



Advancing Madrasa Education in India: Embracing Digital Learning Platforms and Teaching Tools

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Abstract: Madrasas, traditional Islamic schools, have traditionally taught secular and religious courses in India. In recent years, there has been an increasing awareness of the need to adapt these institutions to modern times. The introduction of digital education and novel teaching tools in Indian Madrasa education is the topic of this abstract. Digital learning platforms can improve Madrasa education. Indian madrasas should establish digital platforms such as MOOCs and SWAYAM to augment traditional pedagogical methods in light of technological advancements. These platforms provide students with various educational resources and courses besides conventional textbooks. The use of instructional resources in Madrasa education is essential. Mind mapping, presentations, and interactive multimedia technology can assist instructors in engaging and immersing students. These technologies improve student comprehension, retention, critical thinking, creativity, and collaboration. In Madrasas, digital education and teaching tools improve education and equip students for the digital age. It also protects diversity by informing marginalised individuals and incorporating religious and secular knowledge. Thus, from what has been said above, technologies in the form of ICT-based learning platforms and instructional assets are ushering the Madrasa education in India into a 'Modern' and 'Inclusive' era. Moreover, it will greatly help the Muslim community, especially the group that, for one reason or another, cannot attain a Madrasa education in a suitable way. Madrasas preserve their rich past and prepare students for the 21st century by embracing innovation and technology.

Index Terms: Madrasa Education, India, Digital Learning Platforms, Teaching Tools.

1. INTRODUCTION

Education in Islam aspires to transform individuals into those of high moral character. What does 'good' mean in our understanding of a 'good man'? The core principle behind education in Islam is the transformative power of *adab* (ta'dib), a comprehensive sense of refinement that encompasses the spiritual and material aspects of a person's life. *Adab* instils the desired quality of goodness. Education is the intended meaning of *adab*, as beautifully expressed by the Prophet, Peace be upon him, in his statement: "ادبني ربي فأحسن تأديبي"

'My Lord instructed me and enhanced my education to the highest level.' (Al-Attas, *Islam and Secularism*, 1979.)

It is not just an essential but a relevant component of global society if one understands that there is such a thing as Islamic education. It is aside from being an essential practice for Muslims, is also vital in the social life of the global society. With changing global scenario today where cultures are blurring and frontiers fading, Islamic education system being rigid in its format and governance by the rules and regulations of Islam, it holds the responsibility and plays an essential role of molding the individuals' perceptions, approaches and over all thinking process. The urgency of enhancing Islamic education to meet international standards is more pressing than ever.

Madrasa education in India has a profound history intricately linked to traditional Islamic beliefs, offering religious instruction to millions of students nationwide. In the swiftly changing educational landscape, there is an urgent necessity to modernise and digitise Madrasa education to address the problems of the 21st century. Madrasas have historically served as the foundation of Islamic education in India, including teaching Quranic studies, Arabic language, Islamic jurisprudence, and theology. Madrasas, with substantial student enrolment, are essential for the preservation of religious traditions and cultural legacy.

In the contemporary digital era, conventional Madrasa education techniques have constraints in addressing the varied requirements of students and equipping them for the modern world. Modernisation and digitalisation present a chance to improve educational quality, expand accessibility, and prepare students with crucial skills for success in a swiftly evolving society.

This research investigates the possibility of modernising Madrasa education in India using digital learning platforms and instructional tools. In this paper, an overview of how and where digital technology is utilized as well as how it is embraced and the risks involved, overall advice, and suggestions on what can be done to improve this type of transition for those interested in it, such as policymakers, educators, and Madrasa authorities are provided. Thus, it aims to add to the existing discussions on educational reform and inclusive development in India.

2. HISTORICAL BACKGROUND OF MADRASA EDUCATION

Indian Madrasas: education system of Madrasas had its history dating back to ancient period with Islamic influence. These institutions are involved in the dissemination of knowledge in religious studies, law, astronomy and mathematics. An extensive educational network was developed during the time of Muslim governance in India. The madrasas included Maktabas, Madrasas, and Jamiats. Maktabas represented the foundational tier of education, imparting fundamental Islamic ideas. These gatherings predominantly occurred at mosques, although they were occasionally hosted in private residences. Madrasas were advanced educational institutions that offered significant Islamic and scientific instruction. The madrasas were intricately connected to mosques under the early Muslim administration in India. Numerous distinguished thinkers and philosophers conducted advanced courses in a domestic setting. Consequently, several madrasas were established in purpose-designed edifices. Jamiat, akin to madrasas, was an Islamic educational institution for advanced study in Islamic and other disciplines. Both “madrasa” and “Jamiat” provide advanced education subsequent to the main Islamic instruction in Maktabas. All conventional educational institutions are currently functioning. These institutions are referred to as madrasas, which are known together as the madrasa education system. Since its inception, all levels of madrasa education have been provided at no cost. Renowned madrasas provide complimentary accommodation and meals for students and staff. It provided courses in classical, theological, and advanced scientific disciplines at its zenith. (Khan, *Islamic Education*, 1998.)

2.1 Development and Traditional Madrasa Education

Traditional Madrasa education comprised of Quran memorisation, Arabic language and Islamic law, *Fiqh* and *Aqeedah*. Immerse information linked old fashioned teaching styles that were focused on strictly controlled teacher domination; where pupils sat in circles around a competent instructor, an *ustad*, who read or recited aloud to students.

2.2 Challenges Madrasas Face in Meeting Modern Educational Standards

Though IPA is positioned as a distinguished center of Islamic learning as well as played pivotal role for the formation of modern education in India, Indian Madrasas are even today unable to impart education matching to the current level of education. Challenges include:

- a. The traditional Madrasa curriculum lacks diversity and fails to satisfy students' needs in a changing environment, raising issues about its relevance and application.
- b. The teacher-centric approach in Madrasas may hinder students' critical thinking, creativity, and independent learning, limiting their ability to adapt to new situations.
- c. Socio-Economic Obstacles: Socioeconomic disparities and a scarcity of resources and facilities within many madrasas limit educational opportunities for underprivileged students, contributing to cycles of poverty and social exclusion.
- d. Perception and Humiliation: The prevalence of societal stigma and negative stereotypes surrounding madrasas hinders their ability to participate fully in the education system and collaborate effectively with government and non-governmental organizations, perpetuating their isolation. (Khan, *Islamic Education*, 1998.)

2.3 Reform and Modernisation Needed

Given these challenges, Madrasa education must be modernised and reformed. Modernisation efforts should target:

Broaden the Curriculum: To make the curriculum more varied and open to everyone, study religion along with science, math, languages, and useful skills.

Improve pedagogy: To get kids ready for problems in the 21st century, use creative ways to get them to learn by doing, think critically, and solve problems.

Improve Resources and Infrastructure: Spend money on infrastructure, technology, and teacher training to improve lessons and create a good learning atmosphere.

Encourage inclusion and Collaboration: Help Madrasas, government agencies, civil society organisations, and other educational institutions collaborate to improve educational inclusion, diversity, and social cohesion. (Tahseen, *Indian Muslim Education*, 1993.)

Modernisation and reform are essential for Indian Madrasas to meet students' changing needs and boost socioeconomic progress.

3. DIGITAL LEARNING PLATFORMS: OPPORTUNITIES AND BENEFITS

Digital learning platforms have recently transformed education, benefiting students and instructors. When incorporated into Madrasa education, these platforms may transform teaching and learning, improve access to high-quality education, and foster innovation and inclusion.

3.1 Explaining Digital Learning Platforms

Digital learning platforms utilise technology and internet resources to augment education beyond the classroom. Certain systems encompass Learning Management Systems (LMS), video conferencing, interactive multimedia resources, online evaluations, and virtual reality simulations. Their adaptable and dynamic educational setting enables students to access learning materials at any time and from any location, utilising internet-enabled devices such as PCs, tablets, and smartphones. (Cheung et al., *Educational Tech*, 2023.)

3.2 Evidence of Successful Educational Implementations

Many educational institutions have improved teaching and learning via digital learning platforms. For instance:

Khan Academy provides students with test prep, science, maths and humanities resources, including video lessons, practice problems and individualised lesson plans. People all across the world use it to make learning more effective in the classroom and

when working on assignments alone. Learn from industry leaders in a variety of subjects through massive open online courses (MOOCs) offered by edX and Coursera. They ensure that people from all walks of life and all corners of the globe have access to opportunities for professional growth, skill enhancement, and further education. Lessons, exams, and student interactions may all be easily created, distributed, and managed with Google Classroom, a free online platform. Collaboration, efficiency, and individualised lessons for each student are all enhanced.

3.3 Madrasa Digital Learning Benefits

Digital learning platforms in Madrasa education provide several benefits, including:

Accessibility: Educational technology broadens the reach of the school sector and other educational resources and instruction to underprivileged and rural students and youngsters. This ensures that no kid is overlooked and that all students nationwide.

Scalability: Digital learning systems allow a single educator to train several students, enabling Madrasas to expand their class offerings without the need for new facilities. Consequently, scalability is most efficacious in addressing the educational demands of emerging urban and rural regions.

Flexibility: Digital learning platforms allow students to work independently, revisit concepts, and participate in interactive and self-directed educational activities. This customised approach boosts student engagement and retention by accommodating different learning styles.

Augmented Learning Experience: Digital learning platforms use multimedia, interactivity, and gamification to create immersive learning experiences that engage students and improve understanding and retention. Interactive simulations, virtual labs, and multimedia presentations make learning objectives memorable and important.

Digital learning platforms have the potential to transform Madrasa education by improving accessibility, scalability, flexibility, and engagement for students and teachers. Madrasas may strengthen their educational programs and provide students with the knowledge, skills, and abilities they need for digital success by using technology. (Patel, *Madrasa Digital Education*, 2018.).

4. DEALING WITH EXECUTION ISSUES

Effective integration and use of digital learning platforms in Madrasa education need to overcome deployment issues. Infrastructure needs, educator training and competence, and the Madrasa community's reluctance to change are major issues.

4.1 Infrastructure Details

Digital learning systems need internet connectivity, appropriate hardware such as computers, tablets, and cellphones and good learning environment. Despite the spread of Madrasas, poor resource and technology perhaps deny these institution fundamental facility. Addressing this issue:

Infrastructure Investment: Donors, like national and international governments, NGOs, and the business sector may enhance Madrasas infrastructure through efficiently by donating internet, computers, or other modern amenities.

PPPs: Public-private partnerships may use resources and talents from both sectors to close the digital gap and provide fair access to technology-enhanced education in Madrasas.

Community Engagement: Involving local communities and stakeholders in infrastructure development project planning and implementation may help mobilise support and resources and foster ownership and sustainability.

4.2 Teacher Professional Development and Capacity Building

For digital learning tools to work, they need skilled teachers who know how to use technology to help students learn. Taking care of this problem:

Teachers training programmes: To use digital learning tools in their classes, madrasa teachers need to get a lot of training in digital literacy, technology, and how to use it in the classroom.

Professional Development Workshops: Continuous professional development workshops and peer learning networks allow educators to exchange best practices, experiences, and creative digital teaching methods.

Institutional Support: Madrasa administrators and educational authorities must provide institutional support and incentives to encourage instructors to participate in training programs and use technology-enhanced pedagogies, recognising the need for continual learning and professional

5. CASE STUDIES AND SUCCESS STORIES

Madrasas have successfully integrated technology into their teaching methods thanks to digital learning initiatives. This document shows two case studies of successful results and their impact on student performance and education quality...

5.1. Markaz Al-Saqafa Sunniya

India's top Islamic Institution, Markaz Al-Saqafa Al-Sunniya, uses digital learning to improve education. The college's large digital learning program includes students and faculty, who can use Markaz Al-Saqafa Al-Sunniya's digital library of Islamic texts, scholarly journals, and instructional resources. Students may explore, compare perspectives, and learn Islamic studies with the digital library's many academic resources.

The school offers Quranic studies, Hadith, Arabic, and Islamic law online courses and tutorials. Interactive multimedia systems allow students to interact with course information, have conversations, and receive teacher comments. Markaz Al-Saqafa Al-Sunniya features virtual classrooms with video conferencing for distant study and educator-student contact. Virtual classrooms

provide real-time discussion, debate, and interaction on complex theological issues, improving education and intellectual engagement. (Markaz, *Markaz Edu Journal*, 2020.)

5. 2 Uttar Pradesh's Al-Jamiatul Ashrafia Madrasa

Uttar Pradesh's Madrasa Al-Jamiatul Ashrafia uses digital learning to improve education and student engagement. The institution uses a blended learning paradigm that combines classroom instruction with digital resources and technology. The core of its digital learning program is that Madrasa Al-Jamiatul Ashrafia offers interactive e-learning lessons on Quranic studies, Arabic, Islamic history, and more. These courses use multimedia, interactive quizzes, and self-assessments to reinforce learning objectives and encourage active participation. Mobile learning apps allow Madrasa students to access educational resources, lectures, and assignments on their phones and tablets. Students may learn anytime, anywhere, and at their own pace using these apps. Madrasa Al-Jamiatul Ashrafia's virtual mentoring program matches students with experienced scholars and educators for personalised help and academic advice. The method fosters mentorship, student-teacher relationships, and overall progress.

Student Performance and Educational Standards:

The digital learning efforts of Madrasa Al-Jamiatul Ashrafia have improved educational quality.

Digital learning platforms have increased student interest, motivation, and participation in education. Interactive e-learning modules, smartphone apps, and virtual mentorship programs let students tailor their education to their interests, talents, and learning styles. Digital learning tools allow students to explore different subjects, access resources outside of traditional curricula, and develop 21st-century skills like digital literacy, critical thinking, and problem-solving.

Academic Performance: Digital learning efforts have improved student academic results, retention, and course competency. Digital learning aids' interactivity and immersion promote comprehension, memory retention, and conceptual understanding, improving learning outcomes. (Jhingran, *Madrasa Education in India Today*, 2010.)

Markaz Al-Saqafa Al Sunniya and Madrasa Al-Jamiatul Ashrafia demonstrate how digital learning initiatives improve student performance and Madrasa education. These institutions have enhanced access to educational materials, diverse teaching methods, and student interaction by leveraging technology and innovation to provide quality Islamic education in modern times.

6. EDUCATIONAL TOOLS AND MATERIALS

Madrasa education needs digital teaching technology to improve instructional efficacy, active learning, and student interaction. A complete review of digital teaching materials, selection criteria, and practical examples may help Madrasa instructors decide how to use technology.

6.1 Assessing Accessible Digital Educational Tools

- a. Moodle, Canvas, and Google Classroom centralise course materials, instruction, communication, and student achievement.
- b. Interactive multimedia content: Movies, animations, simulations, and instructional games can boost engagement, active learning, and concept comprehension.
- c. Google Docs, Microsoft Teams, and Padlet help students collaborate on projects, share ideas, and learn in real-time.
- d. Digital quizzes, questionnaires, and self-evaluation activities let instructors measure student understanding, track progress, and provide immediate feedback to improve learning outcomes.
- e. VR and AR technologies allow students to explore complex topics, conduct virtual experiments, and engage in experiential learning.

6. Possible Challenges and Solutions

Many hurdles may prevent Madrasas from integrating technology into their teaching methods while implementing digital learning projects. To successfully integrate digital learning in Madrasas, several problems must be anticipated and solved.

6.1 Expected Madrasa Digital Learning implementation challenges:

Insufficient Infrastructure: Many Madrasas lack dependable internet connectivity, proper digital devices, and the technological infrastructure to support digital learning programs.

Resistance to Change: Traditional educational institutions like Madrasas may face pushback from sponsors who mistrust digital learning's efficacy.

Insufficient Technical Proficiency: Madrasa educators and administrators may lack the technical abilities to integrate digital technologies into their educational practices and maintain digital learning platforms.

Poverty, energy shortages, and low digital literacy among kids and their families may limit access to digital learning resources. Technology in education may raise cultural and theological concerns in madrasas, especially with Islamic norms and principles.

6.2 Ways to Reduce These Barriers:

Madrasas may get government grants, subsidies, and financial aid to improve infrastructure, integrate technology, and increase capacity. Public-Private Partnerships (PPP): Madrasas, government, NGOs, and private sector entities can collaborate to optimise resources, talents, and networks to improve infrastructure and digital learning.

Teacher Training and Capacity Building: Provide extensive training programs and professional development workshops to equip Madrasa educators with digital literacy, pedagogical knowledge, and technical proficiency to effectively integrate technology into their instructional methods. **Community engagement and understanding:** Work with Madrasa stakeholders like administrators, educators, students, parents, and religious leaders to raise awareness of digital learning's benefits, address concerns, and agree on technology-enhanced teaching methods.

Tailored Solutions and Adaptation: Develop digital learning solutions and adaptable technology that meet Madrasas' unique needs, preferences, and cultural sensitivities while adhering to Islamic standards and educational aims.

Awards and Recognition: Encourage Madrasas to implement digital learning initiatives and exhibit creative approaches that increase educational quality and student results using incentives, awards, and recognition programs.

Community Empowerment and Ownership: Get local communities and Madrasa stakeholders involved in digital learning programs, decision-making, and technology integration, sustainability and effectiveness.

Madrasas can overcome digital learning integration barriers and use technology to improve educational quality, expand opportunities, and promote inclusive and equitable learning for all students by taking proactive and targeted approaches.

7. FUTURE DIRECTIONS AND ADVICE

As Madrasas implement digitalisation in education, a long-term vision, policy suggestions, and future research and partnership opportunities are needed to ensure the success of digital learning.

7.1 Madrasa Education Digitalisation Strategy

1. **Holistic Integration:** Create a curriculum, instructional methods, infrastructure, and capacity-building framework for digital learning in Madrasa education.
2. **Equitable Access:** Give all Madrasa students access to digital learning materials and technology-enhanced pedagogies, regardless of geography, socioeconomic status, or education.
3. **Quality Assurance:** Use quality assurance processes and criteria to review digital learning activities to ensure compliance with educational objectives, learning outcomes, and instructional design best practices.
4. **Encourage innovation, creativity, and experimentation in digital learning methods to foster continuous improvement, flexibility, and reaction to changing educational needs and technology.** 2020 World Bank.

8. CONCLUSION

Hence, improving Madrasa education in India through knowledge delivery applications based on information communication technologies and other teaching learning support tools offers good probabilities of reformation and rationalization of educational activities at these centres. As a result, madrasas can link classical Islamic reference to the modern means and methods of attitudes toward teaching comprehensiveness and interactivity for learning improvement that can meet the needs of present-day students. Digital platforms provide essential resources across several disciplines, such as language acquisition, science, and technology, which can enhance students' religious understanding and practical competencies pertinent to the modern day.

Moreover, digital learning promotes critical thinking, enhances cooperation, and grants access to extensive knowledge and viewpoints beyond conventional classroom environments. By judiciously integrating these tools while honouring Islamic education's fundamental principles and ethos, madrasas may cultivate an atmosphere in which students are more adequately equipped to confront the challenges of a diversified, technology-oriented world. The incorporation of digital resources in madrasas might facilitate the comprehensive growth of students, equipping them to become informed, proficient, and morally principled individuals capable of making significant contributions to India's social and economic framework.

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