The Potential of Artificial Intelligence in Reshaping Community Work in Saudi Arabia: A Comparative Analysis

Fatima Ali Al-Khamisi
Qassim University,
Department of English Language & Literature, College of Languages& Humanities, Qassim University, Burayda, 51452, Saudi Arabia

Layan Thunayyan, Al-Thunayyan
Department of English Languag e & Literature, College of Languages& Humanities, Qassim University, Burayda, 51452, Saudi Arabia

Shema Majed Al-Mtairi
Qassim University,
Department of English Language & Literature, College of Languages& Humanities, Qassim University, Burayda, 51452, Saudi Arabia

Nouf Saad Alharbi
Qassim University,
Department of English Language & Literature,
College of Languages& Humanities, Qassim University,
Burayda, 51452, Saudi Arabia

ABSTRACT
This comparative study explores how artificial intelligence (AI) can transform community work in Saudi Arabia. Based on an evaluation of the status of community services—healthcare, care for the elderly, disabled, and children—the research identifies areas where AI can make a significant difference in efficiency, effectiveness, and accessibility. The study also examines the expected benefits and drawbacks of adopting AI in such sectors, including key issues such as ethical concerns, privacy of data, and social opposition to technological change. Based on comparative methodology, relying on cross-national experiences of AI adoption under comparable conditions, the study guides how to avoid emerging challenges and maximize the role of AI under the Saudi conditions. Finally, the insights presented are hoped to inform a more strategic, evidence-led approach to AI adoption in the Kingdom's community services sector.

General Terms
AI Applications, Community Services, Saudi Arabia.

Keywords
AI, community work, comparative analysis. Saudi Arabia, reshaping.

1. INTRODUCTION
Elsewhere in the world, artificial intelligence (AI) is increasingly transforming various fields, one being community development. Employing AI to enhance the impact, accessibility, and efficiency of community services is increasingly becoming popular in Saudi Arabia. However, there is still a great deal more to be discovered in terms of incorporating AI into the field, considering particularly the Kingdom's social and economic context. Through awareness of the appropriate and correct utilization of AI within Saudi community work, this research seeks to fill that gap.

Research objectives: This research seeks to explore the current state of Saudi community service in relation to AI; to identify how AI can widen access, effectiveness, and efficiency; to identify and critically examine underutilized AI tools that offer significant yet often unrecognized contributions to the field of community service.; to debate potential challenges to the integration of AI. including the ethics and privacy issues and resistance to change.

Research designs: Document Analysis: Contrast between existing studies, government reports, policy documents, and community initiatives regarding artificial intelligence in Saudi Arabia and other similar countries (e.g., the United Arab Emirates, Analyzing Data: To identify repeating issues, themes, and interventions in different situations, thematic analysis will be applied. By providing context-specific data, comparative analysis will be employed to determine variations and similarities between Saudi Arabia and global models.

2. LITERATURE REVIEW
Forward-thinking researchers across various disciplines have begun to aggressively explore the vast potential applications of artificial intelligence in various aspects of life. Such researchers are researching ways in which AI can be applied to break through complex problems, maximize processes, and improve quality of life in various areas of study, such as medical, education, finance, farming, and environmental science. Some of their work involves developing clever algorithms for pre-disease diagnosis, artificial intelligence software for personal learning, models of climate change, and enhancing public and private sector decision-making. This increase in multi-disciplinary research demonstrates just how practical AI technologies are, as well as how firmly entrenched their revolutionary capabilities are.

While artificial intelligence is increasingly being accepted around the world, there is still limited research on the topic in Saudi Arabia, especially on the research of how it might improve community services. Although significant progress has been made in areas such as smart cities, health, and education, there is still much work lacking in research that examines how AI can be strategically applied to enhance social welfare programs, citizens' participation, and the delivery of public services. The investigation of this relationship is necessary to ensure that technological advancement is consistent with the aims of social progress and Vision 2030 and

to ensure that technological advancement contributes to the well-being of individuals in every area of the Kingdom.

As per Al Saiari et al. [1], AI-based platforms are suitable for the distribution of content to various learning capacities, improving university students' comprehension and participation [1]. As per Mutambik [2], teachers can spend more time on pedagogical innovation by automating LMS administrative tasks, like grading exams and customized reminder questions.

Physical and geographical barriers to learning have been minimized by AI technology. Al Saiari et al. [1] are of the opinion that assistive technology with support from AI has enabled disabled students or distant location students to access learning material asynchronously. Virtual assistants powered by AI in healthcare enhance patient reach by conducting first consultations to Riyadh's underprivileged communities, Muafa et al. [3].

Machine learning streamlines redundant processes across various industries. Smart advising and registrars lighten the administrative loads on tertiary education [1]. AI capability to handle large amounts of medical data is exemplified in the healthcare sector by the utilization of IBM Watson by King Faisal Specialist Hospital, where it assists the oncologists in making treatment decisions as well as increasing diagnostic accuracy levels [3]. Research done in the public sector also finds that AI technologies used in cloud improve service delivery and resource adoption, Harris [4].

AI is also revolutionizing healthcare as well as education. Concomitant with the productivity boost that has been experienced in higher-education institutions, [3] indicate that AI-enabled imaging analysis and virtual assistants enhanced early disease detection and patient categorization in Riyadh hospitals, while automated scheduling and record-keeping have optimized administrative processes. In accordance with issues and recommendations reviewed by Al Saiari et al. [1] for universities, their research indicates the need for robust data-governance systems and targeted.

A suitably trained staff to work with such technology is required for integrating artificial intelligence (AI) into the healthcare system. Almalki et al. [5] utilized the Medical Artificial Intelligence Preparedness Scale for Medical Students (MAIRS-MS) in a recent state-wide investigation to assess the AI-readiness of 1,221 health and medical science students in Saudi Arabia. Four domains were assessed: ethics, vision, ability, and cognition. With a combined average score of 62 out of 110, the results were indicative of a moderate AI preparedness. Exactly, the ethics domain scores were 57%, capability was 57%, vision was 54%, and cognition was 58%. Interestingly enough, only 41% of the students reported that their curricula included AI-related courses, though 44.5% of them thought they should be mandatory. These results reveal a discrepancy between current education provisions and the assumed importance of AI within the healthcare industry. In response to getting ready future healthcare practitioners for an AI-founded world, the research finds that it is essential to plan courses with increased emphasis on technical competencies, ethical issues, and forward-thinking capabilities. This conforms to broader programs throughout Saudi Arabia's Vision 2030, which aim to combine technology in the drive for growth within the healthcare industry.

Apart from the analysis of Riyadh's healthcare sector and AI-driven changes by [3], many other writers have cited the same changes taking place in Saudi Arabia's education and public sectors.

While Al-Smadi and Almalki [5] illustrate the effect of machine-learning algorithm on predictive maintenance in the energy industry, Aleisa et al. [6] explain the effect of AI-based decision-support systems in municipal services. These findings are further extrapolated to tertiary education by [1], who illustrate the effect of automated administrative tools and personalized learning platforms on pedagogical performance. Together, these research studies—across public administration, healthcare, and education—identify common data governance difficulties, infrastructure equity, and AI skill development challenges, and common opportunities for efficiency, access, and personalization. There is a real shortage of research on how AI can be used to support community work and social welfare activities, but more effort is being dedicated to the subject in Saudi Arabia's public sector, Bendary & Rajadurai [7], healthcare [3], and education [1].

Past research has primarily focused on institutional settings, i.e., ministries of government, universities, and hospitals, without addressing community-based and grassroots solutions. Social development comes first in the Kingdom's Vision 2030, necessitating inclusive, people-oriented services, making the gap more urgent. In this study, which explores the application of AI-technology in volunteerism-—like AI-enabled platforms to organize volunteers, automated case-managing programs to assist social workers, and analytical forecasting to predict vulnerable individuals—this analysis attempts to bridge the gap that currently exists between such policy aims, at a strategic level, and social support in practice. Along the way, it will bring AI research to an under-represented destination and provide theoretical insights and practical suggestions for harnessing intelligent technology to enhance Saudi social cohesion and community resilience.

3. DISCUSSION

In satisfying a number of public needs, community services are of vital significance in enhancing social unity and individual well-being. Community services, in its widest sense, encompasses any systematic effort to provide opportunity, care, or aid to individuals from different circles of society. These services may encompass, among others, schemes of public health, social welfare schemes, and schemes of tourism development. Interest in the potential of digital technologies, especially artificial intelligence (AI), to improve, speed up, or revolutionize the provision of community services is developing as a result of their fast pace of development. Artificial intelligence (AI) has the potential to improve accessibility, increase the effectiveness of services, and enable evidence-based decision-making in many areas. The purpose of this study is to investigate three important areas of community services: social, health, and tourism services where AI can complement human work or bring new improvements to existing practices.

3.1 Digital Doctors: The Future of Healthcare in the Kingdom

Applications based on artificial intelligence (AI) can ensure healthier human lives from the very day they are born. AI has raised the accuracy of prenatal tests, which can avoid numerous dangers before they arise. Aside from that, AI has made the sound of the ultrasound or genetic information analysis, Sessa et al. [8], in pregnancy more vital during pregnancy by enabling predictive risks that can detect numerous illnesses, e.g., Dawna syndrome, Liang et al. [9] or DHD. This will now be possible to start taking preventative measures beforehand, even if pregnant. What notion that the artificial intelligence (AI) can

make meditation seem more serious. Knowing how AI is developing today makes it possible for one to predict how much AI will help change healthcare in the future.

AI provides accuracy in fields of drug discovery, non-clinical workflow automation, diagnostic accuracy, and predictive treatment. AI can provide remote care through wearable medical devices, chatbots, telemedicine, and home care ecosystems. AI-based smart home devices detect fall risk and abnormal gait. AI can provide models for the detection of Alzheimer's disease. AI will assist in improving mental stimulation and loneliness reduction will thereby decrease hospitalization, particularly in rural settings. Applications based on artificial intelligence (AI) can ensure healthier human lives from the very day they are born. AI has raised the accuracy of prenatal tests, which can avoid numerous dangers before they arise. Aside from that, AI has made the sound of the ultrasound or genetic information analysis [8], in pregnancy more vital during pregnancy by enabling predictive risks that can detect numerous illnesses, e.g., Dawna syndrome [7], or DHD. This will now be possible to start taking preventative measures beforehand, even if pregnant. What notion that the artificial intelligence (AI) can make meditation seem more serious. Knowing how AI is developing today makes it possible for one to predict how much AI will help change healthcare in the future.

AI provides accuracy in fields of drug discovery, non-clinical workflow automation, diagnostic accuracy, and predictive treatment. AI can provide remote care through wearable medical devices, chatbots, telemedicine, and home care ecosystems. AI-based smart home devices detect fall risk and abnormal gait. AI can provide models for the detection of Alzheimer's disease. AI will assist in improving mental stimulation and loneliness reduction will thereby decrease hospitalization, particularly in rural settings.

AI can speed up the lengthy and tedious drug discovery process through the identification of promising lead compounds and better clinical trial design. The Saudi Arabian government is also working hard to cooperate with the pharmaceutical industries in applying AI in this area.

3.2 From Check-In to Check-Out: AI Applications in the Hospitality Sector in Saudi Arabia

Artificial intelligence's growing application in the travel and hospitality sector are remarkable currently. Due to its ability to revolutionize labor management, operational effectiveness, and service quality, artificial intelligence (AI) constitutes a major study area in the field of hotel and tourism scholarship. Current scholarly literature points to the potential of AI to revolutionize the traditional approach while at the same time raising certain fundamental questions about how to preserve the very ethos of hospitality, which is the primary importance of human interactions. The need to balance technological innovation with the human element that defines visitor experience is a common thread in the literature, especially in environments that are high-touch and luxury-oriented

AI development in this field enhances service provision and visitor experience. The positive impact of AI technologies like chatbots and virtual assistants on enhancing operating procedures and visitor satisfaction is discussed in a paper by Al-Hyari et al. [10]. The research, which involved 89 upscale hotel managers in Amman, Jordan, established that such technologies spur customer loyalty, simplify routine processes, and accelerate service delivery. Importantly, the authors maintained that although AI can greatly propel service efficiency, human interaction should not be substituted by it. Instead, AI should be a useful tool that enhances the entire visitor experience, particularly in upscale hospitality environments where human contact remains a primary necessity.

Zimik and Barman [11] elaborated on the role of AI for tourist development, extending beyond the hotel sector, with emphasis on strategic planning, policymaking, and customized service delivery. Their study confirmed the growing importance of data-driven approaches to shaping trip planning and designing more personalized tourist experiences. A crucial stakeholder readiness gap was also uncovered by the researchers, in addition to the need for intensive training and education of legislators and tourist industry experts. The authors suggested formulating institutional settings to allow the integration of AI in the tourism industry for fruitful and ethical application, hence instilling responsible innovation.

Aleisa et al. [6] highlighted the use of AI in working with the labor force within Saudi Arabia's Vision 2030 initiative context. In trying to mechanize the recruitment process, their publication introduced an AI Recruiting Model (AIRM) based on Data Lakes and Machine Learning methodologies. With a staggering 84% job-candidate matching rate combined with a drastic reduction in time to hire, the model demonstrated the actual benefits of AI-driven HR tools. But the authors warned against overdependence on algorithmic systems, mentioning some of the vulnerabilities like data biases, transparency of decision-making, and the important role played by human intervention to provide accountability and justice.

The Saudi entertainment and tourism sector employs AI applications throughout several seasons, and the Riyadh season is the most viable. Right from the time tourists decide to visit the kingdom, i.e., while applying for a visa, to booking an airline ticket, hotel, car, or train hire, event planning, shopping, and event evaluation, until the last experience of going back home, everything is made possible through AI apps, saving time and energy, and confirming the country's effort in automating and promoting tourism services. AI can suggest what to see, eat, and do according to a visitor's interests and even predict what they will want based on their past activity.

3.3 AI for Social Good: Recalibrating Service Delivery in the Era of Automation Disabilities and AI

In Saudi Arabia, increasingly AI-driven tools enable the visually impaired to live more autonomously. Software such as Be My Eyes [12], which now boasts a GPT-4-fueled "Virtual Volunteer," enables users to have their environments read aloud in real time by using the smartphone camera [12]. Microsoft Seeing AI provides a set of features that include reading printed text aloud, recognising faces, and identifying objects [13]. Google Lookout accomplishes the same and is also available on Android with Arabic capability [14]. A more sophisticated alternative is the OrCam MyEye, a clip-on wearable device that reads written words, recognises faces, and reads products—and can be purchased in Saudi Arabia from authorised assistive technology dealers OrCam Technologies [15].

For the deaf, AI is revolutionising communication with real-time captioning and transcription. AVA app [16] provides real-time subtitles for group discussion, so that words can be read aloud. Rogervoice [17] enables one to make live-captioned calls, with the translation available in several languages.

Google's Live Transcribe app, [18] on the other hand, provides real-time voice-to-text recording and is of huge benefit in the classroom or public environment; it translates Arabic and is also available on Android in Saudi Arabia [18]. These are cost-effective or free programs and are available through the App Store and Google Play.

People with mobility or physical disabilities can be assisted by voice command technologies powered by AI and smart devices. Google Voice Access allows people to use their Android smartphone completely using their voice, with hands-free control of apps, typing, and navigation [14]. Other AI-powered smart wheelchairs (such as WHILL or SoftBank Robotics models) incorporate obstacle detection and autonomous movement, although these are not currently available in Saudi Arabia except through import or bespoke assistive technology providers. Although these products demand additional infrastructure, their presence signals a wider shift toward inclusive design.

Prosthetics driven by artificial intelligence, like 3D-printed bionic arms controlled by artificial intelligence, are offering greater functionality and control, particularly for kids.

Saudi Arabia also has domestic initiatives that integrate AI with accessibility and inclusion policy. Taqat and Wasl portals operated by the Human Resources Development Fund facilitate disabled job seekers matching with inclusive employment using smart filtering and profiling [19]. Further, the Mowaamah Program certifies companies on accessibility levels, usually suggesting AI solutions and tools to enhance workplace inclusion [20]. These initiatives reflect the Kingdom's initiative towards generating tech-powered empowerment according to Vision 2030.

3.4 Elderly and AI Services

In Saudi Arabia, AI is being more and more integrated into elderly care, supporting the country's Vision 2030 objectives of increasing the quality of healthcare services and enabling the elderly to live independently. Various AI technologies are already being applied, ranging from health monitoring and companionship through to assistance with daily living, improving life quality and reducing caregiver burden.

The Saudi Ministry of Health has also introduced the Jam AI program for expanded access and improved results for healthcare among women and older adults. The country's national program is centred on creating cutting-edge AI solutions that will assist in alleviating some health issues through new technology and preventive care **[21]**.

AI-powered chatbots are also being adopted in the health sector to improve health literacy and care among the elderly. These chatbots offer services such as reminding patients to take medication, tracking chronic conditions, and teleconsultation, which help improve the elderly users' engagement with the healthcare provider and help them manage the disease at home **[22]**.

Wearable technology is at the forefront of enhancing Saudi Arabian older adults' independence. Wearable devices with artificial intelligence can monitor blood pressure, monitor falls, and send automatic alarms for emergencies—all features that help enable older adults to remain safer and more independent Mekaaz,**[23]**. In addition, home automation devices for older patients are becoming increasingly common. Home automation systems have voice commands, automated lighting, and emergency alert systems integrated to promote ageing in place with security and comfort **[24]**.

In addition to physical support, socially assistive robots (SARS) are also investigated in terms of their ability to offer companionship and cognitive stimulation. SARS can support the daily routine, provide emotional interaction, and mitigate the loneliness that the elderly living alone often feel **[25].**

3.5. AI Children Services

Artificial intelligence (AI) is a significant step towards enhancing the quality of community services offered to children globally, especially in education, psychology, and cognition. These technologies are used to make support personalized, facilitate early identification of issues, and provide smart, child-targeted feedback, including children with disabilities or special needs.

Educational support tools: Computer programs based on artificial intelligence have revolutionized the process of learning for children, particularly students with learning disabilities or special needs to comprehend and learn. Adaptive learning systems based on artificial intelligence adapt to a student's performance and make content changes based on a student's strength and weaknesses, Martin & Janowski [26].

One of the most significant uses is for children's dyslexia software, by machine learning and natural language processing to transform written into verbal speech, facilitate children through the process of reading, and provide spelling and pronunciation assistance. The software also includes algorithms to detect patterns in frequent errors and provide tailored corrections. Text highlighting synchronously to narration, auto-reading, and interactive visual interface are just a few features that lead to improved concentration and minimal frustration, [27], [26].

In Saudi Arabia, there are early signs of such tool application in national digital education platforms like the Madrasti platform and some assistive learning applications for students with disabilities. However, advanced tools for dyslexic or neurodiverse learning processes are in the early stages of development.

Psychologically and behaviorally, AI systems are employed to monitor children's interaction patterns and behavior through learning robots and video analytics software. They assist in identifying disorders like anxiety, autism, or mood disorders by utilizing computer vision, facial recognition, and voice tone detection, and providing smart feedback that corresponds to the emotional response of the child, Podpečan [28].

Research has shown the use of robots like "NAO" and facial recognition software for early detection of mental health disorders and program development according to psychological well-being, Rossi et al. [29], Podpečan [28].

Although pilot programs are in Saudi Arabia, primarily in special education schools or hospitals with an educational branch, further application is yet to be supported with solid ethical guidelines for keeping children's privacy intact as well as maintaining data environments.

Cognitive and Intellectual development: AI-based systems also help children with cognitive impairments or attention disorders like autism or ADHD. AI-based cognitive kits such as CogniLearn and others provide particular cognitive training and feedback to teachers and caregivers in real time, helping to assess and intervene early, Lee, Kim, & Park [30].

Orphans and AI services

Artificial intelligence (AI) in Saudi Arabia is also being employed to aid orphans with the help of intelligent platforms and web services. One good example of this is Al-Wedad

Foundation, which, using AI-based digital marketing solutions, managed to give a boost to its fundraising efforts during Ramadan. With automated ad suggestions and value-based conversion reporting, the core has significantly enhanced the experience of the donors and enhanced the effectiveness of the advocacy campaigns and, in general, the care and social integration of the orphans, Think with Google, [31].

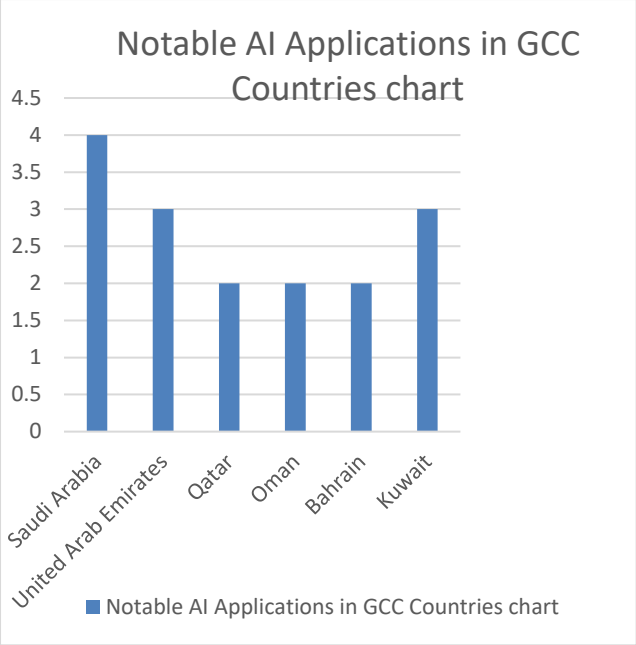
Other than nonprofit innovation, the national portal of the Saudi government provides an expedited Orphan Sponsorship service by which citizens and residents can sponsor and donate to orphans' care online, My.gov.sa, [32]. This digital strategy guarantees ease and convenience in donations to charity. Additionally, a Saudi young orphan, Awad Al-Rashidi, developed the Muntijuh platform to guarantee community empowerment through training and capacity-building initiatives. His project provides a way AI and technology can be used not only for assistance, but also to empower orphans to be contributors to society as well, Arab News, [33].

While AI technologies have demonstrated measurable advantages in early healthcare diagnosis and remote consultation [34], the application of AI in elderly care faces contentious issues due to low levels of digital literacy [35]. Furthermore, tailored AI technologies designed for women's healthcare services pose significant gaps in privacy and interrelated gender discrimination issues, which need to be addressed with governance policies centered on customized AI technologies [36]. This information suggests that the social services, commonly believed to be universal in nature, need to be strategically designed and focused to address social inequities arising from discrimination, technology, gender, and artificial intelligence frameworks sociodemographic. [3].

Saudi Arabia has taken a more comprehensive and deliberate approach to using AI in social services than its Gulf rivals. This is in line with the national Vision 2030 goals [37]. As the UAE continues to lead the region in AI governance by establishing the world's first Ministry of Artificial Intelligence and spearheading large-scale smart city projects such as Dubai's Smart Dubai initiative [38], Saudi Arabia has distinguished itself by focusing on broader social areas such as elderly care, women's empowerment, and child care [39]. For instance, the Kingdom's AI-powered health tools Tawakkalna and Sehhaty experienced widespread use during the COVID-19 pandemic [40]. In contrast, Qatar emphasizes the use of AI in precision medicine, and in the education sector [41]. While both Oman and Bahrain have advanced with the application of AI in administrative and e-government functions, they are more limited in the social sector in both scope and scale [42]. The use of AI in religious tourism and services tailored to women and children in Saudi Arabia, like the smart Hajj platforms and AI crowd management, show an exceptional preoccupation relative to the rest of the GCC. Even so, there are still significant concerns regarding AI equity for different population groups and the ability to convert policy-level social initiatives into real-use grassroots social change [43]. Kuwait started officially building its national AI initiatives under Kuwait Vision 2035 and released its National AI Strategy in 2023 focusing on healthcare digitization, education, and smart infrastructure [44] (see Table 1 for a comparative overview of AI implementation in GCC countries) [45]

Table 1: Comparative Focus of AI in Social Services among GCC Countries

Country	AI Governance & Strategy	Key Focus Areas in Social Services	Notable Applications
Saudi Arabia	Vision 2030; National Strategy for Data & AI (NSDAI)	Healthcare, elderly care, women's services, tourism, child welfare	Tawakkalna, Sehhaty, Smart Hajj apps, Women's AI platforms
United Arab Emirates	Ministry of AI (est. 2017); UAE Centennial 2071	Smart cities, public safety, e-government, education	Smart Dubai, police surveillance AI, AI tutors
Qatar	Qatar National AI Strategy (2019)	Healthcare innovation, personalized education, accessibility	Precision medicine platforms, AI-based learning apps
Oman	Oman Vision 2040; National Digital Economy Programme	Administrative automation, healthcare digitization	AI in hospital scheduling, digital ID platforms
Bahrain	National AI & Cloud First Strategy	e-Government services, customer service in public sector	Chatbots in public portals, AI in public feedback systems
Kuwait	Kuwait Vision 2035; National AI Strategy (2023)	Healthcare digitization, education, smart infrastructure	AI in public health, education analytics, smart traffic management



3.6 Sustained Challenge

Technological Illiteracy: Vast segments of the population, particularly the elderly and lower-educated groups, are not digitally literate to be able to benefit from AI services in an ideal way.

Shortage of Trained Experts: There are minimal local experts trained to create, roll out, and sustain AI, particularly in fields such as digital education, mental health care, and personalized care.

Language and Cultural Barriers: Most AI tools are developed for English-speaking users and may not be entirely compatible with Arabic or local culture, impacting usability and effectiveness.

Ethics and Privacy Issues: The application of AI in sensitive areas such as healthcare, education, and surveillance raises issues regarding privacy, consent, and the use of data ethics, particularly involving children and vulnerable populations.

Policy and Regulatory Challenges: The rapid development of AI places current regulation ahead of its time, and there are concerns about standards, accountability, and juridical responsibility for services provided using AI.

Resistance to Change: Some institutions and individuals would resist the application of AI because they fear losing jobs, have doubts about the technology, or prefer the conventional method of services.

4. CONCLUSION

To construct a high-intensity descriptive case for this sector and determine the prevalence of artificial intelligence (AI) applications to re-engineer and digitize community services in different sectors, including healthcare, tourism, disability, elderly care, and services for children, among others—this report aims to trace the application of AI in Saudi Arabia's community services.

In medicine, artificial intelligence enhances the creation of drugs, diagnosis, and treatment prediction, as well as automates non-medical tasks. It promotes remote health services via wearables, chatbots, telemedicine, and in-home care systems, monitoring medical hazards such as falls or abnormal movement. AI also enables early detection of Alzheimer's and minimizes hospitalization and isolation, particularly among rural dwellers.

Saudi Arabia's tourism industry, particularly throughout Riyadh Season, applies AI to rationalize the entire tourist experience—from visa application through travel, lodging, planning events, and follow-up post-travel surveys—to show how seriously the nation takes automating and streamlining tourist services.

These are all a reflection of Saudi Arabia's dedication to the use of AI in a way that improves the life quality of its ageing population through better health and greater autonomy for the elderly.

AI is used in children's community services to promote their behavioral and psychological well-being, intellectual, and cognitive development. It is also used to improve care and support for orphans.

In spite of the pervasiveness of technological innovation in all aspects of the Kingdom of Saudi Arabia, from provision of community services, there are numerous issues that remain. These include illiteracy in technology issues and the lack of professional holders of certification in digital education, most notably among middle-aged and elderly people. These barriers shortchange effective use and customization of current AI-based services.

Contrast between GCC nations in AI use for social services indicates equivalent goals and widespread use varying with one another. UAE and Saudi Arabia boast more multi-sectoral and collaborative implementations compared to Kuwait, Oman, Bahrain and Qatar, which experience sectoral learning towards all-encompassing sectors such as education healthcare and e-government. This difference necessitates more cooperation at the regional, and policy levels so as to extract the most out of social AI uses for the citizens in the Gulf.

Even though Saudi Arabia is largely seen to be one of the most technologically developed countries in the Arab region and internationally, providing nearly ubiquitous digital government services alongside advanced daily life, education, and healthcare services, the implementation of AI technologies themselves is limited. Notwithstanding the general popularity of smart devices and AI services, owing to the support of the Kingdom's stable economic condition and high per capita income, these technologies remain largely underutilized. Underutilization owes mainly to the lack of public awareness of offered services and poor user competency. Consequently, there is a need for urgent awareness campaigns and intensive training sessions to equip potential beneficiaries with the necessary capacity to utilize and access such intelligent services optimally. Though AI application within community work holds significant potential for maximizing speed, cost savings, and delivery efficacy, it has the potential to lower employment opportunities made available in the community service field. This, in turn, can reduce the human touch and compassion required for so much of social care that AI technology lacks..

5. ACKNOWLEDGMENTS

The author(s) gratefully acknowledge Qassim University, represented by the Deanship of Graduate Studies and Scientific Research for the financial support of this project during the academic year 1446 AH / 2024 AD

6. REFERENCES

[1] Al Saiari, S. M. H., Samudin, S. A. B., Samah, M., & Murshed, A. A. M. M. (2025). *Advancements in Artificial*

Intelligence in Saudi Arabia: A Critical Analysis of Current Realities and Future Prospects. International Journal of Academic Research in Business and Social Sciences, 15(2), 1–25.

[2] Mutambik, I. (2024). The use of AI-driven automation to enhance student learning experiences in the KSA: An alternative pathway to sustainable education. *King Saud University Journal of E-Learning*, 5(1), 15–34.

[3] Muafa, A. M., Al-Obadi, S. H., Al-Saleem, N. A. I., Taweili, A. A., & Al-Amri, A. G. (2024). The impact of artificial intelligence application on the digital transformation of healthcare delivery in Riyadh, Saudi Arabia (Opportunities and challenges in alignment with Vision 2030). *Academic Journal of Research and Scientific Publishing*, 12(3), 77–98.

[4] Harris, L. (2024). *The future of hybrid cloud solutions and AI resource optimization*. ResearchGate. https://www.researchgate.net/publication/385288080_The_Future_of_Hybrid_Cloud_Solutions_and_AI_Resource_Optimization

[5] Almalki, M., Alkhamis, M. A., Khairallah, F. M., & Choukou, M.-A. (2025). Perceived artificial intelligence readiness in medical and health sciences education: A survey study of students in Saudi Arabia. *BMC Medical Education, 25*, Article 439. https://doi.org/10.1186/s12909-025-06995-1

[6] Aleisa, M. A., Beloff, N., & White, M. (2023). AI and data-driven recruitment in the Saudi labor market: AIRM model implementation. *Journal of Innovation and Entrepreneurship, 12*, Article 59. https://doi.org/10.1186/s13731-023-00324-w

[7] Bendary, M. G., & Rajadurai, J. (2024). Emerging technologies and public innovation in the Saudi public sector: An analysis of adoption and challenges amidst Vision 2030. *Journal of Public Sector Innovation*, 8(1), 45–62.

[8] Sessa, F., Esposito, M., Cocimano, G., Salerno, M., Pomara, C., & Zamboni, P. (2024). Artificial intelligence and criminal genetics: Current applications and future prospects. *Applied Sciences, 14*(4), 2113. https://doi.org/10.3390/app14042113

[9] Liang, H., Tsui, B. Y., Ni, H., Valentim, C. C., Baxter, S. L., Liu, G., ... & Cai, W. (2019). Evaluation and accurate diagnoses of pediatric diseases using artificial intelligence. *Nature Medicine, 25*(3), 433–438. https://doi.org/10.1038/s41591-018-0335-9

[10] Al-Hyari, H. S., Al-Smadi, H. M., & Weshah, S. R. (2023). The impact of artificial intelligence (AI) on guest satisfaction in hotel management: An empirical study of luxury hotels. *GeoJournal of Tourism and Geosites, 48*(2spl), 810–819. https://doi.org/10.30892/gtg.482spl15-1081

[11] Zimik, A. S. S., & Barman, A. (2024). Next dynamics in designing artificial intelligence to support tourism development. *International Journal of Engineering Technologies and Management Research, 11*(6), 44–57. https://doi.org/10.29121/ijetmr.v11.16.2024.1465

[12] Be My Eyes. (n.d.). *Be My Eyes – See the world together*. https://www.bemyeyes.com/

[13] Microsoft. (n.d.). *Seeing AI – Talking camera app for the blind community*. Microsoft. https://www.microsoft.com/en-us/ai/seeing-ai

[14] Google. (n.d.-b). *Lookout – Assisted vision*. Google Play Store. https://play.google.com/store/apps/details?id=com.google.android.apps.accessibility.reveal

[15] OrCam Technologies. (n.d.). *OrCam MyEye – Wearable assistive technology device*. OrCam. https://www.orcam.com/en/myeye/

[16] AVA Accessibility. (n.d.). *AVA: Real-time captions for deaf and hard of hearing*. AVA. https://www.ava.me/

[17] Rogervoice. (n.d.). *Rogervoice: Real-time captions for phone calls*. https://rogervoice.com/en/

[18] Google. (n.d.-a). *Live Transcribe & Sound Notifications*. Google Play Store. https://play.google.com/store/apps/details?id=com.google.audio.hearing.visualization.accessibility.scribe

[19] Human Resources Development Fund (HRDF). (n.d.-a). *Taqat platform*. https://www.taqat.sa/

[20] Human Resources Development Fund (HRDF). (n.d.-b). *Mowaamah program – Accessibility certification for businesses*. https://hrdf.org.sa/Program/10168

[21] Healthcare Asia. (2024, April 3). *Saudi Arabia launches Jam AI to improve elderly and women's healthcare*. https://healthcareasiamagazine.com/healthcare/news/saudi-arabia-launches-jam-ai-improve-elderly-and-womens-healthcare

[22] Shahzad, B., Wang, B., Ghulam, A., & Rehman, M. H. (2024). *A review of artificial intelligence chatbots in advancing older adults' health literacy and management*. PeerJ Computer Science, 10, e2773. https://peerj.com/articles/cs-2773

[23] Mekaaz. (2023). *How wearable tech redefines elderly independence*. https://mekaaz.com/how-wearable-tech-redefine-elderly-indpendence

[24] Wikipedia. (2023a). *Home automation for the elderly and disabled*. https://en.wikipedia.org/wiki/Home_automation_for_the_elderly_and_disabled

[25] Wikipedia. (2023b). *Socially assistive robot*. https://en.wikipedia.org/wiki/Socially_assistive_robot

[26] Martin, J., & Janowski, K. (2021). The best assistive technology for dyslexics. *WIRED*. https://www.wired.com/story/the-best-assistive-technology-dyslexia

[27] Speechify. (2025). *Wikipedia*. https://en.wikipedia.org/wiki/Speechify

[28] Podpečan, V. (2023). Can you dance? A study of child–robot interaction and emotional response using the NAO robot. *Multimodal Technologies and Interaction*, 7(9), 85. https://doi.org/10.3390/mti7090085

[29] Rossi, S., Santini, S. J., Di Genova, D., Maggi, G., Verrotti, A., Farello, G., ... & Balsano, C. (2022). Using the social robot NAO for emotional support to children at a pediatric emergency department: Randomized clinical trial. *Journal of Medical Internet Research*, 24(1), e29656. https://doi.org/10.2196/29656

[30] Lee, J., Kim, H., & Park, S. (2022). Understanding emotions in children with developmental disabilities during robot therapy using EDA. *Sensors*, 22(14), 5116. https://doi.org/10.3390/s22145116

[31] Think with Google. (n.d.). *How a Saudi Arabian charity*

used AI to run an impactful campaign for orphans. https://www.thinkwithgoogle.com/intl/en-emea/marketing-strategies/automation/saudi-arabia-charity-ai-powered-campaign-for-orphans

[32] My.gov.sa. (n.d.). *Orphan sponsorship service*. https://my.gov.sa/en/services/20900

[33] Arab News. (2024, January 27). *Saudi orphan builds 'Muntijuh' platform to empower communities*. https://www.arabnews.com/node/2441571

[34] A. Alghamdi, N. Alharbi, and H. Alyami, "Digital Health Transformation in Saudi Arabia: Role of AI Technologies in Managing COVID-19," *J. Health Inform. Dev. Ctries.*, vol. 16, no. 1, pp. 22–31, 2022.

[35] M. Alshahrani and A. Alenezi, "AI and the Future of Social Services in Saudi Arabia: Policy, Practice, and Ethics," *Middle East J. Social Innov.*, vol. 4, no. 3, pp. 50–66, 2023.

[36] S. Al-Fadhli, "Artificial Intelligence Ethics and Equity in GCC Social Systems," *Gulf J. Policy Soc.*, vol. 5, no. 2, pp. 110–124, 2023.

[37] Kingdom of Saudi Arabia, "Vision 2030," 2016. [Online]. Available: https://vision2030.gov.sa

[38] World Government Summit, "Artificial Intelligence in the UAE: A Governance Approach," Dubai, UAE, 2022.

[39] M. Alshahrani and A. Alenezi, "AI and the Future of Social Services in Saudi Arabia: Policy, Practice, and Ethics," Middle East Journal of Social Innovation, vol. 4, no. 3, pp. 50–66, 2023.

[40] A. Alghamdi, N. Alharbi, and H. Alyami, "Digital Health Transformation in Saudi Arabia: Role of AI Technologies in Managing COVID-19," Journal of Health Informatics in Developing Countries, vol. 16, no. 1, pp. 22–31, 2022.

[41] Qatar Ministry of Communications and Information Technology, "Qatar National AI Strategy," Doha, Qatar, 2022.

[42] Bahrain Economic Development Board, "AI Strategy and Digital Transformation in Bahrain," Manama, Bahrain, 2023.

[43] S. Al-Fadhli, "Artificial Intelligence Ethics and Equity in GCC Social Systems," Gulf Journal of Policy and Society, vol. 5, no. 2, pp. 110–124, 2023.

[44] Kuwait Central Agency for Information Technology, "Kuwait National Artificial Intelligence Strategy 2023," Kuwait City, Kuwait, 2023. [Online]. Available: https://www.cait.gov.kw

[45] Compiled from: Vision 2030, UAE Centennial Plan, Qatar MCIT (2022), Oman Digital Economy Program, Bahrain EDB (2023), and regional academic publications [1]–[4].