**IT 482 Case Study: Uber and Technology-Mediated Control**

**IT-482 Ops/Systems Planning**

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**Discussion Questions:**

1. Considering Uber’s mission statement and business model, in what ways do the mission and business model align with the decision to use TMC?

Uber's mission statement is to "ignite opportunity by setting the world in motion." This mission aligns with its business model, which connects riders with drivers through a technology platform. TMC is central to achieving this mission and sustaining the business model.

* **Efficiency and Scalability:** Uber's business model relies on efficiently connecting millions of riders and drivers globally. TMC, through its automated "virtual manager," enables Uber to manage this complex network without the need for extensive physical infrastructure or human supervisors. The algorithms optimize matching, routing, and pricing, maximizing efficiency and scalability.
* **Data-Driven Optimization:** Uber's mission to "set the world in motion" implies a commitment to optimizing transportation. TMC allows Uber to collect and analyze vast amounts of data on driver and rider behavior. This data is used to refine algorithms, improve the user experience, and ultimately, make the transportation system more efficient. For example, surge pricing, a key element of Uber's business model, is directly enabled by TMC's ability to monitor demand in real-time.
* **Flexibility and Independence (in theory):** Uber's business model appeals to drivers by offering flexibility and the perception of being their own boss. TMC supports this by allowing drivers to work when they want. However, as the case study shows, TMC also subtly guides driver behavior, nudging them to work during peak hours or to accept a certain percentage of rides. This "soft control" is a key aspect of aligning driver behavior with Uber's mission of providing reliable transportation.
* **Cost-Effectiveness:** By using TMC to manage its workforce, Uber avoids the costs associated with traditional employment models, such as salaries, benefits, and human resource management. This cost-effectiveness is crucial for Uber's ability to offer competitive prices and maintain profitability.

1. Uber is faced with the monumental challenge of managing and motivating millions of drivers who are important to its business, but who aren’t full-time employees. How effective do you think Uber’s “automated manager” is as a managerial control system for Uber drivers? Please explain.

Uber's "automated manager" (the system of algorithms and app-based interventions) has a mixed record of effectiveness.

Strengths:

* **Efficiency:** The system is undeniably efficient at matching riders and drivers, optimizing routes, and managing pricing at a massive scale.
* **Data-Driven Insights:** The system provides Uber with detailed data on driver behavior, allowing for continuous optimization of its platform and incentives.
* **Cost-Effectiveness:** It allows Uber to manage a large and distributed workforce without the costs of traditional management structures.

Weaknesses:

* **High Turnover:** The high driver turnover rate (50% within the first year) suggests that the "automated manager" is not fully effective at motivating and retaining drivers long-term. This indicates that the system may not adequately address drivers' needs and concerns.
* **Perception of Control:** While offering flexibility, the system's "soft control" mechanisms (surge pricing nudges, notifications, bonus targets) can be perceived as manipulative and undermine drivers' sense of autonomy. This can lead to dissatisfaction and turnover.
* **Lack of Human Interaction:** The absence of human supervisors can leave drivers feeling isolated and without adequate support, especially when facing problems or disputes. The system, while efficient, may lack the empathy and flexibility of a human manager.
* **Potential for Gaming the System:** Drivers may develop strategies to "game" the algorithms to maximize their earnings, potentially undermining the system's intended efficiency.

**Conclusion:** The "automated manager" is effective in some ways (efficiency, data collection), but less so in others (driver retention, perceived fairness). Uber needs to continuously refine its TMC system to better balance its need for control with drivers' needs for autonomy, fair compensation, and support.

1. What are the benefits to Uber of using TMC through its mobile app? What are the downsides?

Benefits:

* **Scalability:** Manages millions of drivers globally without extensive human oversight.
* **Efficiency:** Optimizes matching, routing, and pricing in real-time.
* **Data Collection:** Provides vast amounts of data for analysis and optimization.
* **Cost Savings:** Reduces labor costs associated with traditional management.
* **Consistency:** Enforces standardized procedures and performance expectations.

Downsides:

* **Driver Dissatisfaction:** Can lead to feelings of being controlled and a lack of autonomy.
* **High Turnover:** Contributes to high driver turnover rates.
* **Lack of Human Element:** Can create a sense of isolation and lack of support for drivers.
* **Potential for Gaming the System:** Drivers may find ways to manipulate algorithms to their advantage, potentially undermining efficiency.
* **Ethical Concerns:** Raises questions about fairness, transparency, and data privacy.

1. What impact, if any, do you think Uber’s use of TMC has on its organizational culture? How does the fact that most of Uber’s employees are remote contractors influence the culture?

Uber's use of TMC significantly shapes its organizational culture:

* **Data-Driven Culture:** TMC reinforces a culture where decisions are driven by data and algorithms. This can be beneficial for efficiency and optimization, but it may also de-emphasize human judgment and empathy.
* **Performance-Oriented Culture:** The focus on metrics and targets within the TMC system creates a performance-oriented culture, where drivers are constantly evaluated and incentivized to meet specific goals.
* **Remote and Independent Culture:** The fact that most of Uber's workforce consists of remote contractors reinforces a culture of independence and autonomy. However, the reliance on TMC also introduces a layer of control and monitoring that can create tension.
* **Potential for a Disconnected Culture:** The lack of face-to-face interaction and the reliance on algorithmic management can lead to a sense of disconnection between drivers and Uber as a company. This can make it challenging to build a strong sense of community and loyalty.
* **Evolving Culture:** Uber's culture is likely still evolving as it grapples with the challenges of managing a large and distributed workforce through TMC. The company may need to find ways to balance its reliance on technology with a greater emphasis on human connection and driver well-being.

1. How might differences in national cultures influence the response to TMC? How might Uber change or modify TMC to make it more effective?

National cultures can significantly influence the response to TMC:

* **Acceptance of Authority:** Cultures with a higher acceptance of authority may be more comfortable with the level of control exerted by TMC.
* **Emphasis on Individualism vs. Collectivism:** Cultures that emphasize individualism may value the flexibility offered by Uber's model but may also be more resistant to perceived intrusions on their autonomy. Collectivist cultures might place a greater emphasis on fairness and equity in the application of TMC.
* **Privacy Concerns:** Different cultures have varying levels of concern about data privacy. Uber may need to adjust its data collection and usage practices to comply with local regulations and cultural norms.
* **Communication Styles:** Communication styles vary across cultures. Uber may need to adapt its app-based communications and notifications to be more effective in different cultural contexts.
* **Work-Life Balance:** Attitudes towards work-life balance can influence how drivers respond to TMC's nudges to work longer hours.

To make TMC more effective across different national cultures, Uber could consider:

* **Localizing the App:** Adapting the app's language, interface, and features to better suit local preferences and cultural norms.
* **Adjusting Incentives:** Modifying bonus structures and performance targets to align with local values and expectations.
* **Providing Local Support:** Establishing local support channels to address driver concerns and provide assistance in a culturally sensitive manner.
* **Increasing Transparency:** Being more transparent about how TMC works and how driver data is used.
* **Seeking Local Input:** Engaging with drivers and local stakeholders to gather feedback and make adjustments to TMC practices.

**Resources**

PBS NewsHour. (2019, May 3). How data drives Uber’s efficient but controversial business model [Video]. YouTube. <https://www.youtube.com/watch?v=63wt3TgGGxI>

Wiener, M., Cram, W. A., & Benlian, A. (2021). Algorithmic control and gig workers: a legitimacy perspective of Uber drivers. European Journal of Information Systems, 32(3), 485–507. <https://doi.org/10.1080/0960085x.2021.1977729>

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