REPORT ON SUBJECT EXPERTS' PERCEPTIONS OF ARTIFICIAL INTELLIGENCE IN THE TEACHING–LEARNING PROCESS OF OPEN, DISTANCE AND DIGITAL LEARNING (ODDL)

1. Executive Summary

Artificial Intelligence (AI) is rapidly transforming educational ecosystems worldwide by enhancing content development, learner engagement, assessment practices, and academic support services. To understand the preparedness, perceptions, and expectations of academic experts regarding AI integration in Open, Distance and Digital Learning (ODDL), feedback was collected from 25 Subject Experts associated with various academic programmes and academic responsibilities.

The findings reveal a high level of awareness and acceptance of AI technologies among respondents. Nearly all participants were familiar with AI-based educational tools, and a substantial majority reported regular use of such tools in their academic activities. Respondents acknowledged the significant potential of AI in improving instructional content, curriculum design, personalized learning, and access to updated knowledge. At the same time, concerns related to academic integrity, data privacy, ethical use, cost, and institutional preparedness emerged as major challenges requiring strategic intervention.

The study demonstrates a strong readiness among academic stakeholders to embrace AI-enabled educational practices while emphasizing the need for policy frameworks, capacity building, infrastructure development, and responsible implementation mechanisms. Detailed survey results and graphical representations of the responses are provided in Annexure A for reference.

2. Introduction

The emergence of Artificial Intelligence has created unprecedented opportunities for transforming teaching, learning, assessment, and educational administration. AI-powered systems are increasingly being utilized to support adaptive learning, intelligent tutoring, content generation, automated evaluation, learner analytics, and decision support in educational institutions.

Within the context of Open, Distance and Digital Learning (ODDL), AI offers significant potential to enhance learner support, personalize educational experiences, improve instructional design, and increase operational efficiency. These developments align closely with the vision of the National Education Policy (NEP) 2020, which advocates the integration of emerging technologies to improve access, equity, quality, and innovation in education.

To assess the current level of awareness, adoption, opportunities, and concerns related to AI in educational practices, feedback was obtained from Subject Experts associated with various academic programmes and academic functions. The present report analyzes their responses and identifies key trends that can inform institutional strategies for AI-enabled educational transformation.

3. Objectives of the Study

The study was undertaken with the following objectives:

1. To assess awareness and familiarity with AI tools among academic experts.
2. To examine the current usage patterns of AI in academic and instructional activities.
3. To understand perceptions regarding the effectiveness of AI in teaching-learning processes.
4. To identify opportunities for AI integration in content development, curriculum design, and learner support.
5. To explore challenges and barriers associated with AI adoption.
6. To formulate recommendations for effective implementation of AI in ODDL systems.

4. Profile of Respondents

The study received responses from 25 Subject Experts associated with diverse academic programmes, predominantly from Computer Science, Artificial Intelligence, Information Technology, Data Science, and allied disciplines.

The respondents represented multiple academic roles within the educational ecosystem. The largest proportion served as Unit Writers (72%), followed by Evaluators (44%), Paper Setters (44%), Moderators (40%), Expert Committee Members (36%), Content Editors (28%), and Vetters (12%). This distribution indicates that the feedback reflects perspectives from professionals actively involved in curriculum development, content creation, assessment, and quality assurance processes.

The experience profile of respondents further strengthens the credibility of the findings. Nearly one-fifth of participants reported more than twenty years of association with IGNOU, while a substantial proportion had significant experience ranging from five to twenty years. Such representation ensures that the observations reflect both institutional knowledge and contemporary academic perspectives.

5. Awareness and Adoption of AI Tools

The survey indicates an exceptionally high level of AI awareness among respondents. Approximately 96% of participants reported familiarity with AI tools used in educational settings, demonstrating that AI technologies have already gained substantial visibility within the academic community.

Among the various tools, ChatGPT emerged as the most widely recognized platform, with universal familiarity among respondents. Other frequently known tools included Grammarly (96%), Gemini (88%), Perplexity (68%), Claude (44%), and Grok (36%). The findings suggest that generative AI systems and AI-assisted writing tools have become integral components of the contemporary academic workflow.

Regular use of AI tools was also evident. Nearly two-thirds of respondents reported using AI tools on a daily basis, while additional participants indicated usage several times a week. Only a small proportion reported occasional use. These results indicate that AI has already transitioned from an experimental technology to a routine academic resource for many educators and content developers.

6. Areas of AI Utilization

The survey reveals that AI is being employed across a broad spectrum of academic activities.

The most common applications include:

- Content editing and refinement (68%)
- Creation of graphics and visual learning resources (60%)
- Content development and instructional material preparation (56%)
- Plagiarism checking and quality assurance (56%)
- Curriculum design and revision (48%)
- Question paper preparation and assessment-related tasks (36%)

These findings demonstrate that AI is supporting both pedagogical and administrative dimensions of educational practice. The extensive use of AI in content creation and curriculum-related activities suggests growing confidence among educators in leveraging AI to enhance productivity, creativity, and instructional quality.

7. Perceived Impact of AI on Teaching–Learning Processes

A highly positive perception of AI emerged across multiple dimensions of educational practice.

7.1 Improvement of Self-Learning Materials

An overwhelming majority of respondents agreed that AI contributes to the enhancement of self-learning materials in both print and digital formats. Participants recognized AI's ability to improve clarity, organization, presentation quality, and learner engagement.

7.2 Enhanced Efficiency in Content Development

Nearly all respondents believed that AI significantly improves the efficiency of content development processes. AI tools facilitate rapid drafting, editing, summarization, language refinement, and generation of illustrative examples, thereby reducing development time while maintaining quality standards.

7.3 Support for Curriculum Innovation

Respondents also acknowledged AI's contribution to innovative curriculum design. AI-assisted analysis of emerging trends, industry requirements, and educational resources enables curriculum developers to update programmes more effectively and maintain academic relevance.

7.4 Access to Updated Knowledge

A large majority agreed that AI assists educators in accessing current information, synthesizing knowledge from multiple sources, and identifying recent developments within their respective domains of expertise.

7.5 Analysis and Synthesis of Educational Resources

Participants further highlighted AI's effectiveness in analyzing, summarizing, and synthesizing educational resources, particularly Open Educational Resources (OERs), thereby facilitating efficient content curation and instructional design.

Overall, the findings suggest that respondents view AI as an enabler of quality enhancement, efficiency improvement, and innovation in educational delivery.

8. Challenges and Concerns

Despite strong support for AI adoption, respondents identified several critical challenges that require attention.

Ethical and Academic Integrity Issues

The most frequently reported concern relates to plagiarism, academic misconduct, and ethical misuse of AI-generated content. Respondents emphasized the need for responsible use policies and mechanisms to ensure originality, transparency, and accountability.

Data Privacy and Security

Concerns regarding the protection of personal information, learner data, and institutional records emerged prominently. Participants expressed the need for secure AI platforms and clear governance frameworks.

Limited Access and Cost Constraints

Restricted access to advanced AI tools and subscription costs were identified as significant barriers, particularly in large-scale educational environments where equitable access is essential.

Policy and Regulatory Gaps

Many respondents highlighted the absence of comprehensive institutional guidelines governing AI adoption, usage standards, and ethical considerations.

Capacity Building Requirements

A substantial proportion indicated that inadequate training and limited AI literacy among educators remain important obstacles to effective implementation.

These findings underscore that technological adoption alone is insufficient; successful AI integration requires organizational readiness, governance structures, and continuous professional development.

9. Emerging Themes from Open-Ended Responses

Qualitative responses reveal several recurring themes:

Personalized Learning

Participants strongly believe that AI can facilitate adaptive and personalized learning experiences by tailoring educational content according to learner needs, preferences, and performance.

Improved Learner Support

AI-powered chatbots, virtual assistants, and intelligent recommendation systems were perceived as valuable tools for strengthening learner support services and reducing response times.

Enhanced Productivity

Respondents acknowledged that AI can substantially reduce routine academic workload by automating repetitive tasks such as editing, formatting, assessment assistance, and information retrieval.

Innovation in Educational Design

Many experts highlighted AI's potential to foster creativity and innovation in instructional design, multimedia development, and curriculum planning.

10. Key Observations

The study leads to several important observations:

1. AI awareness among academic experts is exceptionally high.
2. AI tools have become a regular component of academic workflows.
3. Educators perceive AI primarily as a productivity and quality-enhancement tool rather than a replacement for human expertise.
4. Personalized learning and intelligent learner support are viewed as the most promising applications of AI in ODDL.
5. Ethical concerns, academic integrity, and data privacy remain major challenges.
6. Faculty training and institutional preparedness are critical prerequisites for sustainable AI adoption.
7. Effective governance frameworks will play a decisive role in ensuring responsible and beneficial use of AI technologies.

11. Recommendations

Based on the findings, the following recommendations are proposed:

Institutional Capacity Building

- Organize regular Faculty Development Programmes (FDPs), workshops, and certification courses on AI applications in education.
- Develop AI literacy initiatives for academic staff and learners.

Policy and Governance

- Formulate comprehensive institutional policies governing ethical AI usage, academic integrity, transparency, and accountability.
- Establish guidelines for the responsible use of generative AI in teaching, learning, assessment, and research.

Infrastructure Enhancement

- Invest in secure AI-enabled digital learning platforms and technological infrastructure.
- Provide equitable access to AI tools and resources across academic programmes.

Pedagogical Innovation

- Promote AI-assisted content development, curriculum design, adaptive learning systems, and learner analytics.
- Encourage experimentation with AI-supported instructional methodologies while maintaining pedagogical rigor.

Research and Development

- Support interdisciplinary research on AI applications in ODDL.
- Establish pilot projects to evaluate the effectiveness of AI-enabled teaching-learning models.

Ethical Awareness

- Conduct awareness programmes on data privacy, cybersecurity, intellectual property rights, and responsible AI practices.
- Integrate ethical AI considerations into faculty and learner training programmes.

12. Conclusion

The study demonstrates a strong positive disposition among Subject Experts toward the integration of Artificial Intelligence within the Open, Distance and Digital Learning ecosystem. High levels of awareness, frequent usage, and positive perceptions regarding AI's contribution to content development, curriculum innovation, learner support, and knowledge enhancement indicate substantial readiness for AI adoption.

At the same time, respondents emphasize that effective implementation requires a balanced approach that combines technological innovation with robust governance, ethical safeguards, faculty preparedness, and institutional support. AI should be viewed not as a substitute for

educators but as a strategic enabler that augments human expertise and strengthens learner-centered education.

The findings support the vision of NEP 2020 and reinforce the need for systematic efforts toward developing AI-enabled, inclusive, efficient, and future-ready educational systems capable of meeting the evolving demands of twenty-first-century learners.

Annexure A: Questionnaire Survey Charts





