

Growing Leaders in the Digital Era: A Gender-Aware Conceptual Model of Integrated Mentorship for HRM

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ABSTRACT

This paper explores how effective mentorship is essential for digital leadership, especially in the Human Resources Management (HRM) field. A conceptual model is being introduced in a new way by combining mentorship, leadership development, and digital competencies. Although the role of mentorship in the development of leadership, particularly in developing digital competencies and mitigating gender gaps, is recognised, there is a lack of studies that explore ways to incorporate mentorship into digital leadership training in the most systematic manner. The conceptual paper meets this gap by discussing how mentorship as a concept, carefully constructed and explained through transformational, social learning and gender-inclusive leadership principles, can enhance digital capacities and facilitate more equitable leadership avenues. Based on the modern literature, the paper brings out the role of gender dynamics, intergenerational interactions, feedback mechanisms, and developmental issues in defining the effectiveness of mentorship in the digital age. Further, based on these observations, the paper presents the model of Integrated Mentorship to Digital Leadership Development (IMDL), which comprises five components in close relation to each other that is, Mentorship as a Catalyst to Learning, Feedback Loops, Cross-Generation Learning, Developmental Challenges, and Inclusive Practices. The model attributes mentorship as a transformative, reciprocal process that can develop digitally competent, resilient and gender conscious leaders. Theoretical and practical implications imply that the organization ought to implement well-structured, inclusive, and gender-sensitive mentorship programs to support leadership pipelines and alleviate digital skill disparities. The paper also suggest on how further empirical research can be carried out to prove and correct the IMDL model to suit various organizational settings.

Keywords: Mentorship, Leadership, Human Resource Management (HRM), Gender, Digital Competency

INTRODUCTION

The chain of the Industrial Revolution has an impact on how digital technologies are changing the workplace, such as compelling the organizations to update their Human Resources Management approaches. These are not people management strategies, but people leadership strategies, as well as the competencies required to run the tools that facilitate the transformation, including digital technology related infrastructures. They ought to consider the technical skills and inclusive leadership (Matandela et al., 2025; Steinmann et al., 2018). Long et al. (2023) also discovered that men are always more digitally literate than women, with disparity increasing with older age, as most of the differences can be explained by unequal access to important resources, including mobile phones, education, occupation, and income. Together, nowadays, leadership does not only concern making decisions but also the creation of a culture of learning, flexibility, and psychological safety (Onalaja and Otokiti, 2022). Nevertheless, the question of how mentorship can be incorporated into training and development of leadership, particularly in the acquisition of digital skills and addressing the gender gap, remains underresearched (Williams and Ceci, 2015; Cohn et al., 2021). As a rule, even though the importance of mentorship is acknowledged, there is remarkably little literature on how to make it effective in the leadership training process, in particular, to develop digital skills and address gender-based issues. This disparity is critical since women are

frequently subject to more significant obstacles in the digital literacy and technology leadership. Further, virtual mentoring or e-mentoring is not simply a case of mentoring over the internet because it comes with its own dynamics and we are yet to fully comprehend how gender influences such relations. Research on this field would allow researchers to create leadership courses that are not only more effective to enhance digital competence but also effective to reduce the gender gap in tech leadership. Therefore, the research paper fills such a gap, indicating that, with an effective, gender-sensitive mentorship strategy in leadership, a leader can be even more effective and facilitate the cultivation of digital skills and inclusive attitudes required in the contemporary workplace.

LITERATURE REVIEW AND THEORETICAL BACKGROUND

Theoretical foundations such as the Transformational Leadership theory (Ariga et al., 2023) and the Social Learning Theory (Ehrich, 2008) underscore the centrality of mentorship in the process of learning, which is a matter of both observation and interaction. These theories indicate that proper mentorship can even more develop and empower the organizational capacities of digital literacy and leadership while diversifying the workforce, and thus considerably strengthening the resilience of the organization (Singh, 2025; Saint-Michel, 2018). Among several leadership theories, one of them stands out as the work of John Maxwell, specifically, in the way it focuses on the concepts of transformational leadership and can be applied to the mentorship and development of digital skills. As described in the 21 Irrefutable Laws of Leadership, his observations provide the key attributes and actions that can be taken in the leadership. The given principles can be directly related to mentorship because they promote personal development, honesty, and empowering others to realize their potential (Cortellazzo et al., 2019). To illustrate, the Law of Influence emphasizes that the main characteristic of the real leadership is the capacity to have a positive influence on other people. This is very much in line with the mentorships that promote the established leaders to invest in the development of the emerging talent, especially in the present fast changing digital world.

On top of all these, Maxwell emphasizes the power of empowerment and providing other people with the means of success. This assertion does not fall out of place based on the results regarding the need to engage continually in digital education in leadership positions. Cortellazzo et al., (2019) also state that as a leader, one should be able to adapt and guide teams through digital transformation, saying that it is necessary to constantly learn and change with new technological advancements (Tiwow et al., 2023). Therefore, leaders who incorporate the teachings of Maxwell into their mentoring would be able to create a culture that encourages the importance of digital skills and both the mentor and the mentee would come out successful to sail through changes in technology. Combined with that, the concept of self-leadership developed by Maxwell implies that leaders have to develop their abilities first, and only in that case, they will be able to mentor others. In that regard, this self-awareness can enable leaders to be involved in the lifelong learning, which is an important attribute of digital competencies improvement. Although there are no particular studies that directly relate the digital literacy of leaders to their ability to coach their team members to acquire similar competencies, the overall opinion is that digital literacy is important in leadership.

Going ahead, with more organizations becoming dependent on technology in this digital revolution, the interaction between the postulates of leadership and mentorship by Maxwell becomes vital towards building a nimble workforce. Mentorship programs that are based on the principles of Maxwell are essential in the current digital age to fill the gap in skills. As an illustration, structured mentorship, which not only produce soft leadership skills but also focuses on digital literacy and technological agility, can be implemented in organizations. According to a study by Tiwow et al., cross-departmental cooperation and open dialogue become the key to the digital transformation of the organization, and the outlined characteristics can be cultivated with the help of efficient mentorship (Tiwow et al., 2023). Therefore, by example, the leaders produce a culture of support that welcomes learning and adjustments. Also, the perception of leadership by Maxwell states that a great leader is a great mentor, which fosters a culture of trust and self-improvement. Although there are no particular examples backing the argument that organizations that invest in leadership training fit within the framework of Maxwell, the concept of applying his leadership principles in the framework of mentorship has demonstrated potentials of promoting the effectiveness of organizations. To sum up, the leadership theories of John Maxwell give a solid framework through which the interaction of the transformational leadership and mentoring and the development of digital skills can be seen. Through the instillation of these values, the

organizations are able to develop effective leaders who are not only competent in their own abilities; they are also in a position to develop the digital competencies of their teams. This dual attention is a necessary factor towards building resilient and creative organizational cultures that are willing to address the issues of contemporary digital transformation.

On the other hand, the question of gender differences extraordinarily impacts the effectiveness of mentoring and the type of leadership that is adopted. Research points to the fact that female leaders are generally more transformational than their male counterparts, and they display characteristics of such leadership like empathy and individualized consideration in a greater degree (Bayo & Silayo, 2024; Irby et al., 2024). This indicates that the presence of women in leadership roles enhances the creation of efficient mentor-mentee exchanges and the whole diversity of the workplace. However, it is quite intriguing when Long et. al (2023) highlighted in their study that the digital literacy of women is lower than that of men in the case of Indonesia. On the opposite side, male mentors would be more likely to magnify their networking through the strategy of promoting one's own skills and thus, in a way, following the traditional hierarchical sponsorship pattern (Laukka et al., 2022). Interestingly, Long et. al. (2023) found that men possess greater digital literacy still. The assumption behind this is that if men are the ones who are often getting the first chance to be around the technology, then they will also be the ones to gain greater access to digital resources and professional growth in terms of being a leader and a mentor as well.

Consequently, it is necessary to realize the importance of the reciprocal relationship between mentorship and leadership. A new investigation reveals that the correct mentorship approaches can tremendously improve the leadership skills needed in different areas, and HRM is one of them (Shaari et al., 2024). Among the two measurable outcomes that show this relationship are the increased promotion rates and enhanced employee retention within organizations that implement structured mentorship programs. For instance, organizations with strong mentorship cultures often report a 20% higher promotion rate among mentees. Besides, retention rates can increase by as much as 25% in companies where mentorship forms a part of the leadership development practices. This viewpoint is the same as that which calls for digital competencies to be introduced more into leadership development programs (Indoria et al., 2025). This also indicates that mentoring may play a role in making employees perceive themselves as important and in tune with their employer, thus leading to their increased job satisfaction and decreased turnover. Thus, mentoring is not just a method of creating future leaders, but it is also a way of keeping talented people in the company and thus forming a cycle where the strong backing of leaders develops the next one.

Conceptual Development of the IMDLD Model

Leadership development in the current rapidly evolving digital and socially conscious workplace demands more than traditional training approaches, as it requires intentional, inclusive, and dynamic mentorship. Therefore, this study proposes a model, namely, an Integrated Mentorship for Digital Leadership Development (IMDLD) model, that represents a pioneer conceptual framework that might aid in integrating mentorship as a core mechanism for cultivating adaptive, resilient, and diverse future leaders (refer to Figure 1.0). Grounded in contemporary research, the IMDLD initial model proposes five interrelated components, which are Mentorship as a Catalyst for Learning, Feedback Loops, Cross-Generational Learning, Developmental Challenges, and Inclusive Practices.

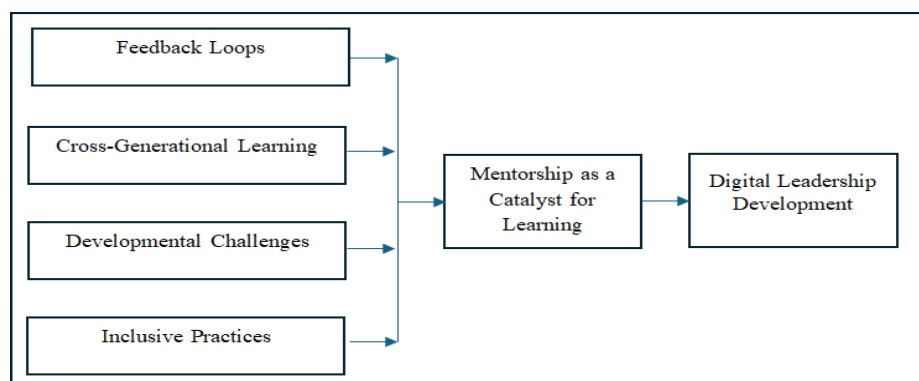


Figure 1: A Conceptual Model: An Integrated Mentorship for Digital Leadership Development (IMDLD)

Exploring these five components is essential as they may collectively support leadership growth while taking into account gender, generational, and equity considerations, as tabulated in Table 1.0. By focusing mentorship not just as guidance but as a transformative, reciprocal process, the IMDLD model offers a roadmap for organizations committed to building leadership pipelines that are both effective and representative in this digitalised circle.

Table 1.0 Components of Mentorship: Authors, Concepts, and Theoretical Contributions

Component	Primary Author(s) & Year	Core Concept & Theoretical Contribution
Mentorship as a Catalyst for Learning	Kaka & Hashmi (2025) Kim & Jeong (2025)	Mentors are digital fluency integrators, ethical decision-makers, and leaders and model behaviours in real-world professional situations. Mentorship is more than simply sharing knowledge, where it creates a supportive space where learners can try out new ideas, build their research identity, and grow more confident in their skills.
Feedback Loops	Rohlf et al. (2025) Mattord and Whitman, 2025 Balakrishnan and Sinha (2025)	Continuous and dialogic feedback is beneficial to mentees as it aids in self-reflection and identity, as it is more of a reciprocal and evolving practice than an assessment. Regular feedback in mentor programme; To select and train mentors with care and provide them with feedback frequently to improve the mentorship programs. Mentor and mentee should meet at regular intervals to ensure that mentors address the evolving needs of the mentees.
Cross-Generational Learning	Asmorowati et al. (2025) Moreira-Chóez et al. (2023) Watts & Gilbert (2011)	Mentorship is a two-way interaction where the generational diversity will contribute value where the older professionals will provide some institutional knowledge and the younger employees will be digitally agile and with changing social insights. Effective mentorship fosters strong bonds and helps young people benefit from mentors' experience, leading to better academic and career outcomes. A well-designed mentorship program can boost research and collaboration, benefiting not just individuals but the whole community and field.
Developmental Challenges	Giacumo et al. (2020) Irby et al. (2024)	Mentors must possess not only technical skills but also effective interpersonal communication abilities to bridge the knowledge gap across generations. Resilience, adaptability, and confidence are developed by a well-designed test that challenges the mentees out of their comfort zones, which are essential abilities in an environment of volatility and digital mediation in leadership.

	Hussain et al. (2025)	Technological challenges, lack of psychological support, and insufficient program structure can all limit how well mentoring helps people build digital skills.
Inclusive Practices	Cohn et al. (2021) Hashish et al. (2025) Hedenstrom et al. (2022)	Equity should be promoted as a core component of mentorship systems by means of purposeful matching, anti-bias education, affinity groups, and accountability, instead of making inclusion an appendix. Leaders' confidence in their digital abilities directly impacts team interaction and overall effectiveness, suggesting the importance of integrating leadership development models with mentorship and skill-building. Critical attributes of effective mentoring relationships, including trust and interpersonal skills, are fundamental to fostering a positive learning environment for leadership development in healthcare.

Mentorship as a Catalyst for Learning

Mentorship has become a pivotal catalyst for learning in various professional fields. Therefore, it is crucial to learn how different mentors can guide, support, and develop other people in order to produce balanced and future-proof leaders. According to Kim & Jeong (2025), mentorship involves more than just the transfer of knowledge as it fosters a supportive environment where learners can explore new ideas, enhancing their research identity and confidence in their abilities. Mentors serve not only as guides but also as role models, blending digital competencies with leadership practices (Kaka & Hashmi, 2025). Gender influences the nature of mentorship; for example, female mentors often prioritize emotional intelligence and collaboration, whereas their male counterparts may emphasize technical skills and assertiveness (Laukka et al., 2022). It is important to identify and appreciate such diverse mentorship styles in order to create a whole person in the future leaders.

Feedback Loops

An effective mentorship thrives on meaningful, ongoing communication that guides mentees through each stage of their development. Continuous feedback from mentors cultivates an environment conducive to growth, allowing mentees to reflect on their progress regularly (Rohlf et al., 2025). Moreover, the best way to mentor students in cybersecurity is through regular feedback. This assists students in learning more and promotes diversity and inclusion. They also propose to select and train mentors with care and provide them with feedback frequently to improve the programs (Mattord and Whitman, 2025). According to Balakrishnan and Sinha (2025), startup incubator programs are better suited to frequent feedback that is clear, where mentorship must be appropriate at every phase of development of a business, and they should meet at regular intervals to ensure that mentors address the evolving needs of the mentees. This indicates why mentoring should be flexible. Research also indicates that women tend to provide constructive feedback that nurtures confidence among early-career professionals, demonstrating how gendered feedback approaches can enhance developmental outcomes (Asmorowati et al., 2025).

Cross-Generational Learning

Cross-generational learning and mentorship play a key role in education by allowing people from different age groups to share knowledge. These practices help both mentors and mentees grow professionally and are now seen as important for creating an inclusive and lively learning environment. An intergenerational mentorship may offer a powerful platform for blending the strengths of different age groups within the workplace. This model accentuates the importance of leveraging diverse generational experiences to benefit younger employees from the wisdom of more seasoned counterparts while introducing fresh perspectives into organizational

practices (Asmorowati et al., 2025). For example, a previous study shows that effective mentorship fosters a robust relationship where younger individuals can benefit from the expertise and guidance of their mentors, ultimately leading to improved academic and career outcomes (Moreira-Chóez et al., 2023). Moreover, according to Watts & Gilbert (2011), a well-structured mentorship program can positively influence research productivity and collaboration, in reinforcing the idea that mentoring relationships extend benefits beyond the individual to the community and field at large. To sum up, cross-generational learning and mentorship help both mentors and mentees by sharing knowledge, supporting emotional growth, and improving student performance. These benefits are strongest when technology is used well, and strong relationships are formed.

Developmental Challenges

Building digital skills through mentorship is essential for meeting current workplace and educational needs. Generally, any mentorship program is most effective when it encourages mentees to stretch their abilities and confront meaningful challenges. One primary challenge in mentorship related to digital competencies is the varying levels of digital literacy among participants. Research indicates that mentors must possess not only technical skills but also effective interpersonal communication abilities to bridge the knowledge gap across generations (Giacumo et al., 2020). Next, Hussain et al. (2025) highlighted that technological barriers and the need for psychological support have emerged as critical factors impacting the quality of mentoring relationships aimed at developing digital competencies. They further emphasized that many mentoring programs lack the necessary structure and psychological support, which can hinder mentees' learning. Therefore, incorporating challenges within mentorship programs that push mentees beyond their comfort zones fosters resilience and adaptability, which are essential in rapidly changing digital contexts (Irby et al., 2024). In brief, developmental issues, mentorship, and digital capabilities all demonstrate the significance of trained mentors in the development of essential skills in different contexts. By bridging the teaching gaps and assisting the mentors, educators and organizations help learners acquire the knowledge and skills applicable in the digital world.

Inclusive Practices

Inclusive practices within organizations that emphasize mentorship and digital competencies development play a critical role in fostering an equitable and supportive environment. Hashish et al., (2025) highlighted that leaders' confidence in their digital abilities directly impacts team interaction and overall effectiveness, which suggests the importance of integrating leadership development models with mentorship and skill-building. Moreover, Hedenstrom et al., (2022), elucidate critical attributes of effective mentoring relationships, including trust and interpersonal skills, which are fundamental to fostering a positive learning environment for leadership development in healthcare. Next, organizational practices that consciously consider inclusivity, particularly regarding gender, will ensure that leadership development reflects diverse backgrounds (Cohn et al., 2021). Tailored mentorship initiatives are essential for bridging gaps, especially for underrepresented groups. Given that women often encounter significant barriers to mentorship access, creating intentionally inclusive programs is strategic rather than optional. Thus, the digital skills development and inclusive mentorship are vital to creating equitable, productive, and diverse organizational conditions, particularly when trust, gender inclusivity, and lifelong learning are the targeted areas of leadership models.

Implications for Theory and Practice

The IMDLD model has an impact on both HRM theoretical and practical aspects. Organizations are to regard mentoring as the main strategic point in the leadership development process, facilitating the growing of the workforce in the most effective way (Shaari et al., 2024). The organizations' fostering of the mentorship, participation, and accessibility-supporting environments will not only result in the improvement of individual performance but also of the organizational resilience in the digital age, which is becoming more and more complicated. It is through stressing the combined strengths of both male and female mentors' that HRM practices can help create whole development ecosystems. Besides, there is a need for case studies and empirical evaluations of existing mentorship programs to point out effective practices and to give the future applications insights that can be acted upon. Additionally, the model supports the current mentoring principles, recognizing the need for the comprehensive development of the gender-sensitive mentor.

Limitations and Future Research Directions

The IMDLD model, although it provides a solid foundation for comprehending the role of mentorship in HRM, still requires empirical validation in various organizational scenarios. The model is a useful use of mentorship to understand the way digital leadership development takes place, but since it is very theoretical, it needs to be tested empirically. Longitudinal or mixed-method research paradigm should be used in future studies to explore the role of mentorship in leadership development over a period of time and across various workplaces. The gender role should also be examined more thoroughly. Research needs to be conducted regarding the way gender influences access to mentorship, digital skill building, and leadership outcomes, particularly in the hybrid and remote working setups. Furthermore, the topic of growing popularity of the use of digital tools in the mentoring process remains unclear. Nevertheless, future studies are suggested to investigate the impact of virtual platforms, such as AI-aided tools, and online collaboration systems on the quality, fairness, and inclusiveness of the mentorship relationships. Lastly, organizational factors, which can either enhance or undermine the implementation of the IMDLD model, should be taken into account by scholars such as culture, HRM practices, and leadership support. These factors can be used to understand how to refine the model to make it more useful in the real workplace applications.

CONCLUSION

The Integrated Mentorship-Driven Leadership Development (IMDLD) model is an inclusive and gender-informed approach to developing leaders capable of successfully navigating the notions of digital transformation. The model highlights the importance of planned, designed, and inclusive mentoring processes to accelerate the implementation of leadership readiness in technologically changing landscapes by making mentorship a key idea in enhancing the effectiveness of leadership and digital competency. Furthermore, the IMDLD framework, which takes into account the role of the gender relationship in mentorships and leadership success, shows the necessity of creating fair developmental opportunities so that everyone, irrespective of their gender, could have access to the skills, guidance, and prospects needed in order to grow. Together, the model supports the crucial importance of HRM in developing adaptive, resilient, and inclusive leaders with the ability to lead multi-diverse teams and deal with ongoing technological change. By applying gender sensitive, generational and digital capability aware mentorship strategies, the individual talent pipelines will not only be boosted but will also boost the organizational agility and competitiveness in long term. Following the ongoing challenges that organizations are facing in a bid to keep pace with the requirements of the digital era, the adoption of mentorship-led leadership development can be an effective move towards creating a progressive, creative as well as inclusive working environment.

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