The Role of AI in Transformational Change in Higher Education From VUCA- to FLUX-World

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Abstract: The link between higher education and socio-economic development has been redefined in the light of the knowledge economy and the changing labor market, with an increasing emphasis on cognitive, social, and technological skills. With the rise of AI and the transition from a VUCA world to a FLUX world, new competencies are emerging. Our research uses Budapest Metropolitan University as an example to examine how institutions are responding to these challenges. This study aims (i) to contribute to both national and international discussions on AI-driven educational innovation, emphasizing a competency development perspective rather than a purely technological one, with a focus on the link between soft skills and the future of education under the umbrella of transformative change in higher education. Through thematic coding, (ii) to identify which skills have emerged as priorities, and what types of pedagogical innovation have been introduced. Our conclusion is that learning support AI tools (e.g. chatbot, recommender system, feedback engine), automatic assessment systems (e.g. essay improvement using AI) and the development of reflective thinking (e.g. learning diary analysis using AI, career portfolio) will make the transformation process in higher education more effective, especially with regard to the challenges of the knowledge economy and the skill gap and the process from VUCA to FLUX-world.

Keywords: artificial intelligence, FLUX, higher education, VUCA

1 Introduction

Artificial Intelligence (AI) can come into contact with us in many ways in our everyday lives, as it is present in almost every area of our lives (Cun, 2025). When we manage our finances online banking, or when we fall ill, going to the doctor or hospital, or even when

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we use a robot vacuum cleaner. Yann Le Cun, Turing Award-winning French-American computer scientist and professor at New York University, argues in his book The Revolution in Artificial Intelligence and Deep Learning that “AI research is still in the discovery phase. It is not yet a science” (Cun, 2025, p. 301). This statement is somewhat contradicted by the growing number of news articles, publications, conferences, and, last but not least, LinkedIn posts on AI. I recently read that “AI is at the center of it all, as it’s reshaping the workplace, demanding a new kind of agility from talent: the ability to learn fast, adapt quickly, and lean into both technical and human skills.” According to the LinkedIn Work Change Report, “400%+ surge in global AI hiring over the past 8 years. Today, 75% of knowledge workers are using generative AI—half for the very first time this year” (Kleiner, 2025).

Even more exciting and thought-provoking is the news that China launched the world's first AI Agent Hospital last year, run by 42 AI doctors. Developed by the Tsinghua University AI Industry Research Institute (AIR), the fully virtual hospital comprises 21 departments, ranging from cardiology to neurology. These are AI systems capable of individual diagnosis, treatment planning, and follow-up, working with AI-generated patients in a closed environment. During internal testing, more than 10,000 cases were diagnosed in a few days. They achieved 93.06% accuracy. Public pilot programs will start in May 2025, with the first steps taking place in real hospitals (Li, 2024). Imagine if a higher education institution operated in a similar way to the Chinese AI Agent Hospital! AI-based individual diagnosis, planning, development, and evaluation.

Last but not least, I check my university emails several times a day, follow Neptun information, and read CooSpace messages. When I open the university's website, the following pop-up window appears: "Hi! 👋 I am METU's AI-based chatbot. Feel free to ask me anything, I'm here to help! 😊" I admit that I have not initiated a conversation or asked any questions yet, but I'm sure that we will encounter chatbots more and more often in our everyday lives. The above-mentioned cases and stories provide a good basis for a more thorough consideration of the role of AI in higher education. It is clear that AI will fundamentally change the way higher education works. Many studies deal with various dimensions of change, including ethical, competitive, pedagogical, and organizational aspects (Eggert, 2021; George & Wooden, 2023; Hannan & Liu, 2021; Vass, 2025). Basically, this is a transformation process, which has systematic and multiple impacts in higher education (Fowler, 2023).

Particular attention should be paid to the study that examined the relationship between cognitive brain function and AI-assistant-based essay writing, which resulted in a number of significant findings regarding the cognitive consequences of educational and informational contexts. On the one hand, the use of AI-based tools provides unprecedented

opportunities to improve the quality of learning and information processing, closely related to this, cognitive thinking. On the other hand, however, further research, primarily longitudinal, is warranted on the issues of individual critical thinking and intellectual autonomy (Kosmyna et al., 2025).

Accordingly, it is worth distinguishing between two stages of this rapidly changing transformation process. The first stage concerns the transformation of higher education in a VUCA-world (volatile, uncertain, complex, ambiguous) (Fadel et al., 2015). This process actually began in 1957 with the cognitive revolution, which many identify with the 'Sputnik shock'. As is well known in professional circles, on October 4, 1957, the Soviet Union successfully launched the first artificial satellite, Sputnik 1, into space. The event shocked the United States (hence the name Sputnik shock), but what is more important from the perspective of our topic is that it marked the beginning of research into the mind and the processes of cognition and thinking (Divine, 1993; Kennedy, 2005). What is perhaps less well known is that the 'cognitive revolution' actually began just one month before the 'Sputnik shock', on September 11, 1956, when leading researchers such as George Miller, Noam Chomsky, Alan Newell, and Herbert Simon gave presentations at the Information Theory Symposium held at the Massachusetts Institute of Technology (MIT) (Gardner, 1985; Miller, 2003).

Representatives of seemingly distant disciplines—psychology, linguistics, and computer science—came together at this time, but their common questions and similar approaches laid the foundations for a new way of thinking. This approach envisioned the functioning of the mind as modelled on computers, which was undoubtedly a progressive and promising discovery at the time. It was progressive and promising in the sense that it brought the study of thought processes to the forefront. At the end of his retrospective study, George Miller, who was present at the conference, wrote: "For myself, I prefer to speak of the cognitive sciences, in the plural. But the original dream of a unified science that would discover the representational and computational capacities of the human mind and their structural and functional realization in the human brain still has an appeal that I cannot resist" (Miller, 2003, p. 144).

Jerome Bruner, a leading scholar in early cognitive psychology, spent several decades studying how the mind works. According to his theory, the mind functions in two ways. On the one hand, it functions as a computational structure based on information processing: "how finite, coded, unambiguous information about the word is inscribed, sorted, stored, collated, retrieved, and generally managed by a computational device" (Bruner, 1996, p. 1). This first transformation process is based on a computational approach, and in fact, this way of thinking is also evident in the functioning of artificial intelligence. On the other hand, according to Bruner, the other way of thinking is narrative, with the mind closely embedded

in culture: “mind could not exist save for culture”, and “learning and thinking are always situated in a cultural setting” (Bruner, 1996, pp. 3-4).

The second transformational stage is the transition from a VUCA world to a FLUX world (fast, liquid, unknown, experimental). In this environment, the ability to cope with unpredictable changes, flexibility, adaptability, and the development of relevant key competencies come to the fore (Tiryaki, 2025). In this process, the functioning of the mind can no longer be described merely as a computational model. It is closer to Bruner's culturalist approach, in which information processing is no longer at the center of the transformation process. The role of AI is also significant in bringing the development of creative and critical thinking to the fore.

It is clear that the above-mentioned longitudinal research in the field of critical thinking and intellectual autonomy promises significant results, but at the micro level, to use Fowler's apt expression, “at the dynamic intersection of artificial intelligence and higher education,” it may also be useful to examine the application of teaching methods and innovative learning strategies (Fowler, 2023). There is no doubt that personalizing learning has significant potential in both transformation processes, but it is advisable to address this at the macro level in the context of technological developments, ethical considerations, and pedagogical innovations (Lin et al., 2024).

In our study, we do not examine teaching methods and innovative learning strategies in isolation, but rather, it is worth examining, at micro level, the role of AI in higher education within the triangle of planning, development, and assessment, taking into account the characteristics of the two-stage transformation process. As a first step, it is advisable to change training programs and the curriculum planning culture, the main features of which are the formulation of learning outcomes, a focus on output, and the definition of competency standards. There is no doubt that transforming curriculum planning has a significant impact on development and evaluation. In a second approach, however, it is worth reversing the above triangle and starting the two-stage transformation process by changing the culture of assessment and feedback. Specifically, in addition to summative assessment, more opportunities and space are given to diagnostic and formative assessment. Parallel to personalized learning and tutoring, individual assessment methods and feedback come to the front (Henly, 2003; Hwang & Chang, 2011; Moss & Brookhart, 2019).

2 Objectives and research methodology

This study adopts a qualitative, exploratory research design, grounded in expert interviews conducted at Budapest Metropolitan University (METU) during the 2023–2024 academic year. Data collection involved 12 semi-structured expert interviews with faculty members,

academic leaders, and instructional development specialists who actively contribute to shaping educational content, methodologies, or technologies. Interview data were analyzed using thematic coding. The qualitative findings were supplemented by a document analysis of BA and MA course syllabi across various departments at METU. This analysis mapped the presence and integration of soft skills and AI applications within official curricula, both in terms of scope and format. Examining these syllabi enabled contextualization of the interview-based insights and facilitated an exploration of the alignment between theoretical objectives and actual pedagogical implementation.

The methodological foundation of this study is an exploratory hybrid research design that integrates qualitative and quantitative approaches in a mutually reinforcing manner. Beyond methodological pluralism, this design reflects epistemological openness, enabling the identification of implicit and often conflicting effects across different levels of educational practice. The research relied on two empirical pillars:

1. Systematic content analysis of curricula (n=143 courses): This provided a quantifiable overview of the cognitive operations and competencies emphasized in METU courses, with particular attention to the higher levels of Bloom's revised taxonomy (Create, Analyze, Evaluate) (Anderson & Krathwohl, 2001).
2. Semi-structured in-depth interviews (n=10): Conducted with lecturers and institutional actors from diverse disciplinary backgrounds, these interviews offered insight into how formally legitimized learning objectives are interpreted, experienced, and problematized by faculty members.

Rather than standing in a hierarchical relationship, the two datasets were placed in dialogue: curricula represent formal policy declarations of knowledge, while interviews capture local epistemologies and lived practices. Methodological triangulation was employed to map consistencies, discrepancies, and interpretive tensions between these two forms of knowledge. Cross-case triangulation further enabled us to explore not only differences in the data but also their interpretive implications. Whereas curricula predominantly articulate product-oriented learning outcomes, interview discourses consistently called for greater emphasis on reflection, ethical considerations, and context-sensitive knowledge. This is not only a descriptive difference but also a normative gap that challenges the continuity between curriculum-level knowledge planning and actual learning processes.

Accordingly, triangulation did not serve merely to validate findings but to generate a structural and interpretive dialogue between data sources, identifying directions for potential curriculum redesign. This methodological logic builds on the principles of interpretive pedagogical research, which regards learning as a culturally embedded, actor-driven construction that requires the reflexive involvement of participants.

The empirical research, especially the thematic analyses, is at the level of the legitimized curriculum, and does not provide reliable data on the implementation of the transferred and achieved curriculum. The situation is similar at the hidden curriculum level. Accordingly, it is worthwhile to collect data on practical implementation and institutionalization through classroom visits and further interviews, in particular on the AI support system at individual, team and organizational levels.

The following section details the specific steps of data collection and analysis: the coding of course descriptions according to Bloom's taxonomy, the procedures applied in thematic interview analysis, and the strategies used to ensure the validity and reliability of the findings.

2.1 Data Collection and Analytical Procedures

The dual empirical foundation of the research—curriculum document analysis and semi-structured interviews—represents not only methodological diversity but also two distinct layers of knowledge: the world of formally prescribed learning and the world of institutionally experienced learning. Below, I present in detail the construction of both datasets, the analytical methods applied, and the tools used.

Curriculum analysis: competence focus and cognitive levels

The document analysis aimed to map what types of cognitive operations are emphasized in METU's curricular structures. The dataset consisted of 143 course descriptions collected for the 2023/24 academic year, covering BA and MA programs across different disciplines: business, social sciences, creative industries, and pedagogy.

The analysis focused on three main components:

- Learning outcomes: What competencies are defined as course objectives?
- Assessment tasks: What tasks are used to measure learning outcomes?
- Pedagogical methods: What instructional approaches are intended to achieve the objectives?

The coding was based on the three higher levels of the Revised Bloom's Taxonomy:

- Create: producing new work, design, planning, modeling.
- Analyze: breaking information down, recognizing relations and structures.
- Evaluate: making judgments, weighing arguments, reflection, ethical evaluation.

A semi-automated coding procedure was used, combining machine-based text analysis with qualitative validation. The entire text corpus was processed using NLP tools supported by

Python scripts and ChatGPT-assisted category detection. The categories identified by the algorithm were verified through manual coding of a 10% subsample (n=14 courses). Inter-coder agreement between two independent coders exceeded 95%, which is considered high reliability in qualitative research (Cohen's $\kappa > 0.8$).

The results showed the following distribution across Bloom's three levels:

- Create: 68.5% (98 courses) — predominantly product-oriented outputs, e.g., campaign plan, design project, presentation
- Analyze: 18.9% (27 courses) — case studies, statistical analysis, narrative examination
- Evaluate: 12.6% (18 courses) — reflective journals, peer review, ethical appraisal

This distribution clearly indicates that METU's curricular culture follows a creative, practice-oriented approach. At the same time, forms of learning that emphasize reflection, critical evaluation, and ethical awareness are underrepresented, despite their growing importance in the competence matrix of the FLUX world.

Interview analysis: attitudes, dilemmas, interpretive frames

The second pillar of the research consisted of ten semi-structured interviews conducted with senior faculty members and decision-makers working across METU's faculties and organizational units. Participants were selected through purposive sampling to ensure that responses reflected the disciplinary and institutional diversity of the university (arts, language pedagogy, social sciences, strategy).

The interviews, lasting 45–70 minutes, were structured around the following thematic directions:

- AI as an educational tool: accessibility, applications, potential, and limitations
- Faculty attitudes: fears, curiosity, competence gaps, adaptation strategies
- Student use of AI: motivations, misuse, plagiarism dilemmas
- Rethinking teaching and assessment: methodological responses
- Ethical and philosophical reflections: the boundaries between artificial and human knowledge

Recordings were transcribed verbatim and thematically coded using NVivo software. The coding scheme combined deductive categories (derived from research questions) with inductively emerging codes shaped by the texts' internal logic. Each interview was coded independently by at least two researchers, with consensus discussions ensuring alignment

of interpretations. This procedure secured interpretive reliability and minimized potential bias.

The thematic coding produced six main clusters:

1. AI as an intellectual partner or a technical tool
2. Faculty loss of control and adaptation attempts
3. Student challenges: passivity, declining motivation, "prompt-dependence"
4. Redesign of assessment structures: portfolios, oral defenses, AI-transparency
5. Institutional regulation dilemmas: prohibition vs. framework-setting
6. Transformation of educational ontology: "the teacher is not an algorithm"

The aim of the qualitative analysis was not to "summarize" the interviews but to explore their interpretive depth: how faculty perceive AI as a symptom of a new educational order, and what internal (psychological, pedagogical, ethical) responses these changes elicit.

2.2 Triangulation and Interpretive Integration: The Dialogue Between Curriculum and Faculty Narratives

One of the key methodological and interpretive aims of this study was to connect and mutually interpret the two types of data sources—curricular documents and faculty interviews. In this sense, triangulation did not merely serve as a means of validating data but also functioned as an interpretive strategy, highlighting the discursive and structural relations between declared and enacted forms of knowledge.

The quantitative results of the curriculum analysis clearly revealed a *Create-dominant* institutional cognitive profile: METU's curricula overwhelmingly prioritize product-oriented learning outcomes, while reflective, evaluative, and ethical competencies are comparatively underrepresented. By contrast, the interview-based analysis uncovered faculty narratives that strongly called for elevating precisely these underrepresented dimensions. Most interviewees—regardless of disciplinary background—emphasized that AI-generated content does not constitute value in itself. It only gains value when supported by clear intention, interpretation, and reflection. Assessment, therefore, was not perceived as an administrative or technical issue but as a cultural and ethical challenge.

This structural tension was most evident in the following contrasts:

- Curricular documents: "Measuring learning outcomes = Quality of output (e.g., campaign plan, design, presentation)"
- Faculty narratives: "Learning outcomes = The reconstructability of the thinking process, the logic of reflection and decision-making."

From the instructors' perspective, a *Create-level* product only becomes "defensible" if the student can justify their chosen solution, reflect on the tools used (e.g., AI), and interpret the product in ethical terms. This expectation is not merely pedagogical but also philosophical: learning here is understood not as the production of the "correct answer" but as the capacity to articulate one's own answer.

Triangulation thus revealed an interpretive discrepancy between current curricular structures and faculty expectations: while curricula predominantly emphasize creative outputs, in practice faculty increasingly push toward reflection, ethical awareness, and transparency in decision-making. This gap is not only of theoretical interest but also represents a potential intervention point for institutional learning and curriculum development. As a result, triangulation enabled not only the description of existing structures but also their reinterpretation and normative recalibration. This methodological strategy provided the foundation for recommendations aimed at integrating reflective and ethical dimensions more proportionately into curricular outcomes, such as:

- Introducing a reflective appendix for every creative product
- Integrating oral defense into project-based courses
- Embedding a prompt log and AI-use commentary in submitted work
- Developing AI-transparent assessment templates at the course level

2.3 Validity, Reliability, and Ethical Frameworks

A fundamental challenge of qualitative research is that the analyst does not merely "interpret" but is also part of the interpretive frame itself. Acknowledging this, each member of the research team kept a reflexive journal documenting the dilemmas, assumptions, and decision points that emerged during coding and interpretation. This reflexive practice ensured that the research process was not reduced to mechanical coding but became an exercise in intellectual self-examination.

Triangulation applied not only to the data sources (documents and interviews) but also to their interpretations: each phase of coding and analysis was carried out by at least two researchers, thereby ensuring that conclusions rested not on individual intuitions but on collective interpretive consensus. This multiplicity of perspectives was especially important in addressing sensitive issues such as faculty ambivalence toward AI or the blurred boundaries of plagiarism and authorship.

The research was conducted in accordance with institutional ethical regulations, following the protocol approved by Budapest Metropolitan University. All interviewees confirmed their willingness to participate in writing and were clearly informed about the aims of the study, data management procedures, and guarantees of anonymity. Responses were coded

in a way that made it impossible to identify interviewees at either disciplinary or institutional levels.

Particular ethical sensitivity was required in handling attitudes toward AI. The goal of the study was not to categorize instructors (e.g., as "AI-friendly" or "AI-resistant") but to interpret the complex emotional, methodological, and philosophical field in which such attitudes are formed. Accordingly, each expressed attitude was analyzed in its context, avoiding normative labeling.

Ethical considerations did not end with data collection: throughout the analysis, we sought to avoid distorting the intentions of the respondents and resisted treating the interviews as mere illustrative "data providers." Instead, interviewees were regarded as interpretive partners who brought their own horizons of understanding into the research process.

3 The interpretations of the findings in the FLUX conceptual framework

The expert interviews conducted confirm that the impacts of the transformation from VUCA to FLUX are tangibly present in higher education institutions, with the rapid expansion of artificial intelligence (AI) serving as a powerful driver of these changes. Experts identified several challenges that METU needs to address in relation to AI, and they also outlined the strategies they support for tackling them effectively. Most interviewees agreed that, due to the spread of AI, higher education is undergoing a phase of significant and unprecedented disruptive change, occurring at a non-linear and unusually rapid pace. "*What we teach today may not work tomorrow. […] What may have been considered good three or four years ago may not be considered so today by the same colleagues or institutions*." The very functions of the university as an institution are under constant revision, as are the competences being taught. *"[AI] transforms the concepts of learning and knowledge in education*." The majority of experts also agreed that this inevitable transformation requires a shift in attitudes among professors, students, and administrative staff alike.

Unlike the VUCA world, FLUX incorporates constant disruptive change into everyday academic life through the development of AI. The key attitudes identified as essential are flexible adaptation and resilience. In the current situation, interviewees often expressed negative feelings about the pace of transformation, highlighting the insecurity and unpredictability of higher education's future, with AI tools questioning and even invalidating current norms of teaching, competences, knowledge, and evaluation methods. "*Our training programs teach theoretical and analytical thinking, and on this basis train experts to create texts, how can we continue to do this?*" The rapidity of change makes

many feel uncomfortable—sometimes even vulnerable—and most experts mentioned losses associated with AI's expansion. "*I consider anything that could potentially diminish critical thinking or cognitive skills, or negatively affect them by disrupting their development, to be dangerous. In fact, AI disrupts everything we thought we knew about academia or scientific research, and I am not sure we can keep pace with the extent of this disruption*." Nevertheless, they unanimously acknowledged that meeting this challenge is inevitable, and that the university's ability to respond effectively will be crucial in maintaining its status and functionality in the near future.

Some interviewees expressed outright pessimism, emphasizing the risks and uncertainties of AI-driven transformation and doubting whether higher education institutions would be able to adapt quickly enough. "*AI takes away students' confidence in creating their own texts, demotivating them from reading, learning, and creating their own texts or knowledge. We have all experienced this firsthand*." Others were more optimistic, highlighting the opportunities offered by AI and emphasizing the potential for higher education institutions to innovate and strengthen their role in society. "[AI is] *an extremely dynamically evolving and improving partner* […] *increasingly capable of being a high-quality intellectual partner for creative human thinking, not just technical knowledge*."

Which competences, then, were identified in the interviews as essential for preparing students for the FLUX world and enabling METU to adapt to constant change? Experts highlighted the importance of openness to new solutions and technological tools, combined with critical thinking competencies to reflect on what AI can and cannot do. "*So teaching them what [AI] is like, how to use it responsibly and carefully, how to really achieve what they want, what mistakes to watch out for, what ethical issues to pay attention to, how to avoid getting into some kind of professionally damaging situation by using it*." – as one interviewee said. Students need to understand the differences between human and artificial intelligence, their limitations, and their complementary potential in addressing complex problems. According to another expert, the most crucial task is to determine "*how artificial intelligence can be used to create products that also strengthen the user's personal competencies. In other words, so that I do not remain a mere technical dispatcher who controls communication between different AI platforms without understanding what that communication is about*."

This tendency also means that competences related to human cognition come to the fore. "*For example, active learning, learning strategies, complex problem-solving, critical thinking and analysis, creativity, originality, resilience, stress management, and flexibility*," listed one interviewee, adding: "*These are precisely the areas in which artificial intelligence does not excel*." On the other hand, "*artificial intelligence proves most useful in situations where we aim to save time, or when we need to perform tasks of such*

magnitude—such as data aggregation or analysis—that they would be impossible to complete given our physical limitations and time constraints." Interviewees also emphasized the ethical aspect of using AI. "*It indeed involves moral issues—not only professional ethics in the narrow sense, but ethical and moral questions in a broader sense. These challenges are real, and they confront us constantly in new and changing forms. I believe university students need to be made aware of this, so that they feel responsible for using AI—acknowledging the necessity of its use, but doing so with appropriate control*."

As competences evolve, assessment methods must also change. Since acquiring a basic body of knowledge that can be applied in an AI-free environment remains crucial according to interviewees, testing related competences under AI-free conditions will be a key area of assessment. Universities are experimenting with technologies to restrict AI access during tests and examinations. While some professors advocate a return to paper-and-pen methods, others argue that new technologies require new solutions and are experimenting with alternative forms of assessment. Meanwhile, with the growing importance of critical thinking, creativity, and intuition, evaluation rubrics must be redesigned to reflect these priorities, focusing more on the human factor rather than the memorization of facts. As universities prepare students for a labor market where the use of AI tools is inevitable, students also need to develop related competencies, such as efficient prompting or identifying the most suitable AI tool for a given problem.

However, the nature of FLUX transformation through AI expansion is not limited to student competencies and evaluation methods. Several interviewees argued that the very aims and values of higher education are being challenged. Alongside this trend, they noted that personal, trust-based relations and close mentoring are becoming increasingly important at the university, as they can help balance the growing use of AI and the insecurity it creates. Unlike in the VUCA-world, there are no longer clearly described scenarios to follow. Making decisions about the integration and the regulation of AI use in higher education thus becomes increasingly difficult, especially when time pressure prevents the accumulation of sufficient scientific evidence to support an option. As one interviewee put it, "*[w]e shoot at a moving target, and we may hit it, but we may not. This is not really a fault of higher education, but rather a characteristic of it, precisely because we are preparing for the future. When I see that it is not so good after all, I aim a little further. But in any case, let us be aware that this is a moving target."* Since decisions about AI use must be made based on fragments of information, values gain increasing importance—together with the identity and long-term strategy of universities. "*In the longer term, it would be good to develop an institutional culture regarding how we approach these technologies and what we consider natural, but this is not easy to achieve*."

4 Limitations

No matter how carefully designed and executed, empirical research can only provide valid answers within a given context and set of research questions. This study did not aim for full representativeness; instead, it approached the subject through institutional depth, reflexive interpretation, and an attempt to understand complexity. At the same time, it is important to critically reflect on the limits of the methodology alongside its strengths.

Curriculum analysis undeniably offers an accurate picture of the learning outcomes and instructional logics formally declared in METU's curricula. However, these documents represent the so-called *intended curriculum*—what the institution expects in principle from students and instructors. Actual educational practices—the *enacted curriculum*—may differ significantly. Curricula often prescribe formal requirements that are not, or only partially, realized in the classroom. Reasons for this discrepancy may include faculty autonomy, student motivation, institutional infrastructure, or the ambivalent perception of AI use. In this phase of the study, the actual classroom-level implementation of education was not examined, so it cannot be stated with certainty that the observed *Create-dominance* truly manifests in practice.

Semi-structured interviews provided deep and nuanced insights into faculty thinking, but they were not designed for statistical generalization or for covering the full institutional landscape. Interviewees were selected through purposive sampling, meaning they do not represent the entire faculty body—especially not lower-ranked instructors or younger generations. Moreover, while authentic, the ideas expressed in the interviews do not always reflect actual teaching practices; rather, they often operate at the level of self-reflection and professional discourse. For this reason, future research should complement interviews with other qualitative methods, such as classroom observation, student focus groups, and the analysis of student work.

The study primarily foregrounded the faculty perspective, while student experiences and attitudes were not directly included. This is a significant limitation, as the impact of AI on learning environments is most directly observable through student behavior: motivation, autonomy, attitudes toward assessment, and AI usage practices. Future research should therefore address questions such as: How do students use AI? For what purposes? With what level of ethical awareness? To what extent do they feel that the assessment system is "prepared" for the challenges of the AI era? Such questions would enrich the faculty- and curriculum-centered perspectives revealed here.

Finally, AI integration is not a one-off implementation but a continuous, often non-linear transformation. Accordingly, this study provides more of a snapshot than a process account. Future investigations should adopt longitudinal approaches: How does the normative

framework for AI use evolve over time? What are the impacts of implemented educational innovations? Such research could be not only descriptive but also serve as a normative compass for institutional decision-making, helping to balance technological opportunities, learning autonomy, assessment integrity, and ethical responsibility.

5 Conclusion

This research has shown that artificial intelligence appears in higher education not merely as a technological innovation but as a catalyst for deeper structural and cultural transformation. After the challenges of the VUCA world, the characteristics of the FLUX world—speed, uncertainty, and experimentation—place universities in situations where flexibility and resilience become indispensable.

The tension between curriculum analysis and interview findings is telling: while curricular documents emphasize creative outputs, faculty narratives call for strengthening reflection, ethical sensitivity, and transparency in decision-making. This discrepancy is not only descriptive but also a normative challenge that may shape the future of education.

AI tools—such as chatbots, automated assessment systems, and the analysis of learning journals—can significantly enhance learning efficiency. At the same time, it is essential for both instructors and students to develop the competence to critically reflect on AI use, recognize its limitations, and apply it responsibly and ethically.

Looking ahead, three key directions emerge:

1. Redesigning curricula and educational content to more strongly incorporate reflective, critical, and ethical dimensions.
2. Transforming assessment culture by placing greater emphasis on formative and diagnostic feedback alongside summative examinations.
3. Reconsidering institutional identity and values, recognizing that decisions about AI use are not merely technical but also strategic and cultural.

In sum, artificial intelligence represents a “moving target” in higher education, requiring constant adaptation. The role of universities is not to close an ongoing transformation but to learn how to live with continuous change. This is only possible if, alongside technological opportunities, human factors—creativity, critical thinking, and ethical awareness—are given due emphasis.

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