



Teacher Career Management Transformation: Enhancing Professional Growth Through Digitalization

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ABSTRACT

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Digital transformation in teacher career management has become an urgent need with the rapid development of information technology. In the face of globalization challenges, technological adaptation in education, particularly in managing teacher careers, is crucial for enhancing the quality and professionalism of educators. This article aims to analyze the implementation of digital tools in teacher career management at MA Nurul Jadid, focusing on the use of e-portfolios, Learning Management Systems (LMS), and Digital Personnel Information Systems. This research employs a qualitative approach with data collection techniques of interviews and documentation, as well as thematic analysis. The findings reveal that the application of digital tools improves career management efficiency, accelerates performance evaluation, and supports data-driven career planning. Despite challenges in digital literacy and infrastructure, the use of technology successfully strengthens teacher professionalism. In conclusion, digital transformation plays a significant role in teacher career development, with recommendations to enhance digital training and improve supporting infrastructure. Future research may explore the psychological and motivational factors influencing teachers' adoption of technology.

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INTRODUCTION

In the rapidly growing digital era, the use of digital devices in various aspects of life, including in the world of education, is increasingly inevitable. Digital transformation not only changes the learning system, but also revolutionizes the managerial aspect that supports the career development of educators (Hsb, 2024; Qamariyah, 2024). One of the main challenges faced by the education sector in Indonesia is the management of teachers' careers, which are largely still limited to traditional approaches (Pane et al., 2024). Many schools and madrassas have not fully utilized technology to support the comprehensive development of teacher professionalism. However, with the continuous development of technology, there is an opportunity to design a more effective, efficient, and digital-based career management system (Nur et al., 2024). This research aims to integrate digital devices into teacher career management at

Madrasah Aliyah (MA) Nurul Jadid. Through this integration, the goal is to build a system that assists teachers in planning, developing, and evaluating their careers, ultimately contributing to improving the quality of education in madrassas (Firdaus et al., 2024).

The basic concepts of teacher career management and the integration of digital tools in human resource management in the field of education. Teacher career management involves the process of planning, developing, and evaluating the careers of educators with the aim of improving their quality and professionalism (Qurtubi et al., 2023; Zaini, A. W., & Fahmi, M. A. (2023; Zuhdi et al., 2024). It is essential for educational institutions to create opportunities for teachers to continue to develop, both in terms of professional competence and interpersonal skills. In today's digital era, digital devices are the main means to support this development (Sholeh & Efendi, 2023). The digital devices referred to in this study include various platforms and applications that assist teachers in setting schedules, organizing learning materials, facilitating communication with colleagues and students, and evaluating performance.

One of the main obstacles faced by the transformation of teacher career management arises from the absence of an effective managerial system to manage teachers' careers at MA Nurul Jadid, which has been relying on traditional methods. Teachers at MA Nurul Jadid often face difficulties in planning and evaluating their career development. The existing system has not been able to optimally support the career growth of teachers due to the limited time, resources, and technology available. In addition, limited access to training and professional development opportunities further exacerbates the problem. These challenges hinder the improvement of teachers' competence and motivation to carry out their role as educators effectively. Therefore, this research focuses on how digital devices can be a solution to improve teachers' career management in these schools (Pratiwi et al., 2024; Ridlo & Yanti, 2023; Zain & Mustofa, 2024). Her main focus is on utilizing technology to support career development planning, performance monitoring, and the achievement of professional goals. By implementing a technology-based system, it is hoped that teachers can plan their development steps in a more organized and real-time evaluation, which can ultimately improve their career development and effectiveness in the classroom (Erwandi et al., 2022).

Previous research has shown that digital transformation in career management has proven effective across a wide range of sectors, including education. Several studies highlight that the integration of technology in career management not only improves efficiency, but also has a positive impact on teachers' job satisfaction and motivation (Risman, 2024; Arifin, 2024; Faiz et al., 2023). For example, a study by Sari (2020) showed that the implementation of

digital-based learning platforms significantly increases teachers' involvement in the learning process while accelerating their professional development. The important role of integrating digital tools into career management systems to optimize teachers' potential and improve the overall quality of education (Khotimah et al., 2024; Maulidia, 2023; Purwanto & Wafa, 2023). Despite these findings, there are still limitations in applying this concept in madrasah schools, especially in managing aspects of teacher career development. In some areas, there is still a gap in technology adoption, mainly due to inadequate infrastructure or low levels of digital literacy among teachers. Therefore, this study seeks to overcome this gap by developing a digital-based career management system model that is tailored to the specific needs of MA Nurul Jadid, with the potential to be adapted by other madrasahs (Nur et al., 2024).

The novelty of this research lies in the application of a digital-based career management system at MA Nurul Jadid, an approach that has not been widely applied at the madrasah level. This research will develop a digital tool integration model specifically designed to meet the unique needs of teacher career management in madrasahs. In addition, this study will also explore the factors that contribute to the successful implementation of digital tools in career management and assess their impact on teachers' professional development. Another new aspect of the study is the systematic approach used, which includes the identification of needs, the implementation of the developed model, and the evaluation of its effectiveness, as well as providing actionable recommendations for madrasah education managers.

The urgency of this research is very high considering the importance of the role of teacher quality in improving the education system in Indonesia as a whole. In this context, transforming teacher career management through the use of digital tools is a strategic step that aims to improve teacher performance and professionalism (Lithuania, 2024; Qadry et al., 2023; Pratiwi et al., 2024). A more structured and data-driven approach to career management allows teachers to track their progress in achieving professional goals more easily and effectively. The study also provides empirical evidence on how technology can address long-standing challenges in teacher career management (Fakrijal & Yusriman, 2024; Purba et al., 2024; Ansori et al., 2024). In addition, this research is in line with the national education policy that advocates for the development of teacher professionalism through technology integration. Thus, this study aims to offer practical and applicative solutions to improve teachers' career management, which in turn will have a positive impact on the quality of education at MA Nurul Jadid. The findings of this study are expected to serve as a model for other madrasahs who want to integrate digital tools into their teachers' career management systems (Dawn, 2023).

The purpose of this study is to develop a teacher career management model that integrates digital tools to enhance professional growth at MA Nurul Jadid. This research will analyze how the career management of teachers who integrate digital media to enhance their professional growth at MA Nurul Jadid. In addition, this study will also provide recommendations to education managers in madrassas to implement a digital-based career management system that effectively facilitates teachers' professional development in a sustainable manner. Ultimately, this research aims to provide new insights into how teacher career management can become more innovative and technology-based, so that it can contribute to improving the overall quality of education. The findings of this research are expected to be a valuable reference for other madrasahs in optimizing teacher career management in the digital era.

The importance of systematically managing teachers' careers is one of the keys in improving the quality and professionalism of educators. In today's digital era, the challenges and opportunities faced by educational institutions demand a transformation in teacher career management, especially through the integration of digital technology. The formulation of the problem in this study is focused on the main question: How is the teacher's career management in integrating digital media to increase their professional growth at MA Nurul Jadid? This formulation is the main foundation in exploring strategies, processes, and impacts of the application of digital tools on teacher career development in the madrasah environment.

RESEARCH METHODS

This study uses a qualitative approach with a case study design to examine the role of digital tools in teacher career management at MA Nurul Jadid, with a focus on how technology can improve teachers' professional development. A qualitative approach was chosen to gain an in-depth understanding of the process of integrating digital devices into teacher career management (Wulandari et al., 2024). This research was conducted at MA Nurul Jadid, which is known for its dedication to utilizing technology in education management and teacher professional development. Data was collected through in-depth interviews with madrasah heads, teachers, and other education managers, as well as participatory observation to gain a hands-on understanding of how digital tools are being used in educational settings. The data is analyzed descriptively, involving stages of data collection, reduction to categorize relevant information, and drawing conclusions that offer new insights into digital-based teacher career management (Afiza et al., 2024).

RESULTS AND DISCUSSION

Digital Transformation in Teacher Career Management

This research reveals that digital transformation in the teacher's career management system is an inevitable necessity, especially at MA Nurul Jadid. In recent years, the institution has actively responded to the development of information and communication technology by adopting various digital platforms, especially in data management and teacher career development. The shift from manual to digital systems is a strategic step to adapt to the demands of the times and continuously improve the quality of education.

The application of digital technology at MA Nurul Jadid has a significant positive impact. Systems such as SIMPATIKA, E-Kinerja, and Google Workspace for Education are consistently used to document attendance, evaluate teacher performance, and design professional development in a more measurable manner. This digitalization accelerates bureaucratic processes that were previously slow and error-prone, while creating more open and accountable access to information. Teachers can now independently access and update personal and professional data, view career development tracks, and design professional paths according to their individual potential and needs. The management approach that was originally top-down is starting to be replaced by a participatory model that empowers teachers as the main subject of their career development.

This new paradigm strengthens data-driven career management systems, which allow every decision in human resource management to be made objectively and rationally. The results of the study show that teachers at MA Nurul Jadid feel the direct benefits of this transformation. The head of the madrasah, Mr. Misbahul Munir stated that previously all teacher data was managed manually, but now with the help of SIMPATIKA and E-Kinerja, the administrative process is much faster and more accurate. He emphasized that teachers are now motivated because they can monitor their own career development.

The same thing was expressed by the Vice President of Curriculum, Mr. Muhammad Naim who emphasized that teachers need to be directly involved in managing their career data, so that they do not just wait for instructions, but also actively take part in self-development. Senior teachers like Mrs. Nur Aini even admitted that although she initially had difficulties with the use of technology, after receiving the training she felt very helped and is now able to update her data independently and take part in online training.

The results of observations conducted at MA Nurul Jadid show that most teachers have become accustomed to accessing their SIMPATIKA accounts, using

the Google platform for document compilation, and archiving important files in a shared Google Drive. The academic calendar has also been synchronized online, making it easier to plan activities and manage time efficiently. The increase in teacher participation in digital data updates can be seen from the frequency of access and completeness of data that continues to improve.

As a form of contribution to increasing the effectiveness of digital transformation, the researcher also intervened in the form of technical training on the use of Google Workspace, the use of SIMPATIKA, and the preparation of teachers' digital portfolios. This training was attended by 25 teachers and was carried out in two intensive sessions. As a result, as many as 90% of the trainees were able to compile their digital portfolios independently, while 80% started accessing SIMPATIKA on a regular basis every month. Waka Curriculum said that after the training, teachers became more independent and no longer had to be reminded to fill in data.

The digital transformation that took place at MA Nurul Jadid not only improved the education administration system, but also formed a new awareness among teachers to be more independent, professional, and proactive in managing and developing their own careers. This marks the formation of a more adaptive, collaborative, and quality-oriented education ecosystem in a sustainable manner.

Table 1. Paradigm Shift in Teacher Career Management

Aspects	Before Digitization	After Digitization
Approach	Top-down, administrative	Participatory, reflective
Management Media	Physical archives, manuals	Digital, cloud-based platform
Access and Transparency	Limited and slow	Real-time, open and integrated
The Role of the Teacher	Policy objects	Active subject of self-employed career manager
Nature of Policy	General and centralized	Contextual, based on personal data and individual performance

Table 1 shows that digitalization has driven a significant shift in the paradigm of teacher career management from an administrative and centralistic system to a more participatory and reflective system. Previously, teachers were positioned as policy objects in a top-down framework with manual management and limited access to information, while after digitalization, teachers became active subjects who managed their careers independently through real-time, open, and integrated digital platforms. This shift also reflects a transition from uniform policies to a more contextual and individual performance-based approach, signaling that digitalization is not only changing tools and media, but

also ways of thinking, interaction structures, and work cultures in educational settings.

Optimization of Digital Tools for Career Management

The optimization of digital tools in teacher career management at MA Nurul Jadid has shown a significant impact on improving the efficiency, accuracy, and involvement of teachers in the process of planning and developing their careers. One of the main innovations implemented is the use of digital e-portfolios. Through this platform, teachers can systematically document their various professional activities, such as lesson plans, assessment results, training followed, and reflections on learning practices. E-portfolios become not only a document storage medium, but also serve as a self-reflection tool that helps teachers recognize effective teaching patterns and evaluate areas for improvement. With neatly organized documentation, teachers have a strong foothold in designing long-term competency development strategies.

In addition, the use of the Learning Management System (LMS) also enriches the professional development process at MA Nurul Jadid. Through the LMS, teachers can take online training, participate in discussion forums, and engage in cross-disciplinary collaboration. This digital environment creates an interaction space that encourages the growth of a professional learning community, where teachers not only become trainees, but also play a role as partners in sharing good practices and teaching experiences.

Meanwhile, the integration of the Digital Personnel Information System also strengthens the career management process administratively. This system presents complete and real-time personnel data, including performance history, job titles, training that has been followed, and a track record of other achievements. The existence of accurate and easily accessible data is very helpful in compiling a more personalized, systematic, and sustainable career development plan.

Table 2. The Role of Three Digital Tools in Teacher Career Management

Digital Tools	Main Functions	Benefits for Teachers
E-Portfolio	Documentation of achievements & self-reflection	Mapping strengths, weaknesses, and evidence-based improvement plans
Learning Management System (LMS)	Online training, discussion forums, collaborations	Enhancing professional networking and collective learning culture
Digital Personnel Information System	Performance database, training history, certification, and performance evaluation	Simplify data-driven decision-making and independent career planning

The table above illustrates the strategic role of three main digital tools—E-Portfolio, Learning Management System (LMS), and Digital Personnel Information System—in supporting holistic and data-driven teacher career management. The E-Portfolio serves as a medium for reflection and documentation of achievements, allowing teachers to identify strengths, weaknesses, and design self-development in a directed manner. The LMS facilitates online training and collective discussions, which not only expands professional networking but also fosters a culture of collaborative learning. Meanwhile, the Digital Personnel Information System provides a database of performance and training history that assists teachers and school management in making career development decisions in a more objective and measurable manner. Overall, these three tools form a digital ecosystem that empowers teachers to manage their careers independently, adaptively, and evidence-based.

Findings in the field show that teachers at MA Nurul Jadid are actively using applications such as E-Performance to compile Employee Performance Goals (SKPs) and evaluate their annual performance. Google Drive is also used to store important documents such as lesson plans, teaching journals, and activity reports. The results of the observation show that there is regularity in document management, as well as increased accountability of teachers for their respective career development.

A statement from the Deputy Principal for Curriculum, Mr. Muhammad Naim emphasized the direction of school policies in supporting this digital transformation. He said that the school directed all teachers to prepare SKP through E-Kinerja, because this system not only facilitates validation, but also speeds up administrative processes such as applying for promotions and certifications. On the other hand, the direct experience of young teachers like Pak Budi shows a change in work motivation. He revealed that with integrated digital documentation, he feels more challenged to continue to develop because every activity can be assessed transparently and objectively.

In an effort to support the application of this technology, the researcher also intervened in the form of short training on the use of E-Performance and assisted teachers in compiling digital portfolio templates. As a result, there has been an increase in the timeliness of SKP collection and teachers' understanding in compiling data-based performance targets. This intervention also shows an increase in teachers' awareness of the importance of digital documentation as part of a targeted self-development strategy.

Overall, the integration of e-portfolios, LMS, and digital staffing systems at MA Nurul Jadid shows that the use of technology can be a major driver in strengthening teachers' career management structures that are data-based, participatory, and oriented towards sustainable professional progress.

Improving Teacher Professionalism through Technology

The application of digital technology in teacher career management at MA Nurul Jadid has made a real contribution to improving the professionalism of educators as a whole. This digitization process not only accelerates administrative affairs, but also encourages the birth of a high reflective awareness of teaching practices. Teachers who consistently fill out and review the e-portfolio have a greater chance of understanding the dynamics of the learning they are experiencing. The reflection is not symbolic, but is an effective analytical tool to identify areas that need improvement, assess the success of learning methods, and develop more relevant teaching strategies. This process also encourages the growth mindset in teachers, which is an open mindset towards continuous learning and continuous improvement based on empirical experience in the field.

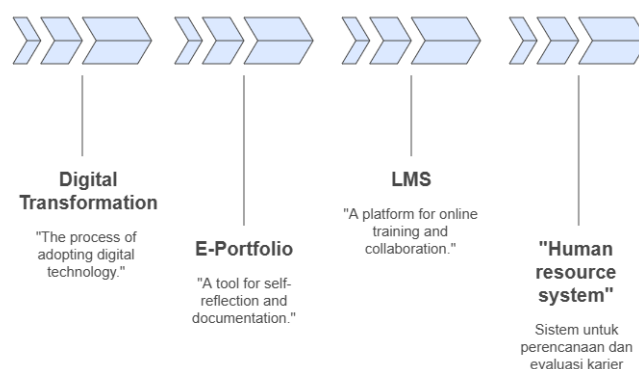


Figure 1. Digital Transformation in Education

The image illustrates the key stages in the Digital Transformation in Education process, which focuses on the adoption of digital technology for teacher career management. Starting from the general phase of digital transformation as a process of technology adoption, this change then leads to the use of E-Portfolio as a tool for self-reflection and documentation, the Learning Management System (LMS) as an online training and collaboration platform, to the implementation of the Human Resource System as a more structured career planning and evaluation system. This visual shows that digital transformation in education is not just about the use of tools, but creates a systematic flow that integrates teacher training, reflection, and performance management across the board, ultimately supporting the development of sustainable, data-driven teacher professionalism.

The strengthening of teacher professionalism at MA Nurul Jadid is also supported by expanding access to various digital-based competency development resources. Through platforms such as Learning Management System (LMS), Google Classroom, and Canva for Education, teachers can take

part in online training, access training materials from the Ministry of Education and Culture, and network with a cross-regional professional community. This allows teachers not only to enrich their insights, but also to share innovative solutions and strategies in the face of learning challenges. In an interview, Mrs. Winda, an English teacher at MA Nurul Jadid, said that the online training she participated in was very helpful because the material could be re-accessed and directly applied in teaching. This reflects how technology provides flexibility and practical impact for improving the instructional quality of teachers.

From the student side, the presence of digital technology in the learning process also provides positive changes. A student of grade XII Science revealed that the learning process now feels more interesting because teachers use media such as learning videos, online quizzes, and discussions through Google Classroom. Observations in MA Nurul Jadid classes show that teachers actively use digital media to deliver subject matter, including by inserting infographics, interactive videos, and various forms of technology-based evaluation. This has a direct impact on increasing student participation and the effectiveness of the teaching and learning process.

In order to strengthen the integration of technology, the researcher also intervened in the form of short training on the use of Canva and Google Forms in learning. This intervention succeeded in improving the skills of teachers who were previously unfamiliar with the application. As a result, teachers began to actively apply technology in the preparation of teaching materials, evaluations, and other interactive media. Students also gave positive responses to the variety of learning media used, which not only facilitated understanding but also increased learning enthusiasm.

The digitization process at MA Nurul Jadid not only serves as an administrative tool, but also strengthens the foundation of teacher professionalism that is reflective, adaptive, and quality-oriented. Through the use of technology, teachers have the opportunity to grow in pedagogic, technological, and personality competencies in an integrated manner. This makes MA Nurul Jadid an example of an educational institution that is responsive to the demands of the times, while at the same time committed to the development of superior and highly competitive educational human resources.

Table 3. Paradigm Shift in Teacher Career Management

Aspects of Professionalism	Before Digitization	After Digitization
Learning Reflection	Rarely done, undocumented	Done periodically through e-portfolio, well documented
Independent Career Planning	Unsystematic, intuition-based	Structured, data-driven and performance milestones

Collaboration and Innovation	Locally limited	Extended through cross-field and tiered LMS
Performance Evaluation	Manual, subjective, periodic	Real-time, objective, documented through digital systems
Professional Culture	Weak, individualistic	Strengthening, collaborative, and based on sustainable development

Table 3 shows a significant transformation in the aspect of teacher professionalism as a result of the digitalization of career management at MA Nurul Jadid. Prior to digitalization, practices such as learning reflection, career planning, collaboration, and performance evaluation were carried out in an unsystematic manner, were subjective, locally limited, and rarely documented. However, after digitalization, all of these aspects have improved in quality: reflection is carried out regularly through e-portfolios, career planning has become more structured and data-driven, collaboration has expanded across fields through LMS, performance evaluations are carried out in real-time and objectively, and teachers' professional cultures have evolved to be more collaborative and sustainable. This interpretation shows that digitalization is not just a modernization of tools, but a change in work paradigm that strengthens the culture of teacher professionalism and supports more systematic career development with a long-term impact.

DISCUSSION

Digital transformation in teacher career management at MA Nurul Jadid shows a significant paradigm shift from manual administration systems towards data-based and automated digital systems. These changes are not only related to the use of software or information systems, but also involve changes in the way of thinking and the culture of educational organizations. These findings are in line with the concept of digital transformation in education put forward by Selwyn (Selwyn, 2021), which emphasizes that digital transformation requires reorganization of work processes and strengthening the digital capacity of educators to be able to adapt to the demands of the times.

The significance of these findings lies in the change in the role of teachers from policy objects to active subjects in career management. They no longer just follow administrative procedures, but are also directly involved in the process of reflection, planning, and evaluating their careers digitally. This supports the theory of Human Capital Development (Schultz, 1961) which states that investment in human resource development through technology and training will contribute to improving the overall productivity of the institution. However, challenges arise from the lack of digital literacy among some senior teachers as well as the limitations of network infrastructure in certain regions. This demands

a phased training approach and ongoing technical mentoring.

The integration of e-portfolio, Learning Management System (LMS), and Personnel Information System in teacher career management has encouraged the creation of a more accountable, participatory, and sustainable system. E-portfolio has proven to be effective as a means of documenting the teacher's learning process as well as a tool for professional reflection (Maknunah et al., 2023) mentioned that the e-portfolio encourages teachers to construct their learning narratives in a reflective and longitudinal manner, thus facilitating the process of continuous self-evaluation.

The use of LMS supports the principle of collaboration in professional development. Teachers can take part in online training, share best practices, and build a network of professional communities. These findings corroborate the results of a study conducted by the Trust and Prestridge (Trust & Prestridge, 2021), which states that the LMS encourages a culture of lifelong learning for teachers. Meanwhile, the digitization of personnel information systems enables integrated evaluation and career planning based on actual data, as developed in the Data-Driven Decision Making approach (Saleh et al., 2022) However, the study also identified constraints such as resistance to new systems and lack of interoperability between digital platforms.

The use of technology in teachers' career management has a positive impact on improving professionalism, which is reflected in reflective skills, independent career planning, and stronger collaboration between teachers. Teachers are able to access their performance data directly, reflect on learning practices that have been carried out, and design evidence-based competency development. This is relevant to the Reflective Practitioner model (Afendi, 2024), which emphasizes the importance of reflection in building professional expertise through experience.

In addition, the collaboration that occurs through the LMS results in cross-disciplinary synergies that enrich pedagogical insights. The existence of a real-time digital evaluation system strengthens the principles of accountability and transparency, in accordance with the theory of Continuous Professional Development (Mahardika et al., 2023), which states that effective professional development should be contextual, collaborative, and based on actual needs. However, the limitation of internet bandwidth and the lack of technical assistance in managing digital systems are obstacles that need to be overcome systematically (Zam Zam Hariro et al., 2024). This research suggests that educational institutions not only provide technology, but also ensure consistent technical support and supervision to encourage the sustainability of digital system use.

CONCLUSION

The conclusion of this study shows that digital transformation in teacher career management at MA Nurul Jadid has brought significant changes by optimizing the use of digital tools such as e-portfolio, Learning Management System (LMS), and Digital Personnel Information System. The implementation of these digital tools improves efficiency, transparency, and enables more data-driven teacher career planning, as well as encourages more structured professional development. Despite the challenges related to digital literacy and infrastructure, these findings answer the research question by showing that the application of technology can improve the overall career management system. Further research should examine more deeply the factors that affect teachers' mental readiness and motivation to adopt technology, as well as the long-term impact of the implementation of this digital system on teacher performance and professionalism.

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