

Digital Landlords and Algorithmic Tenants: A Comparative Analysis of Technological Rent and Algorithmic Management in Bangladesh's Ride-Hailing Sector

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Author's Note: This manuscript synthesizes original fieldwork and analysis by the author. An AI language model was employed as a collaborative tool for drafting and structural refinement under the author's strict conceptual and editorial direction. All research questions, empirical data, interpretive claims, and scholarly argumentation remain the author's sole intellectual responsibility.

Abstract

The platformization of service work in the Global South is not a simple import of Western business models but a transformative process that adapts to and exploits local conditions of informality and weak regulation. This article provides a comparative political economy analysis of ride-hailing in Bangladesh, centering on the dual mechanisms of **technological rent extraction** and **algorithmic management**. Through a qualitative study of Uber and Pathao, we theorize the platform as a **digital landlord**, whose primary asset—the proprietary marketplace—generates rent from driver-tenants. We identify a critical divergence in control logics: Uber's regime is characterized by **impersonal, data-driven extraction** via an opaque global algorithm, while Pathao exemplifies **localized gamification**, deploying culturally resonant, behavior-shaping incentives that exploit socioeconomic precarity. Synthesizing Durand's **techno-feudalism** with Zuboff's **surveillance capitalism**, we demonstrate how continuous behavioral surveillance is not an endpoint but the operational backbone of rentier dominance. Crucially, the analysis foregrounds driver **tactical agency**—manifested in off-app transactions and collective strategizing—as a constitutive element of this digital class relation. The findings challenge narratives of entrepreneurial empowerment, recasting platformization in Bangladesh as a contested frontier for capital accumulation that deepens existing inequalities. We conclude with a strategic policy framework aimed at algorithmic transparency, reclassifying platform labor, and fostering data sovereignty.

Keywords: Technological Rent; Algorithmic Management; Digital Labor; Techno-feudalism; Surveillance Capitalism; Platform Economy; Global South; Bangladesh; Uber; Pathao; Gamification.

Word Count: 7,245 (excluding references)

1. Introduction: The Alchemy of Digital Value Extraction

The meteoric rise of Uber and Pathao in Bangladesh's major cities is heralded as a triumph of digital innovation and entrepreneurial access. This celebratory narrative, however, obscures a more fundamental restructuring: the creation of a **digitally-mediated labor regime** that systematically divorces income generation from social protection and worker autonomy. In contexts like Bangladesh—marked by vast informal economies, surplus labor, and nascent regulatory frameworks—digital platforms do not merely enter a market; they actively construct new political-economic relations optimized for value extraction. This article argues that the core dynamic of this transformation is the platform's function as a **digital landlord**, extracting **technological rent** through its monopolistic control of market access, enforced via sophisticated **algorithmic management** systems.

The concept of technological rent shifts the analytical focus from productive labor to distributive control (Durand, 2020; Srnicek, 2017). Here, the platform's application, data infrastructure, and network effects become a form of capital that commands a toll—a rent—from those who must use it to reach customers. This rentier logic is operationalized through algorithmic management, which automates the coordination, evaluation, and discipline of labor (Rosenblat & Stark, 2016). While these dynamics are global, their manifestation is profoundly local. A key gap in the literature is a granular, comparative analysis of how **global platform logics** (embodied by Uber) and **localized platform adaptations** (embodied by Pathao) enact control and extraction within the same socio-economic terrain. Does localization mitigate or simply reconfigure exploitation?

This study addresses this gap through an empirically grounded, theoretical investigation of ride-hailing in Dhaka, Bangladesh. It is guided by the following research questions:

1. How do Uber and Pathao, as archetypes of global and local platforms, institutionalize technological rent extraction through their distinct algorithmic architectures?
2. In what ways do local socio-economic conditions in Bangladesh shape the specific modalities of algorithmic control and their effectiveness?
3. How do drivers exercise agency within these highly constrained digital work environments?
4. What are the implications for labor rights and equitable development in the Global South?

By answering these questions, we contribute a critical, context-specific framework that moves beyond applying Western theories to instead engage them dialectically with Southern realities, revealing platformization as a contested site of class formation and struggle.

2. Theoretical Framework: Synthesizing Rentier and Surveillance Logics

To decipher the platform economy in Bangladesh, a synthesis of two macro-theoretical perspectives is necessary: one that explains the **economic form** of extraction (techno-feudalism) and another that explains its **operational mechanism** (surveillance capitalism).

2.1. Techno-Feudalism and the Rentier Platform

Cédric Durand's (2020) concept of **techno-feudalism** provides a powerful lens for the Global South. It posits that digital platforms have created a new mode of domination based not on the ownership of industrial means of production, but on the control of essential digital infrastructures—the "land" of the 21st century. Platforms like Uber and Pathao establish private, sovereign economic territories. Access for workers is conditional upon surrendering a significant portion of their revenue as "rent" or commission. This relationship mirrors a feudal lord-vassal dynamic more than a classic capitalist wage-labor one. The platform, as digital landlord, provides the "land" (market access via the app) but assumes none of the risks of production (vehicle, fuel, maintenance), which are fully borne by the driver-tenant. The increasing commission rates reported by drivers signify the landlord's unilateral power to raise the rent, a hallmark of rentier dominance.

2.2. Surveillance Capitalism as the Engine of Control

Shoshana Zuboff (2019) delineates **surveillance capitalism** as an economic order founded on the unilateral appropriation and commodification of human experience as behavioral data. In the ride-hailing context, every trip generates a rich stream of data not only on mobility but on driver performance, decision-making, and responsiveness under pressure. This **behavioral surplus** is fed back into the platform's algorithms to optimize system efficiency—not for the driver's benefit, but to maximize reliable service and, ultimately, platform yield (rent extraction). Algorithmic management is thus the instrumentalization of surveillance capitalism for labor control, transforming continuous monitoring into a tool for automated direction and discipline.

2.3. Synthesis: Surveillance for Rentier Ends

The originality of our framework lies in explicitly synthesizing these theories. We argue that in Bangladesh's platform economy, **surveillance capitalism serves techno-feudalism**. The pervasive data extraction Zuboff identifies is not aimed primarily at predicting consumer behavior for advertising, but at perfecting the extraction of technological rent from labor. The rating system, GPS tracking, and trip metrics constitute a **panoptic surveillance apparatus** (Foucault, 1977) that minimizes transaction costs, ensures quality compliance, and disciplines the workforce—all to protect and enhance the platform's rentier income stream. This synthesis allows us to

analyze both the "what" (rent) and the "how" (surveillance-driven control) of platform power.

2.4. Accounting for Local Specificity and Agency

Western-derived theories risk overstating the totalizing power of platforms. Research in the Global South must account for **local adaptation** and **worker agency** (Graham & Anwar, 2019; Heeks et al., 2021). Platforms must adapt their control logics to local cultures, infrastructures, and labor markets. Concurrently, workers are not passive automatons but active agents who develop **tactics of resistance** (de Certeau, 1984) within the system's constraints. Our study specifically investigates how Pathao's "local algorithm" differs from Uber's "global algorithm," and how drivers' pragmatic resistance shapes the actual experience of platform work.

3. Methodology: A Comparative Qualitative Approach

This research employs a **comparative qualitative case study design** (Yin, 2018) to achieve an in-depth, contextual understanding of two distinct yet co-existing platform models within Dhaka's ride-hailing ecosystem.

3.1. Data Collection

Primary data was gathered through **semi-structured, in-depth interviews** with 20 active ride-hailing drivers, selected via **purposive sampling** (Patton, 2015) to ensure variation across platform use (Uber-only, Pathao-only, dual-app), vehicle type (car/motorcycle), and experience (6 months to 5+ years). Interviews, conducted in Bengali, explored themes of algorithmic control, income stability, working conditions, and coping strategies. All participants provided written informed consent; interviews were recorded, transcribed, and anonymized. Secondary data included analysis of platforms' public terms of service and policy announcements.

3.2. Data Analysis

Transcripts were analyzed using **thematic analysis** (Braun & Clarke, 2006), following an iterative process of coding, theme development, and refinement. Analysis was abductive, moving between empirical data and the theoretical framework. **Methodological triangulation** between interview data and documentary sources enhanced analytical rigor and validity.

3.3. Ethical and Positionality Considerations

The study adhered to strict ethical protocols ensuring confidentiality, anonymity, and the right to withdraw. As an investigative journalist and researcher embedded in Bangladesh's media landscape, the author's positionality facilitated access and trust with drivers, while a reflexive approach was maintained to critically assess interpretations.

4. Analysis: The Divergent Logics of Control and Spaces of Resistance

4.1. Extracting the Rent: The Universal Core of Digital Landlordism

The experience of technological rent extraction was visceral and uniformly articulated across drivers. Mosharraf (52, driving 5 years) framed it starkly: "The company has only given an app. They are digital landlords. We toil on their land, and they take the bigger share of the harvest as tax. My rent has gone from 15% to 25%." This metaphor powerfully encapsulates the techno-feudal relation. The value appropriated is directly proportional not to platform investment in the means of transport, but to its ownership of the digital marketplace itself—a pure rentier yield. This foundational economic reality binds the experiences on both platforms.

4.2. Spectrum of Control: Impersonal Algorithms vs. Localized Gamification

Where Uber and Pathao diverge fundamentally is in the *mode* of algorithmic control, reflecting their global versus local origins.

- **Uber: The Impersonal Black Box.** Uber drivers described an environment of **algorithmic arbitrariness**. Rafiq (42) expressed a common frustration: "The Uber app is a prison without walls. I don't know why it gives me trips today and not tomorrow. During surge pricing, I see red and hope for profit, but Uber often takes more." Control is exercised through an opaque, non-negotiable system that creates profound **information asymmetry** (Rosenblat, 2018). The driver's interaction is with an impersonal, global standard, leading to a sense of powerlessness against an inscrutable logic.
- **Pathao: Localized Gamification as Patronalistic Control.** Pathao's control mechanism is more intimate and psychologically nuanced. It employs **localized gamification**—the use of game-like elements (points, badges, quests) for non-game contexts. Sujan (26) described its addictive pull: "Pathao's 'quest' is like a drug. Complete 20 trips for a 500-taka bonus. For that, I'll ride 12 hours, sick or in rain. If I stop at 19, I get nothing. That 500 taka in the app won't let me sleep." This system exploits behavioral psychology, triggering a **dopamine-driven cycle of pursuit** (Schüll, 2012). It represents a **patronalistic control** that feels more participatory yet is deeply manipulative, leveraging acute economic need to drive self-exploitation. It is a locally optimized algorithm for maximizing labor output.

4.3. The Surveillant Panopticon and Synopticon of Ratings

Control is reinforced by a pervasive architecture of surveillance, most acutely felt through the rating system. Tanvir (31) described its disciplinary effect: "A single 4-star rating dropped my score. I was in panic for a week, feeling like a criminal. I now accept any customer demand. The company gave customers the whip [to surveil us]." This illustrates a **dual surveillance model**. First, the **synopticon** (Mathiesen, 1997): the many (customers) watch the few (drivers), democratizing discipline. Second, the

internalized **panopticon** (Foucault, 1977): the constant possibility of being judged induces self-discipline. This surveillance apparatus, a hallmark of Zuboff's capitalism, directly serves the rentier goal by ensuring a compliant, quality-controlled workforce that protects the platform's brand and revenue stream.

4.4. Tactical Agency: The "Weapons of the Weak" in the Digital Field

Platform power is not absolute. Drivers consistently demonstrated **tactical agency**, employing "weapons of the weak" (Scott, 1985) within the digital terrain. Kabir (28, driver and union activist) outlined a key strategy: "When Uber's commission bites too deep, we go 'off-app.' We ask the passenger to cancel and pay via bKash. It's a survival fight. If the algorithm squeezes, we find loopholes." Other tactics include **strategic multi-apping** to avoid dependence on one platform's algorithm and calculated rejection of low-profit trips. These practices constitute a **digital class struggle**—informal, subversive, and fraught with risk, but evidence of a contested workplace where labor actively negotiates the terms of its own exploitation.

5. Discussion: A Synthesized Political Economy of Platformization

This analysis reveals Bangladesh's ride-hailing sector as a critical site for understanding the variegated face of global platform capitalism. Our findings necessitate a synthesized theoretical explanation.

5.1. Synthesis: Techno-Feudal Rent Extraction via Surveillance Capitalist Means

The driver's experience confirms that the platform economy in this context is best understood as a **techno-feudal rentier regime, operated through surveillance capitalist tools**. Durand's "digital landlord" and Zuboff's "behavioral surplus" are not competing but complementary concepts. The landlord's rent (the commission) is secured and maximized by the surveillance apparatus (the algorithm, ratings, tracking), which minimizes risk, ensures quality, and disciplines labor at near-zero marginal cost. The rating system is not just a feedback tool; it is the **disciplinary infrastructure of the rentier relationship**.

5.2. The Dialectic of Global Standardization and Local Adaptation

The Uber-Pathao comparison illuminates a central dynamic of platform expansion: the **dialectic between global standardization and local adaptation**. Uber's power lies in its impersonal, scalable efficiency—a one-size-fits-all model of control. Pathao's power derives from its ability to **hybridize** this global logic with local socio-cultural understandings and pressures. Its gamified "quests" are a form of algorithmic control finely tuned to the rhythms of Dhaka's informal economy and the psychology of its precarious workforce. This is not a softer form of control, but a potentially more insidious and effective one for the local context.

5.3. Platformization as a Contested Terrain of Class (Re)formation

Ultimately, the sector is a **contested terrain**. It is creating a new class of **digital proletarians**—workers divorced from traditional labor protections yet subjected to hyper-efficient digital management. However, as our findings on agency show, this class is not passive. The "off-app" transaction, the shared loophole, the collective grievance, are incipient forms of **digital class consciousness and struggle**. The platform economy in Bangladesh is thus simultaneously an **engine of inequitable value extraction** and a **generator of new social contradictions and solidarities**.

6. Conclusion and Policy Framework: Beyond Regulation, Toward Structural Alternatives

This study has argued that Uber and Pathao, as digital landlords, extract technological rent through distinct yet complementary logics of algorithmic control, synthesizing techno-feudal and surveillance capitalist dynamics. The research makes three core contributions: it grounds and extends macro-theories in the specificities of the Global South; it delineates the critical difference between global and localized algorithmic governance; and it reconceptualizes the gig economy as a dialectical space of extraction and resistance.

The policy implications are profound. Moving beyond reactive regulation, we propose a strategic framework for a just digital transition:

6.1. Immediate: Mandating Algorithmic Transparency and an Operational Grievance Redressal System.

Enact a **Digital Platform Transparency Act** requiring platforms to disclose, in accessible language, the core logic of trip allocation, pricing, and deactivation algorithms. Establish an independent **Digital Labor Ombudsman** (housed within the BTRC) with the authority to audit algorithms and adjudicate driver complaints, creating a crucial check on "black box" arbitrariness.

6.2. Medium-term: Legal Reclassification and Collective Bargaining.

Legally recognize platform workers as **"Dependent Contractors,"** a hybrid category acknowledging their economic dependence on the platform while granting core rights: a **legally guaranteed minimum hourly earnings** (accounting for costs), access to contributory accident and health insurance schemes, and the right to **collective bargaining**. The state must facilitate the formation of **verified, democratically-elected driver associations** as legitimate bargaining partners.

6.3. Long-term: Fostering Data Sovereignty and Pluralistic Ownership Models.

Grant workers **data portability and sovereignty rights** over their generated work data. More transformatively, state and development finance should seed **platform**

cooperatives—driver-owned and governed alternatives. This shifts the focus from merely regulating extractive platforms to **cultivating equitable digital infrastructure**, challenging the very logic of digital landlordism.

The future of work in Bangladesh hinges not on uncritical platform adoption, but on the democratic capacity to govern technology. This research provides the critical analysis necessary to begin that vital task.

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