Plugging Palestine into the AI Revolution

Entrepreneurship, Digital Economy, and Identity

By Mona Nabil Demaidi



Across Palestine, a rising generation of innovators is harnessing artificial intelligence (AI) and digital technology to transform adversity into opportunity. Through creativity, skill, and persistence, they are laying the foundations of a digital economy that can transcend physical barriers and open pathways to economic resilience and global participation.

Palestinians have recognized that AI can serve as a catalyst for economic growth, public sector reform, and more effective governance. In 2022, a national Artificial Intelligence Strategy was developed as part of Palestine's broader digital transformation agenda and formally launched by the Palestinian Authority in 2023.[1] This approach aligns with international discussions in AI governance, which emphasize the importance of nationally grounded strategies in shaping inclusive, context-aware, and development-oriented AI ecosystems.[2]

The Palestinian National AI Strategy sets out several interconnected objectives. First, it prioritizes the modernization of government services through the integration of AI systems that automate administrative processes, improve service delivery, and enhance transparency. Second, it promotes the use of AI for development by encouraging applications in priority sectors such as agriculture, water management, healthcare, education, and transportation, where AI-driven solutions can directly address local challenges. Particular emphasis is placed on Arabic language processing, ensuring that emerging technologies remain accessible, culturally relevant, and responsive to Palestinian society.

A third pillar of the strategy focuses on investing in human capital and innovation. Through public-private partnerships, academic collaboration, and research support, the strategy seeks to cultivate a strong AI talent pipeline and position Palestine as a regional contributor to AI education and specialized expertise. Finally, the strategy adopts an inclusive and responsible AI framework, calling for ethical and legal safeguards that protect human rights, ensure accountability, and actively include marginalized communities in the digital transformation process.

Taken together, these policy commitments articulate a forward-looking vision. Palestine is not positioned merely as a consumer of imported technologies, but as an active contributor to the global AI landscape. While implementation challenges remain, particularly in infrastructure, financing, and coordination, the strategic direction is clear. AI is not framed as a luxury reserved for stable economies; it is understood as a necessary instrument for Palestinian development, resilience, and self-determination.

At the same time, technology alone cannot sustain this transformation without the financial and legal foundations that allow innovation to move and scale. For Palestine to be fully plugged into the global digital

> **AI serves as a catalyst for digital transformation, modernizing government services and assisting in the development of economic sectors. This requires a framework of ethical and legal safeguards, a shared digital public infrastructure, and access to international financial systems.**



AI Action Summit in Paris (February 2025), where Dr. Mona Demaidi supported the integration of a Women, Peace, and Security (WPS) lens into artificial intelligence.



Launching artificial intelligence Educational Agents (Avatars) at Arab American University to be the first in Palestine and leader in the MENA region.

economy, access to international financial infrastructure must be treated as a core enabler rather than a peripheral concern. Palestinian startups, whether building AI tools, creative platforms, or e-commerce services, depend on the ability to receive payments, serve global customers, and attract external investment. Enabling access to widely used international payment gateways and online marketplaces would allow Palestinian entrepreneurs to operate on equal technical footing with peers worldwide, reducing friction and supporting early growth.

As a complement to financial access, a modern legal infrastructure for entrepreneurship is equally essential. Clear investor protection mechanisms, updated intellectual property frameworks, and startup-friendly corporate regulations create the trust on which innovation ecosystems depend. When founders can protect their ideas and investors can deploy capital within predictable legal environments, entrepreneurship shifts from survival-driven experimentation to long-term value creation. Strengthening these foundations would not only attract investment, but also encourage Palestinian startups to retain intellectual assets locally while competing globally.

A practical way to accelerate this transition is to invest in shared digital public infrastructure that entrepreneurs across sectors can immediately access. One proposal is a regulated online virtual business bank designed for Palestinian founders and freelancers. Such a platform could offer multi-currency accounts, compliant onboarding, API-based payments, and reliable links to international financial rails for invoicing, subscriptions, and cross-border payouts. In effect, it would function as a startup-ready financial layer, tailored to the realities of remote-first work and global markets, enabling businesses of all kinds to transact internationally without complex workarounds.

Alongside financial rails, Palestine also requires a resilient data infrastructure to support AI development and digital services. A complementary concept is that of a data embassy for critical digital systems. Under this model, essential datasets and AI workloads would be hosted within legally governed, high-assurance environments, potentially in partnership with trusted regional or international cloud providers. For startups, this would ensure dependable access to computing resources, secure data storage, and continuity of service. For public institutions, it would provide a protected space for sensitive data while maintaining operational reliability.

> **A cultural voice in AI preserves identity through technology.**

To make these systems credible and investable, a modern approach to data protection and privacy law becomes an economic necessity rather than a compliance afterthought. Clear rules governing consent, data processing, cross-border transfers, and accountability, paired with effective enforcement, can significantly lower perceived risks for investors and international partners. In the AI era, trust itself becomes a competitive advantage. Startups that demonstrate privacy by design, secure data practices, and responsible AI governance are better positioned to win clients, form partnerships, and scale beyond borders.

These ideas are not without precedent. Estonia's e-Residency program illustrates how a small country can provide entrepreneurs worldwide with a virtual gateway to company formation, digital identity, banking access, and cross-border operations entirely online.[3] Similarly, financial hubs such as the Dubai International Financial Centre and Singapore have built regulatory environments that enable fintech firms and startups to connect seamlessly with global payment systems through digital-first banking and open API frameworks.[4]

On the data side, Estonia's data embassy initiative offers a relevant example of how sovereign digital services can be safeguarded through legally defined hosting arrangements abroad.[5] Emerging economies have also pursued similar strategies. Rwanda's national data center program, for instance, has helped position the country as a regional hub for secure cloud services and digital innovation.[6] In parallel, comprehensive privacy legal frameworks such as the European Union's GDPR demonstrate how strong data protection laws can function as economic assets, enabling cross-border data flows while building trust among users, partners, and investors.[7]

Taken together, these global experiences suggest that Palestine does not need to reinvent the wheel. By adapting proven models of virtualized financial access, a resilient data infrastructure, and modern privacy governance, Palestine can establish itself as a digitally credible and globally connected innovation gateway, even in the absence of traditional physical advantages.

While policy, infrastructure, and finance form the structural backbone of a digital economy, culture and

language determine whether technology is truly adopted, trusted, and sustained. A crucial aspect of this AI revolution is ensuring that Palestine's culture and identity are not lost in translation. Today's most widely used AI models, largely developed in the Global North, often struggle to capture the nuances of Arabic dialects, local context, and Palestinian cultural references. Biases in generative AI outputs concerning Palestinians have also been documented, reflecting broader patterns of underrepresentation in training data. If reliance on externally developed AI systems continues unchecked, Palestinian narratives risk being distorted or erased altogether.

"Plugging Palestine into" large language models (LLMs)[8] is therefore both a technical and cultural imperative. Developing AI systems that understand Palestinian Arabic, recognize local idioms, and reflect lived realities from Gaza through Jerusalem to Jenin are essential for meaningful digital inclusion. Regional efforts to develop Arabic-first AI models demonstrate that technological sophistication and cultural rootedness are not mutually exclusive. By fine-tuning large models with authentic Palestinian data, voices, stories, and linguistic diversity, developers can create AI tools that are more accurate, human-centered, and socially relevant.

Beyond language, culturally aware AI also offers powerful tools for preserving heritage. AI-driven analysis of traditional art, tatreez embroidery, architecture, folklore, and music can support cultural documentation and creative innovation, ensuring that Palestinian identity endures in the digital age. In this sense, AI becomes a two-way bridge: presenting Palestinian culture authentically to the world while delivering global knowledge to local communities in forms that feel familiar and empowering.

At the same time, Palestine should begin to think strategically about plugging into the growing ecosystem of Arabic-first AI models that are emerging in the region, particularly in Saudi Arabia,[9] the United Arab Emirates,[10] and Qatar.[11] Significant investments in Arabic LLMs, sector-specific AI platforms, and sovereign cloud infrastructure in these countries are shaping a regional AI landscape that is linguistically aligned, culturally aware, and globally competitive. Rather than viewing these developments as external, Palestine can engage with them as complementary pathways.

Partnerships with Saudi, Emirati, and Qatari AI initiatives offer practical opportunities for Palestinian developers, startups, and researchers. These include contributing high-quality Palestinian Arabic data for fine-tuning models, building localized applications on top of Arabic AI platforms, and integrating Palestinian use cases into regional AI ecosystems that span education, healthcare, public services, and creative industries. Such collaboration will allow Palestine to benefit from scale, compute capacity, and market access that would be difficult to achieve independently, while retaining local relevance and ownership over data and applications.

Positioning Palestine within the Arabic AI ecosystem also reinforces a broader strategic logic: Connecting to the world through regional gateways that share language, culture, and economic vision. By aligning with Arabic AI models that have been developed in the Gulf, including initiatives in Saudi Arabia, the United Arab Emirates, and Qatar, Palestinian innovators can access regional markets more easily, and ensure that Arabic, including Palestinian dialects, is represented in the next generation of AI systems. In doing so, Palestine entrepreneurs are its drivers. Across Palestine, startups are already leveraging AI and digital platforms to reach regional and global markets. With a fragmented domestic market, Palestinian entrepreneurs have adopted a "test local, scale regional" mindset, piloting solutions at home before expanding to larger markets across the Middle East and beyond.

Software and AI-enabled services are particularly well suited to this context. Digital products travel more easily than physical goods, allowing Palestinian firms to overcome mobility and trade restrictions. Combined with a highly educated, cost-competitive workforce and a strong remote-work culture, this has positioned Palestinian tech talent as an increasingly attractive partner for regional companies. The ICT sector already contributes a meaningful share of national GDP and produces thousands of new graduates each year, many trained in AI, data science, and related fields.

Entrepreneurial resilience has also become a competitive advantage.



Launching Women in AI and Tech Business Network in partnership with Business Women Forum in Ramallah.

"Entrepreneurs are on the frontlines of the AI revolution. With policy direction set and cultural grounding established, the practical momentum of Palestine's AI journey is carried forward by its entrepreneurs."

Years of operating under uncertainty have fostered adaptability, reliability, and long-term commitment among Palestinian tech professionals, qualities highly valued in international collaborations. For global partners, engaging Palestinian startups is not only commercially viable but also socially impactful, contributing to job creation and economic stability in a high-unemployment context.

agency among the youth. Each line of code written under such conditions becomes an act of resilience and a foundation for long-term development.

Taken together, the policy vision, cultural grounding, regional integration, and entrepreneurial action outlined above converge most powerfully in their impact on the next generation.



AI senior-level training at Palestine Islamic Bank.

In Gaza, rebuilding through tech will become crucial. The role of technology in resilience becomes most visible in contexts of extreme constraint, where digital skills translate directly into livelihoods and recovery.

Nowhere is the transformative potential of the digital economy more evident than in Gaza. Before the 2023 war, organizations such as Gaza Sky Geeks served as the backbone of a vibrant tech ecosystem, training thousands of young people and enabling remote work opportunities that generated millions of dollars in income. Although much of Gaza's physical infrastructure has since been destroyed and many young professionals have fallen victim to the assault on Gaza, many others remain and are eager to work. The human capital exists.

Digital skills, unlike factories or ports, can be rebuilt with relatively modest physical resources. As reconstruction efforts continue, revitalizing Gaza's tech sector offers a practical pathway to economic recovery. Investment in connectivity, training, and startup support can enable Gazans to export skills digitally, reduce aid dependency, and restore a sense of

The story of Palestine's engagement with AI and entrepreneurship is ultimately a story about the future. It tells young Palestinians that they belong in the digital age not as passive users, but as creators, innovators, and leaders. By embedding AI development within a national strategy, nurturing culturally grounded technologies, and empowering entrepreneurs, Palestine is carving out a distinct role in the global AI ecosystem.

Embracing AI is about more than economic opportunity. It is about narrative power, cultural preservation, and self-determination in a rapidly changing world. From policy frameworks to startup labs, from universities to refugee camps, Palestinians are asserting their presence in the technologies that will shape tomorrow. The challenges are immense, but so is the potential. By continuing to invest in AI with. intention and integrity, Palestine can ensure that its digital future is not only connected, but its own.

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[8] Large language models (LLM) are advanced AI systems that are trained on massive text datasets using deep learning to understand, generate, summarize, and translate human language, forming the foundation for applications such as chatbots (ChatGPT, Gemini, Claude) that perform complex tasks by predicting the next most probable word or sequence of words, essentially mimicking human communication.

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[11] FANAR Arabic Generative Artificial Intelligence Platform (in Arabic).