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## EMPOWERING THE FUTURE WORKFORCE: A FIELD STUDY ON THE INFLUENCE OF DIGITAL LEARNING PLATFORMS AND AI TOOLS ON EMPLOYABILITY SKILLS

<sup>1</sup>Divya Khadse

<sup>1</sup>Research Student

<sup>1</sup>Business Management

<sup>1</sup>JSPM University, Pune, India

**Abstract:** This field study investigates digital learning platforms (e.g., Coursera, Udemy, LinkedIn Learning) and AI tools (e.g., ChatGPT, Grammarly) in enhancing employability skills among students and early-career professionals. Using a descriptive-analytical mixed-methods approach, surveys of undergraduates aged 20-25 revealed high adoption, with most frequently using platforms and reporting gains in independent learning, job knowledge, tech adaptability, problem-solving and productivity. Nearly all view these tools as boosting employability, though challenges like AI inaccuracies, biases and ethics persist, urging personalized training and safeguards.

**Keywords -** Digital Learning Platform, AI Tools, Employability Skills, Workforce Readiness

### I. INTRODUCTION

Global employment systems have undergone significant change in the twenty-first century due to the digital revolution, which has changed the nature of labor and the skills required to stay employed. Artificial intelligence (AI), machine learning, automation and data analytics are examples of emerging technologies that have changed organizational structures and called for a workforce that is flexible, creative and tech-savvy. The ability to learn, unlearn and relearn has become an essential professional quality as industries expand and traditional skill sets become more and more antiquated. In order to meet these evolving skill requirements, digital learning platforms and AI powered educational technologies have become essential.

AI tools like ChatGPT, Grammarly and adaptive learning systems, along with platforms like Coursera, Udemy, edX and LinkedIn Learning, are transforming how people learn and advance in their careers. Coding, data literacy, communication, creativity and teamwork are just a few of the soft and technical skills that these technologies help students develop through flexible, customized and interactive learning experiences. By enabling continuous, self-paced learning, these digital environments enhance employability in a variety of professions and encourage lifelong learning. Despite their potential, it remains unclear how well these digital tools translate into practical employment results. While the educational benefit of digital platforms is well recognized, empirical proof of their direct impact on workplace preparedness and skill application is sparse.

As a result, this field research investigates how digital learning platforms and AI tools affect employability skills in students and early-career professionals, with the goal of identifying both potential and problems related with their integration into education and workforce development. This study is significant because it focuses on the convergence of technology, education and employability, which is becoming increasingly important in the digital era. As sectors face fast technological development, the skills gap between what businesses want and what educational institutions provide continues to grow. This mismatch has an influence not just on company productivity, but also on graduates and 5 job seekers' career prospects.

Understanding how digital learning platforms and AI technologies help to bridge this gap is critical for developing effective education and training systems. This study is noteworthy because it demonstrates how technology-enabled learning may democratize access to education and training. Individuals from a variety of geographical and socioeconomic backgrounds can have access to high-quality learning resources through online platforms, promoting inclusion and global competition. The findings can help policymakers, educators and industry leaders develop strategies for improving workforce preparedness and aligning digital education with labor market demands.

## II. OBJECTIVE OF THE STUDY:

1. Assess AI/digital platforms' role in building technical, cognitive, social employability skills.
2. Explore student perceptions of AI learning tools' usefulness/usability.
3. Identify challenges in integrating AI/digital learning into training systems.

## III. LITERATURE REVIEW

AI technologies and digital learning platforms are transforming employability skills training in modern education. Lakshmi Devi et al. (2024) demonstrate how AI-driven gamified training, virtual simulations and interactive platforms boost skill acquisition, retention and adaptability in dynamic industries, bridging critical labor market gaps. Studies in the DTC Journal of Computational Intelligence show companies using digital platforms gain higher productivity, engagement and alignment with digital economy demands. Sharma and Sakergayen (2024) evaluate online tools that enhance digital employability skills, with strategies to prevent plagiarism and ensure authenticity.

The Zenodo report (2024) highlights AI's role in data analysis, training efficiency and personalized learning, while addressing biases, job displacement and upskilling needs. A Frontiers in Psychology study (2025) systematically reviews AI's impact on digital literacy, creative practices and online job-seeking skills. Aditya et al. (2024) found AI virtual instructors in an international study yielded high student satisfaction, engagement and completion rates across three countries, complementing MOOCs for skills like critical thinking, leadership and communication. Devi et al. (2024) in TIMER Journal reinforce gamification's role in skill retention. P. Sharma and D. Dhand (2024) stress strategic AI use for workforce development, linking digital literacy to better career outcomes. Integrating digital skills training into education and organizations is vital for employability.

## IV. RESEARCH METHODOLOGY

This study investigates how AI technologies and digital learning platforms shape employability skills for the future workforce, addressing a key knowledge gap in their practical effectiveness for critical abilities like technical proficiency, cognitive flexibility and social competence. Employing a descriptive, mixed-method research design—combining qualitative insights and quantitative data—it analyzes trends and relationships between tool usage and skill development.

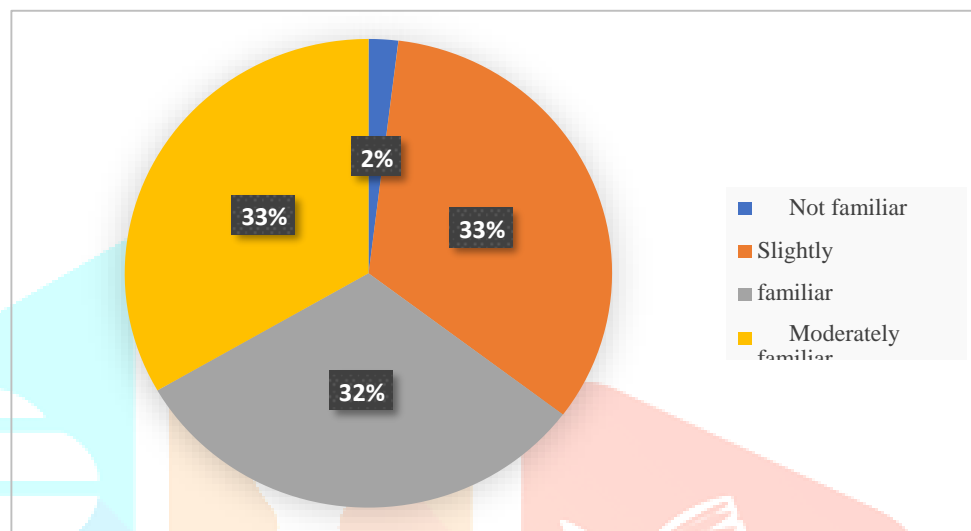
The scope, titled “Empowering the Future Workforce: A Field Study on the Influence of Digital Learning Platforms and AI Tools on Employability Skills,” targets students and early-career professionals in management, commerce and technology fields. It examines platforms like Coursera, Udemy, LinkedIn Learning and institutional LMS for fostering workforce readiness; AI tools such as ChatGPT, Grammarly and adaptive systems for personalized learning and adaptability; usage impacts on productivity, problem-solving, self-learning and job readiness; user challenges including content accuracy, originality and ethics; and implications for curricula and training programs. Primary data from ~102 structured surveys is supplemented by secondary research.

## V. ANALYSIS

### Demographic Profile of Respondents:

The survey sample comprises 102 respondents, predominantly female (66%), with males at 34% and no "Others." Age distribution skews young, with 92.16% aged 20–25, 3.92% aged 26–30, 0.98% aged 31–35, and 2.94% above 35. Educationally, 78.43% are undergraduates, 19.61% postgraduates, and 1.96% diploma holders. Status reflects an early-career focus: 90.2% interns/students, 5.88% full-time professionals, and 1.96% each freelancers/part-time. Fields emphasize business: 60.78% Management/Commerce, 15.68% Science, 13.72% Engineering/Technology, and under 10% Arts/Humanities or Others. This profile suits studies on digital learning among emerging professionals.

**PIE CHART SHOWING AI TOOL FAMILIARITY DISTRIBUTION**



(Source: Field Survey)

### Usage Patterns of Digital and AI Learning Platforms:

Over half (52.94%) use digital platforms consistently, 37.25% occasionally, and 9.80% rarely; none ever use them. Institution-based LMS (e.g., Moodle, Google Classroom) lead at 31%, followed by LinkedIn Learning (28%), Udemy (20%), and Coursera (16%); edX, Khan Academy, and others total under 5%. AI tool familiarity is high: 66.66% slightly/highly familiar, 31.37% moderately, and 1.96% not at all. Usage frequency: 43.14% always, 35.29% often, 21.57% occasionally, and 0% never. Purposes prioritize academic learning (42.78%), skill enhancement (35.29%), and career guidance (17.65%); others minimal.

### Perceived Benefits for Skills and Employability:

Digital platforms boost independent learning (72.55% agree/strongly agree), job-oriented knowledge (62.74% agree/strongly agree), and tech adaptability (78.42% agree/strongly agree). Productivity improves significantly (43.13%) or somewhat (49.02%) for 92.15%. Top improved skills: problem-solving (31.37%), time management (27.45%), analytical ability (23.53%); later data highlights technical knowledge (30.43%), leadership/communication (26.09%), critical thinking (25%). Employability gains strong endorsement (90.2% yes), with AI literacy deemed extremely (50.98%) or moderately (41.18%) important for careers.

### Challenges with AI Learning Tools:

Key issues include inaccurate/biased information (20.54%), lack of originality (20.54%), verification difficulty (15.13%), over-dependence (12.97%), ethical concerns (11.89%), limited creativity (8.11%), and tool understanding (7.57%); 3.24% other. These signal trust, usability, and ethical hurdles despite high adoption.

## Recommendations for Enhancing Employability Focus

Respondents suggest targeted improvements:

- **Ease and Engagement:** Simplify interfaces, add interactive animations, and vary AI tones to reduce monotony.
- **Purpose Alignment:** Position AI as productivity aid, complementing human creativity.
- **Personalization:** Adopt adaptive algorithms for tailored paths, real-world simulations, and strength-based recommendations.
- **Mentorship Integration:** Embed career guidance, expert connections, and feedback sessions.
- **Practical Application:** Incorporate industry projects, real-time assessments, and job-market-aligned content.
- **Ethical Reliability:** Ensure data privacy, transparency, unbiased outputs, and accuracy.
- **Soft Skills Development:** Add simulations for communication, teamwork.
- **Efficiency:** Optimize for fast, context-aware responses.

## VI. RECOMMENDATIONS

### Enhance Personalization and Interactivity

Digital learning platforms and AI tools should incorporate adaptive learning technologies that tailor content and feedback to individual skill gaps and learning paces. Adding interactive elements such as real-world projects, simulations and AI-driven mentorship can boost engagement and practical skill acquisition.

### Strengthen Ethical and Data Privacy Measures

Given concerns about inaccuracies, biases and ethical issues, developers must prioritize transparency in AI algorithms and secure data privacy protocols. Regular audits and updates should ensure unbiased, factual content and address ethical challenges proactively.

### Focus on Holistic Skill Development

Platforms should expand beyond cognitive skills to promote creativity, communication, teamwork and other soft skills critical for workplace success. Integration of career guidance features and coaching will support users' holistic employability.

### Improve User Experience and Accessibility

User-friendly interfaces with varied communication styles (non-monotonous, engaging) can increase sustained usage especially for younger users. Accessibility features should accommodate diverse learner needs to broaden reach and inclusivity.

### Industry Alignment and Collaboration

Collaborate with employers and industry experts to align courses and AI tools with current job market requirements. Incorporating live case studies, internships and industry-led projects will ensure relevance and improve job readiness.

### Expand AI Literacy Education

Promote AI literacy as a fundamental component in academic curricula and professional development to equip learners with critical understanding and responsible use of AI technologies.

## VII. CONCLUSION

The evidence from this field study, validated by recent scholarly and corporate case studies, demonstrates that digital learning platforms and AI tools are pivotal in enhancing employability skills among primarily young, academic and early-career individuals. These technologies significantly improve key cognitive skills—such as problem-solving, analytical ability, time management and increase productivity by streamlining the learning process. Moreover, they boost learners' adaptability

to new technologies, a critical employability factor in today's dynamic labor market. However, the challenges related to AI tool reliability, biases, content accuracy and ethical use cannot be ignored. Addressing these concerns through transparent, ethical AI practices and rigorous validation processes is essential for sustained trust and effectiveness. For future workforce empowerment, educational and professional development frameworks must not only incorporate AI-enhanced personalized and interactive learning but also promote soft skills, creativity, career mentoring and AI literacy. When aligned closely with industry needs and supported by user-friendly, inclusive interfaces, these digital tools hold the potential to transform workforce preparedness and employability. In summary, integrating AI and digital learning thoughtfully and ethically within education and training systems is key to equipping the future workforce with skills that meet evolving industry demands and ensure sustainable career growth.

## VIII. REFERENCES

1. Lakshmi Devi, S., et al. "Learning Impact of AI Skills for Employability and Its Influence on Today's Employment Scenario." *TIMER Journal*, vol. 2, no. 2, 2024, pp. 7-25.
2. Holm, J., et al. "The Role of Artificial Intelligence in Redefining Workforce Skills and Employability." *International Journal of AI and Society*, 2021.
3. Sohaee, M., et al. "COVID-19 and AI: Dual Impact on Employability Competencies in the Digital Age." *Journal of Organizational Management*, 2024.
4. Marwan, F. "AI-Driven Skill Development and the Learning and Employability Framework." *Journal of Educational Technology*, 2020.
5. Cramarenco, L., et al. "AI Influence on Global Labor Markets and Upskilling Needs." *Workforce Development Review*, 2023.
6. Babashahi, F., et al. "Aligning AI-Based Training Programs with Industry Demands in Emerging Economies." *International Journal of Technology and Innovation*, 2024.
7. Rickardo, A., and Meiriele, P. "Workforce Transformation through AI: Reskilling and Ethical Challenges." *Journal of Human Resource Development*, 2023.
8. Lakshmi Devi, S., et al. "Enhancing Employability Through Digital Skill Development." *International Journal of Finance and Management Research*, 2024.
9. Dhand, R., and Pandey, S. "Future Prospects of AI in Workforce Training and Employability." *AI and Technology in Education*, 2024.
10. Wadhvani Foundation. "AI-Powered Employability Skills Program." Wadhvani Foundation, 2025.
11. PMC National Library of Medicine. "Artificial Intelligence Skills and Their Impact on Employability of University Graduates." PMC, 2025.
12. Ren, C. "Exploring Digital Learning Environments to Improve Students' Employment Skills." *ACM Digital Library*, 2024.