Technoversal Leader: Triumphant Leader of the Technological Era

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Abstract – The new world order reminds disruptions and turmoil. Exponentially developing technology plays a significant role in causing these radical changes. These rapidly changing conditions affect leaders with all humans. As scientific knowledge, digital transformation, technology is a backbone at the point that humanity has reached. Thus, it has become a critical component, which affects leader behaviors and the skillset expected from them. In this context, this article introduces a new leader who distinguishes from other styles. This distinction arises from *the skills* that leaders must adopt in the future are different than the past, from the *reality of the earth's being on the edge of collapse, business leaders' being obliged to act upon it.* And along with these specific behaviors, the leaders' *having data-driven mindsets, being technology adept.*

Keywords – Technoversal Leader, Leader Behavior, Technology, Digital Transformation, Leadership, Leader, Technology Leader Interaction, Effective Leader.

I. INTRODUCTION

Pinpointing the business leader who will obtain outstanding outcomes in the digital era relates to the understanding of leader and technology interaction. This interaction requires a more comprehensive perception, but there are gaps at various dimensions of this essential subject (Bolden & O'Regan, 2016, pp. 438-439; Khan, 2016; Avolio et al., 2014, pp. 105-126).

Technology matters for the new-era leaders, yet it is not the only factor that they should consider. This era requires new behaviors and skillset because industry 4.0 and digital transformation are more effective with particular attitudes and knowledge (Korn Ferry, 2019; Neubauer et al., 2017; Prince, 2017, & The Economist Intelligence Unit, 2017). Yet, the number of leaders who have the necessary skillset and behaviors is not enough (Korn Ferry, 2019); thus, the majority of leaders think that their organizations need new leaders to be competitive in the digital era (Korn Ferry, 2019; Kane 2018).

Two questions appear vital to reveal the triumphant leader of the future: *Finding challenges that* leaders *come up against in the digital era* and *determining the corresponding skills that leaders need to adopt.* The answers have been searched from technological and universal perspectives so that the leader who overcomes these challenges and gets ahead becomes a leader who can meet global needs. Accomplishing the goals of this research will be significant both for the people who want to become an effective and efficient leader and to the researchers who bone up on the leadership and technology interaction subject.

II. CONTINUUM OF LEADERSHIP CONCEPT—TODAY TO THE FUTURE

Leaders necessitate new capabilities to be excellent to overcome today's turmoil. The choices have to be done in flux. Amid flux and turmoil, leaders try to keep pace with changing environmental conditions. Many terms endeavored to express what happens around human beings: turbulence, hyper-competition, high-velocity markets. In recent years,

the terms volatile, uncertain, complex, ambiguous (VUCA) are gaining momentum to fill in the various dimensions of this recalcitrant environment. Volatility is indicating the haste of change throughout the globe, and one of the reasons for volatility is high dynamism. Uncertainty denotes an environment that is difficult to predict and project. Complexity refers to an ample quantity of factors to be taken into consideration. Ambiguity, on the other hand, applies to the absence of clarity (Kraaijenbrink, 2018).

Until the 20th century, the change in leader behaviors was *evolutionary,* which was happening gradually. In the second half of the 20th century, however, with the effect of rapidly spreading mechanization, leaders found themselves in an obligation to adapt to the fast-paced environment. This sudden difference ignited a *revolutionary* change in leader behaviors, more than ever happened in history. Along with these increasing challenges making it hard to design the future, leaders have to gain new skills, and researchers are studying to discover and find out which qualities fit well into the current situation. Against those negations that are causing to non-completion of tasks and impeding or hampering the advancement, conversely, each skillset is covering and removing an inability of the everyday manager and transforming an ordinary individual into a capable leader. *Effective leadership* research tends to *combine different leadership styles* or *skillsets. Yet, leadership styles vary too much to choose an ideal leader from them for leading in the digital era and future. There appears another solution, which is not combining leadership styles this time but to find overlapping skill sets and behaviors that define effective and efficient leaders, which used while creating these leadership styles.* The behaviors have more impact than others owing to the nature of this new environment, of which leaders can get ahead by the exhibition of them.

2.1 Individuation of Everyday Manager from the Victorious Leader

As digitalization accelerates many things, it appears that digital disruption has also accelerated the process of searching for a successful leader that fits better into this era. Finding behaviors and knowledge of the individuals with the highest potential to lead in today and future have necessitated delving into the most up-to-date pieces of research that have been executed by respected institutions, then to compare and combine the outcomes to underline overlapping skills and behaviors.

As the systems alter and the world shifts to new phases, technology becomes a more crucial key factor. Because leaders will have to deal with data-driven-decision making,

which is a challenge for leaders (Hesse, 2018); thus, the new role of a leader is imagined as a data and information mentor (Jakubik & Berazhny, 2017, pp. 471-483). Technology is also a primary skill that leaders require to benefit from digital transformation because of the need to shift from emotional and social intelligence to technical skills (Cortellazzo et al., 2019, pp. 1-13). In March 2020, the *Management and Leadership Summit* held in Boğaziçi University, Istanbul, Turkey, with the participation of 13 top-level executives. There, a CEO answered in return of my question: When you look from the exponentially growing technology framework, what are the primary characteristics that today's and tomorrow's leaders should possess?

> *A leader who values human, who is more humane, and who has a vision. The human becomes more valuable as technology advances. There is a generation that does not agree. Finally, what makes a difference is humans rather than technology, yet leaders should follow technology. (Leader CA).*

It seems, although technology does matter, leadership in the digital era cannot only be explained with it. So what are the other skills and characteristics? The last two decades and even earlier, when the question addressed: Which leader or style is effective and efficient, the probable answers could be the leaders with vision or charisma or transformational, transactional, or authentic leadership styles. They may also count today. But at the current position of leadership continuum, it is obvious that *agility* (de Smet et al., 2019, pp. 28-34; Korn Ferry, 2019; Neubauer et al., 2017), *adaptation* (Deegan et al., 2020; Korn Ferry, 2019; Neubauer et al., 2017), *seeking different perspectives* (Kane, 2018; Feser et al., 2015), *problem-solving efficiency* (Feser et al., 2015; Clarke, 2013, pp. 26-33), and respect (Smith, 2019, pp. 55-58; Porath, 2015) carry vital and primary significance in leadership. They are dominant, and they appear to be the same for a long time in the future.

During another part of this multi-stage research, while executing the interviews in nine companies, thoughts *regarding the key* behaviors *that a leader should possess* shows similarities with the other stages. Leaders think that a leader in the digital era and the future should have agility, problem-solving efficiency, and technology skills.

And a significant question for understanding how leadership has changed, and *how digitalization will influence it: Leaders believe that the digital era requires new types of leadership*. And these new-era leaders must understand

technology. CEO of a company between 200 and 249 employees, who has 40 years of work experience enlightens this radical change and tells why the old-fashion leadership will be replaced:

> *Leadership formations will change. Instead of being charismatic or having a vision, there will be leaders who advance the skillsets and knowledge by exploiting digital channels. Yet, I believe the leaders of the future will not only depend on digital transformation for leading but also face to face communications will matter. Human is a social and psychological being. Leaders of the future must understand digital transformation and adapt it. If I raise a new leader, I prefer to raise a leader who perceives digitalization. (Leader GA).*

III. DATA AND METHOD

For facilitating to understand and design a simple structure, the method has divided into five subcategories, each of which provides perception, perspective, and serves to answer research questions.

Note. Produced and prepared by Hakan Kapucu, 2020.

Figure 1. Means and Rules Followed to Accomplish Goals

The *Management and Leadership Summit* held in Istanbul, Turkey, with the participation of 13 top-level executives (Deegan et al., 2020). Its goal has been objectively to reveal the set of behaviors that are dominant among the highest-level business leaders of Turkey in their fields. In total, 13 leaders observed for two days, and which lasted 15 hours. Executives are from different industries such as human resources, banking, holdings, sport, pension company, fast-moving consumer goods companies, tobacco companies, telecommunications, and pharmaceutical companies. Content analysis has been adapted to the data obtained from the summit. This analysis can be considered as a blended method approach: category assignment to the text as a qualitative step and working through text passages and analyzing category frequencies as a quantitative step (Mayring, 2014, pp. 10-15).

As a starting point to digital transformation, a course is completed, scheduled for four weeks (University of Virginia & Boston Consulting Group, 2018). The purpose has been to get an overall understanding related to this subject. And with the expectation of having a better insight into the correlation of leadership with technology.

For comparing and testing the knowledge at an academic platform, which has gained related to digital transformation

so far, a couple of webinars followed. One of them is ''Digitalization's Effect on Work and Human Relations.'' As another field study, ''Next-Generation Robots Exhibition'' visited. This participation has been for having another understanding of technology.

All the sources in this research belong to the last seven years, with the hope of preparing the most up-to-date research. Institutions that are researching for the best leadership obtain different results. Although there are critical points that commonly intersect and come fore in these pieces of research, for the sake of being distinctive, there is expectably an avoidance of comparing the outcomes. At this point, an objective third party's observation, analysis, and comparison can be useful in finding: Which leader behaviors and skills commonly matter most for a massive number of leaders and employees (N= 365,191). While revealing a successful leader's behavior, academicians' and researchers' findings have been assessed to support the outcomes of institutions. *A critical factor in determining the ideal leader's characteristics was not popularity (not only the mention), but these behaviors being chosen by employees and leaders, what makes a leader successful in the eye of them.*

Until the interviews, the observation groups that have analyzed in this research have been diverse, from different industries, and usually large companies. In light of this information, interviews extended to another industry to gain an additional perspective. So, the *intermediate goods industry*, which has impacts and relation with other sectors on a large scale, has chosen with the expectation of extracting another understanding related to leadership in the technology era. *Different company size* (selecting small-medium sized enterprises) has been another point in differentiating. For analyzing the interviews, qualitative content analysis is adopted (QCA). Content analysis (CA) is used as a general phrase to define the process of decreasing textual data into smaller and quantifiable segments after coding. CA includes define the research problem, obtain the source of material,

identify categories or focus of research, and count the occurrence of categories (Marvasti, 2019). Computer-aided analyses applied to the interviews.

IV. Findings

Many qualities and behavioral patterns have morphed into new forms along with exponentially growing digital disruptions. Leaders' undertakings continually alter, and it results in an observable change in the leadership continuum.

A Technoversal Leader is a leader who uses technology effectively. This leader is an inclusive, universal leader who sensitively embraces people and nature, and possesses a set of distinguishing skills and behaviors.

While deriving the name, two words have been inspiring: *technology and universal*.

Depending on the above definition, primarily, three constituents can be detailed further.

Using technology effectively and being an inclusive, universal leader can be interlinked. Thus, not the leaders who are vulnerable to become enslaved by technological disruption, but the leaders who exploit technology by considering factors such as plants, animals, and humans can serve the purpose of creating a better world. Because while industrialization and the impacts of the new world order on nature and living creatures considered, it becomes clear that the world needs business leaders who have consciousness and sensitivity for other living creatures and nature along with humans. Coming to the skill set and behaviors, they narrowed down enough to be achieved by an individual who aims to excel in leadership. And they have assigned as a result of this research. Analyzing these behaviors with some challenges will reveal their significance better. In table 1, it emphasizes the key behaviors and skills that can be adopted by individuals who aim to excel in today's and future's leadership and just a part of challenges that these behaviors can respond to and overcome.

Table 1. Technoversal Leader Overcoming Challenges Such as VUCA and More by Employing Key Behaviors

Challenge of Digitilized World	Leader's Responsive Key Behavior	Outcome
Volatility, haste, dynamism	**A**gility	Behavior allows the leader to act quickly.
Complexity, variety of factors	**P**roblem-solving-efficiency	Skill guides the leader in setting an algorithm for solving complexity.
Uncertainty, an environment difficult to predict	**A**daptation	Behavior prepares the leader to become mentally ready for a new and uncertain environment.
Ethical concerns of digital transformation, collective leadership, leading a more expert employee, sensitivity to nature	**R**espect	By respecting employees, the leader gains their respect and manage expert employees. Behavior adapts leader to a collective leadership rather than a hierarchy. And finally, it helps leaders to have the sensitivity to nature and environmental sustainability.
Data-driven mindset, technical knowledge	**T**echnology	Skill allows leaders to have a more data-driven mindset.
Ambiguity, absence of clarity	**S**eeking different perspectives	Skill allows the leader to use the power of different minds, teamwork and having a broader and stronger view against ambiguity.

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In figure 2, the chart illustrates the new environment that involves digital transformation. This new environment creates vicious cycles caused by various disruptions, which may generate poor outcomes because behavior and skill gaps can cause externalized organizational goals, making the goals unreachable. In figure 3, the diagram illustrates filling this gap by APARTS behaviors and linking leader and organization to the goals by breaking this unproductive cycle. APARTS stands for agility, problem-solving efficiency, adaptation, respect, technology, and seeking different perspectives of Technoversal Leader.
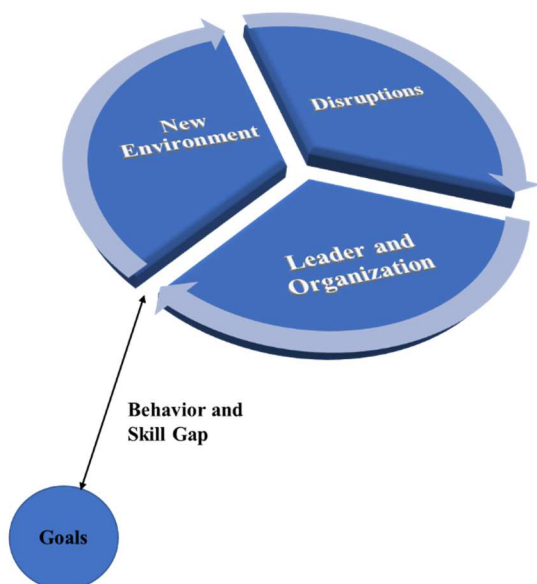

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Figure 2. Vicious Cycle of a Disruptive Environment

Figure 3. Technoversal Leader Breaking theVicious Cycle

V. Conclusions

The objective of this research is not to create a concept of one-size-fits-all. It aims to articulate a novel example. A leader that is not vulnerable to become enslaved by technological disruption, but the one who exploits technology by considering factors such as plants, animals, and humans will be more successful. A better world is possible with better leaders. Because considering technology, industrialization, and the impacts of the new world order on nature and living creatures, the world needs business leaders who have consciousness and sensitivity for other living creatures and nature. Same as the skillset listed in this research has primary importance for raising great leaders and must be taken into account. The sensitivity of having concern for nature and living creatures that share the same habitat with people must be considered by business leaders also.

This aspect, on the other hand, also matters for the business dimension. According to a survey that has conducted among 2,000 global managers, reported by Deloitte, 54 percent of these leaders see environmental issues (climate change and environmental sustainability) as a threat to their business operations (Schneeweiss, 2020).

Yet, it is interesting that leadership studies majorly tend to focus on the leader who can excel in organizational management and the possible challenges this leader will face, and the leader's effect on the success of the economic sustainability of an organization. Studies do not adequately emphasize the leader's inclusion of other creatures and nature, while humanity is on the brink of such a breaking point. The responsibilities of business leaders against nature should be studied more with environmental sustainability.

A new type of leadership is worth discussing and detailing further. In this context, I would like to offer for discussion the *Technoversal Leader*. While deciding the name Technoversal, two words have been inspiring: *technology and universal*. In the sense of being immersive, the word universal that covers having the sensitivity for all creatures and the environment and stands for focusing and adapting the critical behaviors found in this research.

Modern leadership theories study the recent times of the leadership. However, along with other factors of digital transformation, the exponentially growing processing power, communication speed, and storage capacity of data have changed the expectations from them. This revolution resulted in different skills and characteristics to come fore for leaders, which cannot easily link trait, contingency, or modern theories of leadership since this era opens a new distinctive

period and creates its leaders. These leaders have new designations, behaviors, and skills.

The nature of this new environment causes next-generation leaders to come under the influence of the new leadership models. One goes beyond traditional and solely-digital-related characteristics. This new era leader will be the one, who chains conventions to the digital era, does not become a thrall to technology but uses it as a means of serving all dimensions. Well-chosen and established characteristics equipped with the knowledge and technical skills.

References

[1] Avolio, B. J., Sosik, J. J., Kahai, S. S., & Baker, B. (2014). E-leadership: Re-examining transformations in leadership source and transmission. The Leadership Quarterly, 25(1), (pp. 105-106, 121, 126) https://doi.org/10.1016/j.leaqua.2013.11.003

[2] Bolden, R. & O'Regan, N. (2016). Digital disruption and the future of leadership: An interview with Rick Haythornthwaite, Chairman of Centrica and Mastercard. Journal of Management Inquiry, 25(4), (pp. 438-439). doi: 10.1177/1056492616638173.

[3] Cortellazzo, L., Bruni, E., & Zampieri, R. (2019). The role of leadership in a digitalized world: A review. Frontiers in Psychology, August 2019, 10, (pp. 1-2, 11-13). doi: 10.3389/fpsyg.2019.01938.

[4] Clarke, S. (2013). Safety leadership: A meta-analytic review of transformational and transactional leadership styles as antecedents of safety behaviors. Journal of Occupational and Organizational Psychology, 86(1), (pp. 26, 33).

[5] Deegan, C., Seyhanlı, S., Kaynak, Ö., Açık, C., Bilgiç, G., Kurt, S., Kaynar, Ş., Kayan, D., Alp, H., Çebi, A. N., Erol, G., Türkölmez, T., Oktay, A. (2020, March). Management and Leadership Summit. Symposium conducted at the meeting of Boğaziçi University Management and Economics Club, Istanbul, Turkey.

[6] de Smet, A., Lurie, M., & St. George, A. (2019). Leading agile transformation the new capabilities leaders need to build 21st-century organisations. The Building Economist, June 2019, parts 3-5, (p. 28, 34).

[7] Feser, C., Mayol, F., & Srinivasan, R. (2015, January). Decoding leadership: What really matters. McKinsey Quarterly. Retrieved from https://www.mckinsey.com/featured-

insights/leadership/decoding-leadership-what-really-matters#

[8] Hesse, A. (2018). Digitalization and leadership – how experienced leaders interpret daily realities in a digital world. Proceedings of the 51st Hawaii International Conference on System Sciences. Retrieved from https://scholarspace.manoa.hawaii.edu/handle/10125/50121

[9] Jakubik, M. & Berazhny, I. (2017). Rethinking leadership and its pratices in the digital era. Management International Conference, (pp. 471-483).

[10] Kane, G. C. (2018, July). Common traits of the best digital leaders. MIT Sloan Management Review. Retrieved from https://sloanreview.mit.edu/article/common-traits-of-the-best-digital-leaders/

[11] Khan, S. (2016). Leadership in the digital age – a study on the effects of digitalisation on top management leadership (Master's thesis). Available from Digitala Vetenskapliga Arkivet at Stockholm University. Retrieved from https://su.diva-portal.org/smash/get/diva2:971518/FULLTEXT02.pdf

[12] Korn Ferry. (2019). The self-disruptive leader. Retrieved from https://focus.kornferry.com/wp-content/uploads/2015/02/KF-Disruptive-Leader-Final-Digital-Spreads_FINAL.pdf

[13] Kraaijenbrink, J. (2018). What does VUCA really mean? Retrieved March 23, 2020, from https://www.forbes.com/sites/jeroenkraaijenbrink/2018/12/19/what-does-vuca-really-mean

[14] Marvasti, A. B. (2019). Qualitative content analysis: A novice's perspective. Forum: Qualitative Social Research, 20(3).

[15] Mayring, P. (2014). Qualitative content analysis: Theoretical foundation, basic procedures and software solution. (pp. 10-15, 95). Retrieved from https://www.psychopen.eu/fileadmin/user_upload/books/mayring/ssoar-2014-mayring-Qualitative_content_analysis_theoretical_foundation.pdf

[16] Neubauer, R., Tarling, A., & Wade, M. (2017). Redefining leadership for a digital age. Global Center for Digital Business Transformation and metaBeratung GmbH. Retrieved from https://www.imd.org/globalassets/dbt/docs/redefining-leadership

[17] Porath, C. (2015, May). The leadership behavior that's most important to employees. Harvard Business Review. Retrieved from https://hbr.org/2015/05/the-leadership-behavior-thats-most-important-to-employees

[18] Prince, K. A. (2017). Industrie 4.0 and leadership. Proceedings of The 17th International Conference on Electronic Business, (pp. 132-139).

[19] Schneeweiss, Z. (2020). Business leaders increasingly worried about the environment. Retrieved, June 21, 2020, from https://www.bloomberg.com/news/articles/2020-01-20/business-leaders-increasingly-worried-about-environment-chart

[20] Smith, D. F. (2019, August). Five key leader behaviors that keep your best staff on your team. Podiatry Management, (pp. 55-56, 58).

[21] The Economist Intelligence Unit. (2017). Building leaders without silos. Retrieved from https://eiuperspectives.economist.com/strategy-leadership/building-leaders-without-silos/white-paper/building-leaders-without-silos

[22] University of Virginia & Boston Consulting Group. (2018). Digital transformation. Retrieved April 17, 2020, from https://www.coursera.org/learn/bcg-uva-darden-digital-transformation