

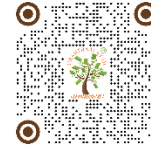
Original Article

REIMAGINING MULTIMEDIA EDUCATION IN THE AGE OF GENERATIVE AI: BEYOND SOFTWARE PROFICIENCY

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ABSTRACT

The rapid adoption of generative artificial intelligence prompted universities to reconsider its place within multimedia education. This paper argues that the principal challenge is not the inclusion of AI as another software application but the continued reliance on a software-centred model of professional education. Drawing on developments in AI-assisted creative production, industry and labour-market evidence, and contemporary educational theory, it examines how generative AI is reshaping creative work and the expertise expected of media professionals. The discussion draws on Biesta's conception of education as the development of agency and judgement, and Wenger's account of learning through communities of practice, to argue that multimedia education should move beyond technical qualification towards broader professional formation. The paper further argues that recent reforms in Indian higher education, particularly Outcome-Based Education under the National Education Policy 2020, offer an opportunity to reorganise multimedia curricula around critical judgement, collaborative practice, and reflective engagement with emerging technologies, rather than software proficiency alone.

Keywords: Generative Artificial Intelligence, Multimedia Education, Curriculum Reform, Professional Formation, Outcome-Based Education, Communities of Practice, Creative Industries

INTRODUCTION

Generative artificial intelligence (AI) unsettled many of the assumptions that have long shaped media education. Across universities, curriculum committees are debating whether AI should be introduced as a new subject, integrated into existing courses, or treated simply as another digital tool. These discussions, however, often proceed without questioning the educational model around which multimedia programmes were originally organized. The challenge extends beyond incorporating a new technology into the classroom. It concerns whether a curriculum built around software proficiency continues to correspond to the changing organization of creative work.

For nearly three decades, multimedia education equated professional competence with the ability to operate specialized software. Image editing, video production, animation, web design, and visual effects were taught through dedicated applications, and technical mastery became the principal indicator of graduate readiness. This pedagogical model reflected the realities of the digital media industry, where creative ideas could be realized only through considerable technical expertise. Software literacy was therefore

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both an educational objective and a professional necessity. Multimedia education remains organized around what Biesta calls qualification, even though professional practice now demands judgement and agency as much as technique.

This understanding of professional competence reflects an educational emphasis on the acquisition of technical skills. Recent work in higher education, however, suggests that professional education must also cultivate judgement, responsibility, and the capacity to respond to uncertain situations. [Biesta \(2022\)](#) argues that education extends beyond qualification through skills acquisition to include the development of agency and responsible action, while [Wenger \(1998\)](#) views professional competence as emerging through participation in communities of practice rather than through the mastery of isolated techniques. These perspectives provide a useful lens for reconsidering the educational assumptions that continue to shape multimedia curricula.

Generative AI alters this relationship in important ways. Many routine production tasks, drafting scripts, editing images, generating layouts, creating motion graphics, or producing audiovisual content, can now be initiated through natural-language interaction with computational systems. Although these outputs continue to require refinement and critical oversight, technical execution no longer occupies the same position within the creative process. Increasingly, value lies in defining communication goals, evaluating computational outputs, recognizing contextual limitations, and making informed creative decisions.

The implications for multimedia education are significant. Adding AI to an existing software-centered curriculum may update course content, but it leaves the underlying educational assumptions largely intact. The issue is therefore not simply whether AI should be incorporated into multimedia curricula. It is whether a curriculum organized predominantly around qualification through software mastery remains adequate for preparing graduates to exercise professional judgement within increasingly AI-mediated creative environments. Biesta's distinction between qualification and subjectification provides a useful way of framing this question [Biesta \(2022\)](#). As creative industries reorganize their workflows around AI-assisted production, universities face a more fundamental curricular question: what forms of knowledge and judgement should multimedia education cultivate in an environment where technologies evolve more rapidly than the curricula designed to teach them?

This paper examines that question by tracing the historical logic of multimedia education, analyzing recent changes in digital media production and creative labour, and considering how current higher education reforms in India provide an opportunity to rethink the educational purposes of multimedia programmes. The paper argues that generative AI requires multimedia education to move beyond software training towards the broader task of professional formation, where technical capability is integrated with judgement, agency, ethical responsibility, and participation in authentic creative practice.

WHY SOFTWARE-CENTERED CURRICULA NO LONGER CORRESPOND TO CREATIVE WORK

The software-centered organization of multimedia education emerged under technological conditions that have changed substantially. During the formative years of digital media, creative production depended on mastering specialized applications for image editing, video production, animation, web design, and publishing. Universities accordingly structured curricula around software training because technical execution represented the principal barrier to professional practice. Learning multimedia largely meant learning how to operate increasingly sophisticated digital tools.

The spread of generative AI is altering this relationship. Creative software no longer functions solely as an instrument operated through manual commands. Images, videos, layouts, scripts, and audio can now be produced through conversational interaction with computational systems. Although these outputs continue to require revision and critical oversight, many stages of production that once demanded procedural expertise have become partially automated. As a result, technical execution no longer occupies the same place within the creative process that it did when multimedia curricula were first developed.

This technological shift coincides with wider changes in the digital media environment. Creative work today is shaped not only by the production of content but also by the conditions under which content is encountered. Platform algorithms, personalized recommendation systems, and short-form media have transformed patterns of audience engagement. Communication now competes within fragmented and continuously shifting attention environments, making the success of media dependent on factors that extend well beyond technical quality.

Evidence from studies of digital behavior reflects these changes. Experimental research has shown that exposure to short-form video can impair prospective memory, suggesting that rapidly changing media environments influence the capacity to retain intentions while performing tasks [Chiossi et al. \(2023\)](#). Although such findings should not be interpreted as evidence that digital media uniformly diminish attention, they point to the growing importance of understanding how platform design influences cognitive engagement. Similar concerns appear within professional settings. Microsoft's analysis of Microsoft 365 productivity data reported that employees encountered interruptions approximately every two minutes through meetings, emails, and digital notifications, while almost half of those surveyed described their work as fragmented and difficult to navigate [Microsoft. \(2025\)](#). These developments indicate that media professionals increasingly operate within environments characterized by continuous interruption rather than sustained concentration.

These developments alter not only how media are produced but also the kinds of judgements expected from creative professionals. Routine execution becomes less central, while interpreting audience behavior, defining communication goals, and evaluating computational outputs become increasingly important.

Such transformations have consequences for multimedia education. Media production today requires more than technical proficiency in creating content. It also demands an understanding of the technological and cognitive conditions that shape how communication is received, interpreted, and circulated across digital platforms. Designing effective media therefore involves responding not only to aesthetic considerations but also to algorithmic distribution, audience behavior, and patterns of digital engagement.

Changes in human-computer interaction reinforce this transition. Conventional creative software required users to execute tasks through menus, timelines, layers, and command sequences. The quality of the outcome depended largely on procedural control over the interface. Generative AI reorganizes this interaction by allowing users to begin with an intended outcome while computational systems determine much of the procedural pathway. Jakob Nielsen describes this transition as the emergence of an "intent era" in computing, where interaction is increasingly organized around the articulation of user intent rather than the manual execution of commands [Nielsen \(2023\)](#). Whether or not this marks a complete transformation of interface design, it signals an important change in the forms of expertise expected of digital professionals.

These developments do not diminish the importance of technical knowledge. Multimedia practice continues to require an understanding of visual communication, editing, typography, sound, storytelling, and design principles. The location of professional value, however, is shifting. Creative work now depends as much on defining communication objectives, evaluating computational outputs, recognizing contextual limitations, and exercising informed judgement as it does on operating software. A curriculum organized primarily around procedural software instruction is therefore steadily losing its connection to the conditions under which creative work is undertaken.

The significance of generative AI lies not simply in the automation of production tasks but in the redistribution of human expertise within the creative process. Curriculum reform should therefore be understood as a response to changes in professional practice rather than as an effort to accommodate another technological innovation. The issue is less whether multimedia programmes should teach AI than whether software proficiency should continue to function as the organizing principle of multimedia education.

RETHINKING PROFESSIONAL COMPETENCE

The transformations associated with generative AI extend beyond technological innovation to the very conception of professional competence within the creative industries. As computational systems assume responsibility for an expanding range of routine production tasks, the value of creative work is increasingly located in capacities that are less amenable to automation, including problem framing, contextual interpretation, critical evaluation, and informed judgement. These developments invite a reconsideration of what multimedia education seeks to cultivate and how professional expertise is understood.

Educational theory offers a useful lens through which to interpret this shift. [Biesta \(2022\)](#) argues that higher education should move beyond the acquisition of qualifications towards the development of agency, responsibility, and judgement in situations characterized by uncertainty. [Wenger \(1998\)](#) concept of communities of practice similarly suggests that professional expertise is formed through participation in authentic practices rather than through the accumulation of discrete technical skills. Considered together, these perspectives indicate that the growing presence of AI does not diminish the importance of education; instead, it changes the forms of participation and judgement through which creative expertise is developed. The Future of Jobs Report 2025 published by the World Economic Forum identifies creativity, analytical thinking, AI literacy, and user experience as among the capabilities expected to grow in importance across industries, while routine technical tasks face increasing automation. The report does not suggest that creative occupations are disappearing; instead, it points to a shift in the kinds of expertise that employers are likely to value. Professional competence is becoming less closely associated with routine execution and more closely associated with judgement, problem-solving, and the ability to work effectively with intelligent systems.

Developments within the creative industries illustrate this shift. Generative AI shortened production cycles, expanded opportunities for experimentation, and lowered the technical barriers to producing text, images, video, and audio. At the same time, these technologies have exposed the continuing importance of human judgement. Coca-Cola's AI-assisted reinterpretation of its long-running Holidays Are Coming campaign [The Coca-Cola Company. \(2024\)](#) generated considerable public attention but also prompted criticism for lacking the emotional resonance of the original advertisements. The episode highlighted a distinction that is often overlooked in discussions of AI. Computational systems may accelerate production, but they cannot determine whether a creative work is culturally meaningful, aesthetically persuasive, or appropriate for a particular audience. Those remain matters of interpretation and judgement.

The implications for multimedia education extend beyond the inclusion of AI within existing courses. If professional practice increasingly depends on framing communication problems, evaluating computational outputs, and making informed creative decisions, then software proficiency alone can no longer serve as the principal indicator of graduate readiness. Competence must be understood more broadly as the ability to integrate technical knowledge with conceptual thinking, ethical reasoning, and contextual awareness.

Recent developments in educational theory help explain why this transition matters. [Biesta \(2022\)](#) distinguishes between education that merely equips learners with qualifications and education that enables them to exercise judgement, responsibility, and agency in unpredictable circumstances. This distinction is particularly relevant to multimedia education, where technical proficiency remains necessary but is no longer sufficient for professional practice. Creative work increasingly requires graduates to interpret complex contexts, evaluate AI-generated outputs, and justify their decisions in relation to social, cultural, and ethical considerations.

A complementary perspective is offered by [Wenger \(1998\)](#) concept of communities of practice. Wenger argues that professional competence develops through participation in authentic communities where knowledge is negotiated, shared, and refined through practice. Multimedia education has traditionally relied on studio work, collaborative projects, internships, and client-based assignments to create such learning environments. As AI becomes embedded within creative production, these forms of experiential learning acquire renewed importance because they provide opportunities for students to develop the judgement and collaborative capabilities that cannot be acquired through software instruction alone.

This shift also invites a different reading of current educational reforms in India. The National Education Policy 2020 [Government of India. \(2020\)](#) and the University Grants Commission's Curriculum and Credit Framework for Undergraduate Programmes [University Grants Commission. \(2023\)](#) encourage institutions to define graduate attributes in terms of demonstrable capabilities rather than prescribed content. The Commission's guidelines on multiple entry and exit [University Grants Commission. \(2021\)](#), which likewise treat the degree as a sequence of certifiable competencies rather than a fixed content block, point in the same direction. Competencies such as critical judgement, collaboration, communication, and creative problem-solving are likely to remain valuable even as specific technologies change.

Curriculum reform, therefore, is not simply a matter of replacing one set of software applications with another. It involves reconsidering the educational assumptions that underpin multimedia programmes. Technical skills remain essential, but they are best understood as a foundation for creative practice rather than its ultimate objective. Preparing students for AI-mediated creative work requires educational environments that cultivate reflection, adaptability, and informed judgement alongside technical competence.

REIMAGINING MULTIMEDIA EDUCATION

The changing organisation of creative work invites a reconsideration of multimedia education, but it does not require abandoning its existing foundations. Technical proficiency will remain an important component of professional practice. The issue is one of educational emphasis. A curriculum designed primarily around software instruction reflects an earlier stage in the development of digital media, when technical execution represented the principal barrier to creative production. That assumption is becoming increasingly difficult to sustain.

Interestingly, recent reforms in Indian higher education already provide a language for this transition. The emphasis within NEP 2020 and Outcome-Based Education on competencies, multidisciplinary learning, and authentic assessment aligns more closely with Biesta's broader conception of educational purpose than with a curriculum organised primarily around software proficiency. Although these reforms were introduced independently of generative AI, they provide an educational framework that is well suited to a field characterised by rapid technological change. Software applications are continually replaced, but the ability to analyse communication problems, make informed creative decisions, collaborate across disciplines, and exercise ethical judgement retains its value irrespective of technological shifts.

Biesta's conception of education and Wenger's understanding of professional learning together point towards a different approach to multimedia curriculum. Rather than expanding programmes through additional software or AI modules, they direct attention to the educational conditions under which judgement, agency, and professional identity are formed. From this perspective, multimedia programmes should prepare students to engage critically with emerging technologies while participating in authentic creative practices through studio-based learning, collaborative production, internships, and industry engagement. Technical knowledge remains indispensable, but it functions as the foundation upon which reflection, collaboration, and informed creative judgement are developed.

This argument should not be interpreted as a rejection of AI or as a claim that technical skills are becoming obsolete. Creative practice continues to depend on an understanding of visual language, storytelling, design principles, editing, and communication. These forms of knowledge remain indispensable. Their educational role, however, changes when routine production tasks are increasingly supported by computational systems. Technical competence becomes the foundation upon which higher-order judgement is exercised, rather than the primary measure of professional capability.

The debate over AI in higher education has largely centred on access to technology and the incorporation of new digital tools into teaching. Such concerns matter, but they leave a more basic question unresolved: what kind of graduate should multimedia education seek to produce? As creative practice continues to evolve, universities preparing students for professional environments where technologies, workflows, and occupational roles are in constant transition will need an answer that does not depend on which software happens to be current. Studio-based learning, interdisciplinary projects, internships, and industry engagement matter here not because they simulate professional practice, but because they are where students actually develop the judgement that procedural

software instruction alone cannot provide. Technical knowledge remains indispensable; its educational value, however, lies in enabling reflective and responsible creative practice rather than serving as the principal measure of professional competence.

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