

# DIGITAL LEADERSHIP IN JUNIOR HIGH SCHOOL HEADMASTER

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**Abstract** —This research to be aimed to obtain information on digital leadership in junior high school. The method used in this research is the qualitative approach. This research analyzed the concept of digital leadership through a literature review and observation of its implementation at MTs Darusalam Arjasari, Bandung Regency, Indonesia, using observation and interview techniques for two days. The research results showed that digital leadership encourages maximum use of information technology, resulting in digital-based learning and assessment. Even though all indicators had been implemented, there was still hope for better service improvements in infrastructure services in the future. Apart from that, the digital competence of all teachers should also be evenly distributed. The head of MTs Darusalam Arjasari had implemented a digital leadership style that is characterized by fulfilling the six dimensions of digital leadership. Researchers suggest that every school principal can adopt a digital leadership style.

**Keywords:** Headmaster, Digital leadership, Junior high school.

## I. INTRODUCTION

Digital leadership is a combination of leadership style and the use of digital technology to realize digital transformation. A digital leader must have characteristics and behaviors that enable him to achieve digital transformation goals (Mwita & Joanthan, 2019).

Digital technology has an impact in various fields in industry. The internet created a borderless economy and all the new thoughts and results in the information age turned into the conceptual age. In the Industrial era 4.0, which is a digital era that focuses on mastering the most up-to-date technology and globalization, which increasingly eliminates territorial boundaries between countries and other economic boundaries, demands the readiness of a country's resources. Digital transformation is not only in private organizations but also at the level of individuals and public organizations. Digitalization, digitalization and digital transformation will take advantage of the consumption of technological products and make working from home the best alternative for work arrangements in organizations (Almeida et al., 2020).

The digital age we live in is changing people's perceptions of life and work at a rate that rivals the influence of the industrial revolution. The social stage of the digitalization process is characterized by a level of connectivity never seen before, both on a personal and

professional level. Today, data transfer is used to communicate not only between people but also between things in ordinary life, such as connecting an entire house to new Wi-Fi technology.

Based on the measurement of how well a person develops and masters digital leadership, the operationalization of the concept developed by van Wart et al. (2019) can be used. This operationalization describes digital leadership in six dimensions or aspects, namely: (1) Technological skills—aspects of technical skills related to digital technology that must be mastered by the leader; (2) Communication skills—skills to utilize technology to carry out more effective communication within good mastery. not limited by time or place, (3) Social skills—skills to build social systems that are conducive to supporting change towards better digital maturity, (4) Team-building skills—the ability to build and direct virtual work teams to achieve the expected synergy; (5) Change management—the ability to manage cultural strategic changes in the organization; and (6) Trust: the ability to develop, improve, and maintain the trust of followers and partners to continue to synergize and collaborate in achieving organizational goals.

A preliminary study was carried out on October 12, 2023, at MTs Darusalam Arjasari by interviewing the principal and observing the school environment. The results show that the principal at MTs Darusalam has implemented digital leadership in six dimensions, according to van Wart. The challenges they face are quite diverse. various, starting from providing infrastructure and understanding digital literacy to teachers and students.

## II. LITERATURE REVIEW

### A. Definition of Digital Leadership

Leadership is described as the capacity to guide a company toward achieving its goals and building a sustainable competitive advantage. To maintain a sustainable competitive advantage, companies must have products and technical systems that speed up and enable production, communication, and cost reduction, as well as the ability to use these products and systems optimally (Ural et al., 2020). Digital leadership is a combination of digital culture and digital competence. The study of digital leadership is part of the study of leadership discourse based on the upper echelon theory developed by Hambrick and

Mason (1984), where the results can be predicted by the character of a manager. Digital leadership is a leadership style that focuses on implementing digital transformation in an organization. This leadership model allows companies and organizations to digitalize their work environment and work culture (Sağbaşı & Alp Erdoğan, 2022).

### B. Digital Leadership as Technology-Based Leadership

Discussions about leadership and digitalization have received increasing attention from researchers over the last six years. This happens because digitalization demands a fundamental change in the set of skills that are important at work, as a consequence of the disappearance of certain jobs and the emergence of others (Murashkin & Tyrväinen, 2020). In addition, flexible work arrangements, or WFH, or working from anywhere, are becoming increasingly popular and widespread. This gives rise to virtual teamwork, which requires leadership.

Meanwhile, if you want to further measure how well a person has developed and mastered digital leadership, the concept developed by van Wart et al. (2019) can be operationalized. This operationalization describes digital leadership in six dimensions or aspects, namely: (1) Technological skills—aspects of technical skills related to digital technology that must be mastered by the leader; (2) Communication skills—skills to utilize technology to carry out more effective communication in a wide range of areas, not limited by time or place; (3) Social skills—skills to build social systems that are conducive to supporting change towards better digital maturity; (4) Team building skills—the ability to build and direct virtual work teams to achieve the expected synergy; (5) Change management—the ability to manage cultural strategic changes in the organization; and (6) Trustworthiness—the ability to develop, improve, and maintain the trust of followers and partners to continue to synergize and collaborate in achieving organizational goals. Figure 2.3 provides a general illustration of the concept of e-leadership as six e-competencies (van Wart et al., 2019).



**Figure 1.** Six digital leadership competencies

Furthermore, Cortellazo et al. (2019) explained that discussions regarding digital leadership so far can be categorized into two groups, namely, discussions from a macro perspective and discussions from a micro perspective. In the discussion on the macro perspective, there are four main themes, namely: (1) the relationship between leaders and organizations; (2) how leaders adopt technology to solve complex problems in organizations; (3) the impact of digital technology on ethical leadership; and (4) how leaders use digital technology to influence social movements. Meanwhile, for discussion from a micro perspective, digital leadership is more viewed from three perspectives, namely: (1) the increasingly complex role of top leaders (C-level leaders); (2) the skills needed to be a digital leader; and (3) practices for effectively leading virtual teams.

Cortellazo et al. (2019) identified at least five skills needed by leaders in the digital era, namely: (1) the ability to communicate via digital media; (2) making decisions at high speed; (3) managing collaboration or connectivity; (4) dealing with disruptive change; and (5) specific technical skills. Despite differences in viewpoints, both Liu et al. (2018) and Cortellazo et al. (2019) both agree that technical skills are also an important element that leaders must master to master digital technology and to be effective in the digital era.

### III. METHODOLOGY

This research is descriptive research using a qualitative approach. This research intends to create a picture of the situation or event, namely the implementation of digital leadership at MTs Darusalam Arjasari, Bandung Regency. The subjects of this research were school principals and teachers. This is in line with the opinion of Nazir (2005: 55) that descriptive research aims to create a picture of a situation or event so that it aims to accumulate only basic data.

In this research, researchers went directly into the field to document the research process as evidence in carrying out the research. The data that researchers obtained in this research was in the form of interview data (scripts) in the form of recordings, field notes, photos, and videos. Furthermore, the data obtained in the form of recorded interviews was transcribed in full and then combined with other data originating from field notes, videos, and photos. After all the data was collected, the researcher then analyzed the data and compiled the data that had been obtained into a description of words.

Qualitative data analysis was carried out using the

analysis model created by Miles and Huberman, which is often called the interactive data analysis method. Qualitative data analysis is carried out interactively and continues continuously until completion, so that the data is saturated. There are three types of activity in qualitative data analysis, namely the data reduction stage, data display, and conclusion or verification.

#### IV. RESULTS AND DISCUSSION

Based on the study and data analysis conducted by researchers at MTs Darusalam Arjasari, it can be explained that there were several activities carried out by the principal of MTs Darusalam in implementing the Digital Leadership Model in his school to improve the quality and quality of the school.

1. *Technological skills—aspects of technical skills related to digital technology that must be mastered by the leader,*

Based on the results of the interview, the principal at MTs Darusalam Arjasari strongly agrees that technology plays an important role in improving education; this is proven by the digitalization of the learning and assessment process. The principal also often takes part in training on digital literacy and also often gives advice to teachers. to take part in various trainings organized by the Ministry of Religion and the Ministry of Education and Culture online so that you can always keep abreast of current developments, especially in the field of technology. Apart from that, the principal too including digital learning processes in the curriculum, which are currently running using applications in mathematics and Arabs who use the Alef learning application as a medium for digital learning and for other subjects use laptops or projectors during learning.

2. *Communication skills—skills to utilize technology to carry out more effective communication in a scope that is not limited by time or place,*

Based on answers from interviewees, for communication skills, school principals have implemented this in various aspects, such as always attending or holding online-based training so that all teachers can develop digital literacy.

3. *Social skills—skills to build a social system that is conducive to supporting change towards better digital maturity, Based on the interview results,*

the principal has good social skills; this is proven by the socialization that is always carried out for teachers, staff, students, parents, and even fellow principals. One of the ways in which socialization and collaboration are

carried out is by designing digital technology-based learning together with the curriculum, teachers, and staff to increase students' interest in science, technology, engineering, and mathematics; by planning to maintain the technology and software infrastructure necessary for successful digital education; and by ensuring that technology is used ethically and responsibly by students in schools.

4. *Team-building skills—the ability to build and direct virtual work teams to achieve the expected synergy, In the team-building dimension,*

Based on the answer from the resource person to question number eleven, which relates to collaboration between school principals, teachers, and staff to design digital technology-based learning that is attractive to students, this has also been done by assigning the curriculum and teachers to design digital-based learning. and utilize existing infrastructure. Apart from that, the school principal also monitors the operator to maintain the internet network infrastructure so that it remains good when used in the school environment.

5. *Change management—the ability to manage cultural strategic changes in the organization Considering the importance of mastering technology and utilizing technology,*

Information, and communication in 21st century life, it requires someone in any organization to keep up with the very rapid development of science and technology and make life sophisticated.

The times have demanded that the world of education be able to switch to using technology; in this case, the principal of MTs Darusalam prioritizes digital literacy for teachers, staff, and students.

The principal appreciates every teacher who has participated in digitalization training and hopes that students will get into the habit of using technology in learning. This digitalization is not only carried out during learning; up until now, it has also been used for assessments.

There are quite a lot of challenges for leaders in digitalization, not only students but teachers too. Among the challenges are: 1. infrastructure, still at the stage of being equipped; 2. teachers are lacking or few have studied technology; and 3. the principal invites teachers who are skilled at guiding other teachers so they can keep up with technological developments.

Currently, the Ministry of Religion is collaborating with world banks, especially to improve the quality of madrasas through digitalization, which will start in 2020–2024. To receive loan grants through world banks, one of them is to increase the digitalization of madrasas. Such as inviting Subject Teacher Deliberation to improve teacher

quality and digitalize teachers. Data bases such as Emis and Simpatika continue to be upgraded with assistance from world banks.

6. *Trustworthiness: the ability to develop, improve, and maintain the trust of followers and partners to continue to synergize and collaborate in achieving organizational goals. Based on the results of resource interviews,*

The trustworthiness dimension in digital leadership for MTs Darusalam principals has been implemented well. This was said in interview number eleven about how the principal collaborates with teachers and staff to design digital-based learning. The school principal always reminds the curriculum to always innovate in digital learning so as not to be left behind by developments with the times.

## V. CONCLUSION

Based on the digital skills of these leaders, the head of MTs, Darusalam Arjasari, has skills in the digital leadership dimension, according to van Wart et al. (2019). Among them are technological skills, communication skills, social skills, team-building skills, change management, and trustworthiness. This skill is proven from the results of interviews and observations: the principal has implemented digitalization in the school by implementing technology-based learning and conducting digital assessments. This is done not only to keep up with the times, but because technology has proven to make work easier and provide fast and effective results. School principals also continue to collaborate with school stakeholders, parents, and students so that the goals of digitalization in schools can be achieved well and optimally.

## REFERENCES

- [1] Ajabar, Iriany Daisy, dkk. 2021. HRM Essentials : Win your workplace, Win your marketplace. Yogyakarta : Diandra Kreatif.
- [2] Alamsyah, M. (2017). Teori Belajar dan Pembelajaran. Tersedia pada laman web: <http://www.mashudi-alamasyah.com/wp-content/uploads/2015/06/Materi-Kuliah-Teori-Belajar-dan-Pembelajaran.pdf>. Diakses pada 20 Oktober 2023.
- [3] Almeida, F., Duarte Santos, J., & Augusto Monteiro, J. (2020). The Challenges and Opportunities in the Digitalization of Companies in a Post-COVID-19 World. IEEE Engineering Management Review, 48(3), 97–103. <https://doi.org/10.1109/EMR.2020.3013206>. Diakses pada 20 Oktober 2023.
- [4] Cortellazzo, L., Bruni, E., & Zampieri, R. (2019). The role of leadership in a digitalized world: A review. Frontiers in psychology, 10, 1938.
- [5] E.E.W. Tulungen., J.B. Maramis., D.P.E. Saerang. (2022). Digital Transformation: Role Of Digital Leadership. Tersedia pada laman web:
- [6] Fisk, P. (2002). The making of a digital leader. Business Strategy Review, 13(1), 43–50. <https://doi.org/10.1111/1467-8616.00201>. Diakses pada 20 Oktober 2023.
- [7] Hamalik, O. (2004). Perkembangan Peserta Didik. Jakarta: PT Rineka Cipta.
- [8] Hambrick, D. C., & Mason, P. a. (1984). Echelons : of Reflection The Its Organization as Top a. Management, 9(2), 193–206. <http://www.jstor.org/stable/258434>. Diakses pada 20 Oktober 2023.
- [9] Hensellek (2020) = Hensellek, S. (2020). Digital Leadership: A Framework for Successful Leadership in the Digital Age. Journal of Media Management and Entrepreneurship (JMME), 2(1), 55–69.
- [10] Liu, C., Ready, D., Roman, A., Van Wart, M., Wang, X., McCarthy, A., & Kim, S. (2018). E-leadership: an empirical study of organizational leaders' virtual communication adoption. Leadership & Organization Development Journal.
- [11] Mihai, R.-L., & Crețu, A. (2019). Leadership in the Digital Era. Valahian Journal of Economic Studies, 10(1), 65–72. <https://doi.org/10.2478/vjes-2019-0006>. Diakses pada 20 Oktober 2023.
- [12] Munir. (2017). Pembelajaran Digital. Tersedia pada laman web: [http://file.upi.edu/Direktori/FPMIPA/PRODI\\_ILMU\\_KOMPUTER/196603252001121-MUNIR/BUKU/Pembelajaran%20Digital.pdf](http://file.upi.edu/Direktori/FPMIPA/PRODI_ILMU_KOMPUTER/196603252001121-MUNIR/BUKU/Pembelajaran%20Digital.pdf). Diakses Pada 20 Oktober 2023.
- [13] Mwitā, M. M., & Joanthan, J. (2019). Digital Leadership for Digital Transformation. Electronic Scientific Journal, 10(4), 2082–2677. <http://en.wspolczesnagospodarka.pl/>. Diakses pada 20 Oktober 2023.
- [14] Rochmansjah, H., & Karno, K. (2020). The Digitalization of Public Service Assurance. MIMBAR : Jurnal Sosial dan Pembangunan, 36(1), 43–52. <https://doi.org/10.29313/mimbar.v36i1.5073>. Diakses pada 20 Oktober 2023.
- [15] Salamadian. (2018). Tujuan Pendidikan Nasional Menurut UU. No 20 Tahun 2003 | Pengertian & Fungsinya. Tersedia pada laman web: <https://salamadian.com/tujuan-pendidikan-nasional/>. Diakses pada 20 Oktober 2023.
- [16] Sağbaşı, M., & Alp Erdoğan, F. (2022). Digital Leadership : a Systematic Conceptual. Tersedia pada laman web: [https://www.researchgate.net/profile/Fahri-Erdogan2/publication/358729671\\_DIGITAL\\_LEADERSHIP\\_A\\_SYSTEMATIC\\_CONCEPTUAL\\_LITERATURE\\_REVIEW/links/6211d630eb735c508ae3bf3e/DIGITAL-LEADERSHIP-ASYSTEMATICCONCEPTUAL-LITERATURE-REVIEW.pdf](https://www.researchgate.net/profile/Fahri-Erdogan2/publication/358729671_DIGITAL_LEADERSHIP_A_SYSTEMATIC_CONCEPTUAL_LITERATURE_REVIEW/links/6211d630eb735c508ae3bf3e/DIGITAL-LEADERSHIP-ASYSTEMATICCONCEPTUAL-LITERATURE-REVIEW.pdf). Diakses pada 20 Oktober 2023.
- [17] Uğural, M. N., Giritli, H., & Urbański, M. (2020). Determinants of the turnover intention of construction professionals: A mediation analysis. Sustainability (Switzerland), 12(3). <https://doi.org/10.3390/su12030954>. Diakses pada 20 Oktober 2023.

- [18] Van Wart, M., Roman, A., Wang, X., & Liu, C. (2019). Operationalizing the definition of e-leadership: identifying the elements of e-leadership. *International Review of Administrative Sciences*, 85(1), 80-97.
- [19] Zhu, P. (2015). *Digital Master: Debunk the Myths of Enterprise Digital Maturity*. Lulu Press, Inc (Murashkin & Tyrväinen, 2020) = Murashkin, M., & Tyrväinen, J. (2020). *Adapting to The New Normal: A Qualitative Study of Digital Leadership in Crisis*.