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RESEARCH ARTICLE

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DIGITAL SKILLS DEVELOPMENT FOR EMPLOYABILITY IN SOMALI HIGHER EDUCATION: POLICY PRIORITIES AND TRAINING IMPLEMENTATION GAPS

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ABSTRACT

Digital skills are increasingly important for graduate employability, entrepreneurship, public-sector modernization and participation in the digital economy. In Somalia, expanding mobile connectivity, digital financial services, e-government reforms and national digital inclusion priorities have created a strong policy rationale for strengthening digital skills in higher education. This review examines digital skills development for employability in Somali higher education by synthesizing national policy documents, international digital economy evidence, education-sector data and digital competence frameworks. The review draws on Somalia's National ICT Policy and Strategy 2019-2024, Education Sector Strategic Plan 2022-2026, Digital Inclusion Policy, eGovernment Strategy 2025-2029, UNESCO ICT-in-education work, World Bank employment and digital economy analysis, DataReportal indicators, DigComp 2.2 and the World Economic Forum Future of Jobs Report 2025. The findings indicate that Somalia has clear digital transformation policy momentum, but employability-oriented digital skills training remains weakly structured, unevenly assessed and insufficiently connected to employers. Key gaps include low computer ownership, affordability barriers, limited lecturer digital pedagogy, fragmented curricula, weak employer linkages and inadequate monitoring. The article proposes competency-based, inclusive and employment-oriented digital skills development for Somali universities.

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INTRODUCTION

Digital skills have become a core component of employability in higher education. Employers increasingly expect graduates to use digital tools for communication, collaboration, data handling, online research, content creation, cybersecurity awareness, problem solving, and technology-enabled innovation. Digital skills are no longer confined to students in computer science or information technology programs. They are required in education, business, health, engineering, agriculture, public administration, finance, social sciences, and entrepreneurship. This shift is especially important for countries such as Somalia, where higher education is expected to contribute to recovery, state-building, economic participation, youth employment, and digital transformation. Somalia provides an important case for examining the link between digital skills development and employability. The country has a young population, an expanding telecommunications sector, widespread use of mobile money, a growing private higher education sector, and increasing government attention to digital inclusion and e-government. DataReportal (2026) reports that Somalia had 19.8 million people in late 2025, a median age of 15.6 years, 11.5 million cellular mobile

connections, and 5.47 million internet users, equal to 27.6% internet penetration. These indicators show a young, mobile-first society with growing digital opportunity, but they also show that a large share of the population remains offline. As digital services expand, higher education institutions will be under increasing pressure to prepare graduates who can use technology productively, ethically, and creatively. The employability challenge is also substantial. Somalia's labor market is characterized by low labor force participation and a dual structure in which a limited pool of higher-quality jobs is usually accessed by people with better education, while many others depend on low-pay or low-quality work (World Bank, 2025). The Education Sector Strategic Plan 2022-2026 also recognizes the weak relationship between education and labor-market relevance, including skills deficits among youth and the need to improve the quality and relevance of higher education and TVET (MoECHE, 2022). In this context, digital skills development is not simply an education-sector issue. It is a labor-market, social inclusion, governance, and national development issue. The title of this article emphasizes three connected ideas: digital skills development, employability, and training implementation gaps. Digital skills development refers to the planned acquisition of digital knowledge, practical abilities, attitudes, and responsible behaviors needed to participate in education, work,

and society. Employability refers to the ability of graduates to obtain, retain, create, and adapt to work opportunities, including paid employment, self-employment, entrepreneurship, remote work, and digital freelancing. Training implementation gaps refer to the distance between policy aspirations and actual institutional practice, including gaps in infrastructure, curriculum, lecturer capacity, assessment, quality assurance, industry collaboration, and inclusive access. The article argues that Somalia's higher education sector has a growing policy foundation for digital skills development, but that this foundation must be translated into measurable institutional practices. Universities need digital skills frameworks, curriculum integration, practical training, work-integrated learning, certification, student support, lecturer development, digital learning platforms, and partnerships with employers and technology providers. Without such mechanisms, digital skills may remain a policy slogan rather than a graduate capability. This article has four objectives: (1) to examine national and international policy priorities that support digital skills development for employability in Somali higher education; (2) to synthesize available secondary evidence on digital readiness, skills, access, and labor-market relevance; (3) to identify training implementation gaps affecting the development of employability-oriented digital skills; and (4) to propose a practical framework and recommendations for strengthening digital skills development in Somali higher education institutions. The article is guided by four research questions. First, what policy priorities currently support digital skills development for employability in Somali higher education? Second, what does available secondary data reveal about Somalia's digital readiness and skills environment? Third, what training implementation gaps limit the development of digital skills among university students and graduates? Fourth, what strategies can universities, policymakers, employers, and development partners use to strengthen digital skills for employability in Somalia?

MATERIALS AND METHODS

This article uses a secondary data and policy review design. A review design is appropriate because the purpose is to synthesize existing evidence and policy commitments rather than to collect new primary data. The approach is also suitable for a policy-relevant article where national documents, global digital skills frameworks, and international datasets already provide evidence on digital transformation, digital inclusion, employability, and education quality. The review used five categories of sources. The first category consisted of Somalia national policy documents, including the National ICT Policy and Strategy 2019-2024, the Education Sector Strategic Plan 2022-2026, the Digital Inclusion Policy, and the eGovernment Strategy 2025-2029. The second category consisted of education-technology and digital-learning documents, including UNESCO's Somalia technology profile and information on the ICT in Education Policy and Masterplan 2023-2028. The third category consisted of digital economy and labor-market evidence, especially the World Bank's Somalia Digital Economy Diagnostic and recent employment analysis. The fourth category consisted of current digital indicators from DataReportal and survey-based data reported in Somalia's Digital Inclusion Policy. The fifth category consisted of global digital skills and employability frameworks, including DigComp 2.2, ILO youth employment evidence, and the World Economic Forum Future of Jobs Report 2025.

The analysis followed a thematic documentary review procedure. First, documents were screened for relevance to digital skills, ICT in education, higher education, employability, labor-market readiness, digital inclusion, and implementation. Second, relevant evidence was extracted and grouped under policy priorities, digital readiness indicators, training and curriculum issues, inclusion and affordability barriers, institutional capacity, and employability pathways. Third, the extracted evidence was compared with the competencies commonly used in digital skills frameworks, especially the DigComp domains of information and data literacy, communication and collaboration, digital content creation, safety, and problem solving (Vuorikari et al., 2022). Finally, the findings were synthesized into a proposed

implementation framework for employability-oriented digital skills development in Somali higher education. The review has limitations. It does not measure student digital competence directly, and it does not include interviews with employers, lecturers, students, policymakers, or university leaders. It therefore provides a policy and evidence synthesis rather than an institution-level diagnostic. Nevertheless, the review is useful because it brings together scattered evidence into a coherent analysis of what Somali higher education needs to do to convert national digital policy priorities into graduate employability outcomes.

FINDINGS AND ANALYSIS

Conceptualizing Digital Skills for Employability: Digital skills for employability should be understood as a layered set of competencies rather than as a single technical ability. At the foundation level, students need basic digital literacy: operating devices, using the internet, managing files, communicating online, and using productivity software. At the academic level, students need information literacy, digital research skills, referencing tools, online collaboration, learning management system use, and digital academic integrity. At the professional level, graduates need workplace tools such as cloud collaboration, spreadsheets, databases, presentations, customer relationship systems, data visualization, project management tools, and digital communication platforms. At the advanced level, employability increasingly requires exposure to data analysis, cybersecurity awareness, digital marketing, software logic, online business, artificial intelligence literacy, and sector-specific digital applications.

DigComp 2.2 provides a useful reference point because it organizes digital competence into five areas: information and data literacy, communication and collaboration, digital content creation, safety, and problem solving. The framework is particularly relevant because it also includes examples related to emerging technologies such as artificial intelligence (Vuorikari et al., 2022). For Somali higher education, these domains can be translated into practical graduate outcomes. A graduate should be able to search for and evaluate digital information, communicate and collaborate online, create professional digital content, protect personal and institutional data, solve practical work problems using digital tools, and continue learning as technologies evolve. Employability adds an important labor-market dimension to digital skills. A student who knows how to use a smartphone for social communication may still lack the skills needed for workplace productivity, online freelancing, business analytics, digital entrepreneurship, or professional communication. Similarly, a student who can use basic office software may still lack cybersecurity awareness, data interpretation, digital portfolio development, or sector-specific applications. Therefore, higher education institutions need to distinguish between informal digital familiarity and employability-oriented digital competence.

The World Economic Forum (2025) identifies AI and big data, networks and cybersecurity, and technology literacy among the fastest-growing skill areas for the 2025-2030 period. It also emphasizes complementary human skills such as creative thinking, resilience, flexibility, curiosity, and lifelong learning. This means that digital skills should not be taught as isolated technical routines. They should be connected to problem solving, communication, entrepreneurship, ethics, adaptability, and continuous professional development. For Somalia, this is highly relevant because graduates may need to create opportunities in a labor market where formal employment remains limited and where remote, freelance, entrepreneurial, and digital service work may become increasingly important.

Somalia's Digital and Employability Context: Somalia's digital context is characterized by opportunity and constraint. The country has made progress in mobile connectivity and digital services, but the depth of digital readiness remains uneven. DataReportal (2026) reports 11.5 million mobile connections, equal to 58.1% of the population, and 5.47 million internet users, equal to 27.6% internet

penetration. It also reports 3.51 million social media user identities, equivalent to 17.7% of the population, and notes that 75.7% of mobile connections were broadband-capable through 3G, 4G, or 5G. However, these figures do not automatically imply education-ready digital access. Mobile connections can include multiple SIM cards owned by one person, and broadband-capable networks do not guarantee affordability, speed, reliability, laptop access, or the ability to complete academic and professional work online. The Digital Inclusion Policy provides more granular evidence. It reports that 63.0% of individuals owned a smartphone, but only 2.2% owned a computer or laptop. It also reports that 45.1% had used the internet in the previous three months, with rural usage at 31.0% and urban usage at 46.5% (MoCT, 2025a). At the household level, the policy reports that 40.4% owned a smartphone, 3.3% owned a computer/laptop/iPad, and 61.9% had electricity. Working internet connection was reported by 45.0% of households nationally, but only 22.7% in rural areas compared with 47.1% in urban areas. These indicators show that Somalia is a mobile-first environment, but not yet a laptop-rich or broadband-rich environment for higher education. Affordability is a major barrier. The Digital Inclusion Policy states that an average Somali spends more than 20% of monthly income on ICT services, far above the Broadband Commission target of less than 2% of monthly income (MoCT, 2025a). For university students, this affects online learning participation, use of digital libraries, assignment submission, access to video learning, and participation in digital skills training. Digital skills development is therefore linked not only to curriculum, but also to the cost of data, device ownership, campus connectivity, electricity, and shared computer facilities.

Educational attainment also affects digital skills development. The Digital Inclusion Policy reports that 65.5% of the population has no formal education, while only 4.6% has completed secondary education and 4.0% has completed tertiary education (MoCT, 2025a). Because digital skills are often developed more strongly at secondary and tertiary levels, these figures indicate a narrow national base for advanced digital skills. Higher education institutions therefore carry a major responsibility: they must not assume that students enter university with sufficient academic and workplace digital competence. Instead, they need diagnostic assessment, bridge training, and common digital skills modules across disciplines. Somalia's higher education context reinforces this challenge. The ESSP reports that university enrollment was 94,511 in 2020, with only a little over 2,000 students, or 2.1%, enrolled in the public Somali National University, and a university gross enrollment rate of only 4.4% (MoECHE, 2022). The ESSP target is to increase higher education enrollment to 300,000 students by 2026. Such expansion requires quality-oriented digital skills development because graduate numbers alone will not solve employability challenges unless students acquire competencies that match labor-market needs.

Policy Priorities Supporting Digital Skills Development

Training Implementation Gaps: Despite policy momentum, there are several implementation gaps that may limit digital skills development for employability in Somali higher education. These gaps are interrelated, and addressing only one will not be sufficient. For example, building computer laboratories without curriculum reform may not improve employability. Introducing digital skills modules without lecturer training may lead to shallow learning. Providing online platforms without affordable student connectivity may widen inequality. A systems approach is therefore needed. The first gap is curriculum fragmentation. Digital skills are often treated as one introductory ICT course rather than as a progression of competencies across the university experience. Students may learn basic computer concepts in the first year but may not receive structured training in data literacy, online research, professional communication, cybersecurity, digital portfolios, remote work, or discipline-specific software. Employability requires digital skills to be embedded across programs, assessed through practical tasks, and connected to workplace scenarios. The second gap is limited computer and device access. The Digital Inclusion Policy reports only 2.2% individual computer/laptop ownership nationally and 3.3% household ownership

of a computer/laptop/iPad (MoCT, 2025a). This is a major constraint for employability-oriented digital training. Smartphones are useful for communication and content access, but they are less suitable for programming, advanced writing, data analysis, design, spreadsheets, digital research, and professional content production. Universities need shared computer labs, laptop loan schemes, maker spaces, and affordable access partnerships. The third gap is lecturer digital pedagogy and trainer capacity. Digital skills training requires instructors who can teach practical tools, assess digital projects, integrate technology into disciplines, and model responsible digital practice. Lecturer capacity cannot be assumed. Many lecturers may use presentation software or messaging applications but may lack experience in learning management systems, online assessment, digital collaboration tools, data visualization, cybersecurity, AI literacy, or digital portfolio assessment. Training of trainers is therefore a strategic priority. The fourth gap is weak linkage with employers and the labor market. Employability-oriented digital skills should be based on evidence from employers, alumni, graduate tracer studies, labor-market surveys, internships, and sectoral digital transformation needs. The ESSP's emphasis on labor-market surveys, tracer studies, industry participation, and apprenticeship within TVET offers a model that can be adapted to higher education (MoECHE, 2022). Universities should work with telecommunications firms, banks, NGOs, government ministries, health institutions, schools, digital service providers, and start-ups to identify practical digital competencies required in the workplace.

The fifth gap is insufficient assessment and certification. Digital skills should be assessed through performance-based tasks, not only written examinations. Students should demonstrate the ability to create documents, analyze data, manage online collaboration, produce digital content, design simple digital solutions, protect data, and present a professional digital portfolio. Micro-credentials and digital badges could help students communicate specific digital competencies to employers. Without credible assessment, employers cannot easily know what a graduate can actually do. The sixth gap concerns inclusion. Women, rural students, internally displaced students, low-income students, and students with disabilities may face higher barriers to devices, internet, quiet study spaces, digital confidence, and access to training. Digital skills development that ignores equity may deepen inequality. Universities should therefore design inclusive pathways, including low-bandwidth materials, accessible formats, campus-based learning spaces, subsidized data, female digital skills mentorship, and disability-inclusive digital training. The seventh gap is weak monitoring and data. Higher education institutions often lack systematic indicators on student digital competence, LMS usage, digital library access, graduate digital employability, employer satisfaction, and lecturer digital training. Without data, it is difficult to know whether digital skills programs are improving employability. The ESSP prioritizes governance, capacity development, and EMIS strengthening, but higher education digital skills indicators should be made more explicit and regularly reported.

Proposed Framework for Employability-Oriented Digital Skills Development:

A practical framework for Somali higher education should combine competency development, curriculum integration, workplace relevance, inclusion, and quality assurance. The proposed framework consists of four competency levels and five implementation mechanisms. Level 1 is foundation digital literacy. This includes device use, internet navigation, file management, email etiquette, basic productivity software, online safety, and responsible communication. Because student entry skills are likely to vary widely, all universities should conduct diagnostic assessment at entry and provide bridge training for students who need support. Level 2 is academic and professional digital practice. This includes online research, digital library use, information evaluation, referencing software, learning management systems, digital teamwork, academic integrity, presentation skills, and professional communication. These skills should be embedded in all programs because they support both learning success and workplace readiness. Level 3 is sector-specific digital application. Each discipline should identify tools and platforms

Table 1. Selected secondary indicators relevant to digital skills development for employability in Somalia

Indicator	Latest available value/evidence	Implication for digital skills and employability	Source
Population and youth profile	19.8 million people; median age 15.6 years in late 2025	Large youth cohort increases urgency for scalable digital skills and employability pathways	DataReportal, 2026
Mobile connections	11.5 million connections; 58.1% of population	Mobile-first delivery is important, but mobile connection does not equal employability-ready digital access	DataReportal, 2026
Internet users	5.47 million users; 27.6% internet penetration; 72.4% offline	Digital skills training must address exclusion and offline/low-bandwidth access	DataReportal, 2026
Broadband-capable mobile connections	75.7% of mobile connections classified as 3G, 4G, or 5G	Connectivity potential exists, but quality, cost, and device limitations remain barriers	DataReportal, 2026
Individual smartphone ownership	63.0% nationally; 47.8% rural; 64.4% urban	Training should be mobile-friendly but should not rely only on smartphones	MoCT, 2025a
Individual computer/laptop ownership	2.2% nationally; 0.0% rural; 2.4% urban	Very low computer ownership limits advanced academic, technical, and workplace digital skills	MoCT, 2025a
Internet use in previous three months	45.1% nationally; 31.0% rural; 46.5% urban	Digital skills programs need inclusion support for rural and disadvantaged students	MoCT, 2025a
Household working internet connection	45.0% nationally; 22.7% rural; 47.1% urban	Campus access, labs, and subsidized connectivity are central to equity	MoCT, 2025a
Education attainment	65.5% no formal education; 4.6% secondary completed; 4.0% tertiary completed	Universities should provide foundational digital bridge training, not assume prior competence	MoCT, 2025a
Higher education enrollment	94,511 students in 2020; target of 300,000 by 2026	Expansion must be paired with employability-oriented digital skills and quality assurance	MoECHE, 2022
Youth unemployment	30.1% reported in the Digital Inclusion Policy discussion	Digital skills should be linked to jobs, entrepreneurship, remote work, and industry needs	MoCT, 2025a

Table 2. Policy priorities and training implementation gaps for employability-oriented digital skills

Policy priority	Stated or implied direction	Implementation gap	Training implication for universities
ICT integration in education	ESSP aims for ICT fully integrated into the education system	ICT may remain limited to devices or basic computer courses	Develop compulsory digital skills progression across all programs
Higher education quality and relevance	ESSP emphasizes quality, relevance, research, innovation, and ICT integration	Digital skills outcomes are not always linked to graduate employability	Align digital skills with workplace tasks, internships, portfolios, and tracer studies
Digital inclusion	Digital Inclusion Policy emphasizes access, affordability, digital literacy, and skills for marginalized groups	Low laptop ownership, high data costs, rural-urban gaps, and gender barriers	Provide labs, low-bandwidth content, device support, data bundles, and inclusive training
eGovernment and digital public services	eGovernment Strategy emphasizes mobile-first services, user adoption, digital literacy, and public-service modernization	Graduates may lack digital public administration, data privacy, and service design skills	Integrate e-service design, data ethics, cybersecurity, and public-sector digital skills
TVET-labor market alignment	ESSP promotes labor-market surveys, industry participation, apprenticeship, and tracer studies	Universities may have weaker employer feedback loops than TVET plans suggest	Create employer advisory boards, industry projects, and digital apprenticeship models
Digital literacy targets	Digital Inclusion Policy reports baseline below 10% and target growth in basic digital literacy	No common university-level digital competence benchmark	Adopt a competency framework based on DigComp and local employability needs
ICT in Education Masterplan	UNESCO-supported policy process focuses on leadership, infrastructure, digital literacy, and teacher skills	Implementation may vary across institutions	Use national guidance to standardize lecturer training and student digital competencies

relevant to its labor market. Business students may need spreadsheets, accounting software, digital marketing, and analytics. Health students may need health information systems and data privacy. Education students may need digital pedagogy and learning platforms. Engineering and IT students may need software development, networking, design tools, data analysis, and cybersecurity. Social science students may need survey tools, data visualization, qualitative analysis, and digital communication. The goal is not to teach the same technical content to all students, but to ensure that every graduate can use digital tools relevant to their field.

Level 4 is innovation, entrepreneurship, and future-of-work competence. This includes digital freelancing, online business, e-commerce, remote work, artificial intelligence literacy, data ethics, cybersecurity, digital problem solving, and entrepreneurship. These skills matter because Somalia's formal labor market is limited, and graduates may need to create work opportunities as well as seek employment. The first implementation mechanism is a common university digital skills core. Every student should complete a mandatory digital skills sequence, beginning with foundation skills and progressing to academic and professional digital practice. The core should be assessed through practical tasks and portfolios. The second mechanism is discipline-based integration. Faculties should map digital tools and competencies to program learning outcomes.

Digital skills should appear in course assignments, projects, laboratory work, field practice, and capstone projects rather than being isolated in one ICT course. The third mechanism is work-integrated digital learning. Universities should develop employer projects, internships, apprenticeships, virtual work simulations, hackathons, innovation challenges, and community digital service projects. Such activities allow students to apply digital skills to real problems and build evidence of competence. The fourth mechanism is micro-credentialing and digital portfolios. Students should graduate with a portfolio that demonstrates their digital competence through artifacts such as data dashboards, digital reports, websites, e-learning resources, presentations, research outputs, digital marketing campaigns, or problem-solving projects. Micro-credentials can help employers identify specific skills. The fifth mechanism is institutional quality assurance. Universities should monitor digital skills outcomes through student assessments, completion rates, employer feedback, alumni tracer studies, lecturer training records, platform analytics, and graduate employability data. Quality assurance bodies should include digital readiness and digital skills outcomes in institutional review.

DISCUSSION

The review shows that Somalia has entered a phase in which digital skills development is both necessary and possible. It is necessary

because the labor market is changing, public services are becoming more digital, and graduates need tools to compete for employment, create businesses, and participate in the digital economy. It is possible because Somalia now has stronger policy foundations, mobile connectivity, digital inclusion priorities, e-government plans, and international support for ICT in education. However, policy readiness is not the same as institutional readiness. The main implementation problem is that digital skills development requires coordination across multiple systems: curriculum, infrastructure, lecturer capacity, student access, employer engagement, quality assurance, and monitoring. A university can have internet access but weak digital skills outcomes. A curriculum can include an ICT course but still fail to prepare graduates for digital work. Students can own smartphones but lack the ability to use workplace digital tools. These differences should be recognized in policy and institutional planning. The evidence also suggests that employability should be defined broadly. In Somalia, many graduates may not immediately enter formal wage employment. Therefore, digital skills should also support entrepreneurship, remote work, freelancing, public service innovation, community problem solving, and self-directed learning. This is consistent with the World Economic Forum's emphasis on technology literacy and lifelong learning, and with the Digital Inclusion Policy's concern for social and economic opportunities.

A key implication is that Somali higher education should move from general digital awareness to competency-based digital skills development. Competency-based training requires clear outcomes, practical tasks, evidence of performance, and continuous feedback. This approach would allow universities to show that students can create, analyze, communicate, protect, and solve problems using digital tools. Such evidence would also improve the credibility of Somali graduates in local, regional, and online labor markets. The review further indicates that equity is central to employability. Students with better devices, stronger internet, English language resources, urban residence, and social networks may acquire digital skills more easily. Without inclusive design, digital transformation could increase inequality. For this reason, universities and policymakers should treat digital skills as both a quality agenda and an equity agenda.

Limitations and Future Research: This article is limited by its reliance on secondary data and policy documents. It does not include primary data from students, lecturers, employers, policymakers, or university administrators. It also does not compare digital skills provision across individual Somali universities. The available national data are valuable but not always specific to higher education students. Future research should therefore conduct student digital competence assessments, lecturer readiness surveys, employer skills-needs studies, institutional case studies, and graduate tracer studies. Future studies should also examine gender, disability, rural-urban, and displacement-related barriers to digital skills development in higher education.

RECOMMENDATIONS

First, Somali higher education institutions should adopt a national or sector-wide graduate digital competence framework. The framework should be locally contextualized but aligned with international models such as DigComp 2.2. It should define what every graduate should know and be able to do at foundation, academic, professional, sector-specific, and innovation levels. Second, universities should introduce compulsory digital skills modules for all undergraduate students. These modules should not be limited to basic computer theory. They should include practical competencies in productivity tools, online research, data literacy, digital communication, cybersecurity awareness, digital content creation, AI literacy, and professional digital identity. Each module should include practical assignments and a portfolio component. Third, digital skills should be embedded across disciplines. Faculties should conduct curriculum mapping to identify discipline-specific tools and digital practices. A business program, for example, should include digital marketing, accounting software, spreadsheets, and data analysis. A teacher education program should include digital pedagogy, online assessment, learning

management systems, and open educational resources. A health program should include health information systems, privacy, data entry, and digital communication. Fourth, lecturer digital capacity should be strengthened through structured training of trainers. Lecturer development should cover digital pedagogy, LMS use, assessment of digital tasks, student feedback online, responsible AI use, digital research methods, cybersecurity awareness, and inclusive digital teaching. Institutions should recognize lecturer digital innovation in promotion and professional development systems. Fifth, universities should strengthen employer partnerships. Each institution should establish advisory boards with employers from telecommunications, banking, education, health, NGOs, public administration, entrepreneurship, and technology services. These boards should review digital skills curricula, identify emerging skills, support internships, provide guest lectures, and evaluate graduate readiness. Sixth, campus digital infrastructure should be improved. Given low computer ownership, universities need reliable computer laboratories, campus internet, digital libraries, learning platforms, shared workspaces, and technical support. Partnerships with telecom companies could support subsidized student data bundles, zero-rated learning platforms, and affordable connectivity packages. Seventh, digital skills programs should be inclusive by design. Universities should support women, rural students, displaced students, low-income students, and students with disabilities through accessible materials, flexible training schedules, low-bandwidth resources, peer mentoring, female role models, assistive technologies, and device access schemes. Inclusion should be measured, not assumed. Eighth, assessment should move from theory-heavy examinations to performance-based evidence. Students should demonstrate what they can do through projects, simulations, digital reports, data tasks, online collaboration, presentations, and portfolios. Employers are more likely to trust practical evidence than a transcript that merely shows a general ICT course grade. Ninth, the National Commission for Higher Education and MoECHE should include digital skills readiness in quality assurance. Institutional standards could include digital skills curricula, lecturer training, student access to devices, LMS availability, digital library access, cybersecurity practices, employer partnerships, and evidence of graduate digital employability.

Tenth, monitoring and research should be expanded. Somalia needs more institution-level studies on student digital competence, lecturer readiness, employer expectations, graduate outcomes, digital learning access, and gender or rural-urban digital gaps. Universities can contribute by conducting tracer studies, publishing research on digital skills, and sharing evidence with policymakers.

CONCLUSIONS

Digital skills development for employability is a strategic priority for Somali higher education. Somalia has a young population, expanding digital connectivity, growing policy commitment, and increasing demand for digitally capable graduates. National policy documents recognize ICT integration, digital inclusion, e-government, digital literacy, and education quality as priorities. International evidence also shows that digital skills, AI and data literacy, cybersecurity, technology literacy, creativity, adaptability, and lifelong learning are increasingly important for the future of work. At the same time, Somalia's higher education sector faces important implementation gaps. These include low computer ownership, affordability barriers, rural-urban digital gaps, limited digital literacy, uneven institutional infrastructure, insufficient lecturer digital pedagogy, weak employer linkages, fragmented curricula, limited performance-based assessment, and inadequate monitoring of graduate digital competence. These gaps must be addressed if universities are to convert policy priorities into employability outcomes. The article concludes that Somali higher education needs a competency-based, inclusive, and employment-oriented digital skills model. Such a model should combine foundation digital literacy, academic digital practice, sector-specific digital tools, entrepreneurship, cybersecurity, data literacy, responsible AI use, and professional digital portfolios. It should be implemented through curriculum reform, lecturer

development, employer partnerships, digital infrastructure investment, micro-credentialing, and quality assurance. If implemented effectively, digital skills development can strengthen graduate employability, support entrepreneurship, improve public service modernization, reduce digital exclusion, and help Somali higher education contribute more directly to national digital transformation.

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