Public Work Engineering Leadership Challenges in Covid-19 Era: A Boss, A Manager, or A Leader

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ABSTRACT

Although remote working is not new, it has never been deployed on such a massive scale in a short period as it has been in the current situation. Owing to Covid-19, organizations that never relied on a remote workforce have been forced to operate in a virtual environment. Hence, many public work directors and leaders currently find themselves utilizing unusual channels to engage deeply with stakeholders and employees virtually. This makes the task of leading, operating, planning, organizing, directing, and coordinating various activities of the Public Works Department more complicated. Every day, demonstration of great leadership is required in an almost exclusively virtual workplace to recognize and reward great performance and address performance challenges by making difficult, authentic, and empathetic decisions. Leaders are also required to be contextsensing communicators having a "perfect pitch" when communicating with a different audience in various situations. This article focuses on leaders' transition from leading in the office to leading in a remote environment in the Covid-19 era and discuss leader-team dynamics through the lens of "transitioning from a boss or a manager to a leader" by making aggressive efforts to view the landscape through the eyes of the people they lead, coach, support, and inspire.

Keywords— Covid-19, Leader, Boss, Manager, Engineering Leadership, Public Work

I. INTRODUCTION

The economic and social impact of the Covid-19 pandemic is beginning to take shape. Clearly, the world economy will slow down in the days to come, with several industries and companies likely to suffer enormous revenue loss (Azorín 2020; Cho 2020). There will be delays, loss of efficiency, and cost impacts because of Covid-19 and related regulatory responses. There is little to no precedent to help understand the potential future impacts of Covid-19 on capital improvement projects and construction programs (Ball 2020; Kumar et al. 2007; Larsson et al. 2015). No one can predict the progress of the pandemic, how long social distancing will remain in effect, and when our societies will return to normalcy (Cho 2020; Fetters et al. 2020; Hargreaves and Fullan 2020). Leaders

continue to lead their organizations through an unprecedented level of anxiety, uncertainty, and pain. In this environment, it is imperative that leaders manage their employees and stakeholders with care, express a clear and compassionate vision for navigating the crisis, and act decisively. This is how leaders can help people in fear to move forward with purpose (Dirik 2020; Fetters et al. 2020).

II. TODAY'S LANDSCAPE

Although remote working is not new, it has never been deployed on such a massive scale in a short period as it has been in the current situation. Organizations that never relied on a remote workforce have been forced to work in a virtual environment. Similarly, organizations that previously had only part of their teams working remotely have been forced to work in an entirely virtual environment (Bonacini et al. 2020). It is even more challenging that productivity and communication are affected when employees are new to working remotely (Ball 2020; Harris 2020. Therefore, how do many public work directors and leaders currently transition from leading in the office to leading virtually is by adapting to changes and develop strategies such as maintaining and scheduling team meetings online (instead of cancelling them altogether), being in constant communication with the team, and using digital collaboration tools that enable them to continue to lead and direct their teams. The key to surviving and thriving digitally is to create a new "normal" for the team and keep the lines of communication open. Indeed, it is unlikely that managers will be criticized for over-communicating with their team (Kylili et al. 2020; Cook et al. 2020).

III. CAREER ENCOUNTER AND TRANSFORMATION

Many people reach a point in their careers where they have people report to them, which is a mark of professional success (Azorín et al. 2020; Chan and Drasgow 2001). Then, a question arises as to what style

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should be followed while engaging those people (Owen 2020). It is a choice between three approaches, namely, being a boss, a manager, or a leader (Kumar and Hsiao 2007; Larsson 2015). While many people use these terms interchangeably, in reality, there are distinct differences between them, and these differences depend on the types of working relationships a person constructs with their team (Lazarov 2017; Warsi et al. 2016). Each person decides which style is most effective to obtain the best results.

Engineering Boss: A boss treats communication in a decidedly one-way manner: from the top to the bottom (Algahtani 2014). When one works for a boss, one is expected to follow orders without questioning them. Formal power is the primary tool used by a boss (Lazarov 2017; Owen 2020). The boss approach can work in certain situations, and at times, it is acceptable to play the "boss card," but it may not be the most effective style in most circumstances (Warsi et al. 2016; Goleman 2017).

Engineering Manager: Unlike a boss, a manager might be much more willing to engage in open communication with the team in an effort to find the best solution for the problem at hand (Warsi et al. 2016; Toor 2011). A manager's shortcoming is that, because they are so focused on the current situation, they typically lack the vision to help guide the team towards creating a future vision for the organization. Despite this limitation, thinking and acting like a manager are valuable assets in an organization, especially in large ones where a manager might need to mobilize large teams. Even fast growing organizations can slow down because of the lack of middle management (Warsi et al. 2016; Giles 2016).

Engineering Leader: In contrast to a boss or a manager, a leader is someone who drives the team and the organization towards growth (Owen 2020). Leadership, in its essence, is the capability to explicitly articulate a roadmap to motivate others to focus their efforts on achieving the desired goals (Goleman 2017; Druskat et al. 2003). It is also the ability to motivate average performers towards extraordinary achievements. Hence, leadership has a galvanic role in everyday life, being a fundamental component of our roles as professionals (Kumar and Hsiao 2007).

Leadership is the vision and mission to be something more than average. It requires more experience, learning, and development than, as is wrongly perceived, merely an innate ability. Although possessing an inherent ability gives a great advantage and can be considered as a faster track to leadership, it is not the only way to become a leader (Goleman 2017; Larsson et al. 2015). The key roles of a leader include creating a vision and a sense of community to inspire others to greatness. Moreover, leading with high energy and boundless enthusiasm motivates others and creates a sense of purpose in them. It

is noteworthy that leadership is different from management (Kumar and Hsiao 2007). The key factor that distinguishes a manager from a leader is the capability to create a milestone for future action plans and to inspire professionals to achieve performance through collaborative work. Such leadership and its consequent work can be executed through a clear understanding of why things ought to be changed (Toor 2011; Goleman 2017).

The value of leadership is more significant in the engineering field as it indigenously requires a complex framework of engineering knowledge, industry experience, administrative portfolios, and emotional intelligence (Kumar et al. 2007; Larsson et al. 2015). Leaders are exceptional at inspiring people to work toward future goals and helping the team to understand why those goals are important to them personally (Maitlis et al. 2010). Leaders are also focused on building the best team possible. They worry about the work that needs to be completed and then employ managers to decide how it can be executed (Skipper and Bell 2006).

IV. OBSERVATIONS AND DISCUSSION

Leadership skills are difficult to develop using conventional teaching strategies such as course books, seminars, or lectures as there is no sufficient knowledge regarding leadership theories in these didactic educational strands. Hence, mere knowledge of principles of leadership, classroom education, or prototypical models does not result in successful leadership in challenging situations (Chreim et al. 2013; Hill and Lineback 2011). Therefore, leaders need to evaluate their current approach to engaging their team and conclude whether they are a boss, manager, or leader and whether that approach is what their organization needs. Finding the perfect mix of approaches where the team responds the best may require time, but both the team and organization will benefit from it (Ibarra and Hansen 2011). According to the popular saying, people do not leave bad jobs, they leave bad bosses. The Covid-19 crisis, a sudden, dramatic, and lifethreatening upheaval where all aspects of our day-to-day lives remain uncertain, is the ultimate test of management and leadership (Buehler et al. 2020). Therefore, in this extraordinarily stressful time, the value of great management and leadership is demonstrated every day through the following actions:

1. Demonstrate exemplary communication skills: The better a leader's communication, the more secure the team will feel (Hackman and Johnson 2013). Three main areas need to be focused on here. The first one is the use of face-to-face or video communication wherever possible. This makes communications feel more personal and effective. In particular, it makes messages seem clearer and more certain because listeners read the senders' body language

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and facial expressions. It also increases the sense of human contact, which can be critical in reducing stress during such difficult times. Second, setting very clear expectations, guidelines, and boundaries for work is important. This will help the team to understand accurately the tasks to be accomplished and induce a sense of certainty. The third point is to not discontinue small talk. In times of uncertainty, particularly in a virtual workplace while working on immediate challenges at hand, small talk can often vanish. The leader should encourage light conversations, alongside business communications, to reduce feelings of isolation and anxiety among team members (Neufeld et al. 2010; Warnick et al. 2014). This could include some friendly conversation at the beginning of a video conference. It will provide the team with critical opportunities to bond, feel connected, and observe that there is certainty of empathy and niceness amongst other uncertainties (Rottmann et al. 2015).

- 2. Re-establish and maintain team norms: In the challenging era of the Covid-19 pandemic, it is useful to check in with team members as to how comfortable they are as a part of the team. When changes occur, leaders need to examine whether the team can function well amid those changes and/or develop strategies to address any issues that arise. How will team members acknowledge one another's work? How will they inform others of any challenges that they need help with? Moreover, while working online, when, how, and about what will the team communicate? In such situations, leaders can always test and adjust the rules and routines organically or intentionally to arrive at the optimal solution.
- 3. Trust the team to perform: Research shows that when motivated people are measured on output (quality and volume of work produced) rather than input (hours at their desk), they are likely to be more satisfied with their job and to view their leader more positively (Garcia 2006; Giles 2016). The trust may even prompt them to work harder and this could be beneficial to the leader. First, leaders can focus their attention on solving problems or challenges arising from the new normal, rather than feel as though they have to stand over someone's (digital) shoulder and monitor them continuously (Dirik 2020). Second, they can improve their ratings as a leader and their team's motivation to perform well (Kumar and Hsiao 2007). There is an evident caveat, of course, that if leaders have workers who were already disengaged from their role before this period of uncertainty, they will need to work more closely with such members to check if they are fulfilling the requirements of their role. However, if one can remain flexible and focus on the output, it will help both the leader and the team to remain calm and focus on the tasks at hand (Lazarov 2017; Owen 2020).
- 4. Check in with even the best team members regularly: A critical role for a leader to play currently is to check in

with individual team members frequently (Owen 2020). By providing them the opportunity to ask questions and showing interest, leaders can reduce uncertainty (Algahtani 2014; Druskat et al. 2003). They can also create a safe space for team members to share any worries or concerns that might be interfering with their work or affecting their wellbeing (Skipper et al. 2006). It is important for leaders to be empathetic to team members working remotely, for example, by asking them how they feel, whether they find it comfortable to schedule work around their children, and if they find time for breaks to stretch, exercise, and eat well, as well as by helping them avoid overwork, burnout, or a serious deterioration in their physical and mental health. A leader might also need to check in with the team to know how comfortable they are with using the hardware and software being relied on and whether there are any tasks that they struggle to perform when working remotely. Leaders must make it clear to the team that they are willing to help; thus, the team will likely repay managers with their trust, motivation, and honesty (Sobral et al. 2020; Warsi 2016).

5. Self-awareness: We rarely see ourselves as others do. Who we are and what we believe and feel are reflected in our unconscious behaviors, and they may send signals to others we really do not mean to convey (Rottmann et al. 2015). There is often a huge gap between how we believe we are perceived and how we are actually perceived. A leader's actions will be reflected in those of their employees (Harris 2020). If being a leader is about managing oneself first, then developing the strength of self-awareness is critical for success (Harris and Jones 2020). Without understanding oneself fist, a person cannot lead and motivate others, which requires understanding them. Self-awareness is the root of empathy (Sobral et al. 2020; Neufeld et al. 2010).

V. CONCLUSION

In the current disruptive climate caused by the Covid-19 pandemic, engineering leaders cannot emulate leadership practices they witnessed or utilized during the period of stability, continuity, and relative calm in the past. Leading in these times means being able to navigate a different course to create new pathways through the disruption. There is much we do not know about Covid-19. This makes the task of leading, planning, organizing, directing, and coordinating the various activities of the Public Works Department, including engaging in construction, maintenance, and operation of streets, storm drainage, wastewater treatment, water treatment, buildings, and all other city facilities response more complicated. However, many of the challenges presented by the pandemic to public work engineering leaders are not new. These include communicating in a crisis; making decisions with the available incomplete information; effectively leading in the appropriate direction; taking an offensive versus a defensive posture; and taking the time to care for oneself. The main difference is the size and scale of the Covid-19 response, combined with the real-time scrutiny of public health decisions by social media and global connectedness.

The value of leadership among engineers is significant as the professional engineering field indigenously requires a complex framework of engineering knowledge, industry experience, administrative portfolios. and emotional intelligence. During this turbulent time, engineering leaders are expected to be exceptional at inspiring people to work towards future goals and helping their team to understand why those goals are important to them personally. It is my conclusion that, in this challenging time, engineering leaders shall be defined by their determination, hope, and unshakable belief that regardless of the changes, cost, and scale of challenges, they will continue to do everything in their power to serve the public. They will work under a standard of professional behavior that requires adherence to the highest principles of ethical conduct in the fulfillment of their professional duties honorably, responsibly, ethically, and lawfully to enhance the honor, reputation, and usefulness of their profession.

Engineering leaders must also reinvent themselves on several dimensions to enhance their capacity of designing robust solutions to turbulent problems. Specifically, when addressing Covid-19 era challenges, engineering leaders can neither rely on transactional leadership aimed at ensuring compliance with predefined task descriptions nor on transformational leadership that seeks to formulate, communicate, and maintain a particular vision for how to solve public tasks and provide a detailed account of the mission. Adaptation to emergent problems is likely to be easier where organizations have already built strong patterns of collective leadership. Additionally, in the midst of Covid-19, engineering leaders must engage in a dialogue with employees and stakeholders to elicit their inputs and persuade them to test new strategies and help accelerate the new remote working process using the different leadership skills listed above. I conclude that a leader should act as a steward rather than a boss.

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