exit of a supplier firm from its content moderation project with a large lead firm. This would not only require explaining how the lead firm was able to transfer the project together with workers to another supplier firm, but would also mean asking if existing institutional arrangements facilitated the exit and flexibility for transferring workers to the new firm. This can be a unique contribution to the limited studies on the role of state and institutions in the restructuring of service value chains.

Conclusion

This chapter has provided a frame for explaining the mechanisms of outsourcing content moderation services to India and extracting labor value. The discussion in this chapter is informed by existing studies on IT-Services work, with focus on the Indian ITeS-BPO sector. The resulting conceptual apparatus is flagged by three mechanisms, namely the SLAs, the automated technologies and the institutional arrangements. In detailing all three mechanisms, this chapter has examined the underpinning logic of capital for reducing labor indeterminacy and increasing standardization.

A central feature running through the length of this chapter is the increased control by lead firms over the labor process. In order to ensure quality service delivery, lead firms set standards for the service provision in the SLAs, and integrate automated technologies for sourcing work. The institutional arrangements regarding the provision of infrastructure facilities, human capital, and labor flexibility allow greater degrees of labor control to source service work. At the same time, the provision of services also depends on suppliers for both ensuring the SLA terms and managing the employment relations. This is particularly with a view of sourcing tacit knowledge and local skills for the service work. Through this, we are able to see the limits of automated technology for codifying workers knowledge, and how the lead firms instead rely on suppliers to ensure quality service delivery.

With the use of the outsourcing mechanisms outlined in this study, Chapter 6 explains the inter-firm governance mechanisms between the respective supplier and the lead firm that resulted in the observed case of supplier exit and the subsequent project transfer to another supplier. One

of the two reasons estimated for the exit is the limited upgrading opportunities for the supplier firm in view of the highly automated functions of the content moderation software. With limited possibilities to increase its functions in the value chain together with the second reason of high reputation risks involved in the moderation work, the exit is argued to be a strategic step by the supplier firm. In addition to this, the transfer of work and workers to another supplier firm in India is further explained using the institutional arrangements outlined in this chapter, and the increased degrees of flexibility for both lead firms and suppliers.

In addition to this, as we will see from Chapter 4, the outsourcing mechanisms clearly structure the labor process and social relations in the workplace. The increased control of lead firms over the process through SLAs and automated technologies results in work intensification and extended control on working time. Left to the private initiatives for managing working conditions and employment relations, the corresponding social relations are characterized by labor vulnerability and individualized responses by workers. To understand the intersections of these outsourcing mechanisms with the workplace dynamics, the following Chapter 4 outlines the labor process theory. It highlights the different types of managerial control and labor agency that are suitable for studying the content moderation labor process. By bridging the concepts derived from this chapter together with the labor process analyses in the next one, this study aims to enrich the existing literature on service value chains.

Chapter 4: The Conceptual Utility of Labor Process Analysis

Introduction

Existing research on content moderation outsourcing to India shows the contracting of suppliers for delivering content moderation services to lead firms operating the social media platforms. In making use of the three outsourcing mechanisms of SLAs, automated technologies and institutional arrangements, Chapter 2 proposed a conceptual frame to understand how and to what degrees are these suppliers integrated in the content moderation value chains. This means asking who these suppliers are, which functions do they provide, and what kind of inter-firm governance mechanisms result from their coordination with lead firms. To understand the implications of the outsourcing mechanisms on the organization of content moderation work and employment relations managed by the suppliers, this chapter outlines the conceptual utility of labor process analysis and describes the available devices of managerial control and labor agency.

Workers are essential to production processes and for generating surplus value for capital. By recognizing the indeterminate or the uncertain character of labor as a commodity, the core labor process theory (LPT) provides tools to assess the transformation of labor power or the capacity to work into productive work (see Thompson, 1990; Edwards, 1990; Thompson & Newsome, 2004; Jaros, 2005). It draws from the capitalist logic of accumulation and enables us to attend to the *control imperative* of management to reduce the indeterminacy gap (Thompson, 2010). Services provision is generally characterized by high intangibility of quality service delivery caused by "asymmetric information and product differentiation" (Sapir, 1987 in Miozzo & Ramirez, 2003, p. 63). And as we have seen from the discussions in Chapter 3, lead firms and suppliers undertake distinct outsourcing mechanisms to address this uncertainty and labor indeterminacy in the relocated service work.

From this perspective, the labor process dynamics in the workplace are situated within broader coordination and governance mechanisms between lead firms and suppliers (Flecker et al., 2013). Within the discussions on service outsourcing in India, scholars have argued that labor control is confronted by two logics: one, regarding the standardization of the process that allows lead firms to relocate the service work and extract labor value and two, regarding local skills and tacit knowledge, which although important for work, increases indeterminacy in the labor

process (Remesh, 2008; Taylor, 2015). The concurrence of these two logics creates conditions for certain labor control mechanisms that draw on the functions of lead firms and suppliers.

Resultingly, a combination of technical, bureaucratic and normative forms of labor control constitutes the shared control of the labor process between the firms and enables the remote management of work. Edwards' (1979) work was significant in establishing the categories of technical and bureaucratic control as forms of rational control that are aimed at "obtain(ing) desired behavior from workers by appealing to workers' self-interest" (Taylor, 1911 in Kellogg et al., 2020, p. 4). Technical control is "embedded" in the "physical structure" of the labor process, and constitutes the use of technology to "minimize the production of transforming labour power into labour as well as to maximize the purely physical based possibilities for achieving efficiencies" (Edwards, 1979, pp. 20, 112). Bureaucratic control, on the other hand, is embedded in the "social structure" of the labor process and it is enforced through the "job categories, work rules, promotion procedures, discipline, wage scales, definition of responsibilities, and the like" (Edwards, 1979, pp. 20, 130-131).

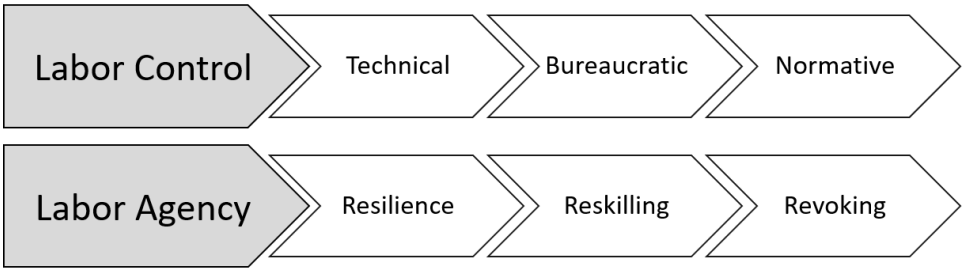
Normative control refers to those managerial activities that aim at "obtaining desired behavior from workers by 'winning their hearts and minds'" (Kunda, 2006 in Kellogg et al., 2020, p. 4). It is argued to offer a shift in the *control debate*, especially concerning customer service work because it enables an examination of the "internalization of management goals" by workers (McMillin, 2006; Upadhya & Vasavi, 2008). Along with generating valuable contributions on managerial strategies of control, the significance of LPT lies in addressing the "contested" nature of the workplace (Edwards, 1979; Thompson, 1990). Far from being a unilateral process, labor control is met by labor opposition to control and conflict. Edwards (1979) notes that "unlike other commodities involved in production, labour power is always embodied in people, who have their own interests and needs and who retain their power to resist being treated like a commodity" (p. 12).

Drawing from the labor struggles in the services sector with specific attention to India, three forms of labor agency are conceptualized in this chapter, namely, resilience, reskilling and revoking. Resilience refers to the "innumerable small acts" that people undertake to get by in the face of distressing circumstances (Katz, 2004, p. 244). I argue that these resilience practices are associated with the "positive valuation" of their work and "creating a sense of self-worth", which are neither valued and recognized but ensure that work is performed (Mirchandani & Hande, 2020, pp. 271, 275). The practices associated with reskilling include networking, "creating new forms of sociality, developing personal economic strategies or reorienting

themselves in significant ways" (Beck, 2000 in Upadhya & Vasavi, 2008, p. 33). Reskilling efforts draw from the experiential knowledge that workers have developed in the process, and workers look for self-skilling possibilities within or outside their work.

Revoking, as the term suggests, is associated with those practices that allow workers to "challenge control structures and bend work norms" (Callaghan & Thompson, 2001, p. 16). From this perspective, revoking practices do not only include resignation from job contracts but also draw on other individual and collective labor strategies in view of bad working conditions and absence of grievance redressal mechanisms. By attending to the expression of labor agency through these three practices of resilience, reskilling and revoking, we can see that even highly standardized and outsourced work processes, with multiple employment and control arrangements, can include agency by workers. Figure 4.1 illustrates the mechanisms of labor control and agency that will be discussed in this chapter.

Figure 4.1: Labor control and agency



The chapter starts with outlining the significance of LPT as a research approach for studying low-paid IT work in service value chains. Following this, the mechanisms of labor control, grouped under technical, bureaucratic and normative control are described. The discussion in this section is also informed by research on labor control in the ITeS-BPO sector in India. The succeeding part of this chapter outlines the three mechanisms of labor agency in the IT-services, with particular attention to the service work in India. Both the discussions on control and agency are also situated within existing literature on the content moderation labor process, and existing research gaps are identified. Finally, the chapter concludes with an overview of the overall discussion and highlights the main points for analysis in Chapter 7.

Labor process analysis

The capitalist labor process is a site of labor agency, which essentially means that the labor power or the capacity to work resides in an individual. By drawing on Marxist analyses of social relations between labor and capital, the labor process analysis offers a conceptual framework for understanding the crucial role of workers in the production process and the accompanying managerial strategies that aim to capture and control their labor power. *Labour and Monopoly Capital* by Harry Braverman (1974) was crucial to initiate the long-standing discussion on the commodification of labor and the underlying social relations that enable this process. More importantly, it established the *control imperative* in the capitalist labor process that results in deskilling of workers and degradation of work.

For purposes of developing a conceptually and empirically sound apparatus that could be used for examining distinct workplace dynamics resulting from new forms of work, divisions of labor, increasing privatization of the public sector and other factors, the labor process debate between the period of 1990s and 2000s was preoccupied with conceptualizing a "core" LPT theory (see Thompson, 1990; Edwards, 1990, Thompson & Newsome, 2004, Jaros, 2005 in Thompson, 2010). It suggested four principles and two amongst them are significant for this study:

- The control imperative in systems of management to counter the indeterminacy of labor.
- The structured antagonistic character of capital-labor relationship in the labor process, which is marked by both conflict and consent.

The active character of labor has most notably been observed through the concept of *indeterminacy*, which refers to the "human, embodied, mobile and active" status of labor power (Thompson & Smith, 2009, p. 918). It not only includes the workers' *effort power*, i.e., if they produce the required effort, but also their *mobility power*, i.e., where they park this labor power. The combination of these two labor powers creates "double indeterminacy" in the labor process, which the managerial strategies aim to reduce for purposes of profit generation (Smith, 2006). From this perspective, labor process analysis treats indeterminacy as an important conceptual link for understanding the social relations in the capitalist employment relationship, which has implications for both control and agency in the workplace. The section below first describes labor control and discusses its different forms that are applicable to outsourced service work. The second half of the chapter discusses labor agency in the workplace.

Labor control in IT-Services

Labor control can be understood as managerial practices that are driven by the logic of capital accumulation to transform the capacity to work or labor power into actual profitable work (Thompson, 2010, p. 10). The forms and degree of control are influenced by the sector type, the kind of work, its complexity and its relocation; factors that are underpinned by the issue of indeterminacy regarding skills and knowledge. Within the discussion on service value chains, scholars have argued that two logics characterize the service provision: first, the logic of standardization that can ensure economies of scale and second, the "customer-oriented" logic that draws on the local skills and tacit knowledge of workers (Korczynski, 2002; Remesh, 2008; Taylor, 2015). The concurrence of this dual logic creates the basis for specific control strategies in global value chains, which are aimed at reducing the indeterminacy gap and standardizing the labor process.

Because this study is concerned with the intersections of outsourcing with the labor process in India, the discussion on control here draws from the combined strategies of lead firms and suppliers. From this perspective, it needs to be considered that control in the labor process is not just reflective of the social relations between the suppliers and workers but also includes the role of lead firms in its design and practice. Correspondingly, the three forms of labor control of interest to this study are technical, bureaucratic and normative control, which allow lead firms to exercise greater control over the labor process. Taken together, these strategies serve the function of reducing the indeterminacy gap and restricting spaces for labor resistance (Callaghan & Thompson, 2001).

Technical and bureaucratic control were established by Edwards (1979) as forms of rational control that are aimed at "obtain(ing) desired behavior from workers by appealing to workers' self-interest" (Taylor, 1911 in Kellogg et al., 2020, p. 4). Where technical control is embedded in the physical architecture of the labor process, bureaucratic control is observed in its social structure and organizational rules (Edwards, 1979). In emphasizing the function of technical control, the author draws from both blue-collar work in the assembly lines and white-collar work in computer-linked "routinized operations" (keypunching, typing templates, etc.), to show how the technological architecture of production can be designed with an imperative to "minimize the problem of transforming labor power into labor as well as to maximize the purely physically based possibilities for achieving efficiencies" (1979, p. 112).

The three dimensions essential to this control system are first, the direction of work tasks, second, the monitoring and evaluation of work done, and third, the rewarding and disciplining of workers (Edwards, 1979). The direction of work tasks refers to the implementation of "continuous-flow production" and it has traditionally been applied to assembly line systems, such as in Ford factories, with seemingly little human supervision required. Monitoring and evaluation of work saw the "revolutionizing" of relations between the foreman and the workers, such as at the telecommunications firm AT&T, by substituting direct supervision with technology to achieve productivity in the routine work of telephone operators (Edwards, 1979). In terms of the third dimension of control, technology is crucial for collecting formal and quantitative indicators of work, and for rewarding and disciplining workers.

Qualitative advancements in technology are not just reflected in the transformation of work but also in sophisticated managerial strategies (Braverman, 1974; Noble, 1984). As we have seen from the discussions in Chapter 3, the integration of automated technologies in the labor process enables lead firms to participate in the organization of work, its micromanagement and performance measurement. Key breakthroughs in call center operations such as the automated call distribution (ACD) and the predictive dialing technologies have enabled management to direct and monitor work by automatically routing calls to the call center operators, and minimizing the waiting time (call to be answered) for customers (Callaghan & Thompson, 2001; Taylor & Bain, 1999).

Bain et al. (2002) note that the use of ICTs is as an advancement of Taylorism because it has allowed "…management control to (reach) new historic levels by target-setting and monitoring in real time, both the quantitative and qualitative aspects of employee performance" (p. 173). In addition to simplifying customer-worker interactions and fragmenting work to workers outside the client workplace, lead firms are also able to codify the service-related information in the technological systems (see Bain et al., 2002; Baldry et al., 1998; Bain & Taylor, 2000). This enables firms to centralize control and standardize the production process and reduce labor indeterminacy.

Technology-mediated labor control is reflective of the "innovate mechanisms" that employers devise and apply in the apply labor process so as to "maximize (the) value captured from workers" (e.g., Edwards, 1979; Jaros, 2010; Thompson & van den Broek, 2010 in Kellogg et al., 2020, p. 4). In fact, several studies on the service sector provide evidence on the radical changes that have been brought about in clerical processing and customer servicing through the use of technology for intensifying work and extending working times (Carter et al. 2011; Ellis

and Taylor 2006; Holman et al., 2007; Noronha & D'Cruz, 2017; Taylor, 2015). At the same time, control in service value chains is not just mediated through technology but also draws from other mechanisms, which are linked to the question of labor indeterminacy.

From the discussions on outsourcing mechanisms in Chapter 3, we can see that SLAs in low-end IT-Services service work are a site for bifurcating control between the lead firms and suppliers, where the standards regarding the stability, continuity and consistency of service work are set by the former and the tasks of managing the employment relations lie with the latter (also in Rubery, 2007 in Flecker et al., 2013; Taylor, 2010). And while these measures of technical control allow lead firms to extract labor productivity and maintain targets, they still depend on suppliers for their organizational rules and on-floor supervision to reduce the indeterminacy gap. Correspondingly, the category of bureaucratic control as a second form of rational control (Edwards, 1979), is of particular interest to this study because it resolves the issue of the institutional disconnectedness that is caused due to the relocation of service work. Additionally, it allows lead firms to draw upon supplier functions to meet both the quantity and quality targets set in the SLAs.

Embodied in the "social and organizational structure of the firm", bureaucratic control was first observed by Edwards (1979) as those managerial practices by employers that use "job categories, work rules, promotion procedures, discipline, wage scales, definition of responsibilities, and the like" to control employees (pp. 130-131). He saw this system of control as fundamentally different from technology-based control because it allowed management to address the recurring strikes, sit-downs and unionizing activities on account of workers being *technologically-linked*, and reduce the workplace conflict through organizational bureaucracy. Refuting Edwards's (1979) analysis of technical and bureaucratic control as constituting separate historical stages in the evolution of managerial control, scholars have demonstrated that both these control mechanisms can co-exist in a structurally-controlled workplaces, such as in the call centers. "Institutionalizing control" in the labor process enables firms to respond to the mass servicing logic while avoiding direct confrontation between management and workers (Callaghan & Thompson, 2001). By integrating the technology-produced individual and team-based targets within an environment of workplace competition, both technical and bureaucratic control practices are brought together to pressurize workers to perform better and stabilize the employment relationship (Callaghan & Thompson, 2001).

While holding significant explanatory powers for how workers are controlled, these mechanisms are found to be limited in addressing the characteristics of service work in

outsourced processes (Remesh, 2008). Argued to offer a shift in the control debate, normative control allows the examination of the "value internalization" by workers and includes those managerial activities that aim at "obtaining desired behavior from workers by 'winning their hearts and minds'" (Kunda, 2006 in Kellog et al., 2020, p. 4). The examination of normative control has found the most well-known application in the services sector by Frenkel et al. (1995), who argue that these *new* "info-normative" control practices have superseded technical and bureaucratic control practices by creating "objective performance indicators" and "employee accommodation or commitment to those standards" (p. 774).

Critics however point out that the predominant focus on corporate culture and soft human resource management (HRM) strategies (cf. Casey, 1995; Willmott, 1993), and the singular combination of "*unobtrusive* panoptic electronic surveillance and team-based self-discipline" (cf. Sewell, 1998; Sewell & Wilkinson, 1992 in Thompson & van den Broek, 2010, p. 5) results in the treatment of normative control as a separate category. Instead, some argue that "all control practices have normative dimensions" (Thompson & van der Broek, 2010, p. 6). Correspondingly, we can see that while technical and bureaucratic control are direct and rational practices, they also generate normative performance data for obtaining the desired work from workers.

This study makes use of the normative control category together with technical and bureaucratic control practices to examine the particularities of service work and labor indeterminacy. The combination of these control mechanisms is more pronounced within service value chains. Given the interactive nature of services, the outsourcing mechanisms are confronted with issues of labor skills and knowledge, which are managed by firms to extract productive labor. The following discussion on control in the ITeS-BPO firms shows the use of certain managerial practices that direct outsourced workers to undertake the cross-cultural service work (Bain & Taylor, 2000; Callaghan & Thompson, 2001; Crain et al., 2016).

Labor control in the Indian ITeS-BPO sector

Existing literature on labor control in service work in India shows the concurrence of technical, bureaucratic and normative control strategies employed by lead firms and suppliers to extract labor productivity. The practices associated with normative control are already applied in the training process that is undertaken before the start of the work. As described in Chapter 3, informed by the terms set in the SLAs, ITeS-BPO firms recruit workers on the basis of required

skills and headcount, and allocate them into teams. Depending on the process, recruitment of specific skills could include linguistic skills, emotional faculties, communication strengths and others to service the cross-cultural work (Mirchandani, 2015; Poster, 2007). Mass hiring and walk-in interviews for generic service work with incomplete job contracts characterize the recruitment process in these firms (Remesh, 2008; 2014). The necessity of training is especially felt for informing workers on their work process, the guidelines and performance metrics but also regarding their work-related behavior.

Normative control mechanisms are already applied in the training process. Using the work standards provided by lead firms, workers are trained to manage their emotions, aesthetics, behaviors and attitudes that lie in consonance with customer-oriented values and corporate ethos (Poster, 2007; Upadhya & Vasavi, 2008; Warhurst & Nickson, 2007). The cross-cultural service work also has implications for workers' identities where they are required to take western names, accents and mask their locations as part of the "national identity management" (Poster, 2007). The training process is mostly undertaken by team leaders, who also play the role of supervising workers once they have been delegated to their teams on the basis of their performance in the training process. Team-based organization of work extends normative measures through "structured socialisation" (Ramesh, 2004), and enables firms to use peer pressure for ensuing the performance of workers (Upadhya & Vasavi, 2008, p. 25).

Technical control is more clearly pronounced in the use of technology for directing work to workers and monitoring them. Technologies such as ACD, predictive dialing technologies and other call and content management systems used for service delivery (Macdonald & Sirianni, 1996; Roy et al., 2017) are strongly embedded in the physical architecture of the service work. They enable the directing and pacing the speed of work together with evaluating the work of the service workers. Workers are required to meet daily targets at an individual and sometimes, at the team level. Along with the quantum of work done, they also have to meet quality standards. Taking the quality and productivity-based assessment of workers into consideration, Remesh (2008) has noted that labor performance in the ITeS-BPO firms draws on the logic of controlling "every aspect of work" (p. 248). This includes issues relating to working hours, leave from work, and others, that are scored using track cards or warning cards (Remesh, 2008). The system of performance appraisal is commonly calculated using a "five-point rating system" (with five being the highest), based upon which the monthly and annual incentives, as well as the punitive actions are decided by the management (Remesh, 2008, p. 248).

From this perspective, it can be seen that the technologically-acquired *metrics* are accompanied by "traditional bureaucratic controls and methods of human resource management" for purposes of disciplining and rewarding the workers (Remesh, 2008, p. 249). As discussed in Chapter 3, the "middle management practices", that includes the role of team leaders, have been studied in ITeS-BPO firms to use performance metrics for employee rankings, appraisals and employment contracts (Noronha & D'Cruz, 2017, p. 7). Together with the use of technology to display the seemingly *objective* performance data to workers, team leaders also push the workers during regular one-to-one and team meetings and on the floor, for achieving their targets and benefitting from the performance appraisal system.

The system of target-setting is aligned with the individualization of work culture in the sector, where workers are singled out for both reward and punishment. This draws on the successful cultivation of labor *professionalism* – a form of "socio-ideological control" – in the sector, through a series of normative control practices and wellness programs that emphasize non-hierarchical relations, meritocracy, transparency and well-being, which has the effect of increased labor compliance with organizational interests (D'Cruz & Noronha, 2012, p. 3, Noronha & D'Cruz, 2016b). The culture of professionalism has been particularly leveraged in the ITeS-BPO sector for avoiding the employee liabilities associated with the Industrial Disputes Act 1947 (Noronha & D'Cruz, 2016b). The resulting weakening of collective identity and direct forms of resistance at the workplace are marked by an increasing culture of individualization such as self-skilling, job-hopping, and making of an enterprising worker (Beck, 2002; D'Mello & Sahay, 2008). This will be further discussed in the section on labor agency in this chapter. In the meanwhile, the use of certain control strategies for extracting labor productivity and limiting resistance of workers is also observed in the content moderation labor process. This is discussed below.

Labor control in the content moderation process

Limited research on the organization of content moderation work in India poses challenges for delineating the available workplace-related information into clear categories of labor control and agency. At the same time, existing information on the organization of moderation work shows that it follows similar logics of other service work in the ITeS-BPO sector. Moderators are hired from a diverse range of educational and work backgrounds using generic job advertisements and are assigned with generic job titles such as "system analysts" (Ahmad,

2019), “process associate” and “website administrator” (Ahmad & Krzywdzinski, 2022). The “multitudinous” job titles function to serve obscurity of the outsourced content moderation operations (Roberts, 2019), and are accompanied by the mandatory requirement for workers to sign NDAs at the onset of their work.

Although yet unanalyzed using the control lens, NDAs serve an important control function: they embody the normative and bureaucratic dimensions of labor control by institutionalizing secrecy. Workers are made to internalize the importance for keeping content moderation secret because of three main reasons: first, to “protect their (lead firms) tech proprietary” (in Buni & Chemaly, 2016), second, to thwart users attempts to “game the rules" (Roberts, 2016, p. 7), and third, to shield workers by hiding their identities (in Gillespie, 2018, p. 119). The punitive mechanisms set in the NDAs – on grounds of disclosing work-related information to an external party – draw upon the bureaucratic functions of the supplier, as established in the SLAs. Put simply, the suppliers are enforcers of the content moderation secrecy.

Despite the observation that workers are not provided enough information on the work and the lead firms, they apply for moderation jobs in view of their career aspirations of securing high-skilled and high-paid jobs in the IT industry, and also due to the rising unemployment in India (Ahmad & Krzywdzinski, 2022). The recruitment process is soon followed by the training period that informs workers about the moderation standards, the content queues and the techniques of working (Ahmad, 2019; Roberts, 2019). They are assigned specific content queues using automated technology, which can be owned and directly controlled by lead firms such as in the case of Meta, and is primarily aimed at informing the workers with the technical know-how and controlling their subjective inputs.

Technical control constitutes the dimensions of labor control proposed by Edwards (1979), i.e., the automated direction of flagged content to workers who are assigned to specific queues and teams, together with monitoring and evaluation. While technical control includes monitoring workers *metrics* and performance, on-the-floor monitoring and evaluation of work and workers – drawing from bureaucratic control mechanisms – is undertaken by supervisors and team leaders (Ahmad & Krzywdzinski, 2022; Roberts, 2019). Normative control mechanisms such as recreation activities and team-based work together with training processes can be seen as serving the function of instilling workers with an understanding of the importance of their work, and for driving labor compliance with organizational interests (Ahmad, 2019; Ahmad & Krzywdzinski, 2022).

These control measures are accompanied by workers' experiences of "low wages, lack of skill development and lack of promotion opportunities" (Ahmad & Krzywdzinski, 2022, p. 88) together with the highly standardized work and distressing nature of user content (Ahmad & Greb, 2022; Roberts, 2019). Similar to missing collective bargaining and other explicit forms of resistance by workers in the ITeS-BPO sector (Noronha & D'Cruz, 2009a; Noronha & D'Cruz, 2020), content moderators have also been observed to exit their employment and develop ways of "constructing their own 'career staircases'" (James & Vira, 2012 in Ahmad & Krzywdzinski, 2022, p. 90). At the same time, a more nuanced explanation is needed beyond the argument of missing unionization to explain the lack of resistance. Given that LPT treats labor as being underpinned by an active agency, what shape does this agency take to reflect the career aspirations but also resentment of content moderators in view of their working conditions? The following section develops a typology of labor agency that can answer this.

Labor Agency

Studies drawing upon the labor process theory have shown the contested nature of labor control, and have argued that workers deploy efforts to resist their exploitation (Edwards, 1979; Jaros, 2010; Kellogg et al., 2020; Thompson & van den Broek, 2010). The discussion on resistance in the workplace has progressed from an "end of resistance" debate in the 1990s that showed the transformation of workers into "docile and willing subjects" through normative control and surveillance techniques, to include a "diversity of oppositional practices" by workers (Thompson, 2016 in Murphy & MacMahon, 2022, p. 10). From this perspective, resistance can be defined as a "constant process of adaptation, subversion and reinscription of dominant discourses which takes place as individuals confront, and reflect on, their own identity performance, recognizing contradictions and tensions and, in so doing, pervert and subtly shift meanings and understandings" (Thomas & Davies, 2005, p. 678).

Resistance is underpinned by labor agency and by attending to the active character of labor, we are able to examine the "everyday" forms of action that workers undertake to manage with or challenge their working conditions (in Murphy & MacMahon, 2022, p. 10). Keeping in view of the particularities of the IT value chains and the limited explicit resistance strategies observed (Carswell & De Neve, 2013; Noronha et al., 2020), three forms of labor agency are proposed in this study, namely, resilience, reskilling and revoking practices. This allows addressing labor agency at a more granular level, and as we will see from the discussion below, it reflects

movement in labor consciousness towards managerial control. This is most notably examined in the shift from resilience, as sustaining managerial control, to practices of revoking, where workers are found to engage in more explicit forms of resistance.

Within the discussions on highly controlled work processes, researcher have made note of those situations wherein labor agency is required to cope with insufficient standards and technical controls (Smith & Thompson, 1998; Thompson, 2003). By drawing on the "positive valuation" of work and "creating a sense of self-worth", workers make use of local skills and tacit knowledge that ensure that work is performed (Mirchandani & Hande, 2020, pp. 271, 275). While these resilience practices enable workers to navigate and cope with their otherwise standardized working conditions, they often remain hidden and economically devalued. At the same time, workers can also exercise resilience practices to manage with those jobs which they do not value.

By attending to the resilience practices, we can address the complex character of labor agency in service value chains. Scholars have argued for this complexity especially in terms of the export-driven nature of these jobs and the ensuing capital-labor relations (Noronha & D'Cruz, 2020a). Service workers' use of humor (Taylor & Bain, 2003) and management of emotions (Bolton, 2009; Callaghan & Thompson, 2001) can be seen as underpinned by the resilience logic that allows workers to navigate and cope with their working conditions. From this perspective, the conceptualization of resilience here draws heavily from Katz's (2004) observation of those "innumerable small acts" that people undertake to get by in the face of distressing circumstances (p. 244).

While the practices associated with resilience have the effect of sustaining "hegemonic regimes of labor control," resulting in labor *consent*, (Burawoy, 1985), they also hold the potential of forming oppositional consciousness. This is because managerial control using normative practices, although aiming for internalizing management interests, is driven by short-term goals and labor flexibility (Murphy & MacMahon, 2022). With fragmented employment relations in service value chains, worker experiences are further affected by labor issues of "multiple sources of loyalty" and "feelings of insecurity" (cf. Marchington et al., 2005). With the result that workers' internalization of normative behaviors of management can be negatively affected. From this perspective, the concept of resilience affords an opportunity for understanding workplace dynamics that have the potential of vocalizing labor interests.

The continuous codification of knowledge necessitated by process standardization ensures that workers' skills are economically devalued and less transferrable to higher paying jobs (Belt et

al., 2002; Carter et al., 2011). Although firms emphasize professionalism and individualism, workers are faced with limited opportunities for career progression through the internal labor markets (Belt et al., 2002; Richardson et al., 2000 in James & Vira, 2012). These factors together with the high mobility of capital in search for flexible labor arrangements (Benassi et al., 2016; Doellgast, 2022; Flecker et al., 2013; Thompson & Smith, 2009), result in workers undertaking reskilling practices by making use of the existing performance-based system of the sector to change their conditions of work.

There are two ways of looking at the practices associated with reskilling: first, as mentioned, the material objective of improving their position vis-à-vis better wages and job security, and second, labor recognition of their working conditions. Taken together, reskilling, like resilience, is not just an outcome of normative control mechanisms that venerate the enterprising worker, but is also underpinned by labor agency that is directed at improving their position. Similar to resilience, practices associated with reskilling draw largely from "individual agency to rework their own reward structures, albeit without necessarily challenging the more fundamental relations between labour and capital" (James & Vira, 2012, p. 35).

Within the discussion on labor agency in service work, the practices associated with reskilling include networking, "creating new forms of sociality, developing personal economic strategies or reorienting themselves in significant ways" (Beck, 2000 in Upadhya & Vasavi, 2008, p. 33). They can even draw upon the experiential knowledge that workers have developed and depending on the labor process, there could be skill development opportunities provided by the firms. Managerial strategies concerning the degree of "employee involvement in the work process", the "choice of incentive systems" and other factors (Batt & Moynihan, 2002; Halliden & Monks, 2005 in James and Vira, 2012, p. 7) influence the types of training and internal firm-level skill development available to workers. Correspondingly, the high attrition rates in the sector are lamented by employers for replacing those trained workers (Russell, 2008).

At the same time, considering the highly standardized nature of work, workers undertake self-skilling initiatives within and outside of their work. This requires identifying their career goals, the skills required, the wages they should be receiving, and planning for the future. Accordingly, the labor behind these practices have been called as "employment management work" (Halpin & Smith, 2017). Recognizing the work that goes into exercising labor agency allows us to address how workers "psychologically prepare for job loss and take advantage of new opportunities" (Halpin & Smith, 2017, p. 341). From this perspective, reskilling as a labor

agency allows us to challenge the commonly held notion around the passive character of labor in the IT-Services sector.

Different from resilience and reskilling are labor practices of revoking. And they rely on workers' consciousness of their working conditions and interest in actively changing them. Most low-wage IT-Service jobs are characterized by work intensification, high degrees of monitoring, performance-based pressure, low opportunities for skill development, and the transfer of risks to workers due to capital mobility (Flecker et al., 2013; Taylor, 2010, Taylor & Bain, 2007). Correspondingly, workers undertake revoking practices that can be broadly understood in two ways: first, by creating disturbances in the labor process, and second, by exiting from their employment contracts. In the existing literature, revoking can be seen through those strategies of disturbing the labor process such as "misbehaviour" (Ackroyd & Thompson, 2019), absenteeism, individual acts of sabotage and subversion (Upadhya & Vasavi, 2006), and whistleblowing and rule breaking (Ashforth & Mael, 1998). These practices depict the exercise of service workers' agency in the "absence of any effective device for grievance representation" (Remesh, 2008, p. 258).

The second approach to revoking as a labor agency involves the labor exit from employment contracts and correspondingly, the service sector is characterized by high levels of attrition (Carter et al., 2011; Hunt, 2004; Kuruvilla & Ranganathan, 2010; Thite & Russell, 2010). Workers could either move to jobs inside or outside the supplier firm, and they may either stay in the same sector or move to a different sector (James & Vira, 2012). Labor process analyses of attrition in the services sector can be observed as taking two different paths: on one hand, it has been treated as a source of bargaining power for workers through their "mobility power" (Smith, 2006), and on the other, it has been addressed as a consequence of increasing standardization of work (Howcroft & Richardson, 2012) and weakening of "associational power" of workers (Selwyn, 2012). Clearly, both arguments are true and intertwine closely in a more pronounced manner within the service value chains.

Overall, the mechanisms of outsourcing pose implications for labor bargaining (Flecker et al., 2013). On one hand, all lead firm and project-related information that do not have a direct bearing on the labor process are guarded off from the workers. This leaves workers in their contractual position without the possibility of directly being employed by the lead firm. On the other, workers are also vulnerable to the constant organizational restructuring and move of capital from one location to the other in search of cheaper, unorganized and other desired labor particularities (Doellgast, 2022; Holtgrewe, 2008; Ramioul, 2012). Being cognizant of their

position in these value chains, workers exit work in search for better conditions. Correspondingly, these mobility choices must be looked at from the lens of agency that exists within restricted bargaining conditions and labor recognition of its restricted "structural position" in the outsourced process (Selwyn, 2012). From this perspective, revoking practices are underpinned by the labor strategies to shape the "organizations and environments in which they (workers) act" (Harrison, 1994 in Noronha & D'Cruz, 2009b, p. 216). This is more clearly pronounced in the Indian ITeS-BPO firms, as discussed below.

Labor agency in the ITeS-BPO sector

Scholars have observed that most workers in the IT industry in general (including the ITeS-BPO sector) hold higher positions in both caste and class hierarchies (Remesh, 2008; 2014; Upadhya & Vasavi, 2008). Their increased access to social and cultural capital within an organizational environment of professionalism and individualism translates into greater proclivity towards practices of resilience and self-driven reskilling initiatives, which are in turn motivated by both social and material objectives. While providing certain social-cultural context to worker practices in the sector, labor agency is susceptible to increasing deregulation, informalization and unemployment in India (Noronha & D'Cruz, 2017).

The resilience of workers in the ITeS-BPO sector largely draws from the labor culture of professionalism that allows workers to navigate and positively value their work. This includes workers feeling "empowered" and having higher "self-esteem" on accounts of employment with MNEs and association with overseas lead firms on one hand, and on the other, working in modern IT firms that offer facilities such as cafeterias, recreation rooms with bean bags, music systems, televisions, etc. (Noronha & D'Cruz, 2016b, pp. 223, 224). Both of these possibilities are contrasted against the government or public sector workspaces in India (Noronha & D'Cruz, 2016b). Within this context, workers have been observed reclaiming the rhetoric of service quality and making work-related judgements, with the aim of strengthening their job prospects (Noronha & D'Cruz, 2009b).

From this perspective, even in highly standardized and technically-controlled labor process in the ITeS-BPO sector, labor agency can be seen in workers applying their self-devised problem-solving abilities or managing with unforeseen circumstances in the call center work (D'Cruz & Noronha, 2008; Remesh, 2008). At the same time, for managers, this agency, although productive, is a source of indeterminacy, which can materialize into resistance, and

correspondingly, it results in employers making use of control mechanisms to limit that resistance (Thompson, 2010). This can be observed through the codification of workers' knowledge using technological means and increasing standardization of work (Carter et al., 2011; Flecker et al., 2013; Howcroft & Richardson, 2012).

In the face of devaluation of their *additional* work and low opportunities for skill development, workers make use of resilience practices that have been specified as "breathers, releases, outlets and pauses" that might take individual or collective forms (D'Cruz & Noronha, 2013 in Noronha and D'Cruz, 2016b, p. 227). Co-existing with their professional identity, resilience allows workers to "ease job-related strain" which does not necessarily indicate an anti-work or anti-employer sentiment (in Noronha and D'Cruz, 2016b, p. 227).

At the same time, the Indian ITeS-BPO sector can be confirmed as a site of reskilling initiatives by workers. Studies looking at employment relations in these firms have observed such jobs as a *stop-gap arrangement* and transitory rather than a long-term prospect for the workers (James & Vira, 2012; Upadhya & Vasavi, 2008). By treating them as entry-level jobs, workers aim to *move-up* by gaining skills and experience. The generic skill-set required for service jobs limits their transferability to processes outside the ITeS-BPO sector. However, having English language skills enables workers to apply for several call center jobs (in James & Vira, 2012). In fact, India's "spatial fix" (Harvey, 2006 in Taylor, 2015) for offshoring is linked to its large pool of English-speaking graduates (Dyer-Witheford, 2015). Along with the language skills, ITeS-BPO firms also require workers to possess *soft skills* such as emotional intelligence and communication skills, to improve performance in the work and service the Western customers (Upadhya & Vasavi, 2008).

The skill training programs are often facilitated by the management but that require workers to either voluntarily ask for trainings and/ or ensure that their performance is not affected by attending these trainings. And while studies have shown some organizational efforts to retain workers (Bhatnagar, 2007; Budhwar, 2009), the limited internal job postings (IJPs) and high degrees of uncertainty for workers in terms of firm exit or project conclusion (Nadeem, 2011; Nizami, 2017), drives the self-driven reskilling initiatives of workers to realize higher wages together with work-life balance (Remesh, 2014). While there is discussion on the role of technical skills for affording better employment opportunities in the labor market (Nadeem, 2011; Nizami, 2017; Remesh, 2014; Upadhya & Vasavi, 2008), it is not clear what these specific skills and knowledge are, and whether they indicate labor mobilities outside the ITeS-BPO sector.

Labor agency associated with reskilling practices has also inspired the evolution of a "new type of professional association" that is argued to be *radically* different from the traditional Indian trade unions (Noronha & D'Cruz, 2009b, p. 221). Given the increasing technological changes in the sector, the restructuring of work organization and concerns regarding employment contract, unions such as the Union for ITES Professionals (UNITES) and the Forum for IT Employees (FITE) have designed their activities around the "servicing model", allowing workers in the IT industry to network, attend training and reskilling opportunities and, receive tips about career development (Noronha & D'Cruz, 2009b, p. 230; Noronha & D'Cruz, 2017). Confronted with issues related to working hours, job security, night shifts, performance-related pressure, wages, work-life balance and impact on health along with insufficient conflict resolution mechanisms (Noronha & D'Cruz, 2017; Taylor et al., 2013; Taylor et al., 2014), workers in the sector exercise agency in the form of revoking practices to challenge the control structures. These practices primarily draw from the contradictory nature of "being termed a professional" and the nature of the service work (Noronha & D'Cruz, 2009b, p. 231). In fact, professional identity for Indian ITeS-BPO workers is an important marker of the emergence of professional demands (Noronha & D'Cruz, 2009a). Correspondingly, revoking practices can be understood in two ways: one, disturbing the labor process and two, exiting from it.

The former includes the "routine and diffuse resistance micropractices" such as workers limiting their quantum of work, diverting feedback from consumers in front end customer service work (D'Cruz & Noronha, 2013, p. 15), being absent at work and sporadic and individual acts of "sabotage and subversion" (Upadhya & Vasavi, 2006, p. 31). While these strategies are aimed at disturbing the labor process, they are nonetheless underpinned by the professional identity of workers that deters them from explicitly resisting against the lead firms or the company (D'Cruz and Noronha, 2013).

At the same time, workers also undertake "micro-level decision-making processes" in order to move out from stagnant or exploitative employment conditions (Noronha & D'Cruz, 2020, p. 10). Studies show increased degrees of employee turnover in Indian call centers, with the highest rates estimated at 60% for those employed in low-end voice processes (Hay Group/ Manpower India, 2006; Kuruvilla & Ranganathan, 2010 in James & Vira, 2012, p. 7). While it is not clear if workers only leave their jobs or entirely leave the sector, employee absenteeism and a high attrition rate and have come to precipitate this sector where work has come to be

seen as a stop-gap arrangement rather than being a long-term prospect for the workers (Upadhya & Vasavi, 2008).[27]

Beyond these two primary forms of revoking practices, labor agency is also observed in cases of illegal retrenchment at IT firms where workers have responded with collective resistance against IT firms. The infamous case of mass retrenchment at a firm called Tata Consultancy Service (TCS) was instrumental in both revoking the Industrial Disputes Act, 1947 and the legal provisions available to workers under it, but also to challenge IT companies' exemption from labor laws.[28] A sector, which was otherwise seen as operating outside the purview of labor laws, had professionals invoking the definition of "workman", because of the technical and clerical nature of their work, in order to claim protection under Section 2(s) of the Industrial Disputes Act, 1947.[29] It is important to note however that despite some successes, the ITeS-BPO sector largely remains unorganized without representation of labor voice to the management. Apart from the issue of individualization and professionalism in the sector, "the fear of reprisals by employers has made joining trade unions ineffective in practice" (Noronha & D'Cruz, 2020, p. 2). And as the above instances show, most union activities that garner support from workers are aimed against retrenchment policies of ITeS-BPO firms.

Labor agency in the content moderation process

Resilience in the content moderation labor process can be seen in two ways: first, in the ways that workers manage with the distressing content and second, in the ways they apply their tacit knowledge to respond to unique content that is not covered by moderation policies. In the absence of inadequate mental health support, workers *manage their emotions* (Hochschild, 1983) by treating it as part of their job (Ahmad, 2019). On the other hand, labor resilience in the content moderation labor process is also observed through workers developing separate workflows for solving moderation-related cases that cannot be solved due to incomplete policies. The application of this tacit knowledge draws from both workers' positive valuation of their work and finding ways to apply their knowledge in otherwise standardized working

[27] Lack of training opportunities for skill development and possibilities for upward mobility have been observed as primary reasons for absenteeism from work and high attrition.

[28] Following the issue of orders by the Madras High Court on 13th January 2015, TCS was pressured to revoke the relieving letters of its employees.

[29] Professionals such as consultants, project managers, software engineers and other ITES-BPO employees were starting to identify themselves as "workman" (Noronha & D'Cruz, 2017).

conditions (in Ahmad & Krzywdzinski, 2022). Correspondingly, the practices of resilience are also underpinned by career aspirations of Indian content moderators who aim for upward mobility (Ahmad, 2019). At the same time, the capture of labor knowledge and its codification into the continuously developing content moderation policies are not accompanied with internal interest representations and career opportunities within the firm (Ahmad & Krzywdzinski, 2022). Resultingly, workers have been observed making use of reskilling practices to develop their own "career staircases" (James & Vira, 2012 in Ahmad & Krzywdzinski, 2022, p. 90).

Reskilling practices can already be observed in the agency of workers to self-skill themselves by creating workflows made of a sequence of steps to respond to the content moderation challenges. While drawing on their tacit knowledge that they have developed while moderating content, it also requires them to learn more about existing content moderation policies, the lead firm requirements, and searching on the internet about the particular content (Ahmad & Krzywdzinski, 2022). These labor strategies are aimed at enriching the continuously-updating content moderation policies and benefitting from the organizational rules of rewarding at the suppliers. Because moderators are confronted with limited opportunities for skill development and growth, they draw upon the expanding social media consumer market and the demand for local experts by regional and domestic firms (Ahmad & Krzywdzinski, 2022). Some content moderators in value chain with high product complexity have found new opportunities as "content operators" working directly for these companies, with better wages and additional tasks including "user acquisition, user engagement, and developing content moderation policies" (Ahmad & Krzywdzinski, 2022, p. 89). At the same time, there is a research gap on the kind of reskilling initiatives that moderators undertook within or outside of their labor process to fit these new job profiles.

Apart from the resilience and reskilling practices, the content moderation labor process is also a site of revoking practices, which on one hand, are associated with exiting the employment, but on the other, are accompanied by whistleblowing activities of workers and revoking their NDAs. By revealing details about their ongoing or former work as content moderators in the media, workers in different productions sites across the world have gone against the NDA terms of confidentiality and provided accounts of the standardized work process, intense pressure based on work performance and low skill development (Buni & Chemaly, 2016; Chen, 2012; Chen, 2014; Hern, 2019; Newton, 2019). This has provided information on the psychologically-distressing nature of content moderation work and the lack of opportunities for availing support and resources.

But at the same time, similar to the largely absent explicit labor resistance in the Indian ITeS-BPO firms, no collective organizing challenging the control structures have been observed for content moderators in India (Ahmad, 2019; Ahmad & Krzywdzinski, 2022). The evidence from two US-based legal actions on charges of trauma induced by working with disturbing content, with a lawsuit filed by two Microsoft employees in 2016 and a class-action suit by former in-house contractor for Meta in 2018 (Garcia, 2018; Levin, 2017; Newton, 2020), shows that the moderation work is a site of labor resistance. By studying the content moderation labor process within the structural and institutional context of service value chains, we can examine in greater detail the social relations between capital and labor in the Indian workplace.

Conclusion

This chapter has outlined the significance of labor process theory for studying the organization of content moderation work and extraction of labor productivity. Given the centrality of human workers to the content moderation process and the outsourced character of this work, the theory provides the tools to examine the combined managerial strategies of technical, bureaucratic and normative control employed by lead firms and ITeS-BPO firms in India. This allows us to the see the managerial strategies of reducing labor indeterminacy and transforming content moderators' labor power into productive labor. The strategic choice of these control strategies is shaped by the outsourcing mechanisms discussed in Chapter 3, namely the SLAs, the automated technologies and the institutional arrangements. Existing research shows that lead firms centralize control over the labor process using their standard-setting power in SLAs and automated technologies. And the functions related to employment relations and ensuring quality service delivery, including on-floor supervision, are managed by the suppliers. Despite the high control and increased standardization of work, labor agency is observed. This allows workers to manage with their working conditions, self-develop their skills and even exit their employment relationship with suppliers. To understand these better, three forms of agency have been proposed, namely resilience, reskilling and revoking practices. By addressing labor agency at a more differentiated and granular level, the discussion here has confronted the GVC/ GPN scholarly treatment of labor as being passive, and gone on to show workers' interests of shaping their conditions of work.

There exist several research gaps in the existing analysis of content moderation labor process, which the conceptual framework developed in this chapter aims to fill. On one hand, this

includes examining the forms and degrees of labor control and agency that can enable us to explain how content moderators' labor power is converted into productive labor. And on the other, to explain how social relations in the workplace are influenced by the outsourcing and inter-firm governance mechanisms in the content moderation value chains. From this perspective, this study aims to contribute to existing studies of service value chains by connecting the content moderation labor process with the competitive dynamics in the global economy. The case study of a supplier exit from its content moderation project with a large lead firm and the subsequent transfer of workers to another firm, is particularly a unique contribution to a growing research field interested in the intersections of labor process analysis and GVC/ GPN studies.

Chapter Five: Methodology

Introduction

Content moderation value chains are characterized by secrecy. While this is true for most outsourcing sectors (Peck, 2017), the discussions in Chapters 2 to 4 show that content moderation and its outsourcing are sites of high degrees of deliberate concealment. The secrecy enforced at the level of service-level agreements between the lead firms and the suppliers, and at the workplace level of non-disclosure agreements that restricts the sharing of work-related information outside of the capital-labor relations, results in high barriers for accessing information about the content moderation process. Further on, given the limited scholarly literature for answering the research questions guiding this study, the research methodology here has followed a grounded theory approach, which "consists of systematic, yet flexible guidelines for collecting and analyzing qualitative data to construct theories from data themselves" (Charmaz, 2014, p. 1). The research methods are primarily qualitative in nature with interviews as the main method, followed by participant observation and quantitative survey methods.

Two phases of fieldwork were conducted in India for this study. The first phase was conducted through in-person and telephonic interviews. This phase also included participant observation of the recruitment process at three supplier firms, two in person and one telephonic. The second phase was conducted entirely using digital and telephonic means because of the then ongoing COVID-19 lockdown across the country. From this perspective, there are two major differences that can be observed between the two phases: first, in terms of the research methods whereby the second phase also included the survey method to capture the demographic information of participants, and second, the largely online means for accessing the participants and collecting data. These adaptations had to be made, not only in view of the difficult access barriers, but also due to the COVID-19 led lockdown in India, which further limited access.

The chapter is branched into two main sections on data collection and data analysis. The first section provides details on collecting data during the two phases of fieldwork in India and explains the application of different research methods. This section includes the discussion on challenges of data collection, followed by the practices of research ethics that are described under the four categories of access, informed consent, data recording and data management. This section also includes reflections on researcher positionality and implications for the data

collection process. Following this, the processes undertaken for qualitative and quantitative data analysis are described. The former primarily includes the coding, memoing and concept-making methods used for cross-case and case-oriented analyses. And the process of quantitative analysis is explained through the use of descriptive statistics, which were used for complimenting the qualitative data. Reflections regarding the validity and reliability of data are also made in this section. And finally, the conclusion summarizes the main points of this chapter and outlines the limitations of the methodology used.

Data Collection

The main methodology of data collection in this research has been informed by grounded theory, and both qualitative and quantitative methods have been used during the two fieldwork phases. The first phase stretched from January to April 2019, and the second phase of the research was carried out from February to May 2020. The fieldwork was entirely conducted in India and the cities of Bengaluru, Chennai, Hyderabad, Delhi and National Capital Region (NCR), including Gurgaon, Noida and Ghaziabad, which are established locations of ITeS-BPO firms, were visited in the first stage to access a variety of supplier firms. The second research phase allowed focus on one supplier firm located in Hyderabad to capture the supplier exit and for examining the potential implications for work and workers.

There are two main categories of target participants for this study. The primary participants include lead firms (LF) operating social media platforms, ITeS-BPO firms or supplier firms (SU) supplying the content moderation services, and content moderators or workers (CM) employed at the supplier firms to moderate content. The secondary participants include CSOs focusing on issues related to freedom of speech, two domestic social media start-ups, trade unions at the central, state and sectoral levels, and other actors including labor lawyers, technology experts and journalists. Interviews with these secondary participants has helped understanding the social media discourse but also the historical trajectory of collective bargaining in the Indian IT industry. This has helped shaping the analysis presented in this study. In total, 66 single interviews and 99 survey responses were conducted during the two fieldwork phases as described below.

Phase One

In the first phase, 36 interviews were conducted with workers, representatives from supplier firms in India, domestic social media firms, central, state and sector-based trade unions and civil society organizations. To understand the inter-firm governance mechanisms in the content moderation value chains, interviews were conducted with management representatives from lead firms and suppliers. These include an interview with the former user operations manager at LF-02, a lead firm based in the USA and operating a global social media platform. The other main lead firm LF-01, also based in the USA and operating a large and global social media platform, did not respond to repeated interview requests.

In terms of the supplier firms, interviews were conducted with SU-05 to SU-09. The representatives of these firms include four chief executive officers (CEOs), and two operations managers. These firms can be categorized as small and medium enterprises (SMEs) with three medium sized firms (SU-05, 06, 07), one small firm (SU-08) and one start up (SU-09). Of the six firms, the headquarters of five are situated in India, while one is based in the United States. While these small and medium suppliers SU-05 to SU-09 are domestic firms with their main offices in India and the sales offices of two firms (SU-05, SU-07) located in the USA, the other large firms SU-01 to 03 are headquartered in the USA, with subsidiaries managing the production sites in India. Given the missing interviews with these large firms on account of non-participation, the study here refers to the subsidiaries as the suppliers, unless the need arises to make the demarcation, such as in the case study analysis. This limitation is also noted in the analytical Chapter 6.

Apart from the firms, interviews were also conducted with nine content moderators (CM) and three content operators (CO), all having permanent employment status, to examine the content moderation labor process from a labor perspective. Content operator is a designation specific to domestic and social media firms, with an extended job profile beyond content moderation to other content-related tasks. CM-01 to 04 were employed by SU-01 to moderate content for LF-01 at the lead firm's subsidiary office in Gurgaon. CM-05 to 07 moderated content for LF-02 while being employed at the large subsidiary offices (250 employees or more) of SU-02 (CM-05, 06) and SU-03 (CM-07) in Hyderabad and Mumbai respectively. CM-08 and 09 were employed at the Indian supplier firm SU-05 to moderate content for different lead firms. The information regarding workers' employment status, education experience and work experience

are included in Chapter 7. And it highlights the diversity of responses from workers interviewed for this study.

Apart from this, interviews with a secondary set of target participants were also conducted. This includes interviews with two domestic social media firms (DSMF-01 and 02), seven civil society organizations (CSOs) focusing on freedom of speech, online governance, and human rights in India, and eight interviews with seven trade unions. This is showed in table 5.1 below:

Table 5.1: Information on secondary interview participants in the first research phase

S. No.	Type	Name	Location
1.	Domestic social media start-up	DSMF-01	Madhya Pradesh
2.	Domestic social media firm	DSMF-02	Bengaluru
3.	CSO	Access Now	Delhi
4.	CSO	Internet Freedom Foundation	Delhi
5.	CSO	Software Freedom Law Centre	Delhi
6.	CSO	Association of Social Media Professionals	Delhi
7.	CSO	Centre for Social Research	Delhi
8.	CSO	The Centre for Internet and Society	Bengaluru
9.	CSO	Point of View	Mumbai
10.	Trade Union	All India Trade Union Congress (AITUC)	Delhi, Bengaluru
11.	Trade Union	Centre of Indian Trade Unions (CITU)	Delhi
12.	Trade Union	New Democratic Labour Front (NDLF)	Chennai
13.	Trade Union	Forum for IT Employees 1 (FITE)	Chennai
14.	Trade Union	Forum for IT Employees 2 (FITE)	Delhi, Bengaluru, Chennai

15.	Trade Union	Union of IT and ITeS Employees (UNITES)	Chennai
16.	Trade Union	Karnataka State IT/ ITeS Employees Union (KITU)	Bengaluru
17.	Trade Union	For IT	Hyderabad

Out of the seven trade unions, FITE, UNITES and NDLF are registered trade unions in some Indian states in the IT sector. AITUC and CITU are central trade unions who were in the process of starting their IT wings in different Indian states. KITU was the only registered IT-employees wing of CITU registered in the state of Karnataka. For IT is a non-registered union providing legal information and resources to IT employees in the state of Telangana. The trade union landscape in India is however historically characterized by affiliations with political parties, which has been an important cause of missing cooperation between the central and IT unions. AITUC is affiliated with the Communist Party of India, CITU and KITU are affiliated with the Communist Party of India (Marxist), and NDLF with the Communist Party of India (Marxist-Leninist) Liberation. The IT-centric unions including FITE (2), UNITES, and For IT for most parts did not engage with these central trade unions as they "denounced the extreme Leftist leanings" (Noronha & D'Cruz, 2020, p. 24).

This is particularly the case for the rift between the early and later founders of FITE, because the former founding members were affiliated with the CPIML party as part of their political actions including the Save Tamils Movement, which brought together IT professionals and youth in November 2008 to condemn Sri Lanka's genocidal war against *Eezham Tamils* (interview with Parimala Panchatcharam, co-founder of the first FITE (1)). The result was the creation of a new FITE (2) whose members believed in avoiding political engagements and adopting a more "professional" outlook towards the management that did not rely on traditional union tactics such as striking. This culture of labor professionalism pervading the IT industry is discussed in Chapter 7. Given this complex political context within which the Indian IT-unions evolved, two interviews were also conducted with the *Labour Commissioner* in Bengaluru and a lawyer in Hyderabad focusing on labor disputes, to understand the legal landscape of the Indian ITeS-BPO sector. Additionally, informal meetings with journalists working in the field of technology and with legal experts working on data protection also offered useful insights into the sector. This allowed for an analysis of the content moderation value chains in India from a multilateral perspective.

Given the limitations, extant texts such as company reports were also used. An additional ethnographic method was used, wherein participant observation of the recruitment process at three different supplier firms were conducted. To gather rich descriptive data, I applied as a content moderator using the Indian online job portals and took part in two walk-in-interviews at two medium-sized firms and one telephonic interview at a large firm. Through the performative role as a job applicant, I was able to observe firstly, the steps and processes of recruitment, and the role of lead firms in the final stage of the recruitment through online interview. Secondly, I could observe the motivations of job applicants through informal conversations with them while waiting for the interviews, and thirdly, the office infrastructure and monitoring mechanisms through the use of physical cameras. This also provided information on the wages offered for *freshers* (unexperienced graduates), limited paid holidays and skill requirements. This data is triangulated with the interview and survey data, and analyzed correspondingly in the section on recruitment process in Chapter 6.

Phase Two

In the second phase, a case study design was followed. I had initially started off with what Blumer (1954) calls "sensitizing concepts" that were based on certain research interests and had guided my interview questions (in Charmaz, 2014, p. 31-32). This included issues of working conditions, the organization of work and employment relations at supplier firms. The data collected in the first phase indicated that further inquiry was required to answer my research questions. While the process of designing the second fieldwork was underway, media reports surfaced regarding a supplier exit from the content moderation project with LF-02. This was a unique development that had firstly, not been observed in the first phase, and secondly, highlighted general lack of empirical attention on supplier exit in the literature on Indian ITeS-BPO sector. Correspondingly, the firm SU-04 was chosen for case-oriented analysis to resolve these research gaps.

The primary target participants in this phase are content moderators (CMH-01 to 30) employed at SU-04. Although several interview requests were made to SU-04 management in India and the parent firm in the USA, there was no response from the firm offices. The policy communications manager at LF-02 at least responded to the email queries regarding the supplier exit, although these two email responses were mostly generic in nature, resembling information that was already available in the media regarding the exit. Requests for interviews with LF-02

also went ignored. Correspondingly, to complement the labor perspective on exit, the annual reports of SU-04 from the year 2019 and 2020, submitted by the firm on the form 10-K of the U.S. Securities and Exchange Commission, were thoroughly analyzed to understand the reasons and inter-firm governance mechanisms of exit.[30]

A mixed-methods approach was taken to study the labor perspective on exit. This included 99 individual surveys and 30 single interviews. Each survey took eight to ten minutes on an average, as recorded on the *Lime Survey* website, the online platform on which the survey was taken. And each interview lasted between 60 to 90 minutes. There are two main reasons to have chosen the survey method in this phase. First, it allowed collecting both the demographic and employment-related information of the moderators. And second, it enabled trust building with the participants before conducting in-depth interviews. The survey constituted sixty questions, categorized under four main groups: firstly, demographic background, secondly, work process, thirdly, education and skills, and fourthly, employment status. This provided information on age, skill-set, gender, marital status, etc., and more specifically on the conditions of work such as working hours, production targets, wages, skill development, etc.

Following this, interviews were conducted with participants who had already taken part in the survey and had agreed to be contacted for the interviews, using the option included in the survey. A semi-scheduled interview guide was used, consisting of forty-nine questions, and were grouped into the following: first, recruitment and training, second, work process, third, skill development and wages, fourth, automation in moderation, fifth, interaction with management and, sixth, collective bargaining. These questions aimed at examining the organization of work, subsequent working conditions and possibilities for collective struggles and resistance. Although interview participation depended to a large extent on the workers' interest, similar effort was put in ensuring a diversity of respondents in terms of the content process, format, employment status and tenure (table 5.2).[31] This was managed during the research access phase, which will be explained in the following section on research challenges.

[30] More information at: https://www.investor.gov/introduction-investing/investing-basics/glossary/form-10-k

[31] The table lists the primary content formats. There are also secondary forms of content in all content queues. For instance, all videos have thumbnails and text description that are assistive to the content moderation work.

Table 5.2: Information on interview participants in the second research phase

S. No.	Employment status	Content Process	Content Format	Experience (in years)
CMH-01	Current	Content Classification	Videos	1.8
CMH-02	Current	Content Classification	Videos	2.10
CMH-03	Current	Content Classification	Videos	2.11
CMH-04	Current	Content Classification	Videos	2.10
CMH-05	Current	Content Classification	Videos	2.9
CMH-06	Current	Content Classification	Videos	2.10
CMH-07	Former	E-commerce	Videos	2
CMH-08	Former	E-commerce	Videos	1.6
CMH-09	Current	E-commerce	Text and profiles	1.8
CMH-10	Current	E-commerce	Images	3
CMH-11	Former	E-commerce	Videos	1.3
CMH-12	Former	E-commerce	Images and videos	1.6
CMH-13	Current	E-Commerce	Images	2
CMH-14	Former	E-commerce	Images and videos	1.6
CMH-15	Current	E-commerce	Images	1.8
CMH-16	Former	E-commerce	Images and videos	2.2
CMH-17	Current	E-commerce	Images	3
CMH-18	Current	E-commerce	Images	2.1
CMH-19	Current	E-commerce	Images	2.8
CMH-20	Current	E-commerce	Images and videos	1.11
CMH-21	Current	E-commerce	Videos	4

CMH-22	Current	Brand safety	Videos	2
CMH-23	Current	Brand safety	Videos	1.4
CMH-24	Current	Brand safety	Videos	1.2
CMH-25	Current	Brand safety	Videos	1.3
CMH-26	Former	Video Ads	Videos	3.10
CMH-27	Current	Video Ads	Videos	1.8
CMH-28	Former	Video ads and ad. categorization	Images and videos	1
CMH-29	Former	News articles	Images and videos	2
CMH-30	Former	South Asian market	Images and videos	6 months

Challenges

As mentioned before in this chapter, this research is limited by an equal participation of each set of target participants. On accounts of process confidentiality, several target stakeholders declined to take part in the research. Of significance is the lack of participation by representatives from LF-01 and the large suppliers SU-01 to 04 in India. This made it difficult to gather different opinions about the content moderation process. At the same time, accessing workers was also not without challenges, as we will see from the discussion below. The issues of access are then followed by a discussion of research ethics, and how care was taken to protect the interests of the participants.

Access

Locating participants to gather information about the content moderation process has been one of the most difficult aspects of this research. Underpinned by the logic of confidentiality, two main reasons can be argued for this: first, the term content moderation that has been used in the public and scholarly discourse to address the practice, is not a "standard business terminology" (Ahmad & Krzywdzinski, 2022, p. 85). And second, there was a dearth of social access points or spaces such as trade union meetings and open-door industry conferences, where I could access the workers. This goes on to show the largely unorganized but also *invisible* (Crain et al., 2016) nature of content moderation work.

To access the research participants, different communication mediums such as email, telephone and others, across different time periods of the day, such as in morning, afternoons, evening and late nights, were used. The exploration with different time stages was to respond to the 24*7 running shifts in the ITeS-BPO sector (Taylor et al., 2014; Remesh, 2014), where target participants, especially workers would be working in different shifts. The primary medium used for accessing workers was a popular professional networking website. But before this step, exploratory research was undertaken on popular social media platforms and *question-and-answer* websites such as Reddit and Quora to look for groups and members who were associated with the subject of content moderation. This was done using publicly identifiable indicators such as occupation, company name, content shared on their profiles etc. The results yielded anonymous statements by former content moderators on social media regarding their experiences of bad working conditions. While they could not be interviewed as they did not respond to the requests, the act of public disclosure indicated that this set of target participants, i.e., workers, were potentially more accessible than others.

Correspondingly, the public profiles of potential content moderators on the professional networking site were explored, using information such as workers' employment histories, skills, interests and others that they shared on their public profiles. Moderators often do not identify as content moderators but instead use the same company labels such as 'process executive', 'system analyst', or 'associate', all of which are broad terms not specifying the process. A careful look at the job descriptions, work aspirations, association with companies and network members was undertaken to indicate their specific role as a content moderator. Narrowing down these factors allowed me to approach those who had either worked or continued moderating content for social media platforms, at the time of the study. However, even when they accepted the connection requests and responded to my personal messages, they would often ignore or sometimes even out rightly reject to be interviewed. Several hundreds of workers were sent a request for their participation, although only a tenth responded. And an even smaller number agreed to be interviewed. Subsequently, the snowball sampling technique was used to get in touch with additional moderators, acquaintances of those already interviewed.

The experiences made while accessing research participants and the exploratory design followed also indicates that great care had to be taken while examining the publicly available data of target participants, and evaluating their relationship with this information. This is discussed below.

Research ethics

The data collection methods in this research have been informed by common research standards in qualitative social sciences. These were curated in view of the given research questions and challenges at hand, and they can be understood through three broad and overlapping categories: informed consent, data collection and, data management (table 5.3). While, these standards are not exclusive, as can be seen from the descriptions below, identifying their particularities serves to consolidate the main issues encountered during the study.

Table 5.3: Research ethics applied under the three main issues

Category	Informed Consent	Data Recording	Data Management
What	Providing sufficient information	Recording information	Data protection
How	Participation rights	Relationship with participants	Anonymization
Why	Transparency	Trust-building	Confidentiality

Informed consent

Informed consent is the practice of providing the research participants with sufficient information about the study and taking their consent at the outset. This information refers to the research aims, information regarding data collection and data processing, together with the rights of the participants to withdraw at any point of time in the study, their right to anonymity, and accessibility rights to the transcripts and results. A written interview consent form with all of these aspects was prepared to be provided to the participants before the interviews and the survey. And the form was included in the beginning of the survey as a requirement to proceed further.

At the same time, the mandatory requirement of a written permission by signing the consent form, was found to be distressing for some participants as it heightened the formalization of the interview process and the potential implications for the interviewees. For instance, the interview with an operations manager in SU-08, was evidently affected due to the introduction of a consent form in the interview setting. Gaining access to the interviewee had already been difficult due to concerns regarding client confidentiality and company interests. Upon placing the informed consent form on the table in front of her, signs of distress were noticed, such as

change in the body language, hesitation to answer questions and their repeated suggestions to shorten the interview. The interview took place within controlled (management) settings and assumingly, the consent form posited for the interviewee a breach of trust towards the company. Additionally, there were also surveillance cameras in two opposite corners of the meeting room and the interviewee was noticeably aware of them. Even though the consent form was aimed at making the research process transparent to the interviewee, it had these above effects on some interviewees. At the same time, the practice of taking consent before each interview and survey, either in written or in oral firm, was not stopped during the rest of the data collection process. Due care was taken to not distress the participants.

Data recording

The process of recording data for this research has also followed common research practices that have been informed by the European Union General Data Protection Regulation (GDPR). This meant that concerns regarding data recording, storage and anonymity had been designed into the data collection process in consultation with data protection officer at the Berlin Social Science Centre. This information was also outlined in the informed consent form. The online survey was conducted on an open source web server-based software called Lime Survey, accessed through a proprietary license bought by the Berlin Social Science Centre. Interviews are however the main method of inquiry in this research and permission regarding the use of an audio recorder and note-taking was requested in prior to the interviews. In a few instances where participants refused to be recorded, I took notes after taking their approval.

Similar to Murray's (2003) method of note taking that was inspired by Schatzman and Strauss (1973), I took extensive notes during the fieldwork and these can be categorized under the following groups: observations, methodology and personal notes. I maintained different notebooks to take notes during both the interviews and the online surveys. Compared to the interviews, there were no possibilities of real-time observation during the online surveys that participants undertook themselves. Observational notes could thus be taken after the survey had been completed. In comparison, both methodological and personal notes were taken prior to and following the interviews and surveys. The observational notes have informed the analysis part of this dissertation, while this specific chapter has been informed by the methodological notes. On the other hand, the notes including personal observations, such as in reference to my daily routine, health, and other aspects, have remained as part of my private documentation.

Data management

Data collected from the participants has been carefully stored. The audio recordings were transferred to my personal computer and a copy was also stored on an external hard drive. Following this, these recordings were deleted from shared recording devices. In addition, all recordings were anonymized and each participant was assigned with a tabulated code. The same coding mechanism was applied to the survey responses. Correspondingly, all personal information that had been used to contact the participants such as email addresses, phone numbers, online profile links on the professional networking together with information that had been used to remunerate the participants such as bank details, and others, were deleted. Following the deanonymization of research data, the recorded interviews were then transferred for transcription to individual transcriptionists who had previously been known to me. Because the content of these interviews is confidential in nature, great care was taken towards instructing the transcriptionists to process and store the transcripts securely.

Research ethics during participant observation

It is important to note here that this method was undertaken given the special circumstances of this field. Further on, at least one supervisor was consulted before undertaking this method. There was no informed consent taken using this method, but issues regarding data recording and management were taken care of. To be selected for the first round of screening, I removed all my higher educational qualifications from my resume, except the Bachelor's degree which was a prerequisite to apply. But I did not add anything new, and neither did I change my name, my birth of date nor camouflage my physical appearance. I also made sure to not audio or video record anything, and instead take notes, when I was able to. Finding isolated settings where I could make field notes was not easy, and I had to either use the office bathroom for this or write them as soon as I would leave the office premises.

Final reflections

Reflectivity is an important feature of the grounded theory methodology and allows researchers to attend to the social contexts within which the processes of data collection take place (Charmaz, 2014; Cisneros-Puebla, 2008; Roulston, 2010). In this research, it can be understood firstly in terms of the research language and, secondly, in terms of researcher positionality.

English was primarily used for approaching research participants, communicating with them and conducting interviews and survey. Given that not all participants were proficient in the language, communication was made using simple, non-scientific and at times, repetitive wording. In terms of the second important question, the data collection processes here have been subject to different socio-cultural norms and sensibilities including nationality, gender and religion. This primarily referred to identity-based responsiveness such as being often asked by participants if I was an Indian national, and how some Muslim-identifying participants were more trusting of me given that my surname is a commonly-known Muslim name and the increasing *minoritization* of Muslims in India (Human Rights Watch, 2022; Maizland, 2022). Additionally, being a female researcher also created barriers in accessing certain offices and meetings that were unsafe for me as a female researcher.[32]

An important aspect of the researcher positionality here refers to the economic inequalities between the researcher and the workers. Most workers earn a monthly wage of around INR 15,000 or USD 178, with some even earning less than it (those employed in small and medium ITeS-BPO firms). As will be shown in the analytical discussions in Chapters 6 and 7, the entry-level wage in the sector has remained stagnant for the last 15 years, and dissatisfaction with low wages together with limited or no skill development are primary causes for labor attrition in this sector. This should be seen in context of the existing cost of living crisis in India (Pathak, 2022) that has worsened with the COVID-19 pandemic (ILO, 2022). Not surprisingly, many workers requested information on job opportunities in Germany and if I could help them get a position in the IT industry here. This translated into two implications for the data collection process: first, in terms of remaining transparent as a researcher on what the motives of the research were, and my own limits in terms of my knowledge of and access to the IT industry in Germany. And second, in terms of including incentives for participants in the second research fieldwork. The survey participants were remunerated with INR 1000 or USD 12 and interview participants with INR 2500 or USD 30. Due care was also taken to ensure that the financial incentives did not create biases in the data collected. This is further considered in the following section on data analysis.

[32] The degree of dependence between participant responsiveness and research identities cannot be established. In other words, it cannot be determined if the participants took part in the study or answered certain questions differently because of the certain identities I have.

In order to ensure that the research was done ethically, an application with the research design proposal was made to the local ethics commission at the Berlin Social Science Centre prior to the fieldwork. Once the certificate of approval was received, the fieldwork was initiated. This proposal however did not include information regarding the participant observation method. Although, the method was only undertaken after due consultation with one supervisor of this study.

Data Analysis

Given the lack of scholarly works on content moderation process at the onset of this research, the initial inquiry was largely informed by exploratory questions on understanding the organization of work, working conditions, and employment relations in content moderation value chains. Instead of having a hypothesis therefore, the aim was to discover certain patterns that could be used in combination with previous conceptualization on work in service value chains. The inductive tenets of grounded theory method drew on large amount of data generated through transcribed interviews, survey data, observational and other field notes. The initial analysis of fieldnotes, already undertaken during the data collection process, enabled the early discovery of emerging research patterns on working conditions associated with standardization, high degrees of control, and attrition, but also indicated differences in the observations. This allowed for interviewing more participants from different backgrounds.

In order to find clearer patterns in the data that could be explained through theories, the collated data was subjected to qualitative data processing methods of coding, memoing, and concept mapping. These data processing practices were guided by two forms of analysis: first, the cross-case analysis that drew from different cases reflecting similar patterns, and second, the case-oriented analysis that examined all possible factors (Babbie, 2015). Cross-case analysis has yielded generalizable findings across different content moderation value chains in India, whereas the case-oriented analysis has focused on the supplier exit and complimented the broader analysis in the study with this unique case. While data collected from the first research phase was primarily analyzed using manual techniques, a proprietary and analytical software called MaxQDA (QDA stands for qualitative data analysis) was used in the second phase. This is simply due to the excess time taken and limitations of replicability (digitally) associated with manual analysis experienced in the first phase. The following sections discuss the methods of

coding, memoing and concept mapping undertaken using the two techniques, and across the two phases, informing the cross-case and case-oriented analyses.

Coding

Described as the "classification or categorization of individual pieces of data", coding is a key process for analyzing qualitative research data (Babbie, 2015, p. 387). The three types of coding techniques developed by (Strauss & Corbin, 1998), namely open, axial and selective coding were used to categorize the data. To start with, open coding was used to break down data into "discrete parts" for close examination of "similarities and differences (Strauss & Corbin, 1998, p. 102). This resulted in several open codes that were either hand-listed on sheets of paper or using the MaxQDA program. Following this, the axial coding method was used to regroup the open-coded data in search of more analytic concepts (Babbie, 2015, p. 389). Following this, the selective coding method was used to locate the primary codes in the study.

Tables 5.4 and 5.5 in the appendix section of this dissertation list these codes for both the outsourcing mechanisms outlined in Chapter 6 and the labor process analysis outlined in Chapter 7, respectively. First, the open codes were prepared, which were followed by axial codes and then a selective code for each category. This inductive coding technique was informed by existing literature on global value chains, global production networks and labor process analyses. At the level of open coding, broad categories are used, which are subsequently reduced into social concepts through axial and selective codes. These concepts are not discrete entities, which is to say that they might have emerged in different social settings, but have analytical possibilities for this research (Chaudhuri, 2022). For instance, in table 5.4, while SLAs, automated technology, and institutional arrangements have found separate theoretical application elsewhere, their conceptualization in this study shows how content moderation is outsourced to India to extract labor productivity across different value chain configurations.

Following the coding for cross-case analysis, the case-oriented coding is undertaken. It rehashes some of the already-used open codes together with selective codes in cross-case analysis, to generate the final codes for explaining the observations regarding supplier exit, transfer of work, and labor control and agency in the case study.

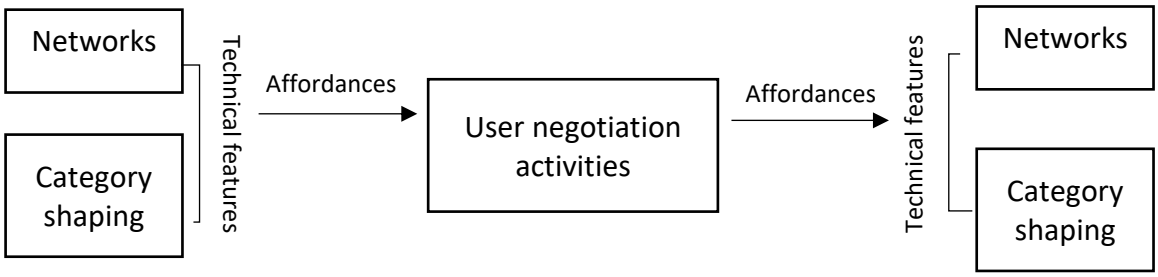
Memoing

The coding process was also accompanied with the process of memo writing or memoing that "can describe and define concepts, deal with methodological issues, or offer theoretical formulations (Babbie, 2015, p. 391). All three kinds of memos proposed by (Strauss & Corbin, 1998), namely code notes, theoretical notes and operational notes, were written during the data collection and analysis process. While operational notes were made during the data collection process to remind myself of the context and meaning of certain data, code notes and theoretical notes were written during the analysis phase. During the coding process, code notes were written to describe the labels, and while both handwritten notes and MaxQDA program were used, the latter technique was more efficient in terms of managing the notes and replicating them from the software to the word processor documents. Theoretical notes on the other hand, were largely hand-written in notebooks to make sense of the coded concepts using existing theories. Extensive theoretical notes also helped in the process of concept mapping.

Concept mapping

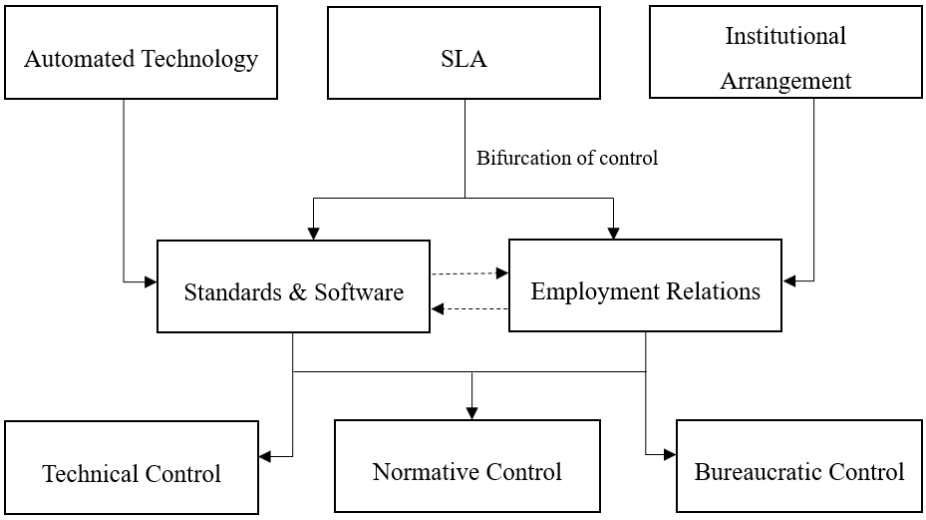
The process of putting together certain concepts in a graphic format to be able to "understand the relationships between concepts better" is called concept mapping (Babbie, 2015, p. 392). Instead of using MaxQDA or any other computer program, all the primary concepts were put together by hand on single sheets of paper to find inter-connections between them. This was particularly useful for the inter-disciplinary study here that uses a multi-theoretical lens to answer the research questions. Below are two main instances of the many concept mapping exercises that were used to conceptualize the research findings. Figure 5.1 shows how social media platforms afford users the possibilities of networking and category shaping. The user negotiation activities with the technical features underpinning these platforms, in turn, affords information regarding user interests to the lead firms. From this perspective, the concept mapping exercise here allows use to see the dynamic character of social media platforms.

Figure 5.1: Concept mapping for social media affordances



In order to understand how outsourcing and interfirm governance mechanisms structure the labor process in content moderation value chains, concepts developed in both sets of scholarly literature were brought together. Figure 5.2 shows how SLAs are crucial for bifurcating managerial control over content moderation standards and work software on one hand, and on the other, the employment relations. While the automated technology, often the proprietary technology of lead firms, is used for directing work to workers according to lead firm standards, it also has effects on the employment relations that are largely the domain of suppliers. A similar pattern can be observed regarding the shaping of employment relations through institutional arrangements, and for standards and software in terms of infrastructure facilities and human capital.

Figure 5.2: Concept mapping for labor process structuring through outsourcing mechanisms



The figure also shows how the three outsourcing mechanisms, while bifurcating managerial control, also structure the labor process in terms of managerial strategies for extracting labor

productivity. Where the standards and software are a site of technical control, the employment relations are a site of bureaucratic control, but there are also overlaps between the two, especially in terms of metrics generated by the software, which are used for bureaucratic control. Both these control mechanisms also have normative dimensions. This is explained in detail in Chapter 6.

Analysis of quantitative data

The survey undertaken in the second research fieldwork phase generated quantitative data on demographic background, education and skills, and employment status of participants, together with information on their work process. This data was qualitatively examined in the case-study analysis of supplier exit in Chapter 7 to show the motivations of workers for joining the content moderation process, the organization of work, experiences of labor control, and labor agency. The larger sample of surveys (n=99) complimented the smaller number of interviews (n=30) to explain the extension of control and limits of agency in the event of supplier exit. For this, a descriptive and univariate analysis such as age, educational background, working hours, wages etc., was used for purposes of description.

Validity and reliability of analysis

Following the practice of reflection in the data collection practices, due care was also taken in ensuring the validity and reliability of data analysis. Babbie (2015) refers to the process of ensuring validity as one that "involves the question of whether you're measuring what you say you're measuring" (p. 403), and reliability as being understood by the dependability of the "measurement or observation technique" (p. 405). This means that questions related to prejudice (validity) and consistency of the findings need to be reflected upon. There are two sources of potential bias in this study: first, in terms of the incentive-based participation in the second fieldwork, and second, the disproportionate participation of workers in the study. Both of these issues were addressed by using the triangulation process that refers to the "use of several different research methods to test the same finding" (Babbie, 2015, p. 118).

Triangulation has primarily been treated as "a method of validation" that relies on a "combination of multiple methodological practices, empirical materials, perspectives, and observers in a single study" (Denzin, 2007, p. 1). By combining on one hand, the qualitative interviews and the participant observation method together with the quantitative surveys and

document analysis, and on the other, the cross-case analysis with case-study focus, the study here has made use of different research methods and strategies that have allowed for deeper contextualization and interpretation of the content moderation process. It has also allowed for finding anomalies in the research patterns. This methodological triangulation is also supplemented with the use of "theory triangulation" in this study, that is described as the use of "more than one theoretical scheme in the interpretation of the phenomenon" (Denzin, 2007, p. 2). Despite its value, there are also criticisms of the triangulation process that have largely been clubbed under the "incompatibility thesis"; it argues that the "compatibility between quantitative and qualitative methods is impossible due to the incompatibility of the paradigms that underlie the methods" (Teddlie & Tashakkori, 2003, pp. 14-15). However, this criticism is confronted by an increasing use of mixed-methods approach by scholars, that is beyond the use of triangulation (Denzin, 2012).

In terms of the issue of analytical reliability, three main methods were followed: first, through building trust with the research participants by talking to them before each interview and survey, and answering their concerns. Second, by including a diverse mix of responses across different processes and experience levels, and third, by using a semi-structured interview guide that constituted a large range of questions.

Conclusion

The research methodology presented in this chapter shows the use of grounded theory to examine content moderation process, a field characterized by secrecy and lacking scholarly analysis. Given the inductive bent to grounded theory in terms of its instrumentalization for discovering emergent social patterns, a large amount of data was collected using both qualitative interviewing method and quantitative surveys. These methods were undertaken across two fieldwork phases, wherein the first phase followed a more exploratory approach by examining the different forms of interfirm governance mechanisms and the subsequent workplace structures. The second fieldwork phase focused on the case of a supplier exit and used both surveys and interviews for examining the implications for involved firms and workers.

Data was collected using 66 interviews and 99 qualitative survey responses in total. And both primary and secondary sets of participants took part in the study. While the former refers to representatives from the supplier firms, lead firms and content moderators, the latter refers to

the CSOs, trade unions, a labor lawyer and labor commissioner of Karnataka. Interviews with these secondary participants has helped understanding the social media discourse but also the historical trajectory of collective bargaining in the Indian ITeS-BPO sector. This has helped shaping the analysis presented in this study. Also informed by the grounded theory methodology, is the process of data analysis that has utilized the methods of coding, memoing, and concept mapping to discover emergent social patterns. And these have been undertaken for both cross-case and case-oriented analyses.

Reflexivity has been key to both the processes of data collection and analysis. Practices of data collection were informed by research ethics in terms of informed consent, data recording and its management, but also were underpinned by introspections over research positionality. This includes reflections on researcher identities regarding nationality, religion, gender and economic factors, and their influence on participant cooperation. Reflection in the data analysis process meant ensuring the validity and reliability of data and the techniques of measurement by looking for inconsistencies, including in a diverse mix of responses, building trust and using a semi-structured interview guide. These were underpinned by iterative strategies to move "back and forth between data and analysis" (Charmaz, 2014, p. 1).

Despite the steps taken, two main limitations can be outlined in this chapter: first, regarding the limited and even missing responses from lead firms and large supplier firms and the disproportionate number of responses by workers across different value chains, also registered in Chapters 6 and 7. And second, regarding the comparability of responses given the limited responses from certain actors. This was however unavoidable given the immense challenge associated with accessing the research field. Subsequently, the inclusion of extant texts and participant observations of the recruitment process helped triangulating the data analysis.

Chapter 6: Ensuring Quality Service Delivery from India

Introduction

Despite the increasing automated filtering of content on social media platforms, content moderation services continue to be outsourced to India. These services are a part of the larger content moderation process and involve the standardized work of reviewing content that has been flagged by both users and technology. This is different from the higher level of discretion that is reserved for the direct employees of lead firms, and for this reason content moderation work in India is also referred to at times by workers as content reviewing. The distance between these layers of content moderation is laced with power asymmetries between global capital and labor, where lead firms based in the Global North extract value from the workers based in India. These global capital-Indian labor relations are mediated through supplier firms who employ the workers.

There are three primary actors involved in the content moderation production process: first, the lead firms based in USA, second, the subsidiaries of multinational enterprises that are also headquartered in USA and who directly coordinate with the global lead firms for offshoring work to these firms in India, and third, the independent small and medium enterprises (SMEs) based in India. Depending on the product complexity that is based on three factors, namely the content format, such as videos that require more time for moderation, second, the use-cultures of social media platforms, and third, the moderation policies of the lead firms, lead firms require specific content moderation services from the workers in India. This includes the type and degree of labor knowledge and local skills such as language, as user content sent to India could either be global in nature or simply from India.

Together with the different degrees of product complexity, there are also different degrees of supply-side uncertainties and labor indeterminacies that arise in the content moderation outsourcing. Correspondingly, the strategic choices of lead firms are embedded within specific mechanisms which can ensure the extraction of quality service delivery in a cost-effective manner.[33] Sections one to three of this chapter discuss the three outsourcing mechanisms in

[33] As discussed in the theoretical part of this study, quality service delivery refers to both content accuracy but also context-sensitivity.

reference to the platform particularities and moderation requirements. It can be seen that there exist discernible differences between different value chains in terms of SLAs affecting the division of control between lead firms and suppliers, the degree of use of automated technologies for routing tasks to workers and codifying their knowledge, and the influence of institutional arrangements affecting labor flexibility and infrastructure.

At the same time, there are several overlaps across the interfirm coordination and governance relationships in value chains, and highlights their asymmetric character and the increasing control over the labor process with lead firms. This is made possible through the functional division of labor process between the lead firms and the suppliers. The moderation standards and in most cases, work infrastructure is set by the former, and the role of ensuring that work meets those standards and the management of employment relations, is taken by the latter. This observation on asymmetrical inter-firm relationships sits well with the direct control exercised by lead firms over the design of social media platforms and the flagging activities of users through the platform affordances.

The case study presented in the fourth section of this chapter describes the supplier exit from the content moderation project with LF-02, and the subsequent transfer of the project, including moderators, their team leaders and operations managers, to another supplier in India. The combination of this unique case study together with the cross-case analysis presented in the rest of the chapter allows us to see that the content moderation service provision in India, while a site of enormous flexibility – in terms of labor and market power – for both lead firms and large suppliers is also a site of asymmetric inter-firm relationship. This is particularly seen through the replacement of one supplier firm by another. The conclusion summarizes the discussions from this chapter, highlights the limitations of this analysis, and shows how these outsourcing mechanisms and the accompanying models structure the conditions within which labor process is organized at the workplace.

Service-level agreements

SLAs are key to the governance mechanisms and the coordination relationships between the lead firms and the suppliers (Taylor, 2010). They are also informative of the increasing control with the lead firms wherein most decisions regarding the content moderation standards or policies and work software reside with them. The suppliers are tasked with managing the workers to ensure the delivery of accurate and context-sensitive content moderation decisions.

Lead firms LF-01 and LF-02, based in the USA, establish the SLAs with the parent firms of suppliers SU-01 to SU-04, also based in the US, for the moderation work to take place in India. The other small and medium suppliers SU-05 to SU-09 are based in India and two firms' (SU-05, SU-07) sales offices are located in the USA.

The SLAs comprise of four major aspects: first, the *price per unit* that lead firms pay to the suppliers, second, the allocation of responsibilities between the firms in terms of product-related and those related to employment relations, third, the qualitative and quantitative targets that suppliers have to achieve and finally, the terms of contract termination. With different types of social media platforms in the form of their content and consumer background, the SLA particularities also differ. While there is no available information on the pricing agreements between the firms and has only been referred to by supplier firms SU-05 to SU-09, these following sub-sections discuss the other three aspects, and detail the specifics of and differences within the content moderation SLAs.

Allocation of responsibilities

The initial content moderation outsourcing to India did not start with contracting external suppliers. Instead, the lead firms offshored the operations to their subsidiaries in the country, and the reasons can be understood from the following statement by the former user operations manager (UOM) at LF-02:

> "You know, at the time, and this is still a model that many companies use today, at the time, we didn't consider any of those flows mature and that, quote unquote, to give to outsourcers or to rely on outsourcers was difficult. I'm sure (that) there are many reasons, but that is likely why we chose to keep things in-house as long as we did, because if you're still figuring out what your (content moderation) policy is for like self-injury, you can't like tell a team of a hundred over in some other office you never talk. You don't *face-time* and be like, "Okay, here's what you do, right?" It's just going to be a mess. So, I think the goal with a lot of them was to get the work flow stable enough where we were confident (that) we could teach somebody else to do this."

With increased scale of UGC and the tremendous expansion of the Indian social media consumer base for the global social media platforms, lead firms started outsourcing work to India, with clear allocation of responsibilities between the firms: firstly, in terms of the work process, secondly, in terms of the employment relations. The lead firms provide the content

moderation technology and the policies using which content is moderated. The suppliers act primarily in the capacity of an employer of content moderators, subject matter experts, quality analysts, team leaders and the operations manager to ensure the quality service delivery.[34] Except of the SLA between the lead firm LF-01 and supplier SU-01, the workplace is also provided by the suppliers. On account of the increased degree of complexity posed by the video content of LF-01, the lead firm brings together whole teams of workers employed by SU-01 and its proprietary technology within the workplace with an aim to eliminate all possibilities of moderation errors on account of supplier functions.

Significant to the outsourcing process is the establishment of an NDA, which is key to the relationship between the lead firm and the suppliers. Workers are required to sign the NDAs, and the suppliers are held responsible by lead firms for enforcing the secrecy of the outsourced work. Correspondingly, the physical infrastructure at supplier firms is also equipped with high security measures and workers are divided in small teams of 15-20 people with no interaction allowed across the teams. The degree of secrecy however differs according to the requirements of the lead firms. Interviews with SMEs SU-05 to SU-09 show that while they refrained from speaking about their clients (a characteristic observed across the ITeS-BPO), they were comparatively more willing than large firms SU-01 to SU-04 contracted by LF-01 and LF-02, to discuss the content moderation operations at their firm. Visits to the offices of SU-05, SU-06, SU-08 and SU-09 also showed contrastingly lesser number of security personnel and cameras than observed at SU-02.[35]

Given that content moderation policies are provided by the lead firms, they also play the primary role of directing the workers with tasks. This takes place through the content moderation software, which will be discussed later in this chapter, and also through the training practices that are crucial to the work. Depending on the SLAs, workers are trained for different periods, between two to three days (SU-05 to SU-09) and between three weeks to two months (SU-01 to SU-04). Apart from informing about the content moderation policies, the training also includes some information about the lead firm, its general operational guidelines, the company rules of performance, and mechanisms of discipline and reward at the supplier firms.

[34] The function of a subject matter expert is to advise content moderators on content-related issues, whereas the team leader monitors workers' performance and advises them regarding organizational issues. Depending on the firm size, there could be subject matter experts, trainers and quality analysts supporting workers regarding the content-related issues or all of these functions could be combined in the role of a team leader, such as at the SMEs.
[35] SU-02 had a walled compound for the office, together with a high number of security officers and cameras.

The training is undertaken by in-house trainers at the supplier firms who are also the main point of contact between the policy teams at the lead firms.

A certain amount of flagged content volume is agreed upon between the lead firms and the suppliers. These volumes are susceptible to change during special periods in which the lead firm representatives contact the trainers at the supply-side and inform them about the changes. The trainers are then tasked with informing and training the workers and correspondingly, workers are shifted to specific teams or queues working in the particular queue with higher volume content. The communication between the trainers at supplier offices and policy team in the lead firm office is crucial to moderating the flagged content according to the continuously changes in the policies. Weekly updates regarding the policies are communicated with the trainers, which are then again used for training the workers. These updates are also embedded in the work software and get automatically transferred to the workers.

The management of employment relations is the domain of suppliers and it is primarily associated with monitoring the performance of workers. In order to ensure that labor productivity is extracted from workers according to the client standards, the supply-side management recruits the specific number of workers with specific skills. Depending on the SLAs, either there could be a direct involvement of the lead firm in the recruitment process as in the case of LF-01 and SU-01 or the information regarding the *headcount*, i.e., how many workers the suppliers are required to recruit, could be specified by the lead firms. This was observed in the value chains LF-02 - SU-02/ 03/ 04. The least amount of involvement by lead firms in the recruitment process was observed for suppliers SU-05 (CM-08, CM-09), SU-08 and SU-09. This can be explained by outsourcing arrangements that are generally based on market-based principles (also in Ahmad & Krzywdzinski, 2022).

> "Often times, clients do not understand the vernacular language on their platforms and this is why they need our help. We offer them the complete package – native language speaker, human context, understanding content empathy, and professionals who know how to deal with sensitive content. (…) Clients often do not know what content moderation is and how the process takes place. They just send us a form, with a quotation and ask us to fulfil their tasks. Mostly, we first have to educate them, write to them the process how moderation services take place, customized according to the respective client requirements and then take it forward." – SU-08.

Following the recruitment process, the workers are part of a labor process that is monitored and controlled by the suppliers. Except of the arrangement between LF-01 and SU-01, the suppliers

in other arrangements are tasked with higher responsibilities. This can be seen as a result of higher degrees of standardization of moderation work in other value chain arrangements, than in the former one where the product complexity requires relatively increased degrees of labor discretion that is directly controlled and monitored by LF-01. The most significant aspect is the control over the rewarding and disciplining of work performance using the company rules at supplier firms. While this will be discussed in more detail in Chapter 7 under the section on bureaucratic control mechanisms, the reference to this aspect here is to draw attention to the supplier firm strategies for extracting labor productivity. These strategies directly inform the coordination mechanisms between the supplier and lead firms, and find expression in the work metrics.

Metrics

Key to the SLAs between the suppliers and the lead firms is the role of metrics. Their function is to provide the lead firms with quantitative information about the work process. This includes the recruitment and attrition numbers, training scores (both during and after the work) and the work targets. From this perspective, the metrics allow the lead firms to keep an overview of the outsourced work. While the use of highly automated technologies by LF-01 and LF-02 for directing work to outsourced content moderators allows them to monitor the targets directly, the broader range of metrics supplements their management strategies from a distance. These metrics are more significant to special situations such as during elections, festivals, holidays or an event of mainstream public concern when the content volume increases or where there is a new workflow to be made.

> "If any new kind of work is about to come, they (LF-01) give us the headcount - this many admins (workers) to be here for this particular workflow. According to that headcount, we have to hire people. We give client the details and also the score of the training we share with them - that these many admins are certified now." – CM-04

The insistence on "operational excellence" by lead firms across the sector is followed by an "obsession with metrics linked to appraisals, rankings, underperformance and so on" that informs the middle management and supervisory practices at supplier firms (Noronha & D'Cruz, 2017, p. 7). This is most notably observed in the supply-side emphasis on targets, that serve as an important function for the suppliers to maintain their relationship with the lead firms. On one hand, these refer to the quantitative aspect of targets that show how much content

volume has been processed. And on the other hand, targets also include assessment of the work quality, and correspondingly quality analysts at supplier firms are employed to ensure the quality service delivery.

> "Quantity targets are different from project to project. There are productivity metrics for how many pieces of content a moderator can moderate and beyond this we cannot go. And quality targets are defined in the SLAs - a contract between the client and the company. The specific KPIs (key performance indicators), quality and quantity targets are all described in this. We have maintained a yardstick." – SU-06

These targets are connected to the individual performance scores of the workers and inform their possibilities of promotion. From this perspective, the supply-side management exercises great control over the competition of the quality and quantity targets by workers in order to maintain its relationship and contract with the lead firms. At the same time, regular visits by representatives from the lead firms LF-01 and LF-02 to the offshored and outsourced workspaces at SU-01 and SU-02 to SU-04 respectively, are aimed at ensuring the quality service delivery. On account of the recent (less than six months at the time of the interview) contracting of SU-02 by LF-02, the frequency of the client visit to the workplace was much higher, and this can be explained due to the lower trust in new contracting relationships (CM-05, CM-06) (also in Humphrey & Schmitz, 1998).

> "I am in simulation mode, they have started this pilot batch which is going on. So right now, the target that we will cross, will become a target. It's a new project, people are right now joining. I have also heard that this other company *SU-04* is onboarding (recruiting) people for content moderation for *LF-02*." – CM-05

Workers at SU-05 to SU-09 are however not visited by the clients, and they work on different content moderation projects.

> "(I) worked on many sites, social media, some dating sites are also there. We don't have complete information of (about) which kind of client for which we are working. Because we don't know for whom we are working, only directors know." – CM-07

This shows that there is limited communication between the lead firms and these suppliers, and that the suppliers are largely required by the SLAs to meet the quantity and quality targets.

> "Target numbers depend on the client. But before we start moderation, we send out a detailed questionnaire to the clients, asking them what their requirements are and all those things. Usually these are 40 questions which are then responded by them and then they form as rules, incorporated in the SLAs." – SU-05

Targets are tightly tied to the workplace technologies that allow for increased degrees of monitoring of workers by both lead firms and supplier firms. Given that the attrition rate in this work is very high, the costs of training and ensuring quality service delivery are partially met through the use of technology. It also allows the lead firms to direct the work and monitor the labor process. The following section discusses these aspects through the use of workplace technologies and their automation functions within the different outsourcing arrangements.

Automated technology

Both large lead firms LF-01 and LF-02 have their own browser-based software that serves as the main work technology for moderating content. Amongst the Indian SMEs, only the supplier SU-06 had their employees working on the client software. The other suppliers SU-05, SU-07, SU-08 and SU-09 had in-house software for moderating the content for different projects. This can be linked to the product complexity and the type of content moderation required. For suppliers, the provision of technology also serves the function of securely moderating content without investing in these technologies.

> "Clients have their own AI tools and their own in-house algorithms which help assisting the workers. We don't have our own (tools) because it requires cost and might need to be customized for every project, it might not be suitable for every project. The clients also like having their own tools because they are concerned about data security and data quality as well." – SU-06

Its automated features can be categorized to serve two primary functions: first, to direct the flagged content to workers and second, to codify workers knowledge in the technological system. From this perspective, these technologies are crucial to the relocation of content moderation work, and allow lead firms to not just micromanage work by directing and monitoring workers, but also by increasing control over the labor process with them. By using machine learning models in the system, these technologies enable the lead firms to codify labor knowledge and expand their data base of accurate moderation decisions. The functions of work direction, monitoring and codification, are discussed in the sub-sections below:

Direction and monitoring of work

Workers are assigned in different teams of 15-20 people and flagged content comes directly in their queues. They are required to tag the content with the appropriate moderation policy.

Depending on the SLAs and content volume, workers can either work on dedicated content queues such as for the projects for LF-01 and LF-02, or on different projects as in the cases of SU-05 to SU-09. At SU-01, the content queues include spam, child abuse, scaled review, privacy amongst others, and at SU-02 to SU-04, work teams are divided according to different moderation processes such as content classification, e-commerce, advertisement categorization, news articles and others. Each process has different content queue where the flagged content automatically arrives.

Dedicated observation of LF-02 software's worker interface highlights the process by which content arrives in the content queues. This will be discussed in more detail in Chapter 7 on labor process. The reference here is to address the coordination mechanisms between LF-02 and SU-02/ 03/ 04. The queue with the highest volume of content gets highlighted on the software. Workers have to click on it to start the work to reduce the volume. In case the highlighted queue is not selected and the flagged content remains in there for more than 48 hours, then LF-02 escalates the issue to the suppliers. From this perspective, it can be seen that by automatically directing the workers with the flagged content, the software has reduced the communication-related errors between the lead firm and the suppliers. UOM explains:

> "When it comes to things like hate speech or self-injury or all these other things, the risk is higher. Permutations are infinite. And just as soon as you've written a rule (content moderation policy) to capture something, something changes in the geopolitical landscape. And now a hand signal that used to be okay is not okay. And that's very inefficient to transfer outside of your in-house team because then having to like, make decisions here and communicate those around them. And so that's very much where we were (at) when we had these sorts of in-house hubs".

At the same time, the technology has not replaced the supervisory functions of suppliers for assisting the workers on the floor. In cases of work and software-related inquiries, workers can consult with their team members that also includes experienced workers, or with their team leaders who are mostly present on the work floor. In terms of the coordination mechanisms, this can be explained through the high costs of the moderation errors. Given that metrics and moderation targets are key to the coordination mechanisms between the lead firms and the suppliers, suppliers develop certain arrangements for ensuring that workers make the right decisions within the least amount of time. This includes the team-based arrangement with both experienced and new workers so that workers can access support from their trainers or subject matter experts or quality analysts in large firms, or from team members at SMEs concerning

complicated pieces of content. Further on, on-floor supervision also relies on tacit knowledge of more experienced content moderators, who would voluntarily take up tasks to support their team members. This will be discussed in more detail in Chapter 7.

> "If I didn't have much work, (then) I used to get the opportunity to give training. And in-between, suppose if quality people are doing their work, but before them I was able to check the quality of my team. So, like this a lot of internal work we were able to do, like that we are training (the) team, we are checking their quality – if someone is doing incorrect work – a warning has to be given to them. If (the warning has been) given and the mistakes are still there, then the company has to decide if they (respective workers) need to be removed or not. So, sensitivity is at high level, your job risk is at high level. This is the biggest thing." – CM-02

The moderation software is significant to the monitoring practices in the labor process. These will be again described in more detail in Chapter 7. Monitoring happens in two ways: first, by recounting the number of job IDs or content that workers have moderated and second, by recording the production time.[36] While all moderation software allowed management to see workers' average handling time (AHT), i.e., the time taken for the completion of each content, LF-02 deployed additional monitoring mechanisms in the software that allowed for tracking all activities in the labor process. This refers to assigning different codes for all labor process activities such as "production", "training", "coaching", "out to lunch", "on a break" and "at wellness support" (CMH-12).

The close monitoring of workers' time is on account of the supplier (SU-02 to SU-04) requirements which allows them to monitor workers closely and micromanage their work. And workers at SU-04 noted that tracking-related changes in the software were brought in on account of suggestions made by their employer to LF-02. The following excerpt by CMH-21, an acting team leader at SU-04 explains this:[37]

> "Initially, we didn't have all these activity codes. It is like for the company to show the client *LF-02* that you are doing this task, and also, like it is all competitive, you know, at *SU-04*. It was very liberal initially when it started off and like in the last 4 years, it

[36] Job ID refers to the unique identifier for the particular content to be moderated.

[37] An acting team leader refers to the employee performing those tasks while waiting to officially pass the interview for the role of the team leader. This was observed as a common practice by suppliers in the content moderation labor process, and will be discussed in more detail in Chapter 7.

> has become very strict; it has changed in terms of everything. We never had such strictness, even in breaks; like now we have only two breaks. It was not like we could relax (before) whenever we wanted to; we used to give our work as a reviewer. But later with the ideas of management and whatever was feasible - the clients have approved it. So, that's how we got this tracking system. And it also helped to monitor the individual performance. They will get to know if the employees are playing around with the tool, so they (workers) cannot do anything. Now it's all about compliance."

The changes in the software draw from the general interest of lead firms to "improvise" it (CM-04), which also informs their visits to the workplace. Lead firms LF-01 and LF-02 visit the supplier offices SU-01 and SU-02 to SU-04 respectively, three to four times a year. During their visits, they also visit the work floors and *shadow* the moderation work, i.e., observing the workers from closely behind them. These visits are aimed at ensuring if the software is working well, if there are any moderation-related issues and adjustments to be made. And these meetings are strictly related to the product and do not refer to the working conditions or employment relations (all workers except CM-06, CM-08, CM-09). The software improvisations are not just based on the observations made by lead firms during their visits, but is also informed by the continuous codification of tacit knowledge, which is elaborated in the section below.

Codification of knowledge

The increased degrees of direction of work in specific queues with specific moderation policies represents the standardized character of the work. At the same time, given the dynamic character of social media platforms, the policies and subsequent tagging options are firstly, not sufficient enough to cover all forms of flagged content as a result of user negotiation activities on the platforms and secondly, not always clear to the workers. Correspondingly, the content moderation software is embedded with machine learning models (all workers except of CM-08 and CM-09), which allow the lead firms to record the tagging and moderation choices of workers. From this perspective, the codification of labor knowledge refers in particular to two aspects: first, the capture of accurate decisions by workers that reflect the existing moderation policies, and second, the capture of unique cases and the policy development. Both these functions rely on workers and their tacit knowledge to make sense of the existing policies and local skills to offer their "insights" (CM-05) regarding unique content into the existing policies.

The use of technology together with the presence of team leaders and subject matter experts is to ensure that workers can understand policies and choose the right tags for the content, but also so that they are able to develop alternative workflows in cases where exceptional content pieces or Job IDs do not have applicable policies. The former particularly relies on tacit knowledge of workers where they are trained to "judge the intent" of the videos (CM-01 - CM-04).

> "If somebody is showing a gun or a knife, one shouldn't just delete the video because of this. Instead we should try to figure out why is this person holding the gun or the knife in the first-place." – CM-01

The implications of codification of workers' knowledge on the labor interface of the work software can be seen in three ways: first, the regular policy updates with new policy tags in the software (all workers), second, the partial automation of certain queues where certain primary tags are automatically put on videos and workers have to review that (CM-01, CM-02, CM-03, CM-07, CMH-11; CMH-22; CMH-26), and third, the closing down of certain queues such as the one with child abuse and the other on South Asian market (CMH-06, CMH-12, CMH-30).

> CMH-06 – "We are making the machine to learn".
>
> SA – "Is this an official statement given by your trainers that you are working on a machine learning model?"[38]
>
> CMH-06 – "Yes, because they were very clear that we have to train the machine. After everything is done then from the client (LF-02) part, they check everything. If they are ok with it, then we will be getting another queue. Once a queue is done (automated), we will be getting another queue."

CMH-06 is assigned with the content classification process at SU-04, which involves the most psychologically distressing content to be moderated by the workers. While earlier this process included four main queues including child abuse, there exists only one main content called the borderline queue that constitutes of violent and harmful content (CMH-01 – CMH-06). As we will see from the case study discussion later in this chapter, the process has been an important cause of SU-04's exit from LF-02, and the software has served the critical function of transferring the labor process to another supplier in India. This is also similar to the observations by SU-06 regarding the reduction of pornographic content coming to the workers' queues.

[38] SA is abbreviated for this study's author's name initials.

> "Wherein eight years ago we used to see lot of pornographic content, but now it's only one-third of what we used to get earlier. The content today also includes copyright content, patented publications that are restricted, racial comments, drug pictures, all these kinds of things are there. Normally the perception is that moderation is all about porn; this is not true."

The increasing automation-related updates in the work software do not translate into upgrading possibilities for supplier firms. Within the GVC literature, upgrading has been analyzed as an inter-firm governance dimension that allows suppliers to acquire higher-end tasks through "process, product, functional and chain upgrading" in the value chains (Barrientos et al., 2011), as discussed in Chapter 3. Instead, the updates in the software increase control over the labor process with the lead firms. While this study lacks the assessment from large suppliers SU-01 to SU-04 about the automated technologies provided by their clients LF-01 and LF-02, the Indian supplier firm SU-06 sees the continuous codification or machine learning as a necessity for social media platform operations, and argues that it supports their work:

> "We do benefit from it (moderation software) because when the system is constantly learning, it also makes it easier for the machine to detect the illicit content which does not fall in line with the platform policies and guidelines. Also, it is beneficial for the clients and their business models to earn revenue rather than moderate content. They are rather interested in growing and strengthening their automated models and systems, and therefore outsource the job of moderation to India".

The use of content moderation software for codifying labor knowledge will be discussed in further detail in chapter 7 in the section on monitoring and evaluation dimension of labor control. At the same time, it is important here to note that the labor knowledge, in itself, that is required in the content moderation labor process to make sense of the already codified bodies of knowledge – primarily the content moderation policies – cannot be codified. Instead, the management aims to extract this knowledge in both codified but also uncodified forms through its circulation in the labor process (Flecker et al., 2013). This confirms a similar analysis of service work by Holtgrewe (2008) that "the ongoing need for knowledge workers to interpret, negotiate and make sense of codified bodies of knowledge is not codified away and cannot be" (p. 3).

From the discussions here, it may be confirmed that the content moderation software is a site of power asymmetries between the lead firms and the suppliers. This means that the even though the software has increased the monitoring possibilities for suppliers, thereby allowing them to

complete the assigned content volume, the key factors of economic upgrading possibilities for suppliers through technology and knowledge development (Humphrey & Schmitz, 2002) are designed to increase control with the lead firms. Parallels can therefore be drawn with other global value chains where either lead firms have not facilitated functional or task upgrading (Lee & Gereffi, 2015) or at times, limit and hold back the suppliers from the Global South to move up the value chain (Khan et al., 2015). These governance and coordination mechanisms are further mediated by institutional arrangements that are discussed in the section below.

Institutional arrangements

The strategic choice of relocating work to India is informed by three main factors: first, labor-cost arbitrage for moderating the large scale of user-generated content, second, India's global position for servicing the IT software products that allows for locating the suitable partners, and third, the tremendous expansion of the Indian social media consumer market for all global social media platforms including LF-01 and LF-02. From this perspective, India as a geographic site is underpinned by concrete logics for global capital to extract labor value in moderating social media platforms. This is especially clear from the recollections by UOM in her former position managing the initial team of outsourced operations at LF-02:

> "I think when it comes to India, this was our first operational presence there. (…) I think that a lot of our leadership at the time had come from LF-01 that was just on this very similar journey. And so, they may have had reasons like "we know how to do this". We were like "Okay. Great! Fine!" (…) You know, to me, it seemed clear that one of the reasons we were choosing India as a place to perform this work is because (it) was so much less expensive. You know, there wasn't at that time, anyway, a strong geopolitical reason to put content moderation operations in India. There certainly was like a time zone advantage."

While LF-02, like LF-01, had initially offshored the work to its regional office in India, it eventually started partnering with "carefully selected and reputable" suppliers such as "CCC, Samasource, Genpact and Accenture" to access the "right language expertise" and "different time zones," so that content moderation work can take place around the clock or when the content volume increases (former policy communications manager at LF-02). The requirement to extract labor value with the local skills can be understood as an important factor for outsourcing work to large ITeS-BPO suppliers who have experience in controlling workers with

the required skills in a standardized manner. It also allows lead firms to be more flexible, as UOM noted:

> "The other reason for outsourcing was like sort of cultural context. If you'd ask me like, where should we have all the moderators, I would say 'all right, in one location, because then they can all have the same experience and talk to each other'. But one of the huge drawbacks to this is (that) then you have a bunch of like random Americans guessing about Indian politics. (…) Increasingly, I think we were also conscious that more of our business was going to be coming from India, certainly, but also from South Asia in general. And so, that was an opportunity for us to be able to hire some of those regional experts to come in and be like 'Listen, let's not make a bad mistake here, but like, use some common sense.' (…) The nice thing about global staffing is it does give you that flexibility. But yes, there are associated employee welfare considerations that you should think about and maybe, they are not always paid."

While lead firms determine the standards of extracting labor, the production sites are mostly managed by the suppliers. While in the case of LF-01, work takes place at its offshored site, the employment relations are managed by SU-01. As mentioned in the section on SLAs in this chapter, the parent firms of SU-01 and SU-04 are based in the USA and SU-05 to SU-09 are based in India, with the sales offices of SU-05 and SU-07 also based in the USA. The SLAs are agreed upon between the lead firms and the parent companies of SU-01 to SU-04 and work is then outsourced to the production sites in India. Domestic outsourcing from a supplier in India to another has not been observed.

> "See, content moderation is a very human intensive work. It requires labor and the right skills. Multinational companies offshore this work here for a wide variety of reasons including cost effectiveness. And it is not economically beneficial for either us or our clients to involve another vendor in the operation process. This is why India to India rarely takes place." – SU-06

All production sites, including the LF-01 subsidiary, are based in the four cities of Gurgaon, Hyderabad, Mumbai and Bengaluru, which are established geographical locations in India for IT exports and for attracting foreign direct investment (FDI). The strategic choice of these locations is in directly connected to the institutional arrangements for "infrastructure facilities, development of human capital and mediation of capital-labor interests" (Noronha & D'Cruz, 2016a) available to the firms. These are discussed in the sections below.

Infrastructure facilities

The most significant contribution to the structuring of the "economic landscape" (Herod et al., 2007) for capital to capture value from the content moderators is through the setting up of software technology parks (STPs) or the newly-designated Information Technology Investment Regions (ITIRs) in the four cities by the Ministry of Electronics and Information Technology (MEITY). There are two main functions of the STPs: one, the increase of export-related revenue and two, to attract higher foreign direct investment in the states. Correspondingly, the infrastructural facilities made available through STPs are not only beneficial to the global lead firms LF-01 and LF-02 and the global suppliers SU-01 to SU-04, but also to the small and medium suppliers SU-05 to SU-08. SU-09, on the other hand, is a small startup with 20-30 employees in total and is not located within an STP.

In terms of the overall exports, the IT and ITeS-BPO exports from firms registered in the STPs amounted to almost USD 60 billion in the financial year (FY) 2020-21.[39] In the FY22, the sector accounted for more than 45% share of the Indian services export and the export revenue grew at 81%.[40] In the same FY, it accounted for 7.4% share in India's GDP and more than 51% of the global outsourcing market.[41] And the major markets for the IT software and services exports are USA at 62%, United Kingdom at 17%, and the European Union at 11%.[42] In terms of the FDI inflow, data from the federal department for promotion of industry and internal trade (DPITT), in the period between October 2019 and December 2021, shows the cumulative FDI inflows in Haryana (capital: Gurgaon) amounting to US$ 4.9 billion, making the state the fifth largest economy in India, in Telangana (capital: Hyderabad) it amounted to be US$ 3.99 billion, making it the seventh highest state to receive FDI, in Karnataka (capital: Bengaluru) it amounted to US$ 29.21 billion, the second-highest, and in Maharashtra (capital: Mumbai), it amounted to US$ 33.41 billion, making it the highest FDI inflow in India. [43][44][45][46] The total FDI

[39] This a self-calculation from the original numbers estimated at INR 4,96,313 crores. Source: https://www.meity.gov.in/content/stpi. Currency calculated using https://www.xe.com/currencyconverter/ on 26th March, 2023.
[40] https://www.investindia.gov.in/sector/it-bpm
[41] https://www.investindia.gov.in/sector/it-bpm
[42] https://www.meity.gov.in/content/export-destinations
[43] https://www.ibef.org/states/telangana
[44] https://www.ibef.org/states/karnataka
[45] https://dpiit.gov.in/sites/default/files/FDI%20Factsheet%20December%2C%202021.pdf
[46] https://www.ibef.org/states/maharashtra

inflows in India between the period of April 2000 and March 2022 amount to US$ 847 billion and the IT and ITeS-BPO sector is amongst the top five sectors receiving the highest FDI Equity Inflow during the financial year (FY) 2021-2022.[47]

The STPs provide several infrastructural facilities to the investors, most importantly the land at subsidized rates. In the case of Gurgaon, primarily an agricultural zone, land was bought by the real estate firm DLF Limited (Delhi Land & Finance) from local farmers. Under special provisions of the special economic zones (SEZs) by the central government to attract investment, DLF offers comparatively quicker and cheaper access to land and local resources such as water and electricity to companies who do not have to deal with the land-acquisition problems in an agricultural zone (Rajagopalan & Tabarrok, 2014). Other facilities include incubation services such as work-office spaces with uninterrupted electricity and internet connectivity at reduced tariffs, high-speed data communication services such as SoftNET, consultancy services regarding finances, marketing, and operations and maintenance support to both domestic and foreign firms, co-location services by setting up data centers and finally data security services such as through the Information Security Audit Service.[48]

The facilities also include tax reductions and even exemptions through 100% foreign equity, exemptions from payments of customs duty, 100% FDI investment through the "automatic route", i.e., the exemption of getting approval from the government of India before making an investment, accelerated depreciation, the possibility to set up the company anywhere and other entitlements.[49] The target companies in the STPs are also based in the SEZs , which further allow 100% income tax exemption on export income and duty free import.

Interview with an established labor lawyer Muralidhara Chikmagalore based in Bengaluru shows that the flexible nature of the IT and ITeS-BPO firms and the power invested in them through the central policies, are furthered by the competitive policies of Indian state governments for increasing their revenues.

> "One thing is very clear, the employers in the IT industry have become the new *maharajas* (emperors) in this country. By virtue of their power, they have been able to secure many concessions with respect to grant of land on a very subsidized rate. Although they are capable of buying at the market rate, they exercise enormous pressure

[47] https://www.investindia.gov.in/foreign-direct-investment
[48] https://www.meity.gov.in/content/stpi
[49] https://www.meity.gov.in/content/export-promotion-schemes

on the government, the state government particularly. Let's say in Karnataka, a company wants 300 acres of land here; they will immediately tell the Karnataka government that if you don't give, I will go to Tamil Nadu (another important state for IT industries) or Haryana. Like this, they bargain and ultimately the government will yield to these demands by giving them lands at subsidized rates. This is because the export revenue contributes to the sales tax and the goods and services taxes used by the states."

These infrastructure facilities are complimented by the central and state policies for supplying content moderation labor to the supplier firms.

Development of human capital

The recruitment of workers at all content moderation suppliers is based on generic skills including communication in English language, soft skills such as problem solving, time management, adaptability, stress management and adaptability, and *basic computer skills*. All workers in this study have a high educational background, with 75% holding Bachelor's degree and the rest 25% holding Master's degrees. Their educational background is primarily in engineering (Bachelors in Technology: B.Tech.), but also broadly includes business and economics, computer science, arts and humanities, and foreign languages. At the same time, all workers noted that that their work neither required any technical skills, nor any high educational qualifications.

> "We look for minimum graduation from the workers. They are mostly B.Tech. but also B.Com. (Bachelors of Commerce). And, we mostly hire freshers because content moderation is a new thing, and it does not require any coding or designing so no specific background as such. Hiring freshers is also cost effective for us." – SU-06

The emphasis on recruiting freshers or non-experienced workers but with a graduation degree is a common practice in the Indian ITeS-BPO sector (Holman et al., 2007, p. 12). They can train the workers according to the project requirements of the lead firms and extract maximum productivity from the workers. This labor rationalization is a common practice across the IT industry in India, and it has been accompanied by retrenchment of senior level employees during instances of cost-cutting exercises by the firms (Chhabra, 2019). This allows firms to reduce labor costs by paying entry-level wages to freshers, which have remained stagnant in the sector for the last 15 years (PTI, 2019). Shyam Sundar of the IT Employees wing of the

New Democratic Labour Front (NDLF) connects this issue with the educational institutions in India:

> "When I completed my engineering degree in 1997, we had around 39 engineering colleges in India. Now we have 300 or 400 colleges, so it is almost 10 times. The number of colleges has increased together with the number of engineers coming out. So, earlier we had only three to four (engineering) branches. Now every college has 10 branches and the number of people graduation is huge. So, you have a labor workforce available from all sorts of engineering colleges, and therefore IT firms can take (employ) more workforce at the lower level. This is like a pyramid structure".

The post-liberalization phase in India witnessed an overdrive in meeting the demands for skilled workforce for the booming IT industry. To do this, the central government set up several specialized technical institutions that also included institutions of national importance.[50] These were materialized under various acts including the Institutes of Technology Act, 1961 that was followed by the setting-up of 23 technical institutes, the Indian Institutes of Information Technology Act, 2014, the Indian Institutes of Information Technology (Public-Private Partnership) Act, 2017, the Indian Institutes of Management Act, 2017, the National Institutes of Technology, Science Education and Research Act, 2007, and the Rajiv Gandhi National Institute of Youth Development Act, 2012.[51]

Ranked as the highest employment generator with 4.36 million workers in the FY 2019-20, the IT industry, in general, has benefitted from these policies and the number of educational institutions providing labor that has employable skills and is ready for the industry, have increased. At the same time, the recent BVR Mohan Reddy Committee report submitted to the All India Council for Technical Education (AICTE) on December 2021 advised for "overhauling" the engineering education in India on the basis of reduced capacity utilization in traditional disciplines (Iftikhar, 2021). The committee instead recommended a general shift towards introducing emerging technologies such as AI, robotics, quantum computing, blockchain, data sciences and others in the engineering colleges. These recommendations were preceded by other reports, both from the public sector such as the U R Rao Committee report

[50] Higher education sector in India has witnessed an expansion in its post-independent history to include 45 central universities, 318 state universities, 185 state private universities, 129 deemed to be universities, 51 institutions of national importance and four institutions based on different state legislations. More information at https://www.education.gov.in/en/university-and-higher-education.

[51] https://www.education.gov.in/en/institutions-national-importance

(Ministry of Human Resource Development, 2003) that cautioned against the rise of engineering colleges in India, and by private institutions such as the Aspiring Minds report (2016) and The Indian Express report (2017) that showed a large proportion of engineering graduates without employable skills for the software industry.

Despite these recommendations, in August 2022, the AICTE approved 43 proposals for establishing new engineering colleges across the country based on certain exceptions, including the criteria of a minimum annual turnover of USD 602 million in any industry (Iftikhar, 2022). The overall revenue in the FY2019 in the IT industry amounted to approximately USD 177 billion (NASSCOM, 2019). From this perspective, it can be seen that educational policies of the state are influenced by the market signals. This can also be clearly seen in the India state's withdrawal from regulating the sector and protecting the labor interests, as discussed below.

Mediating capital-labor relations

As discussed in the previous two sub-sections of institutional arrangements, the ITeS-BPO sector in India is driven by the logic of increasing export-related revenue and attracting higher FDI. The sector is also one of the largest formal sector employers in the country with 4.14 million direct employees in the FY2019 (NASSCOM, 2019). Some have connected this to the long-standing practice of leaving the sector "to private initiatives and responses to market signals" (Chandrasekhar, 2003 in Noronha & D'Cruz, 2016a, p. 159). But instead of resulting in an industry-wide labor standard, the research observations here point towards different individualized and vulnerable social relations in the workplace.

In terms of wages, workers were paid better at SU-01, and in terms of counselling and wellness sessions, all large firms had group counselling available for everyone and individual counselling for some processes, such as the content classification process due to the highly-distressing nature of the content in this process. These large firms also had wellness sessions that included recreational activities, such as yoga, for workers to reduce stress. As we will see from Chapter 7, labor access to counselling and recreational activities was severely limited by the tight control on working time in the firms. In the SMEs, although there were wellness sessions available, which generally follows from the practices in the ITeS-BPO sector to retain workers (Kuruvilla & Ranganathan, 2010), there was no possibility for workers to avail counselling sessions. The management at SU-06 noted that instead they had a 24*7 hotline, where workers could call if they had any distress. The efficacy of this mechanism however

cannot be confirmed given the absence of interviews with workers employed at SU-06. At the same time, lack of access to counselling and wellness sessions for most workers in all value chains left them to their own devises of managing with the distressing content.

This self-management is rooted in labor agency through the practices of resilience, reskilling and revoking practices, as discussed in Chapter 7. These mechanisms are also underpinned by the culture of *professionalism* in the sector (Noronha & D'Cruz, 2016b), which discourages collective bargaining. This concept of labor professionalism is elaborated and engaged with in the analysis presented in Chapter 7. While all firms have grievance redressal mechanisms, they are conditioned by individual relationships between immediate supervisors and workers. This means that personal ties between workers and team leaders, also susceptible to work performance, influences if and how workers access these mechanisms. And grievance is mostly directed towards the supply-side management, and only rarely to the lead firms. This was even observed in the SU-01 – LF-01 chain with the designation of a vendor partner manager (VPM) at the LF-01's regional office in Hyderabad and the direct prospects expert (DPE) operating at the highest management level at SU-01, for mediating the client-labor issues and managing the client-supplier relationship (CM-02, CM-04). However, there were no instances of labor issues being brought up to LF-01, because workers were firstly, aware that this would result in disciplinary actions by SU-01, and secondly, because of their disillusionment with the lead firms. An excerpt from the interview with CM-01 illustrates how workers viewed this condition:

> CM-01: "There is no job security there. I think if the management is changed at SU-01, then all problems could be solved."
>
> SA: "So how can this be done? What can be the processes?"
>
> CM-01: "I think (that) unless their client LF-01 interferes and says that this is not okay, until then, nothing can happen. But you know what I mean, LF-01 knows all these things already. But still it is not doing anything because it is getting its work done."

There are two underlying issues at stake here: firstly, the individualization of capital-labor bargaining in absence of industrial labor standards, and secondly, the weakened role of institutional arrangements for protecting the interests of the workers.

The application of existing legislative measures in reference to the ITeS-BPO sector such as the Industrial Disputes Act, 1947 and Factories Act, 1948 at the center, and the Shops and Commercial Establishment Act, 1961 at the state level is challenged by two main issues: first, in terms of the power of labor laws exemption by the government, and second, in reference to the complicated process of accessing legal support. In the first case, the state government of

Karnataka – a major site of IT firms – has exempted the ITeS-BPO sector along with other sectors from the central Industrial Employment (Standing Orders) Act, 1946 that covers the Shops and Commercial Establishment Act of 1961 to which the Payment of Wages Act of 1936 is linked (Srivatsa, 2019). This has meant that the ITeS-BPO firms registered under the Karnataka Shops and Commercial Establishment Act are exempt from labor welfare measures regarding suspension, dismissal, termination, and imposing uniform working conditions regarding working hours and wages including for overtime. The exemption is accompanied by certain conditions which require firms to set up internal committees and engage in tripartite meetings together with the state and the unions; these conditions have however not been met (Satyanand M., Secretary of AITUC, Bengaluru quoted in Srivatsa, 2019).

The second challenge is posed by the process of accessing legal support even when there are no labor law exemptions in place. On a broader level, this refers to the waiting time for labor court decisions, thereby creating uncertainties for the affected workers. On a more specific level, this refers to the centrality of the term *Workman* which complicates the access to the labor provisions under the Industrial Disputes Act of 1947.[52] Similar to other IT-Service designations, content moderators have generic job profiles such as system analysts, process executives and process associates. Their employment contracts also do not describe the specific nature of work and most workers assume that they are not protected under regulation. However, considering that the "dominant nature" of their work is clerical and not supervisory, labor laws continue to apply to them, as explained by Muralidhara Chikmagalore:

> "This dominant tester was defined in 1978 in the Bangalore sewage court case by Justice Krishna Iyer. It refers to possibility that maybe a worker is doing some supervisory work, but asks to what extent. Let us say, he is doing 80% clerical or technical or manual labor, and 20% he is also supervising here and there. Now, 80% is the predominant nature; the designation of the employee is not important. What is important is the nature of duties being performed, these are the determinative duties of the concerned employee and not somewhat incidentally done."

The research findings show that none of the workers had conceived of themselves as *workers* and did not take steps towards accessing legal support. From this perspective, the institutional

[52] The *Workman* category under the Industrial Disputes Act of 1947 covers "every person employed in an establishment for hire or reward, (including contract labour, apprentices and part-time employees) to do any manual, clerical, skilled, unskilled, technical, operational or supervisory wok" (Garg, 2018, p. 145).

arrangements, although existing but weakened, have prioritized capital interests over labor in view of increasing export revenue and attracting FDI. Labor interests are then relegated to the private initiatives and coordination mechanisms between the lead firms and the suppliers. This has also resulted in the marginalization of trade union voices in the capital-labor relations. Although in their infancy in the sector, trade unions have struggled to organize workers due to the nature of content moderation outsourcing. By inserting the NDA clause in the SLAs, suppliers are tasked with ensuring that workers are barred from speaking with any external stakeholders. While this does not specify trade unions, the fact that it actively discourages workers from speaking about their work with anyone outside the employee-employer relation, is a reason enough to see the deliberate exclusion of trade unions.

In the absence of unionization and collective bargaining in the workplace, workers are further made vulnerable to the competitive dynamics in the global economy. The following case study looking at SU-04's exit from its project with LF-02, and shifting the work and a large majority of the workers employed for the project to another supplier in India, represents the increased labor flexibility in absence of both state protection and industrial labor standards. The accompanying automated technologies and SLAs ensure the flexible transfer of work to another firm, while at the same time retaining direct control over work and workers with the lead firm.

Case Study

Exit

On 1st of May 2020, most content moderators previously employed at SU-04 were shifted to a new supplier (SU-N). Teams of workers in five different processes including the team leaders and operations manager were shifted to SU-N to work on the same content moderation project for LF-02. Media reports together with the annual report of SU-04 and an email inquiry response by former policy communications manager at LF-02 shows that the termination of the contract was on account of supplier exit from its content moderation projects across all its global sites. The parent firm of SU-04 is based in the USA and 88 percent of its total delivery centers "on a square foot basis" are based in India, according to the firm's 2020 annual report. This allows for the estimation that a large proportion of content moderation services were supplied from the Indian subsidiary offices, especially from SU-04 in Hyderabad, given that it is the second biggest office in India.

There are two main reasons that can be estimated for the supplier exit: first, in terms of the lack of upgrading possibilities for SU-04 in the value chain and second, in terms of the reputational damage caused by workers in the production sites in the USA who revoked their NDAs and recounted their bad working conditions to public media. As we have discussed in the outsourcing mechanisms above, the lead firm LF-02 has been able to increase control over the labor process using standards and the software. The automated functions of the content moderation technology not only enable it to micromanage work from a distance, but also automate some of the managerial tasks of the suppliers with regards to the direction and monitoring of work. This together with the increasing standardization on account of fragmentation of work and codification of labor knowledge, results in reduced supplier upgrading possibilities within high market competition. As has been described in this study, LF-02 had content moderation contracts at the same time with two other suppliers SU-02 and SU-03 in India.

At the same time, there exist several supply-side risks associated with the exit. The foremost of them being the exit costs which not only refer to the severance and facility exit costs, but also the loss of revenues. Media reports noted that SU-04 exited from content moderation projects with LF-02 and two other lead firms based in the USA, operating global social media platforms. The communications, media and technology vertical within which the content moderation project was allocated, contributed 14.5% of SU-04's total revenues and the revenue growth was the "strongest" in the North America region. The 2020 annual report notes that the exit negatively impacted the 2020 revenues by around USD 178 million within the segment in North America. Together with the loss of revenue, the report also indicated the potential negative impact on the relationship with the affected clients.

Supplier exit from GVCs are not common given the risks involved (Blažek et al., 2018), and is argued to be particularly an "unattractive option" in captive inter-firm linkages where lead firms dominate and provide enough resources and market access to suppliers (Gereffi et al., 2005). At the same time, supplier exit has been studied from the lens of coupling and decoupling discourse (Bair & Werner, 2011; Horner, 2014; Yeung, 2016), and from other perspectives that show the "strategic downgrading" of supplier firms (Blažek, 2016). The latter conceptualization in particular, which while working with practice of "functional downgrading" by suppliers, allows us to see the possible rationale of SU-04 as a "carefully planned move by a profitable firm to a specific market segment to make maximum use of its core competence and thus to increase its profitability even further" (Blažek, 2016, p. 862).

In this case, we can see the increased market power of SU-04 to exit the relationship with LF-02. Interviews with moderators employed at SU-04 indicate that the exit decision drew from stopping the content classification process while retaining other four processes. Those working in the content classification process had already been notified between September and November 2019 about the suspension of the content moderation process. From January 2020 onwards, workers in other processes started hearing about the complete exit of their employer from the project with LF-02, with the details being finalized between March and April 2020. Some workers in closer contact with team leaders (CMH-15, CMH-26) and an acting team leader (CMH-21) noted that while the SU-04 management wanted to continue supplying content moderation services for other processes, the lead firm did not agree to this as this would have created process management issues with other suppliers.

These distinctions can also be seen from SU-04's annual report, which shows that as part of its business plan for "driving growth and increasing shareholder value over the long term", the firm aimed to exit "certain content-related services" that were not aligned with the "strategic vision for the Company". While its 2019 annual report noted that content-related work involving "objectionable materials" will be discontinued, all "other content-related work will continue". This distinction was not made in the 2020 annual report that mainly disclosed the costs incurred due to the exit from content-related work from a small number of clients. The report also noted the high demand for the company's digital services and solutions since the beginning of the COVID-19 in view of "increased demand for mobile workplace solutions, e-commerce, automation and AI and cybersecurity services and solutions".

Given the market demand and available supplier capabilities, it is important then to look at other reasons for exploring how content moderation became a site of value chain rupture. This brings us to the second issue of reputational damage for the supplier exit. In the year 2019, media reports regarding distressed moderators and bad managerial practices, including cases of sexual harassment at the supplier firms' two production sites in the USA, surfaced. Around the same period, content moderators at other undisclosed supplier firms in the country filed a class action lawsuit against Meta (formerly known as Facebook), which resulted in the company having to pay $52 million in settlement to those who had developed post-traumatic stress disorder after watching the distressing content (Newton, 2020).

These instances of labor agency and their coverage in popular media (also Garcia, 2018; Levin, 2017) indicate the reputation risks attached with the content moderation work. Reputation mechanisms are significant to operations in the global economy and inter-firm relationships,

and are often associated with characteristics of *honesty* and *competence* (Gereffi et al., 2005; Humphrey & Schmitz, 1998; Moore, 1994). Reputation effects can also be seen in the brand identity and the relationship with end-customers. Nadvi (2008; 2014) has linked the labor and environmental compliance in supply chains with brand identity and competitive strategy. From this perspective, the negative media reports not only implicate the relationship between parent firm of SU-04 and LF-02, given that workers violated the NDA clause specified in the SLA, but also have implications for LF-02's relationship with the users and other stakeholders of social media platforms. It can therefore be argued that while the events associated with labor agency took place exclusively in the USA, its global implications for trade relations and user relationships highlight the potential interest of both firms in ending the project.

Having laid out the description of the exit and potential motivations that initiated and facilitated it, the focus is now directed to the process of transferring the project to the new supplier.

Transfer

There are two main reasons that can be estimated for the transfer of the project to SU-N. First, given that India constitutes the largest consumer market for LF-02, the lead firm relies on local skills for moderating the unique content that do not have applicable moderation policies. This will be explained in further detail in Chapter 7. Instead of hiring new workers, the lead firm could have wanted to retain the existing workers who had acquired tacit knowledge of the work. Acquiring tacit knowledge of former employees, especially in uncodified forms, is important for firms and they deploy subsequent mechanisms such as training new workers through the support of former (Ramioul, 2012; Flecker et al., 2013). This can also be seen from responses by some workers who noted that the lead firm "needed" them (CMH-10, 69, 79, 98, 104). Second, stopping the project completely would have meant either mass retrenchment or putting workers on the *bench*, where according to SU-04's benching policy, workers can stay from one to two months in the company on a salaried position while they look for another project. After this period is over, workers can be retrenched by the firm. This is further elaborated later in this section. Media reports in India and the USA had already started predicting the ramifications for thousands of content moderators in the different production sites. Given the general secrecy of this work and the reputational damage caused by labor agency in the USA, both the layoff and benching practices would have brought the firm further negative publicity.

Correspondingly, workers were given the option of either staying on the bench or moving to the other company. The research findings show that most workers agreed to shift to SU-N because of the then ongoing COVID-19 lockdown and insecurities of finding another job. This is also proven by the documentation in the supplier's 2020 annual report regarding the "elevated levels of involuntary attrition due to the (ABC) plan, including the exit from certain content-related services".

> "They have given us three options: one, you move to the new company. If you don't want that and if you want to stay in SU-04 but want to move in to another process like IT or Digital marketing, or anything, then you have to stay for around 30 days on bench. If any opportunity is there, then the HR will inform you and you can attend the interviews. But nobody was sure if the opportunity will come and we can attend the interview. That was the second option. The third (option) is that you can resign. 98% or I think 100% chose the first option. Very few people have chosen to stay in (SU-04) itself. Considering the situations outside, I think if we didn't consider that (first) option, then so many of us would be jobless right now." – CMH-15

The project was shifted to the SU-N office located in an STP in the city of Hyderabad, close to the office of SU-04. Similar to SU-04, SU-N is a large and established supplier of IT-services to global and domestic clients, but unlike the US-based firm, the headquarters of SU-N is located in India. The work culture at SU-N is similar to SU-04, according to workers who had either worked there before or had acquaintances in the firm (CMH-21, 25, 27). As the data was collected during the transition period and a few days into the start of the project, there is not a lot of information on the changes in the organization of work. At the same time, the research findings point to certain labor process continuities and divergences regarding travel allowance, work shifts, and change in working hours to ten hours at the new firm. This will be discussed in more detail in Chapter 7.

Here, the analysis is focused on how the existing mechanisms of SLAs, automated technology and institutional arrangements facilitated the transfer of the process. SLAs are central to discussion here, both in terms of the exit and the transfer of the project. Given that the SLAs include the clause on NDAs and the responsibility of the supplier firms to enforce the secrecy of content moderation work, the violation of this clause, even though by workers in the North American production sites, affected the relationship between LF-02 and the parent firm of SU-04. Whether on accounts of reputational damage or for supplier's growth plans, the exit from the project meant the firm had to "comply with our (their) contractual obligations and determine

the best mutual path forward with the small number of affected clients" (SU-04 Annual Report, 2020). This also meant that some workers joined SU-N at a later date than their colleagues in other processes because they had to finish the remaining content volume assigned to SU-04 (CMH-02, 04, 06). "Around 250 people in total, I heard, are not yet given their offer letters, as we are first required to finish the rest of the volume," noted CMH-06.

The report also shows that the supplier bore the facility exit costs of $23 million in 2019 and $5 million in 2020. Costs related to "employee separation" amounted to $45 million in 2019 and $127 million in 2020, and for "employee retention", it amounted to $2 million in 2019 and $5 million in 2020. Accounting for all its sites, these costs are a small proportion of the firm's 2020 annual revenues amounting to $16,652 million (except of per share data). These numbers show two things: first, that labor costs exceed the other costs, and second, that there was limited investment in other means of production, including the work software. The analysis in this chapter has shown the significance of automated technology for value chain governance. This means that by automating the direction and monitoring of workers through the content moderation, LF-02 is able to reduce labor indeterminacy and uncertainties from the outsourced labor process. At the same time, the supplier is still needed to ensure quality service delivery, help *improvise* the software, to control the workers through bureaucratic and normative measures, and to maintain confidentiality of the process using secure infrastructure.

At SU-N, workers were assigned to the same processes with same team members, team leaders and subject matter experts along with the process-based trainers. The software and its functionalities were also identical. This is unsurprising given that LF-02 has been shown to use the same software and corresponding interface in Ahmad and Greb's (2022) study of content moderation work in a German IT-Services firm. Similar to the German case, the content moderation software is continuously improvised with the assessment of the supervisors and supply side management, and through the knowledge of the workers that is either codified directly using technology or communicated via team leaders or subject matter experts. CMH-21, a senior content moderator and an acting team leader at the SU-04 noted:

> "It's all LF-02 tool (software) because only the ideas of SU-04 are to improvise the tool; I mean all the people who do the work - it can be a process executive (official designation of moderators at SU-04), it can be a senior process executive, it can also be an SDM (service delivery manager) - that's how it is improved. There are a lot of changes that happen usually. Even our client LF-02 will call us and have a video conference and they ask us what changes can be done, what are the improvements that

can we bring for the user, right. So, we used to give the ideas whenever they used to come or whatever interactions happened".

Both SLAs and automated technology facilitate the inter-firm mechanisms for transferring the work to SU-N. But they are also facilitated using the institutional arrangements in India. This can be seen on two levels: one, by providing infrastructure facilities that are aimed at ensuring the provision of services by SU-N, and two, the measures of labor flexibility. SU-N is located in the same STP in Hyderabad as SU-04 is located in, and correspondingly benefits from 100% tax exemption on export income along with support in services such as incubation, communication, consultancy, co-location, and data security services.[53] The mechanisms associated with labor flexibility can be then seen in two ways: one, through the provision of human capital to SU-N in the way of transfer of the existing workforce from SU-04, and two, by not protecting the interests of the workers in the event of exit.

According to the Industrial Disputes Act of 1947, the retrenchment plans of employers with more than 100 employees have to get the approval from the state labor offices. This includes section 25F regarding the appropriate compensation package, section 25G regarding the retrenchment of only new recruits, and section 25H directing firms to reason the retrenchment on the basis of "non-availability of resources, lockout etc." (Sundar, 2020). While workers were not retrenched, the bench policies of IT firms in the sector are often followed by labor retrenchment on the basis of compliance issue of not being able to find another job. While this again has to meet the checks and balances of the Industrial Disputes Act, i.e., why was the worker retrenched, benching and subsequent retrenchment are common practices in the Indian IT industry (interview with Shyam Sundar, NDLF). In this case however, workers can file for 2K petition that provides for halting the alteration of employment conditions, and 2A petition for challenging the firm's decision in the labor court.

Many workers agreed to joined the process at SU-N as they were concerned about finding a job due to both rising unemployment rate (CMIE, 2020; Vyas, 2019) and the rising fear of the suspension of economic activity due to COVID-19 pandemic, which was implemented on the 25th of March 2020 (Express Web Desk, 2020). In April 2020, employment in India was slashed by a massive 30 per cent, and included loss of 8.8 million salaried jobs and 2 million jobs of entrepreneurs (Vyas, 2021). Given this scenario and the relegation of employment relations to

[53] https://www.meity.gov.in/content/stpi

the coordination mechanisms between LF-02 and the suppliers, as discussed in this chapter, workers were left to shoulder the risks associated with the process transfer.

Conclusion

By making use of the three mechanisms of SLAs, automated technologies and the institutional arrangements, this chapter has explained first, how content moderation work is outsourced and quality service delivery is ensured, and second, the governance relationship between the lead firms and the suppliers. While this study does not explicitly apply the GVC and GPN theories to analyze the power asymmetries within the inter-firm relationships (Dallas et al., 2019; Gereffi et al., 2005), it does borrow key concepts to explain how lead firms are able to directly control the labor process and the upgrading possibilities for supplier firms. Correspondingly, we can see that SLAs are crucial to content moderation outsourcing as they establish the price agreements, allocate responsibilities to the suppliers and also set both qualitative and quantitative targets for them.

Closely connected to the function of SLAs is the role of work software that further assigns specific tasks to suppliers in terms of monitoring workers to ensure their work performance. The automated functions of the software serve two functions: first, the direction of work to workers and second, the codification of labor knowledge in the software. In all cases involving global lead firms, the work software is provided by them, whereas in other cases for SMEs, except of SU-06, the suppliers make use of their software. Furthermore, all firms, except the startup SU-08, are located in STPs. This ensures access to several infrastructural facilities and exemption from taxes on the basis of increasing export revenue and FDI in India. Together with the provision of these facilities, institutional arrangements at both the central and the state levels also facilitate labor flexibility through the access to a large pool of highly educated workers and limited mediation of capital-labor relations.

These outsourcing mechanisms are also shown to be crucial in the transfer of a moderation project from one supplier to another in the event of supplier exit. While the study has tried to ascertain the reasons for this exit in terms of firstly, the limited upgrading possibilities for the supplier, and secondly, the reputational damage caused by the labor agency in the production sites in the USA, the analytical strength of the mechanisms is in the transfer of the moderation work along with workers, team leaders and operations manager to another Indian supplier. Given the high market power of the supplier and the available workforce, this case on one hand,

represents the enormous flexibility exercised by both lead firms and large suppliers, but on the other, highlights the inter-firm asymmetrical relationships through the replaceability of one supplier firm by another.

There also exist limitations to the analysis presented in this chapter. First, there is no analysis of the relationship between the subsidiaries in India and their parent firms based in the USA. Can the subsidiaries exercise managerial discretion and do they coordinate directly with lead firms regarding the work process, or are they simply required to achieve the tasks established in the SLAs? These questions could have been answered through interviews with representatives from the subsidiaries or their parent firms; however, none of them agreed to be interviewed. The second limitation is the availability of information for each firm, depending on the type and degree of participation. For some firms (SU-01 to SU-04), information has exclusively been provided by workers, for SU-06, SU-8, SU-09, only management has participated, and for SU-05 and SU-07, both workers and management have participated. Despite the repeated requests, there was no participation from the lead firm LF-01. This could create analytical asymmetry, although due care has been taken to discern the particularities of each value chain relationship.

The analysis provided in this chapter clearly shapes the content moderation labor process in different firms. The different functions of lead firms and suppliers are directed at reducing labor indeterminacies in the labor process through the control strategies of technical, bureaucratic and normative means. Control is met with labor agency through the practices of resilience, reskilling and revoking, which allow workers to manage with the distressing work and self-organize paths to developing their careers. The research findings in Chapter 7 clearly show how the workplace dynamics are structured by the outsourcing and inter-firm governance mechanisms, and what are the implications for work and workers in the content moderation labor process.

Chapter 7: Outsourced but Directly Controlled: The Content Moderation Labor Process

Introduction

The starting point of this study has been that content moderation on social media platforms is problematized by the issue of context and scale of content. In Chapter 6, we saw that lead firms respond to these issues by outsourcing work to cost-effective locations such as India and by setting standards for ensuring quality service delivery. However, it is not yet clear how these interfirm governance mechanisms, facilitated by institutional arrangements, translate into workplace dynamics. This means asking how labor – as a special commodity in the capitalist production process – is managed to be productive within a highly-standardized process, which includes workers responding to the unique and the psychologically distressing nature of user content. This inquiry is based on the premise, that the labor effort required to work in standardized process and the tacit knowledge required to resolve unique content or make sense of existing content moderation policies, resides in the labor power of content moderators. Additionally, the management with distressing content and standardized working conditions, both of which are observed to be sources of worker dissatisfaction (Ahmad & Greb, 2022; Ahmad & Krzywdzinski, 2022; Roberts, 2019), also resides in the labor power. Drawing from the main research questions outlined in the introduction chapter of this study, we can ask: how do lead firms and suppliers then manage to extract labor productivity from content moderators? How do workers respond, and is content moderation work a site of contestation between capital and labor?

Social relations between capital and labor as being underpinned by distinct interests are key to the core labor process theory (Thompson, 2010). In particular, its treatment of labor power as indeterminate allows us to examine on one hand, the managerial control strategies for converting the labor power into productive labor, and on the other, as a potential source of conflict between capital and labor (Thompson, 1990; Edwards, 1990; Thompson & Newsome, 2004; Jaros, 2005). Within the logics of capitalism, the buying and selling of labor power is a site of differential interests of employers and workers respectively, which are brought into a somewhat mutual agreement through an employment contract. However, the "mutual agreement between the two parties over the magnitude of work effort required in exchange for

wages" is rather absent, thereby characterizing the employment relationship as a site of indeterminacy (Smith, 2006, p. 390). Management can then increase the intensification of work to extract surplus value, which is either followed by labor compliance or resistance at the levels of effort and mobility (Smith, 2006). While effort bargaining could result in workplace struggles regarding wages, working conditions, skill development, working hours, the mobility power of workers allows them to exit their employment for another. The particular background of content moderation workers in this study – young, highly-educated, middle class and English speaking – known to have higher labor mobility in the IT industry (Kuruvilla & Ranganathan, 2010; Remesh, 2014), create indeterminacies for employers that they try to control using certain strategies. The chapter here examines these strategies informed by the inter-firm governance mechanisms.

Drawing from the functional roles of lead firms and suppliers, this study makes use of three control strategies of technical, bureaucratic and normative control. In Chapter 6, these firm-based functions have broadly been categorized as product-related functions of lead firms and employment relations-related functions of supplier firms. To streamline these better, I use the different dimensions of labor control conceptualized by Edwards (1979), namely the direction of work, monitoring and evaluation, and the rewarding and discipling of workers, together with the recruitment process. These four dimensions of control are crucial to the reduction of labor indeterminacy in the content moderation labor process, and are explained in table 7.1. The technical and bureaucratic control strategies, applied through automated work software (in most cases proprietary of lead firms) and the bureaucratic rules of the supplier respectively, are aimed at reducing labor indeterminacy at the level of effort, by directing work, and monitoring and evaluating workers. The use of automated technology results in intensification of work through standardization of tasks and time, together with the codification of labor knowledge in the system.

On the other hand, the rewarding and disciplining of workers, whilst can also be seen in terms of reducing labor effort-related indeterminacies, its primary function is aimed at reducing the mobility-related indeterminacy of workers. This is due to the highly standardized nature of work and the limited possibilities for skill development and wage increase. The normative control strategies underpinning this control dimension primarily draw from the culture of labor *professionalism* in the sector, which is aimed at workers internalizing the value of work and corporate ethos (D'Cruz & Noronha, 2012; Noronha & D'Cruz, 2016b). Its conceptualization as a *culture* allows us to see the cultivated ideas of non-hierarchical relations, meritocracy,

transparency and well-being for increasing compliance with organizational interests (D'Cruz & Noronha, 2012). While this may seem contradictory to the high degrees of labor control, the creation of internal job postings (IJPs), provision of recreation facilities, and motivating workers to do other tasks, constitutes the culture of professionalism in the content moderation labor process.

Table 7.1: Types of labor control across different dimensions in the content moderation labor process

Dimension of labor control	Recruitment	Direction of work	Monitoring and evaluation	Rewarding and disciplining
Type of control	Bureaucratic control Normative control	Technical control Bureaucratic control	Bureaucratic control Technical control	Bureaucratic control Normative control
Enforcer of control (Functions of firms)	Suppliers	Lead firms Suppliers	Suppliers Lead firms	Suppliers
Reducing labor indeterminacy by:	NDAs Recruiting new workers	Standardization of tasks and time Controlled labor discretion	On-floor monitoring Codification of knowledge	Incentives & promotions Internal job postings

We can see that these control strategies are aimed at reducing labor indeterminacy at the levels of labor effort and mobility. At the same time, the lack of skill development due to the highly standardized nature of work, and low wages and incentives that do not correspond to how workers exercise their tacit knowledge and self-manage with the working conditions and distressing content, shows the limits of these control strategies. This chapter goes on to show that labor control in the content moderation labor process is dependent on the active agency of workers to manage with the uncertain and distressing nature of moderation work. Instead of examining the labor response as consent or compliance to control (Burawoy, 1982) this study addresses it as agency to examine the potential differential interests of moderators. This allows

us to see its three forms in the content moderation labor process, namely resilience, reskilling and reworking practices.

Resilience and reskilling practices are primarily underpinned by the career aspirations of workers applying for this job, and how they make sense of the content moderation work and the control therein. While this ensures that workers complete their targets and actively create workflows to match unique content, these practices also help workers to navigate and cope with their working conditions. At the same time, we can see that workers are conscious that they have to *work like a machine* and correspondingly strive to change their working conditions. With limited grievance mechanisms and IJPs at supplier firms, and the general disillusionment with the content moderation work, workers undertake individual revoking practices. This includes *violating* their NDAs with suppliers, withdrawing their effort, and exiting the employment. By paying particular attention to the role of exit or mobility power of workers, this study is able to examine it as a site of conflict between management and workers, which instead of resulting in management strategies of retaining workers, is found to be resolved by pools of surplus labor. Given limited transferability of content moderation skills into higher-paid work, most workers end up doing other low-paid jobs in the ITeS-BPO sector.

The emerging social relations in the content moderation labor process then highlight increased bargaining power of management over workers. This is particularly seen in the case of a supplier exit from its project with a large lead firm, and its subsequent transfer, including workers, to another Indian supplier. Assessed from GVC and GPN perspectives, it highlights on one hand, the strategic choices and flexibility of the supplier to exit conditions that were not suitable to it, and on the other hand, the low barriers of entry for a new supplier (discussed in Chapter 6). From a labor process perspective, the exit brings to light two things: first, the highly standardized character of content moderation work that can be replicated in another firm using the existing control mechanisms, and second, the strategies of labor coordination that are underpinned by both resilience and limited resilience. From this perspective, while supplier exit represents increased labor flexibility, the high degrees of direct control by lead firms over the content moderation labor process ensure the replaceability of a supplier by another. This is a unique contribution towards understanding the competitive dynamics in service value chains.

The chapter here is structured into three main parts. The first section discusses the three labor control mechanisms of technical, bureaucratic and normative control across the four dimensions of control, namely the recruitment process, direction of work, monitoring and evaluation, and rewarding. The second section discusses labor agency under another set of three categories,

namely resilience, reskilling and revoking. Both these sections are informed by cross-case analyses of different content moderation value chains in terms of the inter-firm governance and coordination particularities. Following this, the third section analyzes the case study of supplier exit and transfer, and its implications for the respective labor process. The concluding section of this chapter summarizes the main findings and highlights the limitations of the analysis presented.

Labor Control

The conceptual choice of technical, bureaucratic and normative control draws from the existing analyses of export-driven IT-Services as being underpinned by the logics of standardization and "customer-orientation" (Korczynski, 2002; Remesh, 2008; Taylor, 2015). Where standardization allows for responding to economies of scale, the customer-oriented logic draws on the local and tacit knowledge of workers to serve the consumers. The concurrence of these two logics results in the combination of technical, bureaucratic and normative forms of labor control, and they constitute as the shared control of the labor process, albeit to different degrees between the firms. Technical control allows to "minimize the production of transforming labor power into labor as well as to maximize the purely physical based possibilities for achieving efficiencies" (Edwards, 1979, p. 112), and is correspondingly embedded in the automated work software for moderating content.

Bureaucratic control on the other hand is enforced through the "job categories, work rules, promotion procedures, discipline, wage scales, definition of responsibilities, and the like" (Edwards, 1979, pp. 130-131), and is correspondingly embedded in the embedded in the "social structure" of the supplier firms (p. 20). While "all control practices have normative dimensions" (Thompson & van den Broek, 2010, p. 6), the high degrees of social media user indeterminacy together with the psychologically-distressing character of content to be moderated necessitate normative control mechanisms to "obtain desired behavior from workers" through "value internalization" (Barley & Kunda, 1992). These three labor control mechanisms are examined under the four dimensions of labor control: the recruitment process together with three others proposed by Edwards (1979), namely the direction of work, monitoring and evaluation, and rewarding and disciplining. Taken together, these control dimensions allow us to examine managerial control from a firm-based functional perspective, and how lead firms are able to exercise direct control over the outsourced work process.

As shown in Chapter 6, there are three main actors at the firm level: first, the lead firms based in the USA, second, the subsidiaries of MNEs that are also headquartered in USA and who directly coordinate with the global lead firms for offshoring work to these firms in India, and third, the independent SMEs based in India. Depending on factors such as the product complexity and the scale and geographical scope of content generated, three different value chain configurations have been established. Product complexity depends on three factors: first, the format of content, such as videos that require more time for moderation, second, the use-cultures of social media users, and third, in terms of the moderation policies of the lead firms. Table 7.2 differentiates the three value chain configurations on the basis of product complexity, the functions of lead firms that allow them direct control, and the role of supplier firms.

Table 7.2: Value chain configurations in terms of product complexity and firm functions

Value chains	Product complexity	Direct control by lead firms	Role of suppliers
LF-01 – SU-01	Highest	Recruitment Workplace Direction of work Monitoring and evaluation	Partial recruitment Rewarding and disciplining
LF-02 – SU-02/ 03/ 04	High	Direction of work Monitoring and evaluation	Partial recruitment Monitoring and evaluation Rewarding and disciplining
Lead firms – SU-05/ 06/ 07/ 08/ 09	Low	Direction of work	Recruitment Monitoring and evaluation Rewarding and disciplining

The highest degree of product complexity is observed in the LF-01 – SU-01 chain, wherein the primary content format is videos, including very long form videos. These are produced by predominantly professional content creators, who make a living by making these videos. The

corresponding moderation policies, according to the workers, are very detailed but with fewer sub-tags (for tagging content), due to the implications for video creators. Lead firms directly control the labor process by taking part in the recruitment process, providing the workplace in its own subsidiary office in India, directing work and monitoring and evaluating workers. The role of suppliers is then delegated to first, organizing the recruitment process using the assistance of external recruitment firms, and second, for managing the employment relations by rewarding and disciplining workers.

On the other hand, the value chains between the lead firm LF-02 and other suppliers SU-02 – 04 require moderation of all three forms of content, namely videos, text, and images – that are produced by a range of social media users, including e-commerce activities by some. This results in relatively lesser degree of product complexity, which is also observed in terms of detailed yet high categorized moderation policies with several tags and sub-tags for moderating content. The direct control of lead firms is primarily seen in the direction of work, and monitoring and evaluating workers using the highly automated work software. The degree of automation in the LF-01 – SU-01 is not as high as in this other chain, and this could be attributed to the product complexity in the former. Correspondingly, supplier firms in the second kind of value chain have comparatively increased roles, which includes managing the recruitment process, also with the assistance of recruitment firm, monitoring and evaluation and rewarding and disciplining workers.

In the case of SMEs, product complexity is the lowest with short videos, text and images, and highly-standardized moderation policies. However, there is not much information on the use-cultures of these social media platforms. At the same time, the direct control by lead firms over the labor process is also low. As discussed in Chapter 6, except of SU-06, all other suppliers use their own automated technology through which the lead firms can direct work to workers. This exception can be explained by the specific clients that the supplier SU-06 has and the service-level agreements between them. But all SMEs are tasked with recruiting the workers, monitoring and evaluating, and rewarding and disciplining them. Despite the differences observed in the three value chain configurations, lead firms have direct control over the labor process to reduce labor indeterminacies.

Recruitment process

Informed by the SLAs, workers are recruited on the basis of language skills and headcount. Further on, interviews with management showed that soft skills such as communication, with preference for English, problem solving, time management, stress management and adaptability, *basic computer skills* together with *emotional maturity* are sought by them for content moderation work. This is underpinned by the dual logic of service work in terms of its standardization while at the same time also extracting tacit knowledge from workers (Remesh, 2008; Taylor, 2015). While in the value chain LF-01 – SU-01, the lead firm was directly involved in the recruitment process, lead firms in other chains were not directly involved. The recruitment practices by SU-02 to 04 for moderating content for LF-02, however, involve external recruitment firms, who are tasked with contacting the applications and screening them at their offices for the recruitment process.

Following this, two to three rounds of interview are conducted at the recruitment office with the human resources (HR) staff and with a representative of LF-02, in presence and through videoconferencing means, respectively. With no other involvement of the external recruiter in the process other than that of screening applicants and supplying the physical infrastructure, the logic behind this outsourcing can primarily be estimated in terms of cost-efficiency for supplier firms. On the other hand, the recruitment process at the SMEs (SU-05 to 09) takes place exclusively at the supplier firms' offices without any involvement from the lead firms. Research visits to the offices of SU-05, SU-06 and SU-08 showed the ongoing walk-in interviews at these offices, with one to two rounds of interviews.

Selected candidates at all firms have to wait for a few weeks for the verification of their backgrounds. This is a common practice across all ITeS-BPO firms in India (SU-05, 06, 08, CM-01, 08, CMH-02, 05, 11, 17). Following this, they join the workplace and sign the NDAs if they haven't already done so in the recruitment process. This bars them from speaking about their client and other details about the work process with anyone external to the employment relation. NDAs then become part of the bureaucratic control mechanisms to discipline workers in case they "violate" these agreements. Informed by the terms set in the SLAs, NDAs not only control workers from sharing work-related information with external actors including family and friends, but also function to provide limited information about the outsourcing contract and agreements to the workers. Participant observation of the recruitment processes at three large supplier firms, all of whom are not part of this study, but who were recruiting for content

moderation project with LF-01, confirms these restrictions. More description on this method is provided in Chapter 5.

NDAs are the primary form of institutionalizing content moderation secrecy in the content moderation labor process. The institutionalization of secrecy however already starts with the incomplete job advertisements that do not include information on work. Instead, "multitudinous" job titles (Roberts, 2019) such as "system analysts" (Ahmad, 2019), "process associate" and "website administrator" (Ahmad & Krzywdzinski, 2022) are advertised.[54] Two reasons can be discerned for the restriction of information from workers: first, to attract workers through continuous walk-in interviews, because the attrition rate in this work is very high. At the same time, suppliers still provide the applicants with rudimentary information regarding the distressing nature of content, which serves the function of a "tolerance test" in the recruitment process, so that workers who are not *comfortable* with the content can leave.[55] Secondly, generic job titles also reflect the generic skill requirements for this work, where workers can be trained according to the lead firms' standards, following the general culture of training in the ITeS-BPO sector in India (Remesh, 2014).

From this perspective, we can see that the recruitment process is a site of restricting information from workers regarding the "magnitude of work" and the degree of distressing content that they have to moderate. The accompanying employment contracts reflect this arrangement. This is agreed upon by workers in view of their career interests in digital marketing and the appeal of the *brand value* of lead firms. The following table 7.3 provides information on the employment background, education experience and work experience of those employed at SU-01, 02, 03 and 05. Table 7.4 provides more demographic information on surveyed workers (n=99) employed at SU-04, to show their gender, marital status, if and with whom they share a household, if they are the only earning members of their families, the level and field of educational qualification, and if content moderation is their first job (colloquially known as freshers). Apart from this, the average age of the participants is 26.03 years, with a standard

[54] This was confirmed during the data collection process, wherein by entering some key words including *content moderation*, and some generic ones including *content management*, *system analysts, customer service* together with the names of the suppliers, on two popular job search websites in India, the results generated profiles including *process associate, process executive* and *website administrator*, highlighting the main process terminologies such as *non-voice process* and *digital marketing*.

[55] The term was mentioned by content moderators employed at SU-04, although similar forms were also mentioned by other workers.

deviation of 3.27, and the starting salary is 15020.51 with a standard deviation of 9131.78 highlighting the different work experiences. These labor characteristics are generalizable and go on to show the participants' relatively higher mobilities in India.

Table 7.3: Information on workers employed by SU-01, 02, 03 and 05

S. No.	Employer (Supplier)	Client (Lead firm)	Location	Employment status	Educational background	Experience (in years)
CM-01	SU-01	LF-01	Gurgaon	Former	Master of Computer Application	2
CM-02	SU-01	LF-01	Gurgaon	Former	Bachelor of Technology	3.6
CM-03	SU-01	LF-01	Gurgaon	Former	Bachelor of Technology	2
CM-04	SU-01	LF-01	Gurgaon	Current	Master of Technology	3.6
CM-05	SU-02	LF-02	Hyderabad	Current	Master of English Literature	6 months
CM-06	SU-02	LF-02	Hyderabad	Former	Bachelor of Technology	4 months
CM-07	SU-03	LF-02	Mumbai	Current	Bachelor of Management Studies	2.6
CM-08	SU-05	(Lead firm/s is/ are not part of the study)	Hyderabad	Former	Bachelor of Technology	3
CM-09	SU-05	(Lead firm/s is/ are not part of the study)	Hyderabad	Current	Bachelor of Technology	2

Table 7.4: Demographic information for workers employed at SU-04

Indicators	Attributes (%)	No answer	Not displayed
Gender	Male: 63.64	-	-

	Female: 35.35 Other: 1.01		
Marital status	Single: 75.76 Married: 23.23	1.01	-
Sharing household	Yes: 56.57 No: 43.43	-	-
Sharing household with	Parents: 35.35 Spouse: 14.14 Children: 4.04 Others: 13.13	-	41.41
Only earning member in the family	No: 63.64 Yes: 36.36	-	-
Educational qualification	Bachelor's: 76.77 Master's: 21.21 Diploma: 1.01 Others: 1.01	-	-
Field of educational experience	Engineering and technology: 36.36 Business and economics: 22.22 Computer science: 19.19 Others: 15.14 Arts and humanities: 7.07	-	-
Freshers	Yes: 65.66 No: 34.34	-	-

Following the recruitment process, workers have to undergo a mandatory training that is prerequisite for starting work. This is discussed below as part of the first dimension of labor control – the direction of work.

Direction of work

The direction of work is primarily aimed at reducing the effort-related labor indeterminacy through firstly, the standardization of tasks and time (also in Ahmad & Greb, 2022), and

secondly, the controlled labor discretion. Crucial to this is the process of labor training and the organization of work. And these are directly informed by the standards of work and policies of moderation by lead firms. Labor training, common to the ITeS-BPO sector, serves two main functions in the content moderation labor process: first and foremost, to prepare workers about the content moderation standards and the usage of the work software, and second, to inform them about organizational rules and the process of disciplining and rewarding workers. Closely linked to these functions is the use of normative control mechanisms that on one hand, train workers to manage their emotions, aesthetics, behaviors and attitudes (also in Poster, 2007; Upadhya & Vasavi, 2008; Warhurst & Nickson, 2007) in view of the psychologically-distressing and cross-cultural nature of work. On the other hand, normative mechanisms are used for training workers to internalize the values of lead firms for creating special workflows for content that did not have the respective policies.

All large lead firms LF-01 and LF-02 require the mandatory *nesting period* after three to four weeks of training, whereby workers would be checked for quality, before they can start working on the live project. During this period, they are also evaluated to check if their have learnt the policies. Correspondingly, they are required to achieve between 80 to 98 percent quality score depending on the complexity of the content processes and queues they are assigned. The main processes in the LF-02 – SU-02/ 03/ 04 chains are content classification, e-commerce, advertisement categorization, news articles and others. These assessment scores are part of the performance metrics that are transferred to the lead firms. Subsequently, if workers failed to pass the minimum evaluation score, then they are retrained, according to the lead firm rules.

In terms of training at SMEs, while the management representatives from SU-05 to SU-07 noted that their training process lasted for the same duration as large firms, workers from SU-05 had different experiences where CM-08 had two days of training and CM-09 had training for two weeks, as they were working on different content moderation projects for different lead firms. However, there were no tests or examinations at SMEs to certify that they could be given access to the project. The variance observed is on the basis of both product complexity and cost efficiency. Given the high labor attrition, SMEs do not invest much in the costs of training in the process. While they have relatively more flexibility for devising the training duration for assessing if the workers can join the process, the training processes have to ensure that workers are able to achieve the quantity and quality metrics of the SLAs. The instance at SU-07 elucidates this:

> "Training is designed by our internal training teams. We call it as moderation shield, where all the moderators have to go through specific training modules. Clients won't provide the training modules, they will provide us with guidelines, whatever they have for their apps (applications), or websites. We use their guidelines with our training modules to come to a conclusion (moderation decision)."

Common to all value chains is the bi-directionality of the training process. Rather than a one-way process, training also allows the management to assess which content process and queues workers can be assigned to. Following the training, workers are delegated into teams of 15 to 20 members, and assigned specific content processes and specific queues. Similar to other IT-Services, content moderation work is organized to include three to four work shifts at all firms. This follows the outsourcing logic of lead firms to service their consumers 24*7 (Poster, 2007; Remesh, 2014; Taylor et al., 2009). These shifts are rotational in nature and workers are shifted from one shift to the other every few months according to workers' performance. This will be discussed in the section on rewarding and disciplining.

> "You know, to me, it seemed clear that one of the reasons we were choosing India as a place to perform this work is because (it) was so much less expensive. You know, there wasn't at that time, anyway, a strong geopolitical reason to put content moderation operations in India. There certainly was like a time zone advantage." – former user operations manager at LF-02.

The organization of work clearly reflects managerial strategies of reducing labor indeterminacy at the effort level. This can be understood in three ways: first, in terms of the team size, where each work shift is made up of several teams and each team is assigned with a team leader. Depending on the size of the supplier firm, there are also subject matter experts and quality analysts dedicated to two-three teams who can answer work-related queries, particularly in terms of complicated content. This is explained further in the direction of work. Second, there are high degrees of confidentiality in the work process. In LF-01 – SU-01 and LF-02 – SU-02 /03/ 04 chains, workers are barred from speaking with members of other teams. Across all chains however, workers are disallowed from carrying any personal item with them inside the workplace. This includes mobile phones, pens and even paper due to the confidential nature of the work. Third, work is organized to include recreational facilities that are also known as wellness sessions. These include team counselling and *fun* activities such as games, quizzes, yoga. And these practices draw from the general practices in the ITeS-BPO sector for retaining workers (Kuruvilla & Ranganathan, 2010).

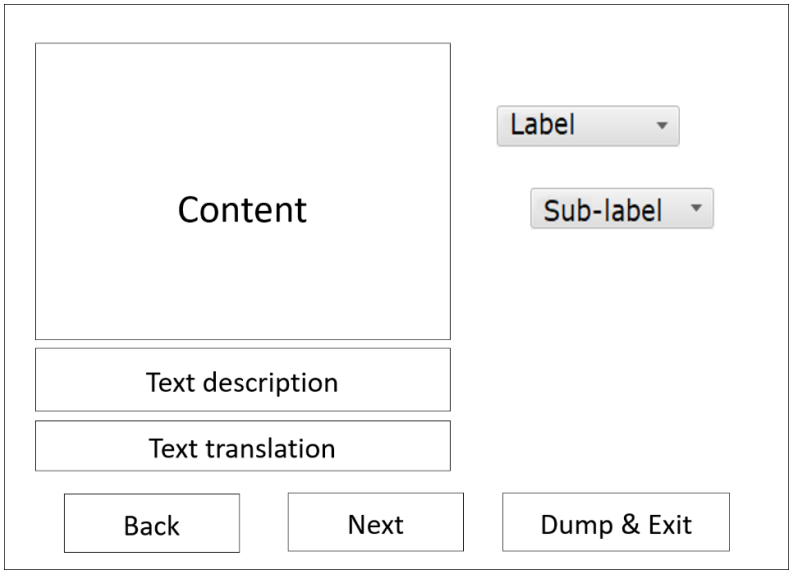
Work is directed to the workers primarily through technical control, and the internet-based software constitutes the main work infrastructure for moderating content. As discussed in Chapter 6, this software is either provided by the lead firms (LF-01 and LF-02) or suppliers could have their own in-house software (SU-05, 07, 08, 09). But all work software have integrated automation functions that allow work to be directed in the queues of the workers. In terms of the inter-firm governance mechanism, its primary function can be seen in transferring the flagged user content to the work interface, thereby reducing the communication errors between the lead firms and the suppliers. It also allows limiting labor indeterminacy through standardization of tasks and time, and controlled creation of workflows. This is crucial to the content moderation outsourcing, given the user negotiation activities and dynamic character of social media platforms.

Standardization of tasks and time

Both automatically and manually flagged content arrives in the assigned content queues of the workers. The differences and functions of the two types of flagging have already been discussed in Chapter 2. But for the discussion here, its importance can be seen in the capture of unique content cases by lead firms that are transferred to the workers. The queue with the highest number of content (volume) is to be selected by the workers. In the case of LF-02 with its highly automated software, the queue with the highest volume of content gets highlighted on the software. Workers have to click on it to start the work to reduce the volume. In case the highlighted queue is not selected and the flagged content remains in there for more than 48 hours, then LF-02 escalates the issue to the suppliers. Once the queue is selected, workers are taken to the task interface where depending on the kind of content, they have somewhere between a few seconds to a few minutes to moderate it. Moderation of video content at LF-01 required longer durations than other content in other firms (CM-01 – 04). This however also depends on the software interface. For instance, the software of LF-02 includes higher number of image thumbnails for videos, enabling workers to complete the video moderation faster.
Once the task interface is open, workers are shown the content and the moderation policies next to it. The policies are accessible through a dropdown menu that includes both labels or tags, and sub-labels or sub-tags. They are designed to simplify the moderation policies and reduce the scope of errors by narrowing down the policies within simplified labels. Image 7.1 represents common elements of the labor interface in all chains. Although there is limited

information on the software in SMEs in comparison with other value chains, interviews with workers employed there show the importance of content labels and sub-labels, the description of the content, and its translation. Depending on the software, these elements are placed in different sections of the interface, but are always in full visibility to the workers because they are crucial to work. There are also buttons for going back on the previous piece of content or going to the next. Depending on the software, these are called differently and depending on the degree of automation, workers could directly be taken to the next content without clicking on the content. This was observed in some content processes at SU-04, and it depends on the different content format and targets set for each process. These "clear interfaces" have also previously been observed for their significance for inter-firm coordination in service value chains (Flecker et al., 2013, p. 12).

Image 7.1: Task interface of the work software with essential components for moderation



Workers are also given the option of forwarding the content to the subject matter expert, quality analyst or a senior moderator depending on the team hierarchy. Because workers are required to maintain their targets and average handling time, by forwarding complicated pieces of content that either do not have the applicable labels or when workers do not remember the policies, workers are able to save time. At the same time, forwarding the content more than three times a day is disapproved by the team leaders and also gets noticed in their performance scores. All software have the time tracking feature, either visible to the workers (at SU-02 to 04) or remaining invisible to them (CM-08, 09 at SMEs). This will be discussed further in the

following section as part of the monitoring and evaluation dimension of labor control. Its discussion here allows us to see how lead firms and suppliers control the working time of content moderators to reduce effort-related indeterminacy.

The hours of working are mostly similar across the value chains, with nine and a half hours at SU-01, nine hours at SU-02 to 04, and ten hours at SU-05 to 09. And breaks for lunch and coffee are also organized similarly. Breaks usually last between 30 to 90 minutes, depending upon the content process workers are working in. Processes with high degrees of psychologically distressing content included more and longer breaks for workers so that they could be more relaxed. The hours of working and breaks are however highly controlled using the software, which gets reflected in the performance scores of the workers. Control on working time also includes how much time workers have spent on taking individual or team counselling sessions, during the wellness sessions, on process-related regular training and on skill-development programs available at the supplier firms. This detailed level of time tracking is particularly seen in the software provided by LF-02, which constitutes both a ticker-timer visible to the workers on their interface, and *Activity Codes.* These codes refer to the production time, lunch break, short breaks, training, meeting with the management or team leaders, and even an *Idle* code that refers to other tasks (also in Ahmad & Greb, 2022). Although, responses from the representatives of these supplier firms are missing, workers at SU-04 note that the introduction of these changes in the content moderation software was at the behest of their management to ensure target completion, as discussed in Chapter 6. This will be discussed in the following section on monitoring and evaluation.[56]

Further on, overtime is common in the content moderation labor process. This can be seen from the usual nine to ten hours of work per day across the chains, in contrast to what is mentioned in the employment contracts.[57] But overtime also depends on special events reflecting in increased user activities on social media platforms and corresponding increase in content volume to be moderated. Survey results on work at SU-04 shows that the average number of working hours per week is 27.5. Although the working day in practice is for nine hours, interviews show that the production time, i.e., the time that workers are required to moderate

[56] These changes were also observed at the German firm in Ahmad and Greb's (2022) study. It can therefore be estimated that LF-02 consults with its other suppliers before introducing the updates in the software.

[57] This overtime, i.e., more hours of working than defined in the work contract, is more than stipulated eight hours under the Shops and Commercial Establishment Act applicable to all Indian states. Only the state of Karnataka has exempted ITeS-BPO firms from this regulation; although none of the large suppliers SU-02 - 04 are located here.

content is six to six and a half hours daily or 30 hours weekly (CMH-01 to 30). Some workers (n=34) also noted that they work overtime, which can explain the standard deviation (16.59) observed in the response to working hours. Workers are required to select the *Activity Codes* that includes the production time, but depending on the process and the content volume, they are also required to do overtime. This can be seen from a quote by CMH-13 below:

> "Sometimes we need to work for ten hours like during these celebrations like Christmas or New Year's. We have to work more and we don't follow the Indian holidays. Mostly we just follow the normal holiday calendar based upon the client requirement. (…) So, yeah, when required. Like when the queues are full and we have to finish that queue for that week or else for that month-end. We will have weekly targets, monthly targets right, we have to accomplish the targets in that month that's it; then, we have to do overtime. And the overtime is not paid, they just arrange an extra cab for us, that's it. Say for example, my shift time is 6:30 pm to 4:00 am, they will just arrange the cab whenever we are logging out."

Controlled labor discretion

The limits of technical control in the direction of work can be observed in special content that is either critical in nature or does not have the required content moderation policies. Apar Gupta, Executive Director of the Internet Freedom Foundation, a digital rights CSO, noting the increasingly "sophisticated" character of contemporary social media platforms, argues:

> "I think that these are very sophisticated media ecologies which are building out, and I think people are also discovering what they can do. But I think that they are definitely using the platforms with a greater sense of care, and knowing what they are saying and where they are saying, and they are making those choices. (…) So, I think it has become sophisticated because it is catering to the kind of human need, how you engage with different kinds of media, and how you make different choices, share different types of content and say different types of things, all depending on the platform you're on."

The degree of this content and correspondingly task complexities varies across different value chains. But they all draw on workers' tacit knowledge that can either include local cultural or linguistic skills or the *know-how* that comes from experience of moderating content. This stems from workers having to "make sense of codified bodies of knowledge" (Holtgrewe, 2008, p. 3 in Flecker et al., 2013, p. 14) that refers to the existing content moderation policies provided by

the lead firms. These policies are numerous and fill several pages. To fit the limited time within which content needs to be moderated, the policies are integrated in the software in the form of tags and sub-tags. But they are also available as a PDF (portable document format) in the software, which workers can access and read if they have the time. The limits to these policies, in terms of firstly, their vagueness at times to workers, and secondly, in terms of not being all-inclusive, particularly in terms of the local culture in India, create the space for workers to exercise their discretion. The following instance shows how CM-05 working at SU-02 for LF-02 exercised her discretion in terms of moderation policy related to *terrorism*.

> "We can add insights (to the policies). We have one topic related to terrorism. It includes groups connected to *Osama Bin Laden, Al-Qaeda, Mujahidin*. *Hitler* – he is in one of the most severe terror groups. Even if you are conveying the message that Hitler is not good, but you are still using his image for depiction or similar organization, it will be taken down. Now one time, there were examples of people posting about (Ajmal) Kasab who was involved in the 26/11 terrorist attacks in India. The confusion was that we couldn't delete or ignore him. We know (that) he is a terrorist, the Indian government (had) also convicted him, but he doesn't fall under any policy. So then, we gave our insight to our supervisors that he is a known terrorist. They transferred this (information) to LF-02. We explained to them that we searched in Google and on the internet that he is convicted. So, please update him in the policy. When we checked later, LF-02 had updated the policy and Kasab is included, so any kind of depiction (of his) will also be turned down."

The trial and execution of Ajmal Kasab is one of the most widely remembered national memories in India given his alleged affiliation with Pakistan-based *terror* groups (Kulkarni & Naeem, 2012).[58] This mainstream cultural context that was also recently reported to feed into rising discriminations against Muslims in India (BBC, 2022), informed the above cited instance of labor discretion. *Terrorism* is a policy priority for technology firms which has also resulted in a shared database run by the Global Internet Forum to Counter Terrorism, that "ostensibly focuses on Islamist groups such as ISIS and Al Qaeda" (York, 2022). In the labor process, workers' exercise of cultural knowledge takes place in controlled settings. In this case and other

[58] Critics however note that his trial was unfair and that he was not allowed to access public attorneys for his defense (Chaudhry & Thambisetty, 2013; Venkatesan, 2012).

LF-02-led chains, the exercise of labor discretion is done in the presence of team leaders, quality analysts or subject matter experts. While the team leaders support workers to exercise discretion using the given steps by LF-02 while also taking care of their targets, quality analysts and subject matter experts helped workers understanding the existing policies and possibilities for change. This will be discussed further in the following section. Instead a function of the increased capabilities of supplier firms to manage with this content, this can rather be seen in terms of higher advancement of LF-02's technology to direct workers with specific steps in the software and exercise discretion.

In addition to asking their supervisors, workers can also ask their team members, especially the senior moderators for support, either through the chat tool (at SU-02 to 04) or in person (SU-01, SU-05 to 09). This shows the significance of tacit knowledge for content moderation work that experienced workers had gained working in the process.

> "Let's say 100 freshers would be hired into project, so in those 100 members, only 20-30 members would get a grip on the project & knowledge also. The rest of the 70 members would depend on one another, they will be taking help of the trainer or subject matter expert or senior employee. So, as a subject matter expert I used to give lots of suggestions (to those) who instantly came in the team. I don't write, they will be posting to me in the (workplace) chat about what will be the decision of this video. So as a team, we had to keep up our productions, so I used to give help to them with their respective job IDs. So, it is like again double work for me." – CMH-26

Similarly, in the LF-01 – SU-01 chain, worker difficulties in understanding complicated content and policies can be resolved by discussing with their trainers or quality analysts or subject matter experts, depending on their availability in the different shifts. However, in cases of certain trending content that can have repercussions for the firm's reputation, direct communication was enabled between the LF-01 content policy team in the USA and workers in India so that they could respond to the respective content. These direct channels between experienced workers and LF-02 can be understood in terms of higher product complexity. It is explained further by CM-02:

> "If there is some case like a bomb blast happened in India, then what happens, some users upload video to get views. So, what they do is they upload a video of blast three years ago, which is fake news. So, it's hard to figure out, what happened, where it happened, is it fake, is it some news that is trending. Whenever there is an event that is trending, we get an email from LF-01 where they will attach the original video and with

it, we have the rules. We can then see if we take down the video, and we have to see if we reject the video or if we have to approve it; these things you have to see. It's for the cases which are like trending really, not for every video. If there is issue with normal video, then we have a team discussion, where we just talk within ourselves and figure out a way."

In the case of SMEs however, management of unique content or complex moderation policies is managed by the team leaders at supplier firms, as lead firms do not set standards for this content. Given the low product complexity, there were not many instances of unique content observed. At the same time, workers still have to exercise their discretion in terms of understanding existing policies that are not always obvious to the workers. From this discussion, we can see that supply-side functions remain assistive to the technological direction of work especially in terms of the unique content. It also shows that while workers can exercise their discretion in creating unique workflows and making sense of existing policies to make accurate moderation decisions, it is largely directed by managerial control. These functions are further extended in the monitoring and evaluation dimension of labor control.

Monitoring and evaluation of work

Monitoring and evaluation in the content moderation labor process is underpinned by two interdependent functions for reducing labor indeterminacy: first, by on-floor monitoring by suppliers and second, the codification of labor knowledge. The two main control strategies observed to achieve these objectives are technical control and bureaucratic control. At the level of technical control, these objectives are served by the use of automated technology, which on one hand, captures the targets and other work-related metrics and transfers them to the suppliers, and on the other, is integrated with machine learning models to capture labor knowledge. At the level of bureaucratic control, team leaders and other supervisors monitor and evaluate workers according to both the technology-generated metrics and according to their rules for restricting workers' activities in the workplace. Both these strategies aim at ensuring that workers make accurate and context-sensitive content moderation decisions, which can be then codified in the work software.

On-floor supervision

The main purpose of on-floor supervision by team leaders is to ensure that workers meet both the quantitative and qualitative targets of content moderation. While quantity is largely assured by the work software, the qualitative aspect – especially in terms of complicated content and incomplete moderation policies – is to be resolved by asking for support from team leaders and other senior members. This is primarily a function of reducing content moderation errors, which occur not only due to incomprehension of policies by workers, as has been discussed in the previous section, but also in terms of software anomalies. Close examination of the worker interface of LF-02's content moderation software at SU-04 showed the regular occurrence of three main kinds of anomalies: first, in terms of misdirecting content to odd queues, such as by directing pornographic or extremely violent content to ecommerce process (CMH-15, 17, 22, 24, 25, 26).[59] Second, by limiting workers at times from going back to the previous content to reverse their decision (CMH-15, 16, 29), and third, the mistranslation of different language text that had landed in their queues because of which workers had to translate it using Google or Microsoft translations in a new browser tab (CMH-12, 13, 15, 16 29).

In certain cases, LF-01 and LF-02 responded to issues of moderation errors by reducing the targets for all queues at SU-01 and for some queues at SU-04, after interacting with the workers and seeing the high number of moderation errors. CM-02 employed at LF-01 explains:

> "See, there is a lot of sensitivity of the content, and there are a lot of freshers in this work who don't have that much experience. So, if you give them more targets, they will make mistakes. If you decrease the targets, then they will focus more. That is why, (the) targets have decreased day by day. Today the targets are nominal. In a day, it is (between) 150 to 200 videos. When we started, it used to be 800 videos for freshers. The client also understands (that) if you hurry, then it will be problematic. So, they said that, 'you (SU-01) can hire more people and give them less work; if you work with less people, then there will be 5-6 errors in a day'. So, it is better to hire more people; and if more people will come, then work will be divided among them. This is what is happening nowadays."

[59] This is different from pornographic content that was generated on the *marketplace* page of LF-02's social media platform, and its subsequent flagging and transfer to the matching queues in the ecommerce process.

This shows the high degrees of direct control over the labor process by lead firms. At the same time, the monitoring of work and performance management are special functions of suppliers. Correspondingly, on-floor supervision is required to ensure that workers understand the moderation policies, the content, and the software. This is particularly crucial for unique or complicated content, as we saw in the discussion in this chapter on the direction of work. The survey results show that workers rely on help from supervisors to make the appropriate moderation decision. While 84 percent of the respondents noted that they could *easily* ask for help from their supervisors during work, 16 percent noted that they could not. The latter observation can be explained first, by the unequal availability of supervisory support across different content processes in terms of content severity, such as content classification with the highest degrees of harmful content with high reputation risks for lead firms. Second, the limited presence or even absence of team leaders, trainers and subject matter experts during the night shifts (CMH-07, 10, 11, 16, 28), and third, the incompatible relationship between some workers and their team leaders (CMH-15, 16). And while 84 percent of this assistance was directed towards policy-related queries and content-related queries (n=45), workers also had queries related to the software (n=20) and other aspects (n=23).

Given the competitive nature of inter-firm relationship in content moderation value chains, where projects are based on short-term contracts, on-floor supervision practices also aim at ensuring workers complete their targets within given amount of time. At SU-04, the target numbers differ vis-à-vis the different content formats. While for videos, the average number per hour is 124, for images it is 257, and for purely text-based content, the average is 201 images per hour. There must exit great divergences across the different processes such as in content classification and e-commerce where the latter had more workers working overtime (CMH-02, 05, 13, 16, 18), and which can explain the high standard deviations observed in target numbers for all content formats with videos at 219, images at 572 and text at 1012. Additionally, video moderation also includes text and image thumbnails, resulting in the high amount of variation from the average.

Given the high cost competition in content moderation value chains, the management practices at supplier firms reflect, what some have noted, as an "obsession with metrics linked to appraisals, rankings, underperformance and so on" (Noronha & D'Cruz, 2017, p. 7). Correspondingly, the supervisory practices of monitoring and evaluating in the content moderation process go beyond workers making accurate and context-specific moderation decisions to include how many targets workers have completed, within how much time, and

highly restrict possibilities of labor indeterminacy, including resistance. The performance metrics generated by the work software in terms of targets, quality and AHT, play a crucial role for evaluating workers. This is done at the levels of both individual and team-based performance.

But supervision here also includes restricting workers' movement in the office and their communication with their team members. On one hand, this is seen through Activity Codes in the software, but on the other hand, it is also seen in the placement of cameras and constant presence of supervisors on the work floor.[60] Restrictions on speaking with other teams was only observed in large supplier offices given the large number of teams. And even though these teams worked for one client, these restrictions were directed at workers sharing work-related information with other members.

> "(I) didn't really get a chance (of speaking to members of other teams) because we are not required to share our policy discussions with other teams, as their policies would be totally different and our policies would be totally different. And the tagging (options) are also different. So, we never had much conversation and interaction between other teams." – CMH-11

Restrictions are also directed at the admission of any personal items in the workplace. This also serves the function of restraining workers from recording any aspects of work. CMH-12 explains:

> "We were not allowed to even take a piece of paper in the office. There was an external event – the (name of a big political scandal on LF-02's platform) and so, some people of a team wrote down some policies regarding this scandal and they were discussing it during lunch. The HR staff got to know about it and then, the issue was escalated. Since then, the protocol changed about not being allowed to carry anything inside the office, except the office ID card."[61]

LF-02 has designed a *Workplace Chat* tool in the software, wherein workers are directed to communicate with their team members regarding any work-related issues. Given the high controls on workers' time for finishing the work targets with limited number of breaks, they

[60] The cameras are usually placed at the entrance of the work floor and also observed during research visits to SU-02, 5, 06, 08, 09.

[61] The office ID (identification) card is used for entering their workspace. It is checked both at the main security gate to the office, and then scanned to open the doors of the workspace where the team sits.

also did not have many possibilities to leave their work desks and communicate in-person. In the case of SMEs, however, the degree of security is lower than that at large suppliers. This can primarily be assessed in terms of high costs relating to both the software and workplace security infrastructure, which could be challenging for both SMEs and the relatively smaller lead firms in comparison to LF-01 and LF-02. Supplier firms SU-07, 08, 09, and the content moderator CM-08 noted that lead firms did not insist on high confidentiality. At the same time, workers at SMEs are bound by NDAs to not share their work with external actors.

Codification of labor knowledge

The work software is integrated with ML models to firstly, capture the tagging choices of the workers that includes how workers make meaning of the existing content moderation policies, and secondly, to record labor discretionary activities through policy updates. Discussions in Chapter 6 and here have shown the dynamic character of social media platforms and user negotiation activities that necessitate labor discretion and tacit knowledge in the content moderation process. Guided primarily by on-floor supervision, this knowledge materializes in the form of accurate use of policies that gets recorded by the work software. The recording of unique workflows translates into updates in the moderation policies. This depends on lead firms agreeing to these changes, as we saw previously in this chapter in the case of CM-05 moderating content for LF-02. The policy updates depend either on the frequency of similar content or its uniqueness. And this results in designated tags that are also updated in the work software. The codification of labor knowledge in the work software is not only accompanied by regular policy updates, but also results in the partial automation of certain queues where certain primary tags are automatically put on videos and workers have to review that (CM-01, CM-02, CM-03, CM-07, CMH-11; CMH-22; CMH-26), and at times, the closing down of certain queues such as the one with child abuse and the other on South Asian market (CMH-06, CMH-12, CMH-30).
However, this is not the case in all chains and partial or complete automation of queues also depends on the product complexity and lead firm strategies. The following instance in the LF-01 – SU-01 chain with the highest product complexity, explains this:

> "When I initially joined the content process, we had a tool for spam movie content. Like if somebody posts the whole *Avengers* movie, then I would mark it for spam (due to copyright issues). This was part of our main tool that we used, but then there came a lot of escalations. So, we actually asked the client (LF-01) not to allow it because we cannot

have so many escalations, so then it was stopped. After that we have not worked on that tool again. (…) Escalations are related to long-term terminations of the accounts. When you use a fix-tool, it doesn't actually review a channel but can instead, suspend the channel. It has been many times that genuine channels have been tagged automatically as spam, and (they) have been terminated. Out of 1000 channels, there will be always be chances of at least one channel being suspended. And if that is a big channel, then surely it will be an escalation for LF-01." – CM-04

Apart from the content-related indeterminacy that lead firms and suppliers (SU-05, 07, 08, 09) aim to resolve, codification of knowledge also functions to limit labor-effort related indeterminacy in the workplace. This means the software also records how much time workers are taking for each content (average handling time), how many mistakes they are doing in moderating content and how they are doing it, and how many breaks they are taking. This is complemented with constant correspondence between the lead firms and suppliers, and regular visits by lead firms to the supplier offices (by LF-01 and LF-02). CMH-27 employed at SU-04 describes the visits by lead firms to the workspace and their *shadowing* practices to check how moderators are working:

"The client (LF-02) comes to visit us sometimes (three to four times a year); if he or she is on the floor, then you have to keep working without any break. The client, whoever it is (as they are never the same person), comes to the floor and sits behind us *shadow* us to see what we do. Most of the times, (the) client doesn't know completely what is the policy, what kind of video it is; they just ask 'why are you tagging that?' We have to give an answer on where is the policy for tobacco and alcohol in the tool; they just want to check the tool (software) mostly."

Lead firms' interest in "improvising the software" (CMH-21, also in Chapter 6) is informed by the monitoring and evaluation of workers by suppliers. In the case of LF-02, it has resulted in increased degrees of monitoring through the introduction of Activity Codes and tracking of working hours at SU-02, 03 and 04. From this perspective, it can be seen that the supplier functions of monitoring workers feed into improvising the software. The subsequent updates, also on the basis of codified activities of workers, are then used for managerial function of supporting workers to exercise discretion, regularly training them but also monitoring them. The technology-generated metrics on worker performance are particularly useful for rewarding and disciplining workers. This is discussed below.

Rewarding and disciplining of workers

Rewarding and disciplining of workers as a dimension of labor control is directed at reducing labor indeterminacy by centralizing workers' performance in the content moderation labor process. The primary managerial strategy used here is normative control and it draws from the culture of labor professionalism prevalent in the ITeS-BPO sector. Correspondingly, the primary enforcers of this control strategy are employers and it constitutes as a significant part of their human resource (HR) practices. Informed by both the labor performance metrics generated from the work software, and the bureaucratic rules of the supplier firm, workers can be rewarded through incentives, promotions or possibilities to move into another work process through IJPs. They can also be disciplined through not being provided with incentives, being sent for retraining, or transferred to a content process with less product complexity. While none of the study participants' employment contracts were terminated, workers and some suppliers (SU-05, 07, 08) noted that in the event of continuous bad performance, workers could lose their jobs.

> "If they don't perform well, then we send them to an easier product where they just have to categorize something – like a pen, fan etc. Communication and interpretation are good skills to have in this sector but the most important thing is concentration. They can take a break for half an hour or even an hour if they cannot perform well anymore. They are given three to four chances or warnings to perform well. If they cannot, then they are let go." – SU-05

Disciplining mechanisms also include the confidential agreements through NDAs. Breaking these agreements by speaking about the work or about the lead firms to anyone external of the employment relations, can result in disciplining measures by the management. Some of these instances are discussed in the section on revoking practices in labor agency, in this chapter. Given the costs of recruiting and training workers, which are comparatively higher at large suppliers than in SMEs as indicated at in the recruitment section in this chapter, the sub-sections below focus on the rewarding practices of firms to reduce workers' mobilities.

Incentives and promotions

Skill-based pay is significant to the rewarding and disciplining mechanism in the content moderation labor process. It includes monthly wages, annual hikes and performance-based incentives. A dominant majority of workers in this study joined content moderation work as

freshers (unexperienced graduates) and were paid fresher-level wages. Workers at large firms got INR 15,000 or USD 182 per month before taxes as the starting monthly salary, and workers at SMEs started with monthly salary around INR 8,000 or USD 97.[62] While the ITeS-BPO sector includes annual hikes and quarterly or performance-linked incentives, the payment to workers depends primarily on the annual profits made by the firm (Ishwarbharath, 2022). It also depends on the degree of influence of supervisors on the labor performance, often drawing from personal relations; this means that hikes are not guaranteed. This is discussed further below. Even in large supplier firms, the hikes only amount to a small proportion; for instance, from INR 1,8 lakhs or USD 2,181 to 2,2 lakhs or USD 2,666 per annum in the case of first hike at supplier firms SU-02 to 04.[63]

In absence of limited incentives and hikes, often the only possibility for workers to receive increment is through a promotion in the content moderation labor process that will increase their salaries. According to the organizational rules at SU-02, 03 and 04, workers can apply for a promotion after completing a minimum of 18 months of work experience. At the same time, even if they had not completed the 18 months, depending on their performance, workers were motivated by the team leaders and operations manager to apply for an IJP posting for a subject matter expert or quality analyst or even a team leader. This can be seen from an interview excerpt with CMH-11 below:

> "Our supervisors would look at our work and if they felt that we are very good, then they would ask us to give written assessments. This was to check if we are actually able to take up the new role. So basically, that's what happened with me. I was eligible for the quality analyst role, I didn't apply (based) on my personal interest. Once I applied, the experienced people escalated it to (operations) manager that I was not eligible because I was working there for like less than 10 months."

All workers also noted that personal relations with the team leaders were significant in establishing who was rewarded or disciplined. Apart from helping workers get promotion possibilities and writing good recommendation letters, relations with team leaders are also found to be important for approving paid leaves. Instead of the HR staff, team leaders at SU-04 and SU-07 were tasked with approving paid leaves, even for medical-related issues. CMH-07

[62] Currency converted using https://www.xe.com/currencyconverter/ on March 20, 2023.
[63] Currency converted using www.xe.com/currencyconverter on March 20, 2023.

further explains how good relationship with the team leaders and management is crucial for both work and promotion:

> "See, it all depends on the relationship with the manager and the TL (team leader). So, if you're having a good rapport with your team lead and your manager, then any issues in the work will be resolved as soon as possible. But if you say that you are the kind of person who don't get involved much with TL and managers side, that you come to work and then leave, then the manager will also not be much interested in taking decisions for you. That is what we call office politics."

At the same time, many workers experienced reaching a *glass ceiling* or limits for getting promoted. This is not only on account of the eligibility criteria and individual discretion exercised by team leaders and management, but also due to the standardized nature of work and limited possibilities for skill development. Both the direction of work and the monitoring and evaluation dimensions of labor control show that while workers can apply their discretion, its application is within highly controlled settings. This discretion is reserved firstly, to apply their tacit knowledge to make sense of content moderation policies in terms of the dynamic content posted by social media users. And secondly, to make use of their local skills and cultural knowledge to manage with unique content cases that do not have applicable content moderation policies. The resulting moderation decisions are captured by the work software and even codified in the existing policies. These policy and software updates are then standardized and transferred to the rest of the workers.

At SU-02 to 04, suppliers organized regular trainings or *refreshers*, where the trainers would inform the workers about the policy updates. Survey results show that the average number of trainings organized by the company between March 2020 and March 2021 is 14 with a standard deviation of 26.22. The length of these trainings differed according to the frequency of unique content in their processes: for 38 people these trainings lasted for less than a day, for 28 people it was one to two days, and for the rest, it lasted between three to five days (n=4), a week (n=9), up to a month (n=15), more than a month (n=3), and even none at all (n=2). 95% of the respondents noted that these trainings related to policies, followed by work software related (n=27), but also general training (n=36) and others (n=13).

> "For every week there was a change in policies, so depending on that, the policy tagging tree in the tool will be changed. So then, every week there will be two to three hours of training for that. If it's a small change, (then) we will be having one hour of training, but if we are having major policy changes, (then) we will be having two to three hours of

training. Every once a week, the team leaders or trainers will be having a client call and then our trainer will train us." – CMH-08

Given the continuous standardization and limited possibilities for skill development, most content moderators, except the ones acting in a capacity of team leaders (CM-04, CMH-21), noted that the highest that they could climb the "career ladder" (James & Vira, 2012) is till the position of a subject matter expert or a team leader. Figure 7.2 illustrates the general hierarchy observed in the content moderation labor process across all value chains. The shaded boxes refer to differences in the supplier firms; large firms SU-01 to 04 have subject matter experts and assistant managers, but SMEs don't.

Figure 7.2: Content moderation labor process hierarchy

This is even noticeable for LF-01 – SU-01 chain where workers had higher possibilities for exercising their discretion. CM-03 explains:

> "In content moderation, there is no creativity. Definitely it's a job that needs lots of active mind, the x-factor because you have to see (whether) you have to take down a video or not, what the intention of the video is; if there are people hugging, then I can't just take the video down. You have to see what is the intensity, how they are hugging, that all you have to see using the guidelines. But the fact is that there is no learning in terms of opportunities; if you say that 'I will do moderation for three years, then I will get job for (an) amazing company,' that's not going to happen."

From this perspective, we can see that the practices of incentives and promotions do not work very well in the content moderation labor process. At the same time, there are also IJPs for other processes in the supplier firms, which serve the common purpose of retaining workers in the sector (Kuruvilla & Ranganathan, 2010).

Movement to other processes

As we can see from the section on recruitment process in this chapter, workers are primarily guided by their career aspirations to apply for content moderation work. Although having different educational qualifications, most workers were interested in building their career in the field of *digital marketing*. Most workers noted that content moderation was an entry into this field.[64] This allows us the expand the characterization of IT-Services as a *stop-gap arrangement* (Upadhya & Vasavi, 2008a) to see how certain services such as content moderation might allow a foothold for workers in certain domains. Although not as highly in demand by IT firms in India as certain other skills such as ML and data science, blockchain, IoT (internet of things), cybersecurity, big data, development operations, cloud and others, digital marketing is an established skillset in the ITeS-BPO sector requiring little time investment by companies (NASSCOM, 2019, p. 184). It is based on promoting products and services on platforms, including on social media platforms.

Given that content moderation work is highly standardized and does not allow many possibilities for skill development, supplier firms incorporate IJPs into their bureaucratic structure. This allows attracting and even retaining workers in these firms on the basis of movements across the firm. This will be further discussed in the section on labor agency in this chapter. The supplier firms are vendors to many different lead firms and there are several business processes running parallelly in these firms. This is not often the case with SMEs and their small workforce. The business process services (IT-Services) are supplied to different sectors such as health, finance, telecommunications, and technology. Depending on the service required, these processes are branched into the front-office work such as customer service, and the back-office work such as data processing, software testing and others. Some large firms such as SU-02 to 04 also do software development, although a bulk of their work is service delivery.

Depending on the number of projects the supplier has with lead firms, and the agreed upon headcount, moderators could move to these other processes if there was an open job posting. To access these IJPs, workers are expected to be "self-accountable" and manage their

[64] This was also confirmed during the participant observations at the recruitment processes and informal conversations with applicants there.

circumstances of reskilling and career growth.[65] In large firms, this is possible through the skill-development courses available, such as the course portals at SU-01 to 04. SMEs were not found to offer any skill development courses. This can be explained by their limited strategies for retaining workers due to low recruitment and training costs. At the same time, the courses offered at the firms do not present many options for developing skills for digital marketing. Instead, courses related to Microsoft Office are offered that assist workers for making reports through the Excel tool, and for making presentations related to workflows that can be sent to LF-02 through the PowerPoint tool. CMH-25 working at SU-04 explains:

> "Learning portals are there, but they are structured in such a way that it is actually company-based (oriented). SU-04 at the end of the day is an IT company, so, if I'm needing to learn a new skill in my domain like digital marketing, economics anything like that, obviously it won't be available there. This is because 90% of the courses will be dedicated to programming, learning languages, how to learn for example automation these kinds of things, because this company wants to sell these services. So, the kind of course we want would be very limited, and so we only have other courses that are generally useful. What we will be learning is created in such a way that it can benefit the organization and not your own self."

Along with the limited possibilities for skill development related to digital marketing, the limits of IJPs can also be seen in terms of the few digital marketing-related jobs in supplier firms on one hand, and on the other, the management control on labor mobility to other processes. In terms of the former point, except of SMEs, all supplier firms had only one to two large social media clients, which restricted the horizontal movement for workers into projects with other lead firms. But movement to other processes was also controlled in some cases by team leaders and operations manager due to the high content volume and the implications for team-based targets (CM-08, CMH-06, 07). While this cannot be generalized, it can be understood from the managerial logic of reducing mobility-related indeterminacies and retaining workers in the content moderation labor process.

From the discussion here, we can see that the rewarding dimension of control then is the critical juncture where workers' expectations to be compensated for their work in terms of better wages

[65] This was observed during the industrial session on "How human is human capital management," organized by NASSCOM in their Noida (India) headquarters on January 24, 2019. More information can be found here: https://nasscom.in/events/how-human-human-capital-management-0.

and promotional opportunities are confronted with the nature of content moderation work and managerial logic of reducing labor mobilities. This can also be seen as embedded in the existing practices of labor rationalization in the ITeS-BPO, as discussed in Chapter 6. On one hand, retaining workers reduces costs of recruitment and training, and allows extraction of labor productivity from experienced workers holding tacit knowledge of work. On the other hand, supplier firms also benefit from hiring freshers and paying them low wages (interview with Shyam Sundar, NDLF; PTI, 2019).

This chapter then seeks to understand how workers respond to these limitations while at the same time also exercising their discretion to manage with work. Is content moderation work only a site of managerial control that results in labor consent or do workers also make meaning of content moderation work and its implications for their career? To understand this, the concept of labor agency is used and examined under the categories of resilience, reskilling and reworking. It allows us to primarily see that labor agency in the content moderation labor process is a site of differential interests between capital and labor.

Labor Agency

The active character of labor has most notably been observed through the conceptual lens of indeterminacy that refers to the "human, embodied, mobile and active" status of labor power (Thompson & Smith, 2009, p. 918). While being a source of indeterminacy for the management, it is underpinned by labor agency that is, in turn, characterized by differential interests of workers. Within the literature on ITeS-BPO sector, scholars have trodden cautiously in characterizing agency under sweeping strokes of resistance (Noronha & D'Cruz, 2009b; Remesh, 2014; Taylor & Bain, 1999). At the same time, increasing research has shown different forms of labor activities that oscillate across a "diversity of oppositional practices" (Thompson, 2016 in Murphy & MacMahon, 2022, p. 10). This is particularly in reference to platform work where workers are confronted with algorithmic forms of management and control. Kellogg et al. (2019) referring to the new occupations of "algorithmic curators, brokers, and articulators", argue that not only do they hem in particular forms of control but also offer possibilities for resistance (p. 3). The authors categorize this as "algoactivism" and discuss it under the categories of individual action, collective platform organizing, discursive framing and legal mobilization (p. 24).

Drawn from a wide range of research on platform work, these are valuable contributions for challenging the "end of resistance" debate in the 1990s and showing limits to technological control. At the same time, these platform-based analyses have primarily evolved in absence of formal structures of work including workplace and on-floor supervision (Krzywdzinski & Gerber, 2021). Given that labor control in content moderation labor process constitutes a careful arrangement of technology and on-floor supervision – drawing from the functions of both lead firms and suppliers – the conceptualization of moderators' labor agency also has to address these structural factors. This is especially important in view of capital's reliance on labor discretion and workers' self-management with the distressing nature of content. Although normative control strategies have been found to be important for extracting productivity in similar call center work, the assessment of labor control before in this chapter shows the limits to internalization of normative behaviors of management.

Correspondingly, the three practices of resilience, reskilling and revoking show that even highly standardized and controlled work processes, with multiple employment and control arrangements, can include agency by workers. While resilience and to a certain extent reskilling allow workers to manage with their working conditions albeit sustaining managerial control, revoking is a more explicit form of agency that directly confronts the control mechanisms. This could either take individual or collective forms, and represents resistance. Thomas and Davies (2005) describe resistance as a "constant process of adaptation, subversion and reinscription of dominant discourses which takes place as individuals confront, and reflect on, their own identity performance, recognizing contradictions and tensions and, in so doing, pervert and subtly shift meanings and understandings" (p. 678). Similarly, the three practices of agency here are also shaped by their temporal context and reflect movement in workers' consciousness towards managerial control.

Resilience

The practices associated with resilience can be understood primarily as the ways in which workers navigate and cope with their working conditions. Resilience is an important feature of labor process, which not only ensures that work is done but also draws from workers attaching meaning to this work. These practices primarily draw from workers' career aspirations in digital marketing and in working with lead firms. But the labor market conditions and issues of financial independence have also been noted by workers as important factors for continuing in

their jobs. This is particularly noticeable in SMEs, where the lead firms are neither huge brands in comparison to LF-01 and LF-02, and nor do workers often know who they are working for. CM-08 and CM-09 noted that they joined the process at SU-05 primarily because of financial conditions. The following quotes by CM-03 showing the motivations of working for the lead firm, and by CMH-15 for financial independence, elucidate this.

> "If you tell someone that 'I am working for BPO', they are like, 'what is that?' BPO does not have that much rapport, everyone wants to work for a huge company. When I joined in 2015, I was young and needed a job. BPO sector, I feel, is not much reliable and I wasn't able to figure out how I will grow here. But everyone knows they are joining because of LF-01, everyone knows it." – CM-03
>
> "I was very desperate to be financially independent, like my thinking was I did not want to ask my father for a (phone) recharge or for a sanitary napkin, I should be earning for myself. I did my engineering in electronics and communication, but I could not do programming things; it does not interest me at all, so I looked for this option. I got a call (by the external recruiter) for this and that's how I landed into this. I think (that) everyone is overqualified for this job." – CMH-15

From this perspective, it can be seen that the labor market factors together with the brand value of the lead firm are important factors that motivate workers to apply for this work. Resilience is also expected from workers by both the suppliers and lead firms to manage with the distressing content. Indeed, the *tolerance test* that is taken during the recruitment process to check workers' tolerance to the distressing content, also discussed in the control section of this chapter, is an important marker of resilience. After workers join the process, individual and group counselling services are available for those working in the content classification process, across all shifts at SU-02 to 04. This is required by lead firms due to the highly distressing nature of content in this process. However, there is no individual counselling in certain content processes such as e-commerce, brand safety and business integrity at these large firms due to the mostly non-psychologically distressing character of content. In this case, only group counselling is available, which is largely aimed at resolving labor issues arising from working together in teams.

However, at the SMEs, except of SU-06, there is no counselling available. This can be explained in terms of cost-efficiency and non-requirement by lead firms (CM-08, 09). At the same time, despite the availability at other firms, several workers did not take these counselling services offered by their firms, primarily because it would affect their target completion. Given

the high degrees of control, workers at SU-02 to 04 even had to select the Activity Code related to counselling, in the work software. Apart from this, some workers also questioned the efficacy of counselling mechanisms for their wellbeing (CM-07, 09, CMH-01, 08, 22, 26).

Instead, workers practice resilience by seeing their work as *protecting the users from bad content* but also as *it's just a job*. This informs their techniques to manage with the moderation work.[66] These techniques draw on collective support systems such as talking to colleagues (all workers), listening to music, if they are not working on a highly time-controlling software of LF-02 (CM-02, 03, 05, 07, 08, 09), and sometimes talking to friends and family. The latter technique was only mentioned by a few workers (CMH-09, 13, 24, 25, 30) due to the NDA clause. Resilience is particularly important for those content process where there was no counselling available. The following quote by CMH-25 shows this:

> "We don't have individual counselling. But there is fear of such content coming in our queues. And it was there for a long time to be honest, especially in the beginning of my work. Because when you do normal videos and continue with your work, suddenly a rare footage, or a rare picture comes over there (in the queue). And you have to see it and you have to tag it accordingly in a particular time, right, because we also have a particular time that we call AHT. So, I have to see it and understand it, and accordingly I have to give decisions. So, when the violent content is in front of me, I get fogged (not able to think clearly) right. First, I have to sync in, I have to see it and I know it is part of my job then I have to deal it accordingly and then I have to let it go. After three to four months, it became easier because I started thinking that it is a part of my job and I have to deal with it accordingly. So that's how I have played with my brain."

Despite these techniques, several workers recounted instances of seeing extremely distressing content which they could not forget. At the same time, they argued that they had *learnt* to manage with it. The following quote by CMH-11 elucidates the distress she felt after watching extremely violent content which was not supposed to be in her queue:

> "I usually don't take things personally. But one time, it was really bad. It was about a person killing another person. There was this one person who was alive was still breathing, and he was being killed by another person, his skin was being peeled layer by layer and he was yelling. I could even see his bones while he was alive."

[66] These statements in different forms were regularly communicated by workers during the interviews.

Together with the discussion above, this gruesome incident goes on to prove that in the absence of individual counselling for most workers, including CMH-11, workers are left to self-manage their emotions.

At the same time, limits to resilience are observed across all firms. This is particularly noticeable in terms of the high degrees of monitoring and evaluation of work through the use of labor performance metrics generated by the work software. On one hand, workers find the control on their working time and breaks as *excessive*, and on the other, they doubt the credibility of the numbers generated by the software, which are used for determining their targets and working time in the rewarding practices by their employers. This objection was particularly heightened in the LF-02 – SU-02/ 03/ 04 chain with the recent introduction of the Activity Codes in the work software. Correspondingly, some workers at SU-04 complained to their team leaders about it informally through personal meetings or during informal conversations on the floor (CMH-07, 08, 09, 17, 26). The sashaying of these complaints by team leaders, in terms of telling workers to wait until the higher management responded, had the effect of reproducing practices of resilience on one hand, but on the other, resulted in workers' disillusionment with changing their working conditions.

With fragmented employment relations in content moderation value chains, worker experiences are further affected by "multiple sources of loyalty" and "feelings of insecurity" (Marchington et al., 2005). On one hand, several workers blamed the work stress on their employers, but on the other, some also rationalized the increased work monitoring as lead firms' strategies for *protecting* social media users from harmful content (CM-01, 04, 08, CMH-13, 21). This was also observed for workers in SMEs, who although did not have access to the lead firms, entrusted them as better at management than their employer (CM-08, 09). This had the effect of reskilling practices by workers with the aim of making their conditions of work better. This is discussed below.

Reskilling

Reskilling is the process of self-skilling by workers in the absence of skill-development opportunities by their employers. Across all the value chains discussed in this study, it can be observed that content moderation is a highly-standardized work with limited opportunities for workers to use their discretion and develop skills. This results in worker experiences of dissatisfaction because their work is not economically valued. Many workers (except the ones

working for LF-01) noted that they *felt like machines* who had to complete their targets to keep up their performance scores. At the same time, this perspective was also sharply contrasted by labor perspectives on automation of content moderation work. All workers noted that labor was essential to resolving the uncertainties regarding policies and unique user content in the content moderation process. It is this inherent tension of being economically devalued on one hand, and on the other, recognizing the importance of their work, which informs workers engaging in reskilling efforts.

The reskilling practices are underpinned by two main worker logics: first, in terms of achieving higher performance scores for increased wages and promotion opportunities in the content moderation labor process, and second, in terms of obtaining a digital marketing-related job, either with the same employer or another one. As discussed in the section on rewarding and disciplining dimension of labor control, there are two main avenues in the supplier firm for labor skilling – first, through the content moderation labor process, and second, through the skill-based courses available in the firm. In terms of the first possibility, workers can exercise their discretion and learn about the content moderation policies. Depending on the severity of the content and their experience level that shows their tacit knowledge, workers are also able to offer their insights into the content moderation policies. CMH-11 explains the process that workers undertake:

> "So, you have to jot down your points, your logical thinking, and you have to write an e-mail to your team lead or your subject matter expert or to both of them. Then, they will sit with you and they will try to understand what is your logic behind this, what is your thinking. Okay, then this gets passed on to the client (LF-02) over the call and then, this is it. And then of course, they get back to you giving you clarification whether the client has accepted this or the client has not accepted this. (…) It does not increase your score, but it gives you extra benefit when your appraisal (incentives) time comes. What extra you have done, so apart from your daily production work and daily KPIs (key performance indicators), you also have to show what extra you have done for the process. This gives you the extra thing."

Given the importance of tacit knowledge for offering their insights but also for making sense of complicated policies, less experienced workers and freshers are largely provided with low product complexity content queues that mostly constitute of pornographic content. However, even these queues are not without complication in understanding moderation policies to be applied, as can be seen from the quote below:

> "There are so many guidelines. When I joined, I had the queue with porn content. There were guidelines to either delete, ignore, or mark as disturbing or sensitive. But it was not always clear. So, there was one policy regarding nudity both for male and female. For example, if men wear swim wear, then that we can ignore. But if women have swim wear or thongs (on), then that we are not allowed to ignore. It was difficult to understand this before. Because they (women) are posting pictures with their own intention, they are sexually suggestive, so that is not at all ignored. So, these are the things we have to go through. After a while, we understood and now we can work with the policies." – CM-05

With interest in digital marketing, workers also directed their self-skilling efforts of learning about the content moderation policies to access job opportunities within an expanding social media consumer market in India. While in the year 2022, around 58 percent of the population in India used social media platforms, estimates project the social network user penetration in the country to increase to 67.4 percent in 2025, making it the second highest number of users in the world (Murthy, 2022). The social media market also includes Chinese and domestic firms who cater to users in India with "non-English and vernacular languages" (Ahmad & Krzywdzinski, 2022, p. 89). Despite the diversity in the types of social media platforms, in terms of their geographical user base, language and format of content, the content moderation policies at most social media platforms follow the industrial standards. This can be seen in the similar content queues of hate speech, spam, violence, ecommerce and others through which content is moderated. At the same time, those social media platforms dedicated to the Indian social media consumer market also shape their content moderation policies to represent the domestic cultural particularities. The following statement by the public policy director at an Indian social media firm (DSMF-02) explains how and why they include additional sub-categories related to caste, religion and other Indian social configurations in their community guidelines (informing what users can post on the platforms).

> "So, I think a lot of it is very standard. For instance, you can't put child assault, you can't instigate violence, you can't pass slurs, you can't be sexist, whatever; you can't do trading on the platform, so it's very unified in some sense, but it's very thorough. But yeah, whenever we see a requirement, we update it. (…) However, their (other social media platforms) policies are more geared to white nations than Asian countries. We all know that Twitter has had a lot of flak for caste issues (in India). I would say their community guidelines are not made for Indian users, their community guidelines

are very complex and filled with legalese. So, if you read our community guidelines, it tells what you shouldn't post, what you shouldn't do. In fact, we'll go one step ahead in the coming weeks, months, make it even easier for the user to understand with videos."

The above respondent, together with a CEO of another smaller domestic social media firm (DSMF-01) interviewed for this study, noted that because of their consumer characteristics, they required local labor skills and knowledge. Correspondingly, workers direct their efforts in learning about the content policies, how they are decided upon, how they get updated, and the influence of users and external social media stakeholders on these policies. While this depends on the product complexity, wherein workers at SU-01 had higher opportunities for learning about policies and exercising their discretion, workers at other firms also took individual routes to learning about policies. This is especially true for SMEs where work is most standardized and workers are interested in understanding not just the process of policy formation but also where these policies emanate from. As discussed in the sections on recruitment process and the organization of work, moderators at SMEs are not informed by their employers about which clients they work for. CM-08 explains why it was important for him to know about his client, and what he did in response:

"I think (that) at first I wanted to learn about content moderation, had to google things, read articles about content moderation. So, I stayed for three years in the company. (…) We know nothing about our clients. In this other project (I was doing), there were so any new images, so much sexual content is coming continuously, I think it's very bad, I felt disgusted. I tried to fetch the client. First of all, I tried to copy the image ID and where it is coming from, and just hacking things etc. But it didn't work. I also asked one guy, he is TL (team leader), 'where are we getting this from and why (do) we have to do these kinds of projects. He didn't know."

Apart from working with the policies, several workers also aim to develop ancillary and soft skills that are generally found to be useful for career growth in the ITeS-BPO sector. These skills are primarily associated with Microsoft Office, also discussed in the section on rewarding and disciplining, but also with leadership and communication. While the former is accessible to workers through the course portals at large firms, the other two sets of skills are gained through shadowing the work of newly-recruited workers, making daily team reports, and working on their communication skills.

"I was working as an acting subject matter expert. I got first time experience handling a team. It is a different type of work. Individual work (moderation) is different and

holding (supervising) a team is different. So, like that I got those skills as a (similar to) TL. Now I have confidence, I can lead a team, by working as an acting subject matter expert, that's the only thing I got." – CMH-26

These extra tasks are largely at the initiative of the workers. Survey results for SU-04 show that 65 percent of the respondents offered their team leaders and operations manager to do other tasks that were not part of the employment contract. These include policy and other trainings for new employees (n=69), helping in policy development (n=42), client coordination tasks (n=33), and mentoring new employees, data analysis of the team (n=48). The 35 percent of responses on having no extra tasks can be understood by their fresher status, which meant that they had to gain work experience before mentoring new employees.

CMH-10: "I was also doing this reporting work earlier, as in, how much of this volume (content) has been cleared (moderated) by our team."

SA: "Okay, was this compulsory for all your team members?"

CMH-10: "No, no, it's voluntary. I was a little bit enthusiastic to learn. So, I just asked them (team leader), and I was doing it."

SA: "Okay, and how long would it take you to make this report every day?"

CMH-10: "It took some time. Earlier when I was new, it took a lot of time for me. Then I understood slowly. I started doing it, and then it was little bit fine."

SA: "And you had to do it every day?"

CMH-10: "Yes, I was doing it every day."

SA: "How so? What were the main reasons?"

CMH-10: "Because I was like, I wanted to apply in IJP and increase my quality scores. I wanted to learn many things and so that was good."

SA: "Right, right. In the survey you also mention that you did some policy training for the new employees. Is that right?"

CMH-10: Yeah, the shadowing thing. My trainer was impressed with my accuracy scores (in the assessment exam). So, he asked if I could check the work of the new joinees (freshers). So, I went around in my team to see how they worked, and help them. It was not compulsory, but I thought it would be good for me."

The practices associated with reskilling can allow us to see how workers aim to change their working conditions. This specifically refers to increasing their wages, reducing their working hours and developing skills. From this perspective, reskilling is a step forward in labor agency from the practices of resilience. At the same time, it should also be seen as an extension of

resilience. In the process of reskilling themselves, workers not only get the work done but it also helps them navigate their working conditions. And while reskilling practices are individualized – as they are underpinned by the culture of professionalism and self-accountability – they are also collective in nature because information regarding skills and jobs gets readily shared within networks of friendship. At the same time, the limits to the rewarding practices by employers in terms of IJPs and limited promotions, as discussed before, shows how these reskilling efforts often remain hidden and economically devalued. Not surprisingly, workers undertake revoking practices that highlight resistance against this devaluation. This is discussed below.

Revoking

Revoking practices rely on workers' recognition of their working conditions and interest in actively changing them. These practices primarily draw from the contradictory character of "being termed as a professional" (Noronha & D'Cruz, 2009, p. 231) and the nature of content moderation work. Within the IT-Services literature, the broader examination of labor resistance has shown on one hand, the strategies of "misbehaviour" (Ackroyd & Thompson, 2019), absenteeism, individual acts of sabotage and subversion (Upadhya & Vasavi, 2006), and whistleblowing and rule breaking (Ashforth & Mael, 1998). And on the other, it has shown labor exit from employment contracts and the corresponding high levels of attrition (Hunt, 2004; D'Cruz & Noronha, 2013; Thite & Russell, 2010).

The strategic use of the term revoking instead of resistance is aimed at highlighting the whistleblowing activities of workers by breaking their confidentiality clause of the NDA and speaking to actors outside of the capital-labor relations.[67] As discussed in Chapter 6 and in the control mechanisms in this chapter, NDAs are significant to the reputation of lead firms and the inter-firm governance mechanisms. By revealing details about their ongoing or former work as content moderators in the media, workers have gone against the agreements of confidentiality with their employer and provided accounts of the standardized work process, intense pressure based on work performance and low skill development. It has provided valuable information on work that would otherwise not be accessible to scholars. This is not to say that workers are

[67] The term whistleblowing here draws from previous analyses of whistleblowing activities of employees in organizations (Ashforth & Mael, 1998; Miceli & Near, 1992).

not concerned about the implications of *violating* the confidentiality agreements but that they value their knowledge and acknowledge their interests.

> "Please don't use my name anywhere. I can tell you everything about (LF-01) and its policies. I can say that I am very well-versed in them." – CM-01

Revoking can be seen as evolving from the resilience and reskilling practices, which have not been able to protect worker interests. All workers noted that the enormous control on working hours and standardization of tasks resulted in experiences of dissatisfaction with the work. This not only highlights the issue of degradation of work in general but also indicates its mechanization. Constant references to having to "work like a machine" shows that workers value their knowledge and discretion especially in terms of managing with the dynamic user content. While they are required to use their tacit and local knowledge for making content-sensitive moderation decisions for unique content, they did not have a choice in when and how they apply their knowledge. As discussed in the section on resilience, this high standardization and control on working hours resulted in several workers complaining about it to their team leaders. In the absence of change, workers practiced further resilience but also engaged in reskilling practices to change their material conditions. However, limited possibilities for skill development together with low wages and unfavorable working conditions resulted in workers directing their complaints to the management at supplier firms.

None of the supplier firms had specific grievance redressal mechanisms where workers could approach the higher-level management regarding issues such as targets, average handling time, paid leaves, rotational work shifts, and hikes and incentives. The Indian ITeS-BPO sector is generally characterized by "absence of any effective device for grievance representation" (Remesh, 2008, p. 258). While all content moderators had access to email addresses of the higher management, those in SU-01 to 04 could also bring up work-related issues, that could not be resolved in these team meetings, at the annual or biannual *skip level* meetings in the absence of team leaders and trainers. However, both the mechanisms of meetings and emails to management were captiously used by workers for making complaints. This is primarily on accounts of the pervasive culture of professionalism in the sector and for fear of negative implications for their careers.

Closer examination of work at SU-04 shows that there were some instances of workers collectively (in teams) complaining to the upper management regarding control on working time and breaks (CMH-08), issues regarding rotational shifts (CMH-08, 26), and regarding targets (CMH-09). This collective voice was successful only in one case where workers in

CMH-08's team succeeded in taking more breaks during work. This process is described by CMH-08 below:

> "The working hours at (SU-04) are nine to nine and a half hours. But the tool time (productivity time) is only for six and a half hours. The remaining three hours for the break are what the client wants actually. For example, I was watching a video and it was very disgusting thing, so I should be able to take a break. This is why clients gave us breaks. But our management is not okay (that) we can take breaks whenever. For some teams, the lunch break is 3:30 pm to 4:30 pm; but for another team it will be 4:00 pm to 4:30 pm. That is actually not right. If the employee is not feeling well, then he is allowed to take 10 to 15 minutes of break. So, we spoke amongst each other internally, and we directly went to the higher management. And yeah, after that it was removed. And after that they said that we should work for at least one to one and a half hours before taking a break of 10 to 15 minutes. Taking breaks every half an hour is not allowed. That was implemented after our discussion. That is what we have succeeded (in)."

However, these changes were not long-lasting. CMH-08 notes that the management reversed the change to the previous practices after a few weeks. Resultingly, his team also went to the HR staff, but also this did not yield positive results for the workers. The short success of this particular case can then be linked to the managerial strategy of reducing resistance and keeping up production. This, however, was not the case at the SME SU-05, where reaching out to the higher management by CM-08 did not make any impact. Instead management responded with the argument of labor replaceability. This is explained below:

> "I sent an email to my directors that it is very difficult to work for this, mentally disturbing, we are facing these problems. I am in the morning shift going early at 6 am. I am working with full energy, then getting disturbing and pornographic content. So many of my colleagues also have gone through the same. I wrote to the senior people about it and what everyone is facing; they said 'you are the hero of this company.' I mentioned (that) 'it's not only me but so many other people are also facing same problem, but they are not writing to you.' So, they said that, 'go and work if you want (the) job, otherwise resign and go, I don't care.'"

With no substantial results achieved by reaching out to their clients, workers, at both the individual (CM-08, CMH-07, 08) and the team levels (CMH-09, 17) directed their voice to the lead firms. While workers were aware that complaining about their employer to the clients could have negative effects on the inter-firm relationship, the underpinning logic was not to

disturb the labor process but instead improve their working conditions. Workers are restricted from speaking with the clients to differential degrees, with lowest restrictions in SU-01 (given that the workplace is provided by LF-01), highest in SMEs, and to a certain extent in SU-02 to 04. Reaching out to the clients in most cases resulted in workers being reprimanded by the supply-side management by either suspending them from work for a few days (CM-08) or affecting their promotion possibilities (CMH-07, 08). But it also resulted in the successful reduction of targets for one team (CMH-17, 09) at SU-04. This was primarily on account of LF-02's strategic involvement in the workplace due to the rising content moderation errors by some teams. CMH-17 explains:

> "Around August 2018, a few client members from LF-01 had come to ask about the 10 seconds AHT. They asked us if 10 seconds were (equally) okay for all content (format) – for the text, for the images and for videos too. We had written to them a report before as a team that why we had so many errors. Then they had come to take the survey. We told them it was not okay. Videos took more time. Then they have worked on it and divided the content into different queues. After this, it was segregated to queues again with different handline time for different queues. It then became from 10 seconds to 27 seconds. The daily targets were also reduced then. From 2300 to 700 to 800 Job IDs."

The success of this collective voice can be understood on account of the issue of quality service delivery from SU-04. Those working in the content classification process also noted that lead firms often communicated to their employer to reduce the targets given the high degrees of distressing content in this process, that could not be on the social media platform (CMH-01, 02, 05). At the same time, the competitive nature of content moderation value chains, and the limited intervention of lead firms in most processes regarding the target-related stress for workers, had the effect of labor disillusionment with lead firms. In stark contrast to the sentiments behind resilience and reskilling practices, workers came to see the withdrawal of lead firms from the conflict due to their profit generation interests. The following statement by CMH-07, moderating for LF-02 for more than three years, illustrates this:

> "That's how the people work over here. They want to give less wages to the worker and they want to have great production from them. What I have learnt since these past two to three years (is that) people come from USA, and then to have the money, they come to us. They just want to have great numbers, production from us. This exploitation is a very common thing in India where each and every company does that. And there are less companies which work on the basis of good policies."

This resentment against lead firms can also be seen in the case of LF-01 – SU-01 chain with workers relatively closely working with the lead firm. The following excerpt from an interview with CM-01, who aspired to be employed by the lead firm, elucidates this:

> "No, no, we had no one. If I had been an employee of LF-01, then they would have taken care of me. I had a lot of problems watching certain things. For example, I am a pure vegetarian and I had a lot of problems watching such sensitive content, especially in the beginning. Things like people eating a frog alive etc., well what I can say. You can say that all kinds of evil things exist in this world, I have watched them on the LF-01 platform. But somehow, I managed and adjusted myself with the situation."

Given the dissatisfaction with work, and having exhausted the limited opportunities for growth together with limited possibilities for complaining to the clients and accessing grievance redressal mechanisms, exit seems to be the most viable option for workers. This is noticeable for not just SMEs, where suppliers have acknowledged the high rates of the attrition (SU-05 to 08), but also for those workers at SU-01 who are able to exercise relatively higher degrees of discretion. Out of the 39 workers participating in this study, 14 had quit work at the time of the interviews. CM-01 to 03 had left their work as moderators and joined as content operators at a globally-operating Chinese social media platform (CM-01, 02) and at an Indian social media platform (CM-03), respectively. They were all known to each other and had shared details of external jobs with each other. Ahmad and Krzywdzinski (2022) define the role of content operator as constituting "a range of operations-related tasks such as user acquisition, user engagement, and developing content moderation policies, in addition to checking the quality of work by external moderators" (p. 89). Not only did workers receive higher wages, which should also be seen as a result of experience-based hike in the sector, they could also work on other social media-related tasks beyond content moderation, which allowed furthering their chances in the field of digital marketing. CM-03 explains:

> "I moved from moderation to operations. See, I was working for LF-01 for two years, and I got zero response from people on LinkedIn (professional networking site). After I moved to operations at (XYZ) and wrote (on my profile) – operations manager, user acquisition, user operations – then people started approaching me. Everyone wants moderation, everyone is worried about their content, but still they think 'ye to har koi kar sakta hai' (anyone can do it), that's the thing."

At the SMEs, while CM-09 continued working, CM-08 had left to start his own content moderation company because he believed that there could be a different approach to content

moderation service in India, which would "benefit the workers, clients and the supplier" (CM-08). Despite the efforts, he was unable to secure investment for the start-up. At the time of the interview, he went back to his parents' village to support his father's farming work, while at the same time looking for investment for his business idea. In the case of the content moderation project at LF-02, 10 workers (CMH-07, 08, 11, 12, 14, 16, 26, 28, 29, 30) had quit their work at SU-04. The main exit issues were connected to skill development (CMH-07, 08, 11, 16, 28, 30), low wages (CMH-11, 12, 16, 26, 28), and work-life balance due to the rotational shifts (CMH-08, 12, 26, 29).

> "The main thing is the (salary) package. And there is no skill growth that can lead me to stay in that organization. Process wise it was easy, and I want something which can be challenging to me. So, I want to work hard. So, I have shifted from that organization to some other organization." – CMH-28.

All the new jobs of workers who quit from SU-04 were within the ITeS-BPO sector. These include digital marketing-related jobs with content management, search engine optimization (SEO) and java script tagging (for advertisements) for CMH-07, 08, 11 and 30, other back-office jobs in the finance and technical support for CMH-14 and 28, and content moderation jobs for CMH-12 and 26. While CMH-29 was taking care of her child and could not find another job, CMH-16 did not share information regarding his new employment. In terms of wages, all workers noted that they had received a hike because of their work experience.

From this perspective, we can see that while symbolizing mobility, the shift to new but still low-paid jobs is also constrained by the limited opportunities moderators have. This is primarily due to the non-transferable character of content moderation skills outside the ITeS-BPO sector. Only CM-01 to 03 were able to find work as content operators, given the higher discretion they had for moderating content. And even then, CM-01 noted the standardized character of the new lead firm's content moderation policies. Apart from these issues, workers also experienced challenges in publicly sharing their work experience in the job market. Because all workers are controlled by the NDAs, they are not even allowed to identify the lead firms (their clients) on professional networking sites. Only after a certain amount of time, from a few months to a year after their contract has ended, workers can publicly name them.[68]

[68] This was confirmed during the data collection process of examining worker profiles on a professional networking site.

While these above revoking practices highlight labor resistance in their own right, exiting the employment contract represents the career aspirations of workers rather than "challenging control structures and bend work norms" (Callaghan & Thompson, 2001, p. 16). This has to be specifically seen in terms of the absence of organized bargaining in the workplace. This again can be explained by two reasons: first, the limited role of unions in the ITeS-BPO sector, which has already been discussed in Chapter 4, and second, the disillusionment of many content moderators with unionization activities, which is primarily a result of labor professionalism in the sector. However, some workers also noted that they should unionize but were unsure how to do so (CMH-08, 10, 12, 16, 23, 25, 26).

> CMH-16 – "When I was there (SU-04), such things never happened. It would really fire back if you raise your voice, or try to make a union, or go against your management. So, in (the) corporate sector, it's very less. I haven't witnessed any unions till now."
>
> SA – "Do you think unionization could be useful for content moderators?"
>
> CMH-16 – "Of course, it will be. People are there for you, to fight and address your issues at a big larger scale. Yes, it would be helpful. Everyone needs a job security, so if you can't find it individually, then find a group which makes a larger impact. Yes, unions do help this way."

In absence of unionization and organized bargaining in the workplace, the mobility power of workers, although drawing to a certain extent upon solidarity and knowledge in the workplace, is highly individualized and does not translate into higher bargaining power of workers. The following case study of supplier firm (SU-04) exit and the subsequent transfer of workers to a new supplier firm (SU-N) shows how content moderators, like other service workers in the service value chains, are also vulnerable to the competitive dynamics in the global economy. In this case, instead of the often-observed relocation of work to another site with labor cost arbitrage and unorganized workers (Doellgast, 2022; Noronha & D'Cruz, 2017), SU-04 exited the content moderation project altogether. While limited labor resistance was observed due to the COVID-19 pandemic and fear of unemployment, labor agency was primarily resilient and even coordinated with management for the project transfer to SU-N. This case study then, while testing the robustness of managerial control and labor agency presented in this chapter, brings interesting complications to the question of social relations in the workplace and their implications for content moderation value chains.

Case Study

The analysis presented in Chapter 6 regarding SU-04's exit from its content moderation project with LF-02 shows two main things: first, the exit reasons in terms of the limited upgrading possibilities for the supplier on one hand, and the reputational damage caused by labor agency at the production sites in USA, on the other. Second, the outsourcing mechanisms are used to explain how the project was transferred along with workers, team leaders and operations manager to SU-N. Labor transfer, in turn, has been estimated along two reasons: first, in terms of the facility exit costs that included the employee costs, which SU-04 must have had to bear given that it exited the project. Second, laying off over 2000 content moderators – all working for the LF-02 project at SU-04, and a number based on interviews with workers – would have meant further reputational risks for both the supplier and lead firm.

Supplier firm exit has been addressed previously through GVC and GPN lens in terms of the coupling and decoupling discourse (Bair & Werner, 2011; Horner, 2014; Yeung, 2016) and from other perspectives, including the "strategic downgrading" of supplier firms (Blažek, 2016). Firm exit in industrial relations has also shown how the threat of employer exit is able to replace worker voice with cooperation (Benassi et al., 2016; Doellgast et al., 2018; Doellgast, 2022). However, the examination of supplier exit from a labor process perspective, has rather been limited. This study provides granularity to the existing analyses of labor flexibility in service value chains (Flecker et al., 2013; Taylor et al., 2013) by showing the robustness of existing control strategies to reduce labor indeterminacies during the transfer of content moderation project to SU-N. The analysis shows that this is not without challenges as labor control strategies had to navigate the external crisis of COVID-19 pandemic and draw on workers' uncodified knowledge to transfer the project to SU-N. However, instead a result of workers internalizing control, labor coordination is underpinned by workers' logic of job security and the self-valuation of their knowledge and skills.

By focusing on the labor process dynamics, we are able to confirm that the content moderation labor process is a site of high degrees of transferability of employment relations from one supplier to the other. The inter-firm governance mechanisms show the direct control of lead firms over the labor process and the replaceability of one supplier by another to manage the highly standardized service delivery. While there is limited data on how the employment relations in the new supplier looked like, the cross-case analysis provided in this chapter allows for an estimation of a similar process.

Robustness of existing labor control strategies

The starting point in this chapter was the treatment of labor as being willful, mobile and driven by their interests, which is also a source of indeterminacies for capital. The case of supplier exit, although negotiated and agreed upon with the lead firm, does not necessarily need to be agreed by workers. Workers may simply not want to be transferred to the new supplier as it was not mutually agreed upon at the onset of their employment with SU-04. This "freedom to quit", although a "rhetoric of a more marketized capitalism" (Smith, 2006, p. 390), could create further indeterminacies at the levels of both mobility and effort for SU-04. Either as part of the facility exit costs or reducing reputation risks, the supplier used certain strategies for transferring the work and workers to SU-N. This includes the use of existing control mechanisms to reduce labor indeterminacies during work from home and its transfer to SU-N. As we will see, labor coordination and missing resistance were on account of workers interest, rather than a result of labor internalization of control.

Using existing control mechanisms during COVID-19 lockdown

The project transfer took place during the COVID-19 lockdown when workers were already working from home. This meant that SU-N also had to replicate the technical, bureaucratic and normative control infrastructure at home. Before the transfer, SU-04 had already extended the labor control strategies to extract labor productivity into the homes of workers. A few days after the lockdown was implemented on the 25th of March 2020 (Express Web Desk, 2020), workers were sent an email by SU-04 management that they were all required to work from home, otherwise they will not be paid their performance-based incentives. Correspondingly, SU-04 sent them desktops, and workers could only access the browser-based work software using a VPN (virtual private network) to limit data breaches. They were not allowed to use their personal laptops. Workers who agreed to work from home did it firstly, because they had not already left for their hometowns outside of Hyderabad due to the lockdown, and secondly, because they had access to a private room in their homes where they could work. Most living with their families declined to take the desktops because they were unable to watch distressing content in front of them, especially those working in the content classification process (CMH-01, 03, 05).

> "Actually, we shouldn't work from home because the content we review is not a user friendly one (distressing content). So, generally we are not allowed to work from home. But because of the situation and demands by LF-02, we are working." – CMH-17

Given the limited means to monitor workers at home, the management had sent an *emphasis guideline* to the workers, strictly advising them to not moderate content in front of their families, and relying on workers to not disclose the work-related information. "They (workers) have to take their own surety," noted the acting team leader CMH-21. At the same time, monitoring of work through the work software and recording of labor performance continued to function. The on-floor supervision was extended in workers' home through regular checks using phone calls. Team leaders were required to frequently call workers to check if they were continuing to work and if they had any queries. This was confirmed during this study's interview with CMH-21 who had to take multiple calls from their team members in between. However, labor monitoring at home was limited in terms of the usual detailed control on their time. In the absence of on-floor monitoring by supervisors and even surveillance through cameras, as has been discussed in this chapter before, workers could exercise discretion over selecting their Activity Codes and breaks. However, in case of regular training or refreshers and other team activities online, they had to choose the respective codes accurately. CMH-19, working for more than two years at SU-04, noted how she had more freedom in taking breaks from home:

> "So, I log in at 9 am in the morning and work until 6 or 7 pm. I will be logging out based upon my work shift. Because it is work from home, we are taking multiple breaks. When we were in office, we are under the surveillance of team leader. This why we take very less breaks. But when we are working from home, it is like we have like a little bit of freedom right. But I think the office work time (control) of SU-N will soon be extending here (at home) as well."

Work at SU-N also followed similar control strategies. All workers were required to work from home using new desktops that were in the process of being sent to workers at the time of the fieldwork. However, unlike the incentive-based pressure by SU-04, workers noted that they were all required to work from home by the new management. Additionally, they were also required to undergo new trainings and assessment so as to learn the organizational rules of the new firm. Instead of taking place in-person, this was organized using telephonic and Web-Ex (videoconferencing) meetings. The rest of the work process was supposed to be the same, together with the same team and team leaders, subject matter experts and quality analysts, as informed by team leaders to the workers. At the same time of the interviews, around half of the

workers had received their employment contracts from SU-N. It included standard information regarding working hours, wages and NDAs, similar to the one offered by SU-04 before. Some workers had however gleaned information from colleagues and team leaders, with whom they maintained cordial relationships, about the general work culture in SU-N and the specific changes related to the content moderation labor process. This included ten hours work day, the inclusion of night shifts that had recently been stopped at SU-04, and no travel allowance for night shifts, which is usually provided by other large ITeS-BPO firms.

This general lack of information together with limited information on work intensification gleaned through unofficial sources, created feelings of uncertainty and dissatisfaction for workers. Instead of culminating into resistance, this resentment was directed to the possible horizontal movement of workers to other processes at SU-04. Drawn from the culture of labor professionalism in the ITeS-BPO sector, workers could apply for IJPs to move into other processes. This was limited by the benching practices of SU-04 which together with COVID-19 crisis limited mobilities of workers both outside the firm and to other processes. It was also accompanied by management extracting additional labor, including uncodified knowledge, to transfer the project. This is discussed below.

Control and the culture of professionalism

> SA: "When you got to know about the exit, were you concerned about your job?"
> CMH-20: "No, no, they told us, 'your job is not going to end but you may move to one company or another. If you do not accept, then we are also hiring in (SU-04) for different process.' They have given such assurance."

The strength of the bureaucratic and normative control in the work transfer can primarily be seen in the way that workers were offered the *choice* to transfer. Before work was scheduled to start at the new supplier firm SU-N on the 1st of May 2020, workers were asked by SU-04 whether they would want to transfer to the new firm or look for a job in another process at SU-04. The latter option meant that workers could stay up to one to two months in the company on a salaried position while they looked for a completely different process. This is known as being on *the bench* and allows firms to "retain experienced staff while maximizing internal labour market flexibility" (Taylor et al., 2014, p. 114). In the event of not finding a job, SU-04 could terminate the employment contract of respective workers. While this again has to meet the checks and balances of the Industrial Disputes Act, i.e., why was the worker retrenched,

benching and subsequent retrenchment are common practices in the Indian IT industry (interview with Shyam Sundar, NDLF). In this case, however, unionized workers can file for 2K petition of the Industrial Disputes Act of 1947 that provides for halting the alteration of employment conditions, and 2A petition of the same Act for challenging the firm's decision in the labor court. Many workers could not file these petitions due to the missing unionization at workplace.

The framing of the supplier exit and project transfer as being unthreatening for workers also enabled management to draw upon additional tasks from workers, which are crucial for the transfer process. These included, first, the completion of content volume in certain process before the transfer, and second, the preparation of training documents for work at SU-N. As discussed in Chapter 6, the SLAs between the firms also include the content volume as part of the metrics that suppliers show to the lead firms. At the time of the exit, not all content in the critical process of content classification that constitutes high degrees of violent and pornographic content, had been completed (moderated). Correspondingly, some workers with better performance were asked by SU-04 to finish the remaining volume (CMH-02, 04, 06). CMH-06 explained that two members from each team working on different content format like videos, audios, pages, images, were asked to stay back by SU-04 while their colleagues could move to the new firm. "Around 250 people in total, I heard, are not yet given their offer letters, as we are required to finish the rest of the volume," noted CMH-06.

The second function was the preparation of documents by senior moderators to train the workers at another firm (CMH-13, 17, 18, 19, 22). It shows how management relied upon labor knowledge that was not codified by LF-02's work software. These documents included on one hand, target-related information that had already been captured by the work software, but on the other, also other details regarding common queries workers had regarding content, the role of *refreshers* or short trainings after policy or software updates and the process of exercising labor discretion in unique content. While informed by content moderation policies, the knowledge included by workers in these transfer documents is mostly uncodified in nature. This primarily refers to its non-codification by the ML model in the work software which has been shown to capture workers moderation decisions.

> CMH-18: "The vendor is changing right, so they will hire maybe 50 or 60 percent of the people from (SU-04), the remaining 40 percent people should be trained newly right, I mean those who are new *joinees* (employees). To train them, we have to prepare some documents right, like – whatever work we are doing, whatever the steps, whatever the

policies we follow, how to log in and log out (of the software), usage of the tool and all that – we have to document them. So that it will be easy to handover this project to the new vendor because these documents will play an important role."

SA: "Okay, are you also paid for this extra work?"

CMH-18: "No, it is part of my job; because of my TL's request I am preparing that."

The reliance on workers' uncodified knowledge by management has been studied previously in Ramioul's (2012) interesting case on relocation of logistics work from Belgium to Czech Republic that required Belgian workers to shadow or supervise the work of new employees. The case confirms that managerial strategies in service value chains are directed towards the "continuous analyzing and codifying of workers' knowledge, on the one hand, and at supporting the circulation of uncodified knowledge through formal and informal interaction and through workers mobility, on the other" (Ramioul, 2012, p. 188 in Flecker et al., 2013, p. 14). At the same time, similar to Ramioul's (2012) analysis, the coordination by content moderators in this case to share their uncodified knowledge with the management was not a result of workers' internalization of control. As we see from the analysis below, workers resented the exit of their employer and transfer of work to another firm. While a majority of the workers agreed to the transfer, their coordination efforts were informed by different interests than that of management. This is discussed in the section below.

Recognizing the(ir) labor value

The exit of SU-04 from the content moderation project posed a special complication for the workers, where thy suddenly had to respond to the situation of either losing their jobs or finding ways to keep them. Not knowing firstly, whether their IJP application would be successful, and secondly, whether they could find external opportunities due to the COVID-19 lockdown, also discussed in Chapter 6, 88 percent of the surveyed workers agreed to join the process.[69] Correspondingly, the main form of agency observed in this stage is of resilience, and it can be understood in two main ways: first, in terms of recognizing their value to SU-04, and second, in terms of coordinating with the management in the project transfer. Labor coordination is

[69] Amongst the 10 respondents who were not employed with SU-04 at the time of the survey, only CMH-26 had resigned from their job because of his frustration with the promotion process. The other two respondents did not disclose why they quit from the work.

primarily underpinned by worker strategies of job security. And this constitutes as a primary reason for their limited resistance. At the same time, the limited information about the new employment relations at SU-N, limited possibilities for changing to a new process at SU-04, along with difficult labor market conditions, also served as significant factors for strengthening labor resilience instead of resistance.

The discussion in the section on recruitment process in this chapter shows the highly-educated, middle-class, English-speaking, urban and mobile character of workers employed at SU-04. The chasm between on one hand, the "over-qualified" background of workers and their self-management efforts that are representative of the culture of professionalism in the sector, and on the other, their economic devaluation by the SU-04 management, resulted in worker experiences of dissatisfaction. These experiences were compounded by the exit of the employer that had clear implications for their growth and wages. While not resulting in job losses, work transfer to SU-N was not viewed positively by most workers as it did not allow them flexibility regarding which labor process and employer to park their labor power with. This was linked to challenges for job promotions and limited hikes in wages.

Apart from the obvious limitations of moving into another process in SU-04, workers were also not eligible for promotion at SU-N. As shown in the section on labor control, the organizational rules at SU-04 necessitate that workers complete a minimum of 18 months of work experience before they can apply for a vertical or horizontal movement across the firms. At the time of the transfer, the average tenure of the survey respondents was recorded to be 1.68 years or a little more than 18 months, with a standard deviation of 1.14. Some senior workers who had either been working in the capacity of an acting team leader (CMH-21) or an acting subject matter expert or quality analyst (CMH-17, 18, 23, 25, 26) noted that not only was the possibility to apply for promotion at SU-04 was obliterated in the event of exit, but also that they had to restart their work experience at SU-N to be eligible for promotion after another 18 months.

> "There were possibilities to get promoted as a quality analyst. But now, this will go down the drain because of the transition. I don't know how to call it, like it's a boon or a bane I don't know. If you consider this pandemic situation right now, this (job) is the only option I have." – CMH-25

Workers were also dissatisfied in terms of the new wages at SU-N. Depending on their work experience, they were eligible to receive 5 to 10 percent hike in their salary at the new firm. This, according to them, was much lower than what they saw as their "market value". Although workers were informed by the SU-04 management that they will be paid a bonus (incentive) in

the new firm, but it remained unclear when it would be paid. Correspondingly, 45 percent of the survey respondents noted that they were looking for another job, with the primary aim of getting better wages (n=22). CMH-18 explains:

> "There will be a hike at SU-N but not as much hike when we try outside right. The market value will be much more than compared to this transition from one vendor (supplier) to another vendor. It will be a minimum 30% hike in the market. Now, it is only just 5% or 10% hike. Then they (SU-N) say that they will give a bonus, a joining amount to us. But it will not be as soon as we join, it will be after six months or one year or the next cycle. This will also be based on our basic salary, so it will be between 5-15%."

While most workers agreed to the work transfer, many also noted that they had "no choice" in it. Only CMH-26 quit his employment because of the long wait for promotion to become a subject matter expert. While other workers agreed to the transfer, many were also vocal about the limited information provided to them regarding their working conditions and possibilities for changing process at the new firm. This hidden resentment against the management also stemmed from the uncertainty that many workers had to manage with, because for a long time they did not know whether they would even be transferred to the new firm. Around half of the workers had not received their employment contracts from SU-N at the time of the interviews. Where some team leaders assured the workers in the critical content classification process and in other processes (CMH-09, 12, 20, 27) that there will be no job losses, certain other workers were told that they had to first perform well, i.e., by completing their target and maintain their AHT, in order to be transferred to the workplace (CMH-15, 17, 18, 26, 28). CMH-15 explains:

> "It was mostly this transparency issue, like are we really going to get removed from the job or is the selection going to be based on performance from the last three or four months or the last three quarters? The team leader and manager (operations) are saying that, 'we don't know anything,' but they said that, 'please perform well.' They had put pressure on us like 'if you don't perform, (then) you are not going to get selected in SU-N.' Especially I felt that pressure, I don't know but I am weak-hearted."

The ensuing social relations between SU-04 and workers can then be seen as characterized by labor vulnerability and self-management. However, instead of resulting in resistance, the transfer of work was followed by labor coordination with management. On one hand, this strategy was underpinned by resilience that allowed workers to navigate and manage with the uncertainty regarding their imminent employment relationship and career growth. On the other,

it was informed by workers' recognition of their work experience and knowledge, which although devalued and even at times invisible to SU-04, was significant to the content moderation work. In this way, it is similar to Ramioul's (2012) assessment of the coordination strategy of Belgian workers with management, as "reconfirming their own competences" regarding knowledge and skills (p. 194). The following quote by CMH-15 sums this up well:

> "Because we have the knowledge, like product knowledge and everything, so they don't want to lose us. We have worked already, and the client knows this, so this is why they moved us completely into a different company (SU-N). They just want the employees; the vendor is replaceable in my opinion."

While many workers estimated the supplier exit as a probable feature of the ITeS-BPO sector and the practice of temporary project contracts, the self-recognition of their knowledge and career interests should be seen as a source of resistance. Had there been no COVID-19 crisis and heightened fear of unemployment, would workers have collectively organized or would they have rather quit for better wages elsewhere? Had they undertaken revoking practices, including whistleblowing to the media and trade unions, could this have stalled the supplier exit and transfer due to reputation damage to both supplier and lead firm? The given context of the pandemic limits this study's analysis to its existing state. However, it opens new questions for linking labor process with the competitive dynamics in global economy.

Conclusion

There are two main findings from the labor process analysis in this chapter: first, in terms of the social relations in the workplace, and second, in terms of the inter-firm governance mechanisms between suppliers and lead firms. The capital-labor relations in the workplace are highly controlled by the lead firms, not just through the use of automated work software but also through their content moderation policies and standards that inform all four dimensions of labor control, namely the recruitment process, direction of work, monitoring and evaluation and even the rewarding of workers. Aimed at reducing labor indeterminacies related to workers' effort and mobilities, content moderation work is organized and controlled in manners that allows lead firms to extract quality service delivery. This draws upon the functions of both lead firms and suppliers, and is seen through the use of three strategies of technical, bureaucratic and normative control.

Supplier functions are primarily observed in on-floor supervision and in managing the employment relations. The former includes supporting the workers to apply their tacit knowledge in making sense of the content moderation policies on one hand, and to contribute their insights into developing the content moderation policies, on the other. The integration of ML models in the work software ensures that the accurate moderation decisions generated by workers, through exercising their discretion, is codified in the software. Codification of labor knowledge also results in policy updates and even automated moderation of certain content, as discussed in this chapter. This combination of labor discretion together with high control over workers' tasks and time is similar to the previous analyses of export-driven service work as being underpinned by the dual logic of standardization and user needs Remesh, 2008; Taylor, 2015). Lead firms require local skills and tacit knowledge that are culturally and linguistically near to their social media users, but in a standardized manner, which allows them to ensure quality service delivery at a large scale.

This chapter makes a unique contribution by showing how these two logics pose contradiction for workers. On one hand, workers are required to manage with the psychologically distressing content while at the same time exercise their discretion in the labor process. And on the other, they are not only confronted with high control on their work that results in its continuous standardization, but also the economic devaluation of their knowledge through limited promotion possibilities and internal job postings. Labor effort in the content moderation process then is examined as underpinned by workers' agency, and it is categorized along the practices of resilience, reskilling and revoking. This conceptualization of agency allows us to see the self-accountability and management practices of workers that draws from both the existing culture of labor professionalism in the ITeS-BPO sector, but also from the different interests of workers in terms of their career growth and the self-valuation of knowledge. This is particularly observed in the case study on supplier exit and transfer of the content moderation project to another supplier. Labor coordination with management and limited resistance is on account of workers' interest in securing their jobs and demonstrating their knowledge.

The second main finding presented in this chapter is concerning the inter-firm governance mechanisms between suppliers and lead firms. The case study analysis of supplier exit makes a unique contribution by showing the replaceability of the SU-04 by SU-N. This is primarily seen in terms of the robustness of existing control strategies that allow the lead firm to find another large supplier in India for providing the functions of on-floor supervision and management of employment relations to supply moderation service. Seen from this perspective,

the supplier functions, although significant to the service delivery, are also limited vis-à-vis the functions of lead firms. Although this analysis does not sit perfectly with the relatively higher functions of SMEs in service delivery, explained by the lower product complexity, it nonetheless allows us to see the limited possibilities for functional upgrading, a type of economic upgrading, for all suppliers in view of lead firms' control over work standards and content moderation policies.

These findings have two intersecting implications for labor. On one hand, labor power in the content moderation process is a source of resistance against capital. Although not unionized due to both the limited presence of unions in the sector and fear of reprisal of employers, there were clear instances of work voice and revoking practices observed, which can catalyze into organized bargaining with external support. This can be significant given that most workers are affected by the distressing content, intensification of work and economic devaluation of their effort. On the other hand, is the question concerning with whom (firm) can workers bargain for improving their working conditions. The discussion in the chapter shows that suppliers can exercise discretion regarding targets, working hours and by providing counselling to the workers. However, given the competitive logics of content moderation value chains, like other service value chains (Taylor et al., 2014), suppliers apply cost-cutting measures and invest less in supporting their employees. The case study shows how suppliers can also be replaced by other large firms. Meanwhile, direct control of lead firms over the labor process, especially through the highly automated work software, provides them an opportunity for ensuring decent working conditions for their outsourced workforce.

There two main limitations to the analysis presented in this chapter. First, in terms of the availability of information for each firm, depending on the type and degree of their participation. Similar to other large suppliers, there has been no participation by SU-04 and SU-N representatives regarding the case study analysis, despite repeated requests. This, together with the absence of lead firms, has already been discussed in Chapter 6. Correspondingly, most of the analysis here has relied on workers, albeit with limited information by workers at SMEs, due to the difficulties in accessing them (only CM-08, 09). At the same time, due care has been taken to discern the particularities of the workplace embedded in each value chain relationship. Second, the case study analysis is unable to describe in detail the labor process changes in the new workplace. While some elements have been captured from workers' access to information, many indicators cannot be ascertained. At the same time, the cross-case analysis of other value chains here could be used to estimate similar working conditions and employment relations.

Chapter 8: Conclusion

Contributions to media and communication scholarship

Initially conceptualized by information scientists and inter-personal communication researchers as "computer-mediated communication" (Kerr & Hiltz, 1982; Rice, 1980 in Burgess et al., 2017), social media and its contemporary platformatisation has been a project of inquiry across different disciplines including media and communication studies, law, political and social sciences, and others. Common across all these disciplines is the examination of social relationships that underlie the technical infrastructure of social media platforms. For the media and communication scholars in particular, this focus takes great importance given the emerging media ecology and the transformation of the "production, distribution and use of media offerings" (Emmer, 2014). A crucial change has been the blurring of lines between producers and consumers through the adoption of both of these roles by social media users. This has implications, on one hand, for the revenue generation models of traditional media organizations through increased proximity between advertisers and user activities on platforms (Postigo, 2016), and on the other, for the institutional model of news *gatekeeping* and role of journalism (Neuberger & Quandt, 2019; Schwalbe et al., 2015).

At the heart of these discussions are the ongoing alterations in the digital media landscape that factor in more continuity than ruptures. Correspondingly, several communication scholars have argued that the gatekeeping or governance practices on social media platforms mirror that of news media organizations; and this necessitates similar regulatory policies for the technology firms operating these platforms (Hess, 2014; Napoli & Caplan, 2017). There are three main arguments made by technology firms against their classification as media firms: first, that instead of producing content, they distribute it, second, in terms of the technical skills of most of their employees, and third, that the content hosted on social media platforms is primarily curated by "algorithms and data-driven technologies" (Napoli & Caplan, 2017). Challenging these arguments, Napoli and Caplan (2017) note that not only is distribution a "defining characteristic" of media companies and that the sector has historically relied on complex technical skills, but that technology firms like media firms invest into analyzing what their audience wants and create guidelines regarding user content.

It is this latter disputation regarding governance practices of technology firms that this study has contributed to; not primarily with an aim to establish that technology firms are media firms,

but with a view to understanding the underlying processes of platform operations. The starting point of this study was that high degrees of indeterminacy – at the level of user negotiation activities with platform affordances on one hand, and at the production level on the other – inform the specific design of the content moderation architecture. By taking a deeper look into the production process, this study makes two main contributions that can be of particular value to the media and communications scholarship: first, the organization of work, and second, the social and power relations between the different actors in the content moderation process. To limit the indeterminacies on social media platforms, technology firms, referred to as lead firms in this study, organize the content moderation process in ways to capture user knowledge from the flagging activities and incorporate them into the production process. This allows them to achieve high degrees of work standardization and direct their control over the outsourced labor process.

The particular organization of work is informed by the functional division between lead firms and the suppliers (third party firms supplying content moderation services), wherein content moderation standards and, in most cases, work software are provided by the former, and the responsibility of meeting those standards is taken by the latter. The supplier functions also include the management of employment relations. The resulting inter-firm relationships are asymmetrical in nature with lead firms exercising direct control over the content moderation labor process. These inter-firm governance mechanisms together with the institutional arrangements in India, which facilitate the trade relations between the firms, also structure the social relations between capital and workers in the workplace. While moderation work relies on workers' tacit knowledge and resilience for managing with the dynamic and distressing content on social media platforms together with the incomplete content moderation policies, this agency is highly controlled for ensuring quality service delivery. Correspondingly, workers' experiences in the content moderation process constitute of work intensification, reduced labor discretion over tasks and time, and limited skill development.

These findings point towards understanding the existing problems of content moderation as outlined in the introduction chapter of this study: on one hand, is the selective and excessive moderation of certain content, and on the other, is the lack of moderation oversight that leaves harmful content prevailing on social media platforms. Informed by lead firms' economic logic of scaling, the content moderation process is designed to reduce indeterminacies from the social media platforms. In this process, the issue of context, especially in terms of sensitive content such as hate speech that was exemplified and discussed in Chapter 7, has to compete with the

outsourcing logics of time and cost efficiency that characterize the governance relationship between lead firms and suppliers. However, not all content moderation value chains are the same, where some lead firms such as LF-01 have increased possibilities for workers to exercise their discretion by judging the user intent in the content due to higher product complexity. This should allow us to see that labor *bias* – either on account of culture or other factors – is not completely removed, but is highly controlled in the labor process.

Future directions in the media and communication scholarship on social media platforms can build upon these findings. To do this, one can return to the concept of affordance that offered this study an important link on the "action possibilities" for social media users (Bucher & Helmond, 2018). By making use of the flagging affordance, we have seen how users are able to report content that they find problematic. In this way, the technical features associated with the flagging mechanisms afford user knowledge and participation to the lead firms, which they then transfer to the content moderation process. What we do not yet know is how high degrees of work standardization and limited power of workers, but also suppliers, do influence the scope of possibilities for users? Do they result in increased or decreased number of features and functionalities for flagging content? How do they intersect with other affordances of networking and category shaping, and affect user relations and meaning-making activities of users? At a broader level, do they reinstate the normative logics of lead firms assigning certain content as harmful and in violation of their community standards? From this perspective, this study offers possibilities for both enriching the concept of communication affordances, and expanding the field of political economy of social media through a comprehensive focus on the social relations of production, distribution and consumption underpinning the platforms.

By making use of an interdisciplinary framework, this study has brought together, on one hand, the media and communication studies and labor sociology, and on the other, the global value chain and global production network frameworks with the labor process theory. This endeavor has allowed for treating content moderation as a complex process that is multilayered and requires a multivalent examination. At the same time, there are two main limitations to the analysis presented here, which also open avenues for further inquiry. First, this study suffers from missing responses by managerial representatives of large supplier firms and from the lead firms. Despite repeated requests, these actors declined to participate and it goes on to confirm the highly-confidential nature of content moderation outsourcing. Future research can adopt novel research methodological designs such as the user interface study by Ahmad and Greb (2022), and ethnographic methods, which this research also partially makes use of in the

recruitment process at some supplier firms. Second, there is limited information on the lead firms for small and medium-sized suppliers. This limits the possibilities to draw out a more regionally-informed analysis of these chains, which could otherwise indicate unique particularities of the interfirm governance mechanisms, as Horner and Nadvi (2018) have done elsewhere. Further research along this strand could diversify the mainstream focus on Meta, YouTube, and Twitter.

Automation of content moderation work

The findings from this study also pave some pathways into the discussion on automation of content moderation work. Increasing promises by lead firms to the users, stakeholders and investors of social media platforms for reducing content moderation errors and achieving economies of scale through AI, need to be seen in light of valuable criticism of automation and implications for work in general. Several scholars and other experts have already shown the limitations of existing moderation technologies and continuous reliance on workers (Duarte et al., 2017; Gillespie, 2020; Gorwa et al., 2020). At the same time, the research findings in this study on the use of highly automated technologies in the content moderation labor process and the high degrees of work standardization, could indicate the possibility of "routine-biased technological change" (cf. Autor et al., 2003; Frey & Osborne, 2013). This theory primarily establishes that with increase in routine-task intensity, work can be automated in the future.

Complicating this "reductionist" analysis of work with repetitive tasks (Barley, 2020 in Krzywdzinski, 2022, p. 4), is the "socioeconomic company-level theory" that provides a more wholesome lens to studying the automation of work (Krzywdzinski, 2022). It highlights three dimensions – socio-material conditions, social choices of technology, and social outcomes of automation of work – to argue that automation decisions are informed by the factors of process complexity, product variety, organizational profit strategies and the power relations between management and workers. Such a theoretical lens is useful for critically and comprehensively looking at my research findings. This can be first seen through the issue of product complexity and second, through the power relations between lead firms and suppliers on one hand, and between users and management, on the other.

The research here shows the complex character of content moderation on social media platforms that draws on the integration of user flagging activities in the labor process. But even with the clear modularization of steps in the content moderation labor process, workers' tacit

knowledge and local skills are required to manage with unique user content and incomplete content moderation policies. The degree of this reliance on labor knowledge and skills however differs across different value chains, and primarily depends on the issue of product complexity. The more complex the content is to moderate, which depends on the format of the content, the use-cultures of social media users, and the moderation policies of the lead firm, the more difficult it gets to automate it. This can particularly be seen in the limits of codification of labor knowledge through the work software, which is integrated with machine learning models. Given the high product complexity of long-form video content, elaborate moderation policies, and highest control of lead firm over the labor process, the LF-01 – SU-01 value chain had relatively lesser degree of automation of tasks than at LF-02 – SU-02/ 03/ 04 chains.

On the other hand, successful instances of automation include the automated moderation of certain content queues that comprised of high degrees of harmful content, the increase in predictive power of work software to direct the content to workers, performance monitoring, and extensive control on working time. These functions are however tied to the power relations between the respective lead firm and suppliers. Content moderation work, in all observed value chains, is organized in manners to reduce labor indeterminacies and supply-side uncertainties. This informs the interfirm governance mechanisms and labor control strategies that are characterized by direct control of lead firms over the labor process and high degrees of work standardization. The limited functional upgrading opportunities for suppliers together with high reputation risks of supplying moderation service, have been shown in this study to explain the exit of a supplier from LF-02's project. High degrees of automation allowed the project along with workers to be transferred to another firm.

This finding shows that instead a function of technological determinism, the lead firm logic of maintaining control over the labor process, together with the relatively lesser product complexity of LF-02 (than the LF-01 – SU-01 chain), were important factors resulting in automation of work. It also shows the respective lead firm's strategic choice to retain existing workers, because workers and their agency are crucial for managing with the dynamic character of social media platforms. Despite the high degrees of labor control in the content moderation process through the use of highly automated work software and bureaucratic rules of the supplier firms, labor agency is an important source of tacit knowledge and skills that enable workers to respond to the continuously changing social media user content and the incomplete content moderation policies. Further on, this agency also enables workers to manage with the psychologically distressing content and the high degrees of standardization of work.

The conceptualization of agency in this study allows us to see the self-accountability and management practices of workers that draws from both the existing culture of labor *professionalism* in the ITeS-BPO sector, but also from the different interests of workers vis-à-vis capital, in terms of their career growth and the self-valuation of knowledge. This is particularly observed in the case study on supplier exit and project transfer, wherein labor coordination with management and limited resistance was on account of workers' interest in securing their jobs and demonstrating their knowledge.

From this perspective, the research findings in this study confirm the theoretical choice of social-material conditions and social choices of automation of work, put forward by Krzywdzinski (2022). While this study here set out to understand how content moderation work is organized and controlled to reflect lead firms' strategies of reducing indeterminacies, it has further contributed to the broader discussions on automation and future of work, by demonstrating findings from the seldom-examined service value chains and the structuring of workplace relations.

What is to be done? - The role of policy-making

"Social media is here to stay… now what?", asked danah boyd, a leading technology and social media researcher, in her (2009) talk at the *Microsoft Research Tech Fest* in Washington. Holding different use-values for different actors, the "properties and dynamics" of these platforms (boyd, 2009) are primarily driven by profit motives of technology firms operating these platforms. This can particularly be seen in the content moderation process, whereby even though users are significant, in terms of their "online civic participation" and flagging activities for maintaining the democratic public discourse on platforms (Porten-Cheé et al., 2020), their activities and knowledge are circumscribed and captured within the terms set by lead firms.

This limits possibilities for users, as well as academics and policy makers, to both understand the platform operations, and have a say in the content moderation process. Public policy can play a role in this by on one hand, pushing for content moderation practices that position "human rights at the very centre" (Kaye, 2018, p. 3 in Ahmad, 2019, p. 5), and on the other, support the development of decentralized social media technologies that are based in cooperative and community-based logics. A decentralized social medium like the *fediverse* (most notably implemented by Mastodon) could be supported through the infrastructure and

legal support for setting up independent servers, but also through ensuring anti-discriminatory moderation policies, especially for critical and vulnerable voices.[70]

Public policy also has an important role in regulating work and protecting the interests of workers. The working conditions discussed in this study, rather than being novel to the content moderation process are typical of export-driven service work undertaken in the Global South. Increasing research has shown the *hidden labor* that goes into developing AI through the processes of "data generation, data annotation, algorithmic verification, and AI impersonation" (Tubaro et al., 2020). Most of this work is outsourced, not only for labor cost arbitrage but also for producing "differentiated data to feed the growing AI industry" (Miceli & Posada, 2022, p. 29; Williams et al., 2022). The recent media investigation of *hidden labor* in Kenya for training the ChatGPT – a hugely popular automated chatbot – confirms the under-paid, highly-standardized and psychologically distressing nature of such work (Perrigo, 2023).

Many outsourced geographies are shaped by regulatory policies that enable labor flexibility and leave the function of protecting workers "to private initiatives and responses to market signals" (Chandrasekhar, 2003 in Noronha & D'Cruz, 2016a, p. 159). In the years 2019 and 2020, the Indian Parliament passed the bills codifying over 40 central and 100 state laws regulating labor into four main codes.[71] And they have been heavily opposed by unions and workers' movements in India, especially the code on industrial relations that makes collective bargaining extremely challenging and places great restrictions on union activities (in Gopalakrishnan, 2020). At the same time, critics have also been noted that measures of "privatisation, contractualisation and informalisation" have long been in operation through various "back-door measures" since the currently ruling Bharatiya Janata Party came into power in 2014 (Bhatia, 2021). How can these national regulatory shortcomings be addressed then to both protect workers' interests but also preserve the environment and natural resources?

On one hand, the increasing supply chain regulation initiatives such as the EU Directive on Due Diligence 2022, the German Supply Chain Act 2023, French Duty of Vigilance Law, EU Anti-Slavery regulation (ban) and others, could offer some avenues. They could ensure compliance with labor and environment standards, traceability and transparency, through the use of digital,

[70] This draws from the discussion on discrimination faced by people of color on Mastodon (Kpakima, 2022).
[71] https://labour.gov.in/sites/default/files/Labour_Code_Eng.pdf

legal and managerial tools.[72] At the same time, research has shown the limits of previous global framework agreements, in terms of not including worker voice (Zajak, 2017), and further criticism has also been made of the German Supply Chain Act in terms of not including liabilities for companies abusing human rights (Kippenberg, 2023). While more needs to be done in terms of strengthening these policies and ensuring labor compliance, public policies can also support future research for building alternative political-economic environments that can benefit everyone, regardless of their class, race, geography, gender and socio-economic identities. This could be an internationalist endeavor, bringing together research institutes from across the world, to focus on resolving the long-standing inequalities.

[72] This is informed by discussions in a workshop titled, 'Blurring lines between public and private governance in global value chains', organized by the Bard College Berlin on December 6, 2022.

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Appendix

Coding tables

Table 5.4: Coding for outsourcing mechanisms in Chapter 6

Open coding	Axial coding	Selective coding
Cross-case analysis		
• Subsidiaries • Offshoring • Outsourcing • Market mechanisms • Overhead costs • Quality control/ accuracy • Targets • Content volume • Moderation policies and standards • Communication between firms • Trust • Lead firm visits • Recruitment • “Headcount” • Training • Work process • Monitoring • Employment relations • Workplace • NDA • Teams • HR	• Price per unit • Functional roles • Metrics • Contract termination	• Service-level agreement (SLA)
• Software • Cost efficiency • Data security • Quality control/ accuracy	• Labor indeterminacy • Proprietary technology • Control over labor process	• Automated technology

• Confidentiality • Relocating work • Teams • Content queues • Content volume • Content tagging • Average handling time • Targets • Time tracking • Software updates • Policy updates • Freshers • Communication-related errors between firms • Micromanagement • Supply-side management • Machine learning • Automated tagging • Closing down of queues • Unique content • Recording labor activities • Tacit knowledge • Alternative workflows • "Improvising the software"	• Direction of work • Monitoring • Inter-firm coordination • Standardization • Codification of knowledge • Economic upgrading • Power asymmetries	
• Geography • Cost efficiency • Competition • 24*7 operations • Human capital • Local skills • Cultural context • Starting wages • Freshers • Training • Educational institutes • Government policies • Capital-labor conflict	• Labor cost arbitrage • "Spatial fix" • Path dependency • Flexibility • Technical and social infrastructure • Labor rationalization • Private initiatives • Individualization of capital-labor bargaining	• Institutional arrangements

• Subsidiaries • MNEs • Foreign direct investment • Export revenues • Software technology parks • Special economic zones • Natural resources • Subsidies • Market factors		
Case-oriented analysis		
• Contract termination • Subsidiary • Labor resistance in the US subsidiary • NDAs • Supplier functions • Content processes • Degrees of harmful content • Relationship with social media users • Relationship with other clients • Proprietary technology • Machine learning • Business strategy • Growth • Exit costs • Loss of revenues • Exit risks • Market power • Competition • Flexibility	• Economic upgrading • Firm reputation • Power asymmetries • SLAs • Automated technology • Institutional arrangements	• Supplier exit
• Standardization • Tacit knowledge • Local skills • Work experience	• Labor dependence • Competitive strategy • Labor process continuities	• Work transfer

• Cost efficiency • Automated technology • Machine learning • Supply-side functions • COVID-19 • Market demand • Labor compliance • Labor regulation • Relationship with social media users • Retrenchment • Negative publicity • Bench policies • Travel allowance • Working hours • NDA • Infrastructure • Work from home	• Labor control • SLAs • Automated technology • Institutional arrangements • Labor flexibility	

Table 5.5: Coding for labor process analysis for Chapter 7

Open coding	Axial coding	Selective coding
Cross-case analysis		
• Software • Content queues • Moderation policies • Targets • Average handling time • Skills • Workflows • Teams • Unique content • Machine learning • Time tracking • Chat tool	• Work standardization • Time codification • Codification of knowledge • Direction of work • Monitoring • Micromanagement	• Technical Control

• Policy updates • Software updates • Contact with lead firms • Shadow assessment		
• Teams • Supervisors • Targets • Tool errors • Quality control/ accuracy • Policy updates • "Refreshers" • Training • Unique/ high risk content • Contact with lead firms • HR • Work shift • Wages • Incentives • Skills • NDA • Recreational facilities • Different job titles • Company rules • Promotion • Glass-ceiling • Internal job postings • Surveillance	• Recruitment • Performance • Tacit knowledge • Monitoring • Disciplining	• Bureaucratic Control
• Internalization of managerial logic • Protecting the users • Self-accountability	• Recruitment • Training • Professionalism • Limits of surveillance	• Normative Control

• It's just a job • Machine learning • Job security		
• Protecting the users • Tolerance test • Counselling • "It's just a job" • Talking with colleagues support • Attaching meaning • Making sense • Labor market • Career aspirations • Family issues • Self-reliance • Job security	• Navigating • Coping • Social reproduction	• Resilience
• Labor discretion • Self-skilling • Learning policies • Hikes • Incentives • Wages • Online portals • Promotion • Internal job postings • Labor dissatisfaction • Bench • Job security • Relations with supervisors • Team support	• Skill development • Product complexity • Process knowledge • Changing process • Career aspirations	• Reskilling
• Wages	• Grievance redressal	• Revoking

• Skill development • Work life balance • Job security • Labor market • Collective bargaining • Secrecy • NDAs • Contacting lead firms • Resigning from work • Team support	mechanisms • Disillusionment • Whistleblowing • Attrition	
Case-oriented analysis		
• COVID-19 • Work from home • Training • Direction of work • Increased monitoring • Targets • Quality control/ accuracy • Activity Codes • Standardization • Time tracking • Software errors • Tagging tree • Supervising colleagues • Tacit knowledge • Labor indeterminacy • Team support • Remote supervision • Automated technology	• Labor dependence • Other labor tasks • Labor process continuities	• Labor control

• Unemployment in India • Job security • Financial background • Educational qualifications • Work dissatisfaction • Skill development • Digital marketing • Wages & Incentives • Promotion • IJPs • Bench policies • Labor market • Unemployment in India • Offer letter • Working hours • Night shifts • Coping and navigating • Same team	• Resilience • Reskilling • Limited attrition	• Labor agency