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Chapter 11. Becoming an entrepreneurial, AI-native university in Bangladesh

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The next decade represents not another phase of gradual reform, but a period of structural discontinuity in higher education. AI systems increasingly challenge long-standing assumptions regarding expertise, learning, assessment, and employability. Simultaneously, universities are operating within broader transitions involving labor-market restructuring, demographic shifts, geopolitical fragmentation, and rapidly evolving skill ecosystems.

For many universities, especially in the Global South, the issue is not whether AI should be integrated, but whether institutions can redesign themselves fast enough to remain socially relevant and educationally legitimate. The prevailing global discourse on "AI-ready universities" remains structurally distorted because it is largely shaped by highly resourced institutions operating within exceptional ecosystems. Yet most universities globally operate under financial, infrastructural, demographic, and institutional constraints.

The transformation of DIU evolved through three interconnected phases. The first, digitalization, focused on initial institutional digitization: the introduction of learning management systems, online student services, and digital academic processes. The second phase, AI integration, saw AI systems begin to support specific institutional functions — among them an AI Professor, AI Proctor, Students Hub, and PerfectHR. The current third phase, the AI-native transition, involves embedding AI into the university's broader institutional architecture across learning flows, assessment systems, administrative intelligence, career pathways, and entrepreneurship ecosystems. This trajectory reflects a broader shift from "using AI tools" toward redesigning institutional functions around environments where cognitive labor is increasingly abundant.

In this context, Daffodil International University (DIU) in Bangladesh represents a more representative institutional case: entrepreneurial rather than elite, adaptive rather than legacy-bound, and constraint-driven rather than capital-intensive. This paper therefore does not present DIU as a universal template, but as an exploratory case of institutional transformation under real-world conditions.

AI-native pedagogy: organizing teaching, learning, and assessment

One of the central questions raised in the book framework concerns how pedagogy changes when AI becomes a regular co-teacher and knowledge is no longer scarce. DIU's experience suggests that AI-native pedagogy cannot simply involve adding AI tools to existing lecture models. Instead, learning itself must be reorganized. The AI era forces universities to reconsider not only what students should know, but what kinds of humans universities are cultivating. This aligns with the broader discussion in the book re-

garding the transition from purely technical education toward more integrative human development models.

As AI increasingly externalizes procedural and cognitive tasks, uniquely human capacities become more valuable: sense-making, ethical discernment, empathy, creativity, and cultural intelligence. This suggests that the future university may become less focused on information transfer and more focused on cultivating human flourishing within AI-mediated societies.

Where the traditional model proceeded from lecture to examination to grading, the emerging DIU model moves instead through AI exploration, human reflection, industry application, and output creation. This emerging learning flow repositions AI as exploratory and adaptive infrastructure, faculty as facilitators and sense-makers, and industry as a validation environment. The role of the university shifts from transmitting information toward orchestrating capability development.

Importantly, this transformation occurred under real constraints — limited faculty expansion, diverse student readiness, and resource limitations. Rather than building expensive new infrastructures, DIU experimented with hybrid approaches combining capstone projects, industry-integrated work, and entrepreneurship activities with AI, alongside studio-style collaborative learning environments. This aligns closely with the broader question posed in the book regarding what meaningfully replaces lecture-centric education in resource-constrained institutions.

Next, the emergence of generative AI challenges the legitimacy of many traditional assessment systems. Standardized examinations increasingly measure tasks that AI can already perform effectively. The DIU response has therefore shifted from memory-oriented evaluation toward capability-oriented assessment through portfolio-based evaluation, AI-supported project work, real-world problem solving, and industry-integrated capstones.

The critical issue is no longer whether students use AI, but whether institutions can evaluate judgment, discernment, creativity, ethical reasoning, and human–AI collaborative capability. This shift reflects one of the central tensions identified in the book framework: *how can universities assess meaningful human contribution when AI is embedded in almost every professional activity?*

Finally, AI-native universities require substantial redesigning of the faculty roles. Traditionally, faculty functioned primarily as content deliverers, subject authorities, and evaluators of student output. However, when content generation and certain forms of assessment become increasingly automated, these roles evolve toward learning architecture, curation of inquiry, ethical guidance, and the facilitation of reflection.

At DIU, faculty adaptation remains an ongoing process rather than a finished transition. Key challenges persist around readiness, technological anxiety, workload pressures, and rapidly changing expectations. At the same time, AI opens genuine possibilities: more personalized feedback, reduced repetitive administrative tasks, and enhanced interdisciplinary collaboration. Experience suggests that faculty transformation is not primarily technical — it is cultural and organizational.

AI-first administration and the integrated institutional ecosystem

The book framework emphasizes that AI-native universities must rethink operations, not merely teaching. At DIU, this meant moving beyond isolated administrative improvements toward a deliberate effort to build institutional intelligence at scale. Early experimentation with AI-supported systems — PerfectHR for predictive workforce

and performance management, StudentsHub for student engagement and behavioral insights, and AI Proctor for scalable assessment monitoring — demonstrated real gains in operational efficiency, student support, and institutional response times. Yet it also revealed a fundamental limitation: fragmented AI adoption, however well-intentioned, produces fragmented transformation.

This recognition led DIU toward developing a more integrated institutional ecosystem organized across four interrelated layers. Learning intelligence, anchored in the AI Professor and adaptive learning systems, connects directly to assessment intelligence through AI Proctor and AI-supported evaluation. These academic layers are in turn supported by institutional intelligence drawing on HR analytics, student data systems, and administrative decision support, while career intelligence — anchored in the Skill.jobs ecosystem and its integration with entrepreneurship and startup development — extends the university's reach beyond graduation. The central insight emerging from this experience is that AI transformation succeeds when ecosystems, not isolated tools, are integrated.

Building such an ecosystem, however, raises governance questions that remain unresolved not only at DIU but across higher education globally. How much decision-making should be delegated to AI systems? How should accountability be maintained in AI-mediated environments? And what forms of human oversight remain essential? These questions do not diminish the value of institutional AI ecosystems — but they make clear that constructing them is as much a matter of governance design as technical implementation.

Ethics, inclusion, and the paradox of constraint

AI introduces substantial risks for higher education systems, particularly in developing contexts. Institutional inequality, language barriers, data governance concerns, algorithmic bias, and AI dependency are not abstract threats — they are live pressures already shaping how universities in the Global South engage with AI transformation. DIU's experience underscores the importance of human oversight, inclusive access to AI tools, transparent governance, and local adaptation as practical responses to these pressures. The deeper structural challenge, however, remains unresolved: how can universities in the Global South avoid becoming dependent consumers of externally produced AI systems while lacking the capacity to shape them? This is one of the book's central concerns — how to prevent AI-driven stratification, both between elite and mid-tier institutions, and between Global North and Global South ecosystems more broadly.

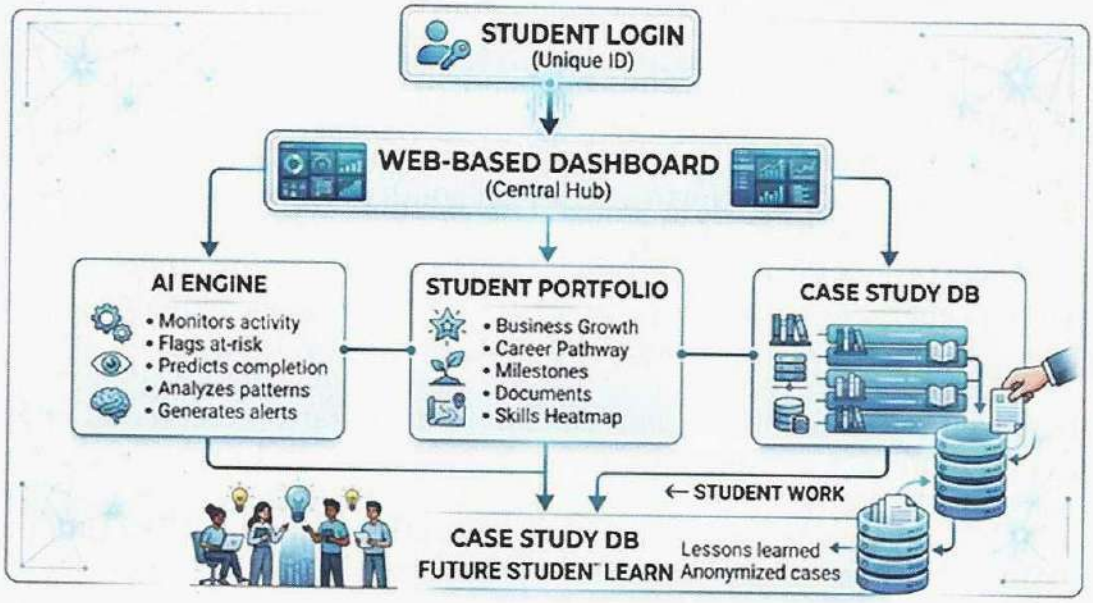
Yet the DIU case simultaneously points toward a less expected possibility: that constraint itself may carry a form of institutional advantage. Operating under budget limitations, faculty preparedness gaps, infrastructure pressures, and regulatory uncertainty, DIU was pushed toward faster experimentation, lower-cost innovation, and entrepreneurial problem-solving precisely because the conventional pathways were unavailable. Where well-resourced institutions can afford deliberate, incremental reform, constrained institutions are often compelled to improvise — and in doing so, may move faster and more adaptively than their better-funded counterparts. The experience suggests that AI may enable certain universities to leapfrog traditional institutional development pathways rather than simply imitate elite models. The risk of dependency and the possibility of leapfrogging are not mutually exclusive — they are the twin realities that Global South universities must navigate simultaneously, and doing so thoughtfully may itself become a distinctive form of institutional expertise.

Blueprints in practice: designing the AI-native university

Based on DIU's experience, five interconnected stages of AI-native transformation emerge. The first is awareness — a leadership mindset transformation that preconditions everything that follows. The second is integration, involving foundational AI systems and institutional experimentation. The third is curriculum transformation, in which AI collaboration is embedded across disciplines. The fourth is governance, addressing ethics, transparency, accountability, and human oversight. The fifth and most advanced stage is ecosystem development — the integration of institutional intelligence across learning, operations, and employability into a coherent whole. This framework is not presented as prescriptive, but as an evolving institutional pathway shaped by experimentation, adaptation, and contextual realities.

While the institutional AI architecture described earlier operates at the level of the university as a whole, one of the most instructive examples of AI-native education in practice emerges at the departmental level. The Department of Innovation and Entrepreneurship at DIU has developed an integrated AI-based project tracking ecosystem that illustrates, in concrete terms, what it means to redesign a learning environment around AI rather than simply add AI tools to an existing one.

The system addresses a challenge familiar to any university running multi-year project-based curricula: how to supervise, support, and document student development at scale without reducing that process to a series of disconnected submissions and grades. The solution DIU developed is organized around a web-based dashboard that serves as a central hub connecting students, faculty supervisors, industry advisors, and program coordinators within a single environment. Each student enters the system through a unique digital portfolio ID assigned at the start of their first capstone project, which persists across all eight projects in the sequence and beyond graduation. This seemingly simple design choice has significant consequences: rather than producing a collection of course outputs, students accumulate a longitudinal record of entrepreneurial development — a living document of how their thinking, their ventures, and their capabilities evolved over time.



The ecosystem operates through three interrelated components. The AI engine functions as a continuous monitoring layer, tracking student engagement, submission patterns, and activity levels, and using this data to flag at-risk students, predict completion timelines, and generate targeted alerts to supervisors before problems escalate. This transforms supervision from a reactive to a proactive function: rather than discovering that a student is struggling at the point of a missed deadline, supervisors receive early signals that allow for timely intervention. The student portfolio component tracks the full arc of each student's entrepreneurial journey — from initial idea generation and market analysis through operational planning, financial modeling, expansion strategy, and final implementation. An AI-generated skills heatmap visualizes competency development across domains including ideation, market research, marketing, operations, management, finance, and strategy, producing an evidence-based record that carries meaning beyond the academic context, serving as a credential for future employers and investors. The third component, the case study database, captures anonymized records of student projects — including the decisions made, the pivots undertaken, the failures encountered, and the lessons drawn — which become a searchable institutional resource available to future cohorts. As illustrated in Figure 1, student work flows continuously into this database, which in turn feeds forward into the learning environment of the next generation of students, creating a self-reinforcing knowledge loop in which each cohort contributes to the infrastructure inherited by the one that follows.

Several design features of the system deserve particular attention. The case study database does not record only successes. It deliberately documents failures, incorrect assumptions, and strategic pivots, and makes these visible to future students in anonymized form. This reflects a considered pedagogical choice: by normalizing iteration and reducing the stigma of failure, the system encourages students to take the kinds of risks that entrepreneurial learning requires. A "Case of the Trimester" feature recognizes the strongest project from each cohort as a teaching case in subsequent classes, creating peer recognition and an institutional culture of excellence without imposing a purely competitive dynamic. Students can also use the database proactively — searching for cases that match challenges they are currently facing, reading how previous students navigated similar situations, and applying those insights to their own work.

The ethical architecture of the system is equally deliberate. Student participation in the case study database is voluntary, governed by explicit consent, and subject to comprehensive anonymization protocols that remove all identifying information before any case enters the shared repository. Students retain the right to exclude sensitive sections — such as financial projections from a public view, and industry supervisors must provide written approval for any project involving company data. Participation carries no grade implications. These safeguards reflect an awareness that building institutional knowledge through student work creates genuine obligations of transparency and trust — obligations that become more rather than less important as AI systems become more deeply embedded in educational environments.

What this departmental ecosystem demonstrates, ultimately, is a working model of the principles this chapter has argued for at the institutional level. Learning is organized around real problems and cumulative development rather than discrete assessments. AI functions as infrastructure for support, monitoring, and knowledge generation rather than as a replacement for human judgment. Faculty and industry advisors contribute forms of guidance — ethical reasoning, critical evaluation, market validation — that remain distinctively human. And the institution itself becomes a learning system, not merely a delivery mechanism, accumulating and transmitting knowledge across cohorts in ways that compound in value over time.

Conclusion

The future of universities will not be determined solely by who adopts AI first, but by which institutions successfully redesign themselves around new realities of intelligence, work, and human development. The DIU case suggests that mid-tier universities can become significant sites of innovation, that constraint-driven institutions may evolve faster than expected, and that AI-native transformation is organizational, not merely technological.

Most importantly, universities must decide whether they will passively consume AI systems, or actively participate in shaping the educational, ethical, and societal futures those systems create. The next decade may determine not only the future of universities, but also the role universities play in preserving human-centered development within AI-mediated societies.

References

Brynjolfsson, E., & McAfee, A. (2017). *Machine, platform, crowd: Harnessing our digital future*. W. W. Norton & Company.

Davenport, T. H., & Ronanki, R. (2018). Artificial intelligence for the real world. *Harvard Business Review, 96*(1), 108–116. https://hbr.org/2018/01/artificial-intelligence-for-the-real-world

Holmes, W., Bialik, M., & Fadel, C. (2019). *Artificial intelligence in education: Promises and implications for teaching and learning*. Center for Curriculum Redesign.

McKinsey Global Institute. (2023). *The economic potential of generative AI: The next productivity frontier*. McKinsey & Company. https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/the-economic-potential-of-generative-ai-the-next-productivity-frontier

Miao, F., & Holmes, W. (2023). *Guidance for generative AI in education and research*. UNESCO. https://www.unesco.org/en/articles/guidance-generative-ai-education-and-research

OECD. (2023). *OECD digital education outlook 2023: Towards an effective digital education ecosystem*. OECD Publishing. https://doi.org/10.1787/c74f03de-en

World Bank. (2020). *Realizing the future of learning: From learning poverty to learning for everyone, everywhere*. World Bank Group. https://documents.worldbank.org/en/publication/documents-reports/documentdetail/250981606928190510