

2026 INQAAHE Webinar :
The Human Advantage: Quality Assurance in the Age of AI

From AI Powerhouse to Talent Powerhouse –
Implication to Higher Education, AI Talent and Quality Assurance

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2026, Aug. 25



AI is Changing the World – But are we ready for it?

- AI is here to stay
- AI has changed higher education system and learning culture
 - Curriculum, teaching pedagogy, research, management, resource allocation, etc.
- AI facilitates talent nurturing but leads to unexpected consequences
 - We may not even realize that many of our decisions were made by AI
- Those who can know how to use AI will be winner

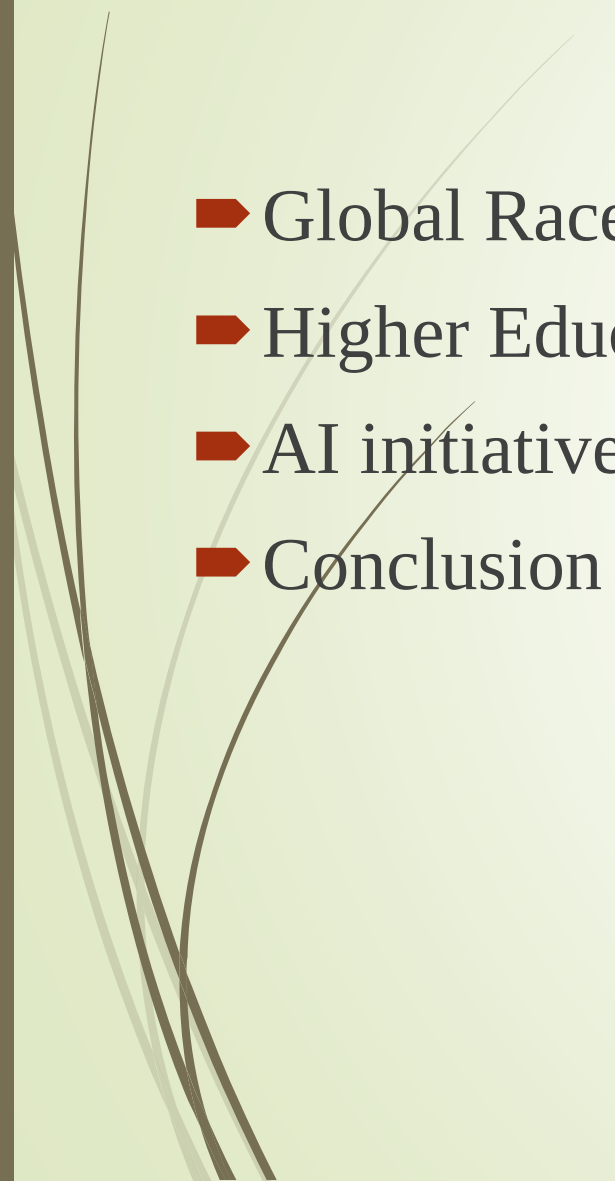


Some questions addressed in the webinar

- How is AI changing the way institutions assess and demonstrate student learning?
- What does authentic assessment look like in an AI-enabled learning environment?
- How can institutions distinguish between the productive use of AI and the replacement of student learning?
- What new evidence should institutions consider when demonstrating educational quality and student achievement?
- How should accreditors and quality assurance organizations respond to rapidly evolving AI technologies?
- Most importantly, what remains uniquely human in learning—and how can quality assurance ensure that the human advantage is preserved?



Outline of Presentation

- Global Race in AI and its development in higher education
 - Higher Education, Quality Assurance, and AI in Asia
 - AI initiatives in Taiwan
 - Conclusion
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Global Race and AI development in higher education

Countries with a national strategy on AI

Source: Oxford Insights, 2024; AI Index, 2026 | Chart: 2026 AI Index report

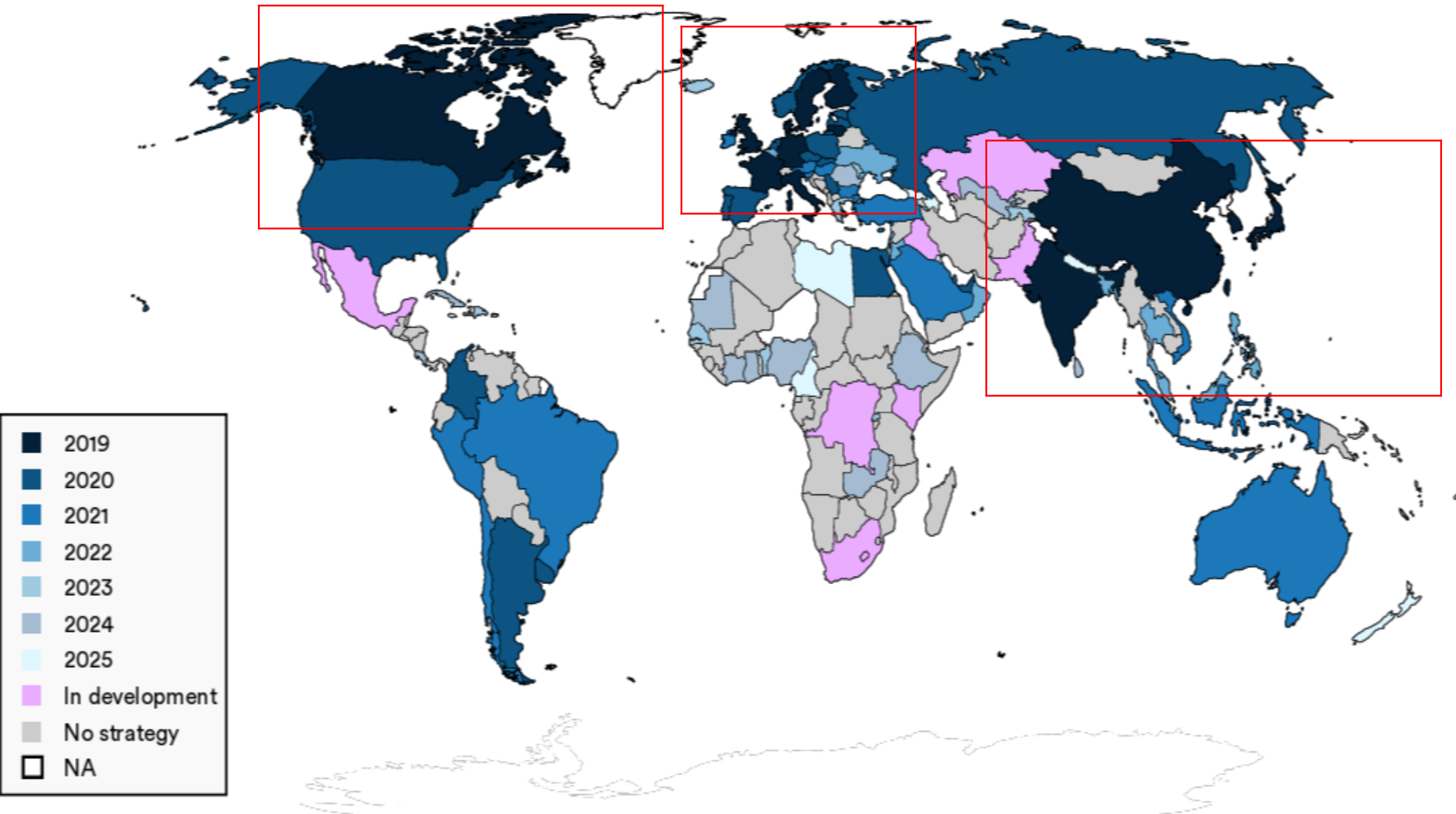
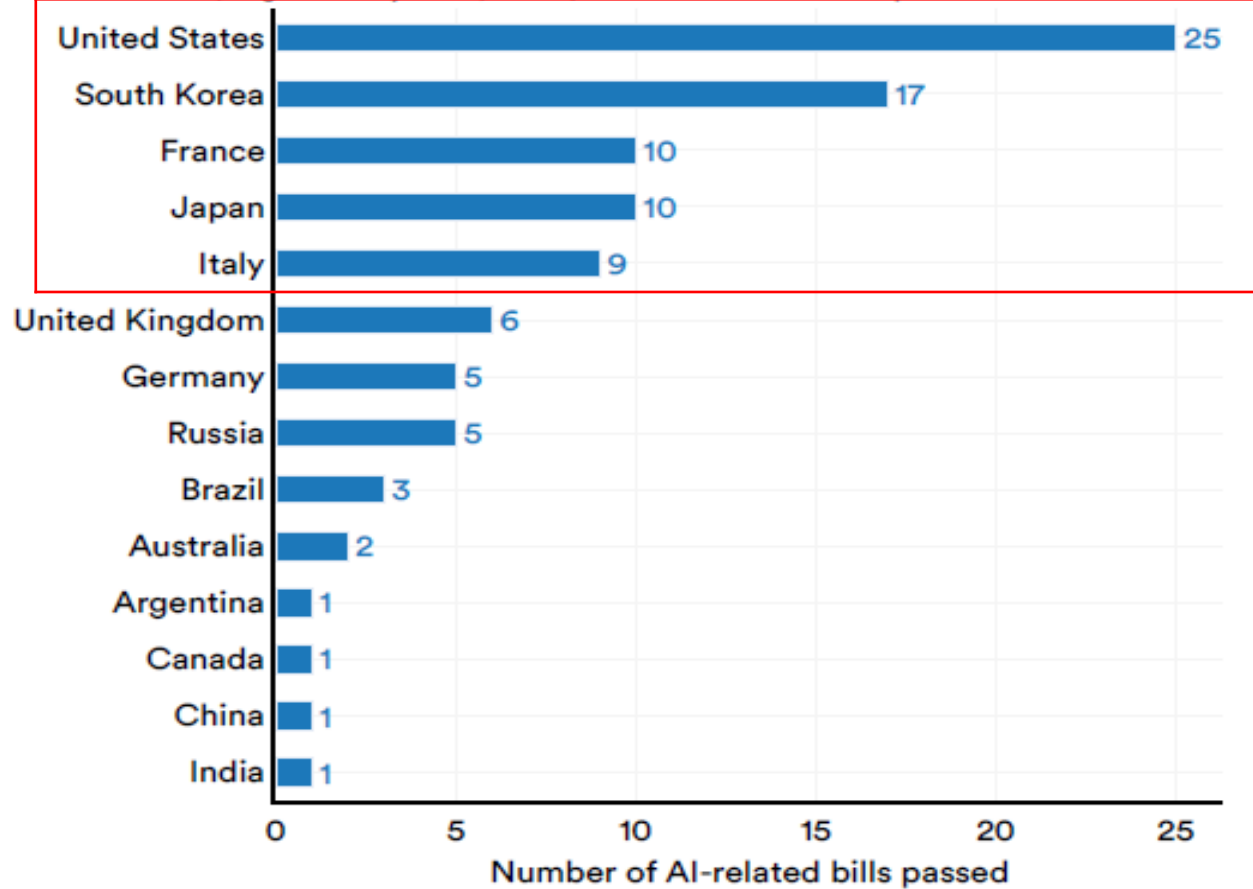


Figure 8.2.1

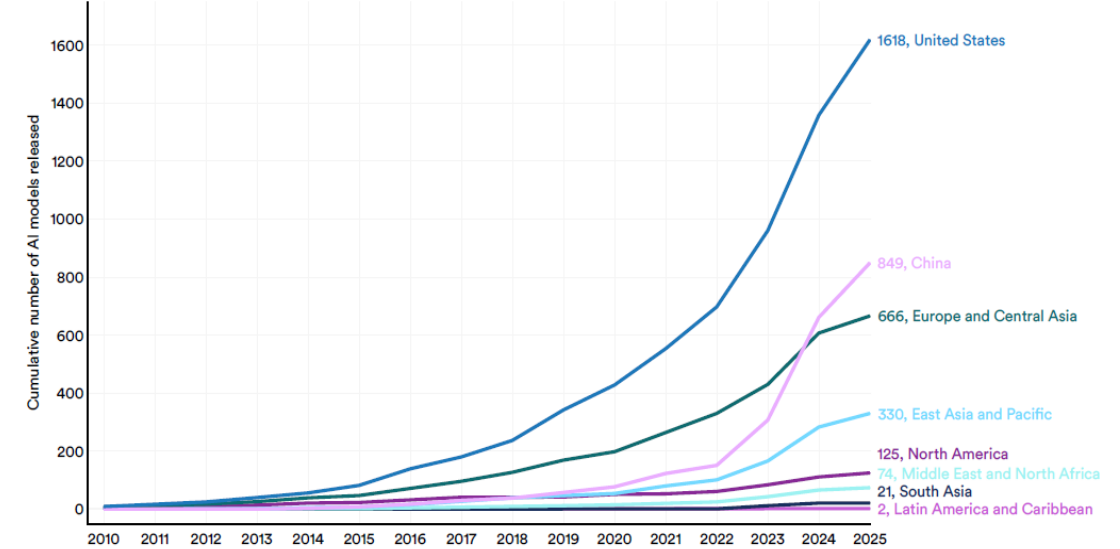
Number of AI-related bills passed into law in G20 countries, 2016–25 (sum)

Source: AI Index; Digital Policy Alert, 2026 | Chart: 2026 AI Index report



Number of AI models released by region, 2018–25

Source: Epoch AI, 2026 | Chart: 2026 AI Index report



Data localization measures by region, 2000–24

Source: Ferracane et al., 2026 | Chart: 2026 AI Index report

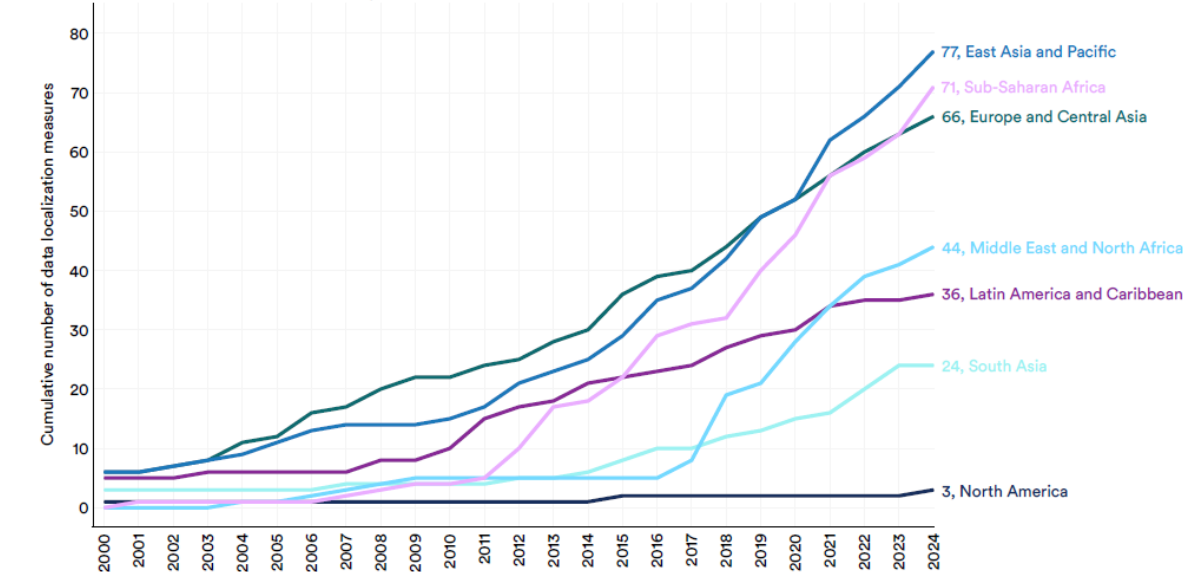
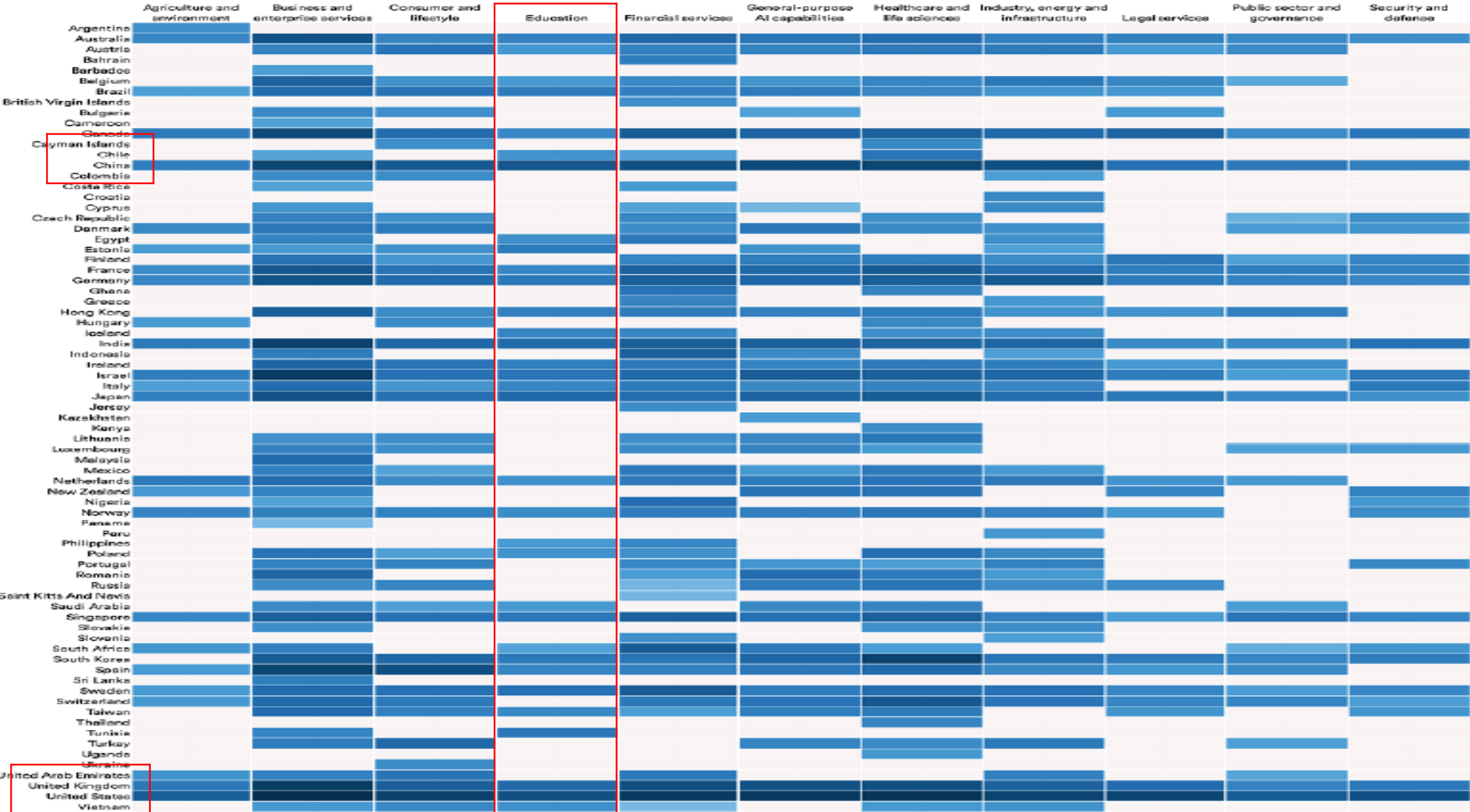


Figure 8.4.3

Distribution of AI applications by geographic area, type, and funding

Source: Brookings, 2026 | Chart: 2026 AI Index report





Some facts

(The 2026 AI Index Report, Stanford University)

- More than **90% of countries** now offer computer science to primary or secondary students, but AI education has been slower to take hold.
 - **China and the United Arab Emirates** both mandated AI education starting with the 2025-26 school year
- **The U.S.** remains a global leader in producing information, communications, and technology (ICT) graduates at all degree levels, but other countries are growing faster.
- The number of new AI PhDs in the United States and Canada rose 22% from 2022 to 2024. **The most share went to industry (62.75%), followed by academia (31.59%) with a lowest rate at government (1.96%)**

Top IT & AI Schools of Excellence 2026 by Eduniversal

<https://eduniversal-ranking.com/schools-of-excellence/ai-it>

AI Development Model	Core Characteristics	Representative International Leaders	Strategic Focus
1. AI Research Powerhouse Model	Strong fundamental AI research, world-leading faculty, major research funding, and high-impact publications	MIT, Stanford, Carnegie Mellon, UC Berkeley, University of Toronto, Tsinghua University	Advancing the AI frontier
2. Interdisciplinary AI Model	AI integrated with science, engineering, medicine, humanities, social sciences, and other disciplines	University of Oxford, University of Cambridge, ETH Zurich, Caltech, University of Tokyo, Imperial College London	AI + disciplinary knowledge
3. AI–Industry Innovation Model	Strong university–industry partnerships, entrepreneurship, technology transfer, startups, and applied AI	Georgia Tech, University of Waterloo, TUM, NUS, NTU, HKUST	Turning AI research into innovation and talent
4. Asian AI Powerhouse Model	National or regional strategic investment in AI, large-scale talent development, strong government support, and technology ecosystems	Tsinghua, Peking University, Zhejiang University, Shanghai Jiao Tong, University of Tokyo, Kyoto University, KAIST, SNU, NUS, NTU	Building national/regional AI capacity
5. AI Education & Talent Development Model	Emphasis on AI curricula, interdisciplinary programs, professional skills, data literacy, and large-scale AI talent cultivation	University of Washington, KTH, EPFL, Delft University of Technology, University of Melbourne, ANU	Preparing the AI workforce

AI and core areas in higher education (AACSB report)-business schools

Resources	Global	Americas	Asia Pacific	EMEA
1 Integrating AI/GenAI modules into existing courses	65%	68%	54%	64%
2 Collaborating/partnering with other disciplines	42%	48%	35%	33%
3 Allocating dedicated funding for AI/GenAI initiatives	37%	42%	41%	28%
4 Investing in AI/GenAI-focused research and development projects	34%	30%	32%	42%
5 Creating labs, innovation centers, dedicated spaces for AI/GenAI exploration	23%	20%	38%	21%
6 Partnering with technology companies for resources and expertise	23%	25%	27%	18%
7 Creating dedicated non-degree programs on AI/GenAI	18%	20%	16%	15%
8 Collaborating/partnering with other business schools	15%	13%	14%	19%
9 Creating dedicated degree programs on AI/GenAI	14%	15%	8%	15%
10 Creating new full-time faculty positions	14%	13%	14%	15%
11 Restructuring existing faculty positions	13%	17%	0%	11%
12 Hiring or contracting AI/GenAI experts	13%	7%	24%	17%
13 None	10%	11%	8%	10%
14 Other	6%	7%	5%	7%
15 Restructuring existing non-academic staff positions	4%	5%	0%	6%
16 Creating new full-time non-academic staff positions	4%	4%	5%	4%
17 Creating a dedicated department within the business school	1%	1%	0%	3%

Global (n=231), Americas (n=122), Asia Pacific (n=37), EMEA (n=72)

Created with Datawrapper

- Globally, 23% of schools are creating dedicated spaces for AI/GenAI exploration, with a significant push in Asia Pacific (38%).
- **Partnerships with tech firms** for resources and expertise are being pursued by 23% of schools globally.
- Schools in Asia Pacific lead in this initiative (27 %), with those in the Americas (25 %) and EMEA (18 %) trailing.
- Many schools are focusing on **curriculum integration to build students 'GenAI competency, incorporating AI into core curricula through mandatory courses or updates to existing classes, covering tools, ethics, and practical applications to meet industry needs.**
- Asia Pacific
 - **Ethical/academic integrity concerns;**
 - Time constraints/competition with other priorities;
 - Limited access to tools or technology



Key concerns surrounding the use of AI in higher education

- Academic integrity and assessment
- Institutional policy frameworks for teachers, students, researchers and administrators
- Ethical and public-policy principles
 - fairness, transparency, privacy, accountability and human oversight

AI tools for Educational assessment (Henadirage, et. al, 2026)

Table 1 AI tools and their applications in educational assessments

From: Changing assessment landscape in management education with AI-driven technologies: impacts and drivers

Assessment tasks	AI tools	Benefits
Automated Grading Systems	Gradescope, ExamSoft	Streamline grading by automating the evaluation of multiple-choice, short-answer, and essay-based assessments
Adaptive Learning and Personalised Assessments	Cognii, Knewton, ALEKS	Leverage AI to tailor test questions based on students' learning patterns and proficiency levels, enhancing personalised learning
AI-Based Plagiarism Detection and Academic Integrity	Turnitin, Copyscape	Utilise deep learning techniques to detect similarities between students' submissions and existing databases, ensuring academic integrity
AI-Assisted Feedback Mechanisms	Write & Improve, Scribo Grammarly	Use NLP algorithms to provide instant, detailed feedback on students' written assessments, improving writing quality and learning outcomes
AI-Driven Proctoring in Online Assessments	Proctorio, Examity,	Enhance exam security through facial recognition, eye-tracking, and keystroke analysis, ensuring integrity in remote assessments
AI-Powered Chatbots for Assessment Support	Jill Watson, IBM Watson Tutor	Provide interactive assessment support by answering student queries, clarifying concepts, and offering explanations tailored to individual learning styles

Risks

- Information
 - Producing flawed information and knowledge system
 - Deliberately manipulated or biased information
- Competencies
 - Diminishing individuals' ability to independently analyze and evaluate information
- Judgement
 - a decline in both the ability and habit of critical thinking
 - resulting in weakening problem-solving skills
- Social impact
 - restricting societal diversity and autonomy



Higher Education, Quality Assurance, and AI in Asia

Higher education in Asia (Hou, et.al, 2025)

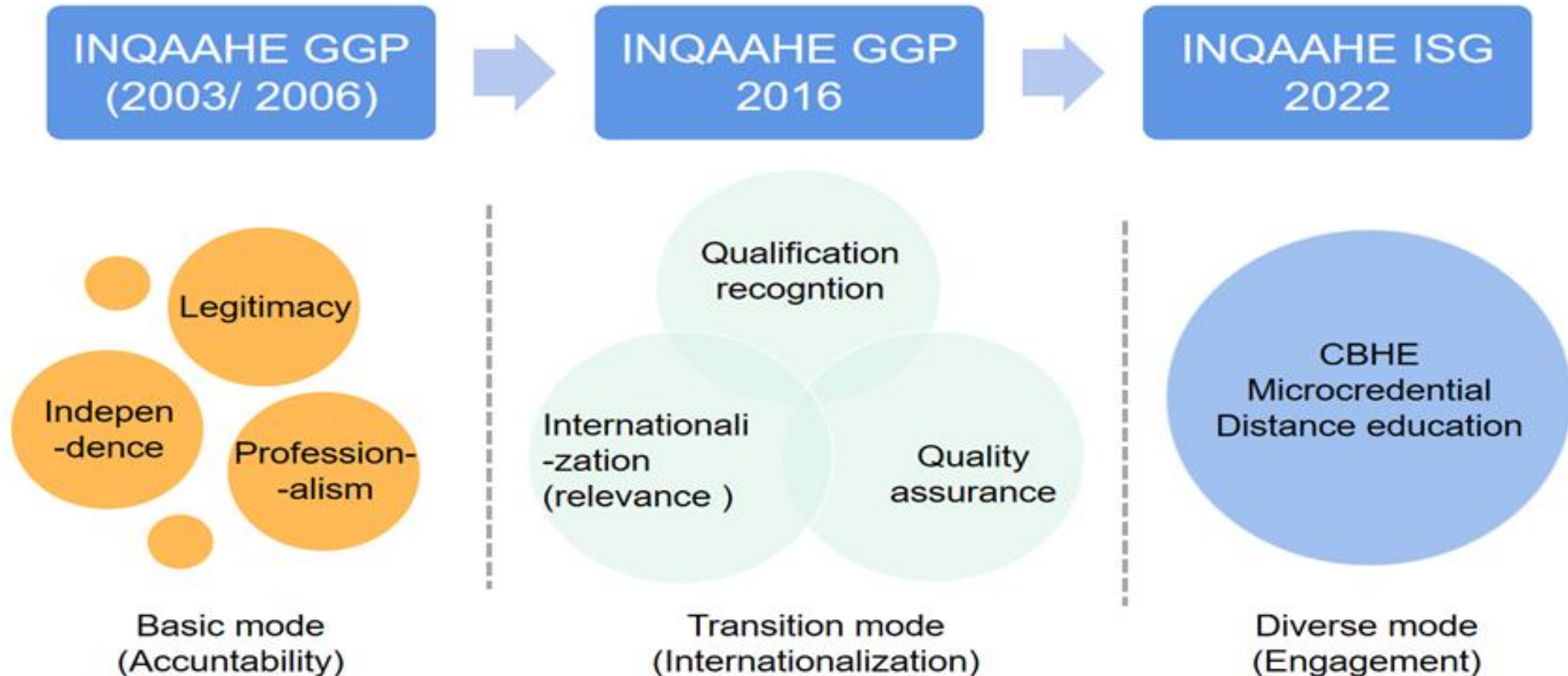
	HEIs	HE students
ASEAN	6,376 (9%)	21,065,793 (16%)
East Asia	4,511 (6%)	62,971,062 (44%)
Central Asia	2,039 (3%)	14,096,671 (9%)
South Asia	58,367 (81%)	44,166,454 (30%)
Pacific	764 (1%)	2,167,864 (1%)
Total	72,057 (100%)	144,467,844 (100%)



Numbers of Public and Private QA agencies (Hou, et.al, 2025)

QA agencies (N=161)		
	Public	Private
ASEAN	38 (39%)	32 (52%)
East Asia	32 (32%)	13 (21%)
Central Asia	8 (8%)	10 (16%)
South Asia	10 (10%)	3 (5%)
Pacific	11 (11%)	4 (6%)
Total	99 (100%)	62 (100%)

Conceptual framework for QA evolution according to INQAAHE guidelines (Hou, et. al, 2024)



Quality assurance in an evolving higher education landscape in Asia

(Stensaker & Hou (2026); Shin and Ko (2026); Fu, et.al (2026))

	Elite HE	Mass HE	Post Massified HE	AI Aged HE
Period	mid 70s ~ late 90s	2000 ~2010	2010 ~2022	2022 ~
Major stakeholders	Providers (HEI)	Providers and students	Students vs employers	Employer vs society
Quality	Knowledge and skills	Teaching and pedagogy	Student learning outcomes and employment	AI literacy, competencies and employability
Metrics	Input	Process	Output and outcomes	Impact and innovation
QA	State regulation	EQA framework and Accreditors	Accountability , State regulation, accreditors , rankings	Institutional research and AI based governance
Digitalization of teaching and learning	Lecture, written exam, learning is monitored by lecturers	hands-on exploration and IT embedded in teaching process	IT embedded in student feedback and forming individualized knowledge pathways (MOOCs)	AI as tutor; asking good questions ; structuring queries using prompts, providing adaptive learning environment
Campus focus	Physical sites, infrastructure, resources, talents	World class building, massive investment on research	SDGs, inclusive, relevance, diversification	Smart campus vs virtual campus -Self regulated via AI

Implication of AI in quality enhancement of quality higher education

➤ IQA

➤ Monitoring key performance indicators at institutional level

- Student retention rates, graduation rates, and learning outcomes, etc.
- Predictive analytics
 - To identify students at risk of being left behind
 - To identify **high-risk course failure rates** or **enrollment trends across academic programs**

➤ Gap analysis at the program level

- Alignment between content of course curricula with accreditation standards by AI algorithms
- generate detailed reports identifying **gaps, areas of non-compliance, and opportunities for improvement** in relation to quality assurance standards

➤ Collection of student learning outcomes at the course level

- Student feedback and survey

➤ EQA

- Drafting the SAR
- Simulation interviews of onsite visit

Guiding Principles published by EQAAs for AI Use in Higher Education and Quality Assurance

Agencies	Guidelines / principles	Focus	Publishing year
Council for Higher Education Accreditation (CHEA).	CHEA Guiding Principles for Artificial Intelligence in Accreditation and Recognition.	AI as a supporter, avoid bias (EQAA)	2025
Southern Association of Colleges and Schools Commission on Colleges (SACSCOC).	Artificial Intelligence in Accreditation	Security, Integrity, and Confidentiality, limited AI use by reviewers (EQAA)	2024
Quality Assurance Agency for Higher Education (QAA)	Reconsidering assessment for the ChatGPT era: QAA advice on developing sustainable assessment strategies	Rethinking assessment strategies to ensure student learning outcomes and integrity (HEI)	2023
Tertiary Education Quality and Standards Agency, TEQSA	Inquiry into the use of generative artificial intelligence in the Australian education system: Submission_33	Identify benefits and risks (HEI)	2024
AACSB International	AACSB Analytics Hub	Sharing good practices (HEI)	2025
National Assessment and Accreditation Council (NAAC)	AI-powered system, dual system	Eliminating peer team visits, collecting feedback in time (EQAA)	2025
Malaysian Qualifications Agency (MQA)	The Use of Generative Artificial Intelligence in Higher Education	responsible integration approach to Generative AI, learning outcomes, assessment, integrity, AI literacy (HEI)	2023



Taiwan AI initiatives – Talent nurturing and program development

Taiwan as a Global Tech Hub

- Reuters
 - **“A crucial role in the global AI supply chain”**
- Financial Times
 - **“At the heart of the global AI supply chain”**
- Associated Press / Jensen Huang
 - **“The center of the world’s computer ecosystem”**

80 % of employees hold Taiwan university’s MA degrees and above

Sources: Reuters (Lee, 2026); *Financial Times* (2025); Associated Press (2026).

Top 10 IT companies in Taiwan

Rank	Company Name	2025 Full-Year Revenue (USD)	Key Driver & Market Position	Approximate Global Employees	Primary Workforce Distribution
1	Foxconn / Hon Hai (2317)	~\$259.87 Billion	World's largest electronics contract manufacturer; surging on AI server infrastructure.	~826,000+	Global assembly lines (massive campuses in China, India, Vietnam).
2	TSMC (2330)	~\$122.23 Billion	Global semiconductor powerhouse; dominant leader in 3nm and 5nm nodes.	~90,500+	High-concentration in Taiwan; expanding in the US, Japan, and Germany.
3	Wistron (3231)	~\$70.26 Billion	Massive growth from pure device assembly to high-margin AI computing systems.	~83,000	12 manufacturing bases globally (Taiwan, Vietnam, Mexico, China).
4	Quanta Computer (2382)	~\$68.01 Billion	Major global AI hardware partner; core server supplier to Tier-1 cloud firms.	~81,500	Global design and server assembly (Taiwan, US, Europe, China).
5	Pegatron (4938)	~\$35.93 Billion	High-volume contract manufacturer for smartphones and automotive electronics.	~83,000	Industrial factories worldwide (Taiwan, Thailand, China, Europe).
6	ASUS (2357)	~\$22.10 Billion	Consumer brand driving AI PC rollouts, Next Unit of Computing (NUC), and gaming gear.	~70,000 - 90,000	Factory clusters focused on iPhone assembly and automotive tech.
7	MediaTek (2454)	~\$19.04 Billion	Global fabless giant designing processors for mobile and smart consumer IoT.	~22,500	Highly technical workforce; mostly R&D engineers in Taiwan, US, and Europe.
8	Delta Electronics (2308)	~\$17.80 Billion	Indispensable power management and cooling component supplier for data centers.	~20,000	Semiconductor foundry fabs located in Taiwan, Singapore, Japan, and China.
9	Acer (2353)	~\$7.70 - \$9.62 Billion	PC brand pivoting heavily toward AI Copilot+ devices and peripheral lifestyle brands.	~15,000	Corporate offices, R&D centers, and international sales hubs.
10	UMC (2303)	~\$7.05 - \$8.02 Billion	Specialized semiconductor foundry covering mature auto chips and display drivers.	~8,000	Lean global brand operations, product management, and marketing teams.

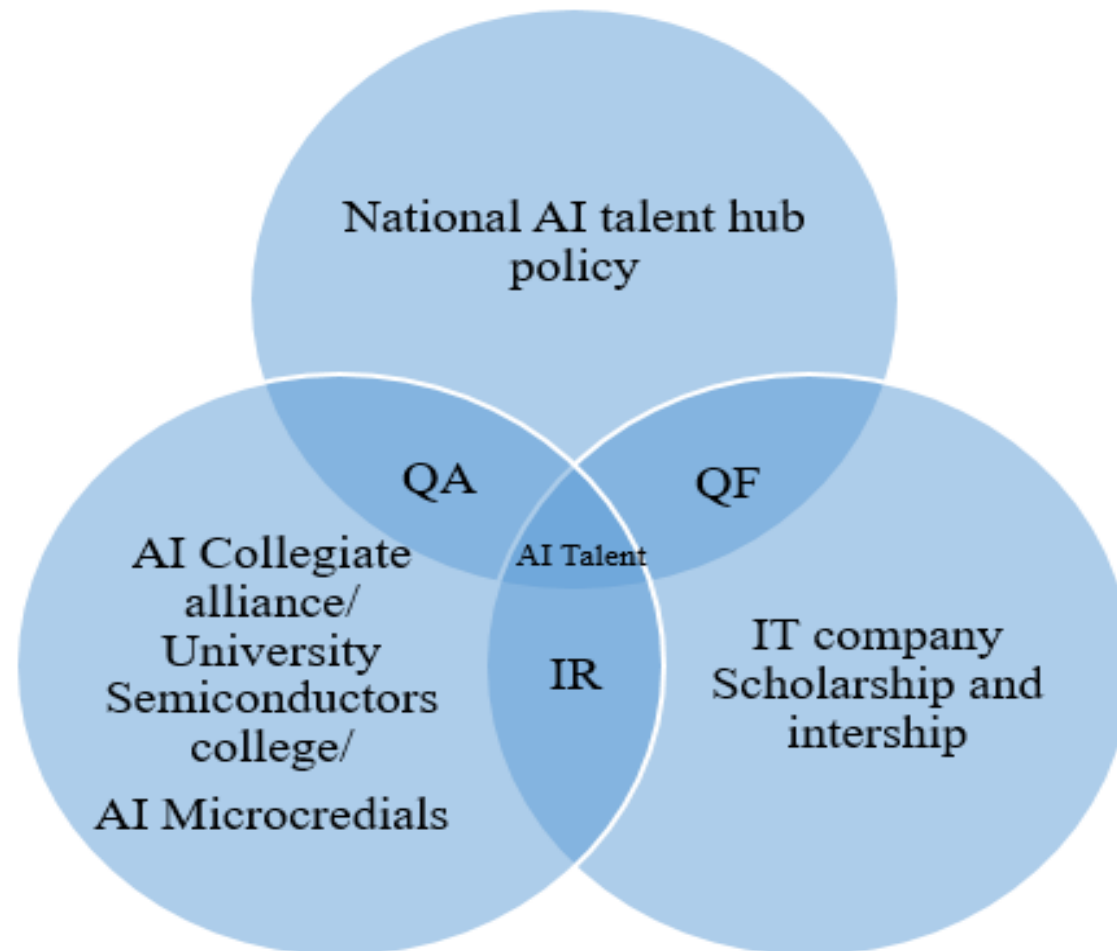
TSMC Among the World's Largest Companies

#31 worldwide
Forbes Global 2000, 2026

Rank	Name	Headquarters	Industry	Sales	Profit	Assets	Market Value
27	NVIDIA	Santa Clara, United States	Semiconductors	\$215.94 B	\$120.07 B	\$206.8 B	\$5.48 T
31	Taiwan Semiconductor	Hsinchu, Taiwan	Semiconductors	\$132.97 B	\$62.49 B	\$270.91 B	\$1.86 T
48	SK Hynix	Icheon, South Korea	Semiconductors	\$92.7 B	\$52.74 B	\$145.48 B	\$858.04 B
53	Broadcom	Palo Alto, United States	Semiconductors	\$68.28 B	\$24.97 B	\$169.9 B	\$2.01 T
88	Micron Technology	Boise, United States	Semiconductors	\$58.12 B	\$24.11 B	\$101.51 B	\$817.22 B
194	Advanced Micro Devices (AMD)	Santa Clara, United States	Semiconductors	\$37.45 B	\$5.01 B	\$79.64 B	\$691.54 B

Source: Forbes Global 2000 (2026)

From AI Policy to AI Talent in Taiwan HE



10 AI Initiatives Promotion Plan launched by the National Development Council (NDC) Taiwan

- Three themes
 - “Smart Applications,” “Critical Technologies,” and “Digital Foundation”
- Goals
 - promoting Taiwan's comprehensive AI development
 - building a complete industrial chain
 - reinforcing Taiwan's international competitive edge in forward-looking technologies
 - accelerating innovation-driven economic growth
 - realizing the national vision of transforming Taiwan into a *Smart Technology Island*
 - *Creating 500,000 high-paying jobs*

Ten Million AI Application Talents and Hundreds of Billions in Venture Capital

- *Accelerate the cultivation and recruitment of AI talents, expand venture capital investment in AI and other technologies to create a favorable environment for AI development, making Taiwan a global hub for AI talent and capital.*

2024 Taiwan Artificial Intelligence College Alliance

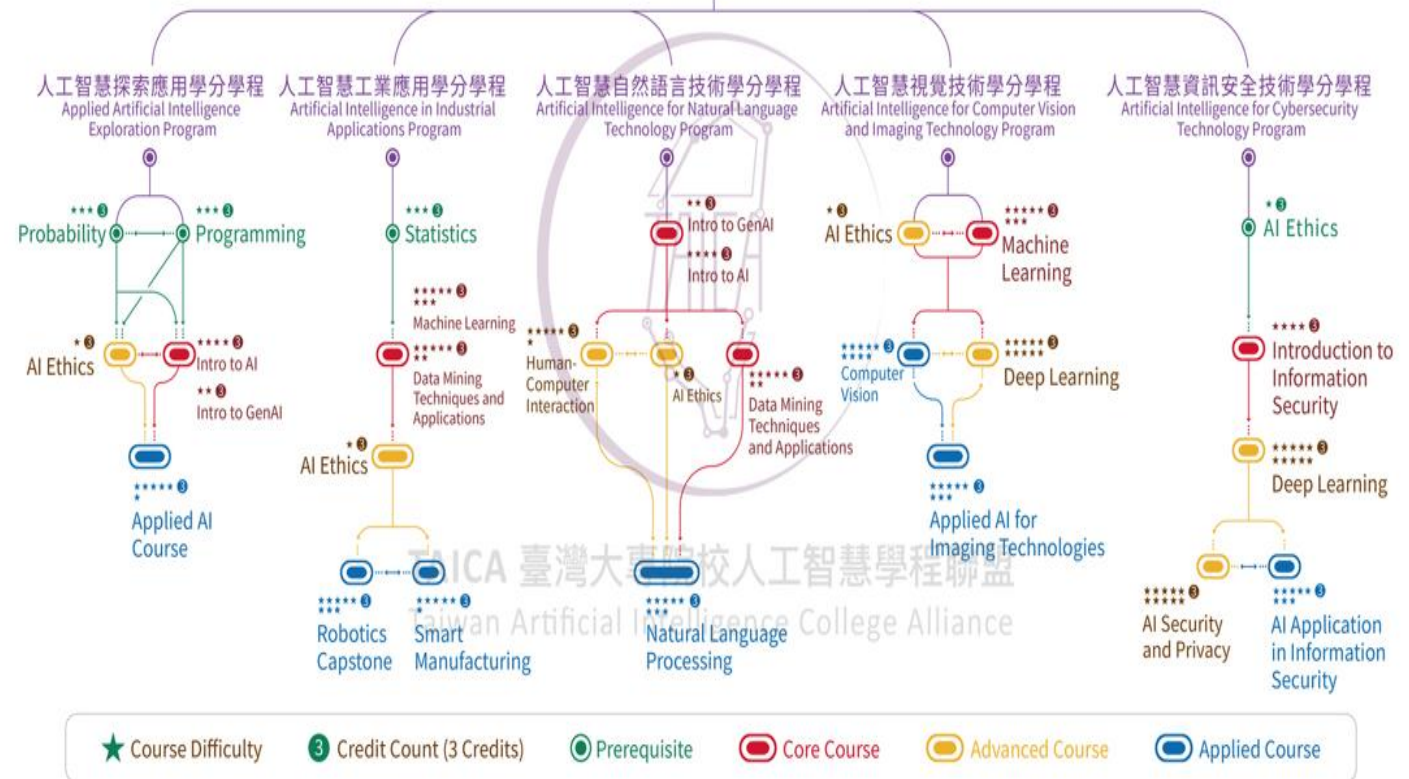
<https://taicatw.net/>

- To enhance AI education through collaborative intercollegiate programs
- 15-credit certificate program
- From 25 to 55 selected colleges and universities

➤ Programs

- Applied Artificial Intelligence Exploration Program
- Artificial Intelligence in Industrial Applications Program
- Artificial Intelligence for Natural Language Technology Program
- Artificial Intelligence for Computer Vision and Imaging Technology Program
- Artificial Intelligence for Cybersecurity Technology Program

臺灣大專院校人工智慧學程聯盟計畫-學分學程 Taiwan Artificial Intelligence College Alliance - Course Map



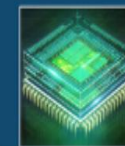
ANNOUNCEMENT ABOUT THE COLLEGE ACADEMY MEMBERS ADMISSIONS
STUDENT ZONE INDUSTRY-ACADEMIA COLLABORATION
EXPENSE REPORTING REGULATIONS SERVICE RESOURCES RELATED LINKS

RESEARCH COURSE ADMISSIONS DUAL DEGREE OVERSEA PROGRAM RULE DOCUMENT

Advancing
Next-Generation
Semiconductor
Technologies



AI+IoT



3D System Process
and Technology



Advanced Compound
Semiconductors



Intelligent
Society



Eco-friendly



Smart Net



eHealth



Campus Program

Ph.D. Scholarship

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- Data Statistics Consulting
- Application for :
 - TMU Clinical Research Data
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Ph.D. Scholarship

Encourage and support students to pursue Ph.D. in semiconductor-related academics and industries

國立臺灣師範大學教育大數據微學分學程 修習要點

112年4月19日 112學年度第二次教務會議審議通過

- 國立臺灣師範大學（以下簡稱本校）為培育學生能於數位時代均具備大數據分析技能，並與自身專業知識相結合，以解決自身專業領域的問題，依據本校學分學程設置辦法設立「教育大數據微學分學程」（以下簡稱本學程）。本學程由電機工程學系、科技應用與人力資源發展學系及共同教育委員會邏輯與程式教育組共同規劃辦理，並以共同教育委員會邏輯與程式教育組為主辦單位。
- 本學程至少應修12學分，包含必修6學分、選修6學分，課程資料另見「教育大數據微學分學程修習科目表」。

簡介

理事長的話

章程

組織架構

監事會

秘書處



真實數據 正確方法 合理解釋 具體建議



Conclusion

AI is transforming the core of QA

- Alignment between strategic planning and program development.
 - evaluation mechanisms should reassess whether institutional and departmental goals for talent cultivation adequately reflect the transformative influence of emerging technologies
 - Integration among general education, specialized disciplines, and interdisciplinary modular courses
- Responding job market
 - generate reliable employment data by graduate tracking system
 - monitor national and global job market trends
- Redefining the concept of student learning outcomes
 - critical thinking, ethical reasoning, and the ability to leverage AI to solve complex problems as priorities.
 - Assessment emphasis on analytical thinking, and real-world problems solving
- Faculty AI literacy
 - Teachers must adept at using AI tools
 - guide students in doing so ethically and effectively.
- Institutional research and digital transformation in institutional governance
 - Institutions strategically apply AI to improve administrative efficiency and decision-making process

Final remarks-

Are EQAAs ready to change ?

- ➡ Recognizing value of accreditation
- ➡ Strengthening EQAAs AI capacity
- ➡ Developing a flexible, data-driven, resilient QA ecosystems
- ➡ *Being a Future Thinker in Age of AI*

References

- **Stensaker, B. & Hou, A. Y. C. (2026). Global Quality Assurance in Higher Education and the Impact on Internal University Governance: Lessons Learned by Asia** In A. Y.-C. Hou, J. C. Shin, & B. Stensaker (Eds.), *Innovative paths to quality higher education in Asia: Reform, risks and reinventions for a sustainable future* (pp. 3-16). Springer. https://doi.org/10.1007/978-981-95-2531-7_12
- **Shin, J. C. and Ko, J. W. (2026). Changing Roles of the Quality Assurance Agency in Post-massified Higher Education in East Asia** . In A. Y.-C. Hou, J. C. Shin, & B. Stensaker (Eds.), *Innovative paths to quality higher education in Asia: Reform, risks and reinventions for a sustainable future* (pp. 16-35). Springer. https://doi.org/10.1007/978-981-95-2531-7_12
- Fu, Y. C., Quetzal, A. S., Lin, Y. C., & Junedi, J. (2026). Transforming higher education: The impact of generative AI on teaching and research. In A. Y.-C. Hou, J. C. Shin, & B. Stensaker (Eds.), *Innovative paths to quality higher education in Asia: Reform, risks and reinventions for a sustainable future* (pp. 229–253). Springer. https://doi.org/10.1007/978-981-95-2531-7_12
- Sajadieh, S., Fattorini, L., Perrault, R., Gil, Y., Parli, V., Santarasci, L., Pava, J., Maslej, N., Altman, R., Brynjolfsson, E., Brodley, C., Clark, J., Dignum, V., Kumar, V., Landay, J., Lyons, T., Manyika, J., Niebles, J. C., Shoham, Y., Tabassi, E., Wald, R., Walsh, T., & Weld, D. (2026). The AI Index 2026 annual report. AI Index Steering Committee, Institute for Human-Centered AI, Stanford University.
- Henadirage, A., Chathuranga, B.T.K. & Gunarathne, N. Changing assessment landscape in management education with AI-driven technologies: impacts and drivers. *Int J Educ Technol High Educ* **23**, 4 (2026). <https://doi.org/10.1186/s41239-026-00578-w>
- Hou, A. Y. C. Zhang, J., Abdullah H., Basaruddin, S. T., Tao, C. H. Y, Zhou, K. Z., Su, E. H. C., Lin, A. F. Y., Chen, Y., Bukhari, A. (2025). External and Internal Quality Assurance in Tertiary Education in Asia Pacific- Efficiency, Relevance and Transformative Power of QA. In Susanna Karakhanyan, S., & Kinser, K. (eds), *II Global Trends in Tertiary Education QA*, pp. 174-205. Bill.
- **Hou, A.Y.C., Tao, C.H.-Y., Zhou, K.Z.-W., Lin, A.F.Y., Su, E.H.C. and Chen, Y. (2024), "Evolution of quality assurance in higher education from INQAAHE GGP to ISGs – Are quality assurance agencies in Asia ready to the emerging modules?", *Journal of International Cooperation in Education*, 26(1), 85-100**