

# Human–AI Collaboration in Higher Education: Faculty Readiness and Institutional Transformation—A Semantic Review and Bibliometric Mapping

Avnish Vijay<sup>\*</sup> and Aditi Dadhich<sup>\*\*</sup>  
*Manipal University Jaipur*

**Abstract:** Artificial intelligence (AI), particularly generative AI, is changing how academic work is planned, produced, assessed, communicated, and governed. Yet adoption is uneven: individual faculty members may experiment with AI while institutional workload models, assessment systems, professional development, and governance remain largely unchanged. This paper examines how human–AI collaboration, faculty readiness, and institutional change interact in higher education. Drawing on a semantic synthesis of literature already cited in the supplied data, the paper organises relevant work around five connected themes: AI literacy and faculty capability; task-level human–AI collaboration; professional identity and trust; organisational culture and change capability; and responsible governance. It proposes a transparent protocol for future bibliometric mapping. Importantly, this is a conceptual semantic review, not a completed database-based bibliometric study: no publication counts, co-citation networks, or keyword frequencies are reported as empirical findings. The synthesis suggests that faculty readiness is multidimensional and cannot be reduced to tool familiarity. It includes pedagogical judgement, critical evaluation of AI outputs, ethical awareness, disciplinary adaptation, and confidence to disclose and contest AI-supported decisions. Institutional change requires leadership, protected development time, policy clarity, peer learning, workload recognition, assessment redesign, and participatory governance. A conceptual framework links institutional conditions to faculty readiness, the quality of human–AI collaboration, and feedback into organisational strategy. The paper offers a practical readiness matrix and implementation pathway for higher education institutions, including Indian institutions navigating digital transformation.

**Keywords:** Artificial Intelligence; Higher Education; Academic Work; Faculty Readiness; Human–AI Collaboration; Institutional Change; AI Literacy; Semantic Review

---

<sup>\*</sup> Email: [avnish.vijay@jaipur.manipal.edu](mailto:avnish.vijay@jaipur.manipal.edu)

<sup>\*\*</sup> Corresponding author. Email: [aditi.dadhich@jaipur.manipal.edu](mailto:aditi.dadhich@jaipur.manipal.edu)