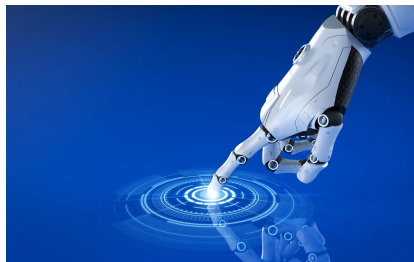




DEC Executive Briefing #014 | February 2025

AI Literacy For All

Key Takeaways



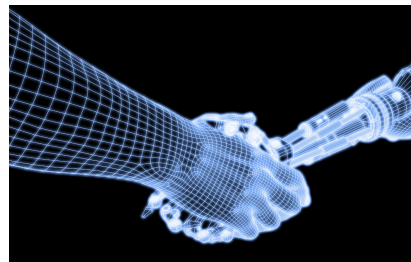
AI literacy empowers responsible AI use

AI literacy equips individuals with the knowledge to understand AI's capabilities and limitations. It provides a foundation for responsible AI use, ensuring that AI-generated content is critically assessed and applied appropriately. Addressing the gap in knowledge and skills can enable desirable human-AI interaction in education and work.



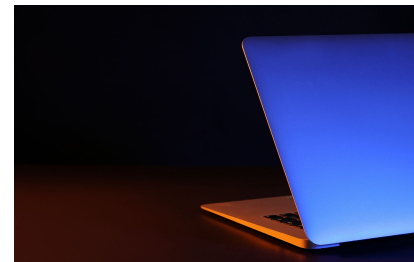
Five key pillars of DEC AI Literacy Framework

The DEC AI Literacy Framework is based on a five-pillar structure. The four foundational pillars cover general AI literacy, focusing on foundational AI knowledge, ethics, and complementary skills such as critical thinking and creativity. The fifth pillar addresses domain-specific expertise, enabling individuals to apply AI specifically to their fields.



The importance of a human-centred approach

A human-centred approach is critical to AI literacy, ensuring that human judgement, ethics, and creativity remain central in AI applications. AI literacy must prioritise human values, preventing over-reliance on AI and ensuring technology is used to complement, not replace, human skills.



Applying AI to domain expertise

AI literacy should evolve as individuals progress in their disciplines. The journey begins with understanding how AI applies to a specific field, followed by using AI tools to improve workflows and decision-making. Ultimately, individuals should aim to develop a level of expertise in AI applications in their discipline.

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1. AI Literacy: Why Is It Important?

Individuals and Employers Call for AI Literacy

1 Uncertainty around AI skills and knowledge

While many use AI tools for greater efficiency and productivity in their studies or work, majority of users are still uncertain or lack confidence in their AI competencies.

Our [Global AI Surveys](#) show that uncertainty primarily comes from low levels of perceived AI proficiency and understanding of guidelines¹

Major Implication

AI Idiots

The phenomenon of “AI Idiots” refers to individuals who increasingly are over-reliant on AI to handle daily tasks, with an inability to critically evaluate or supplement the output of these tools.

2 AI skills are in-demand, but the supply is insufficient

AI skills and AI-adjacent competencies are in demand, as AI use is increasing. Businesses are keen to unlock potential gains in productivity and innovation.

Despite AI being regarded with growing importance across industries², the supply of individuals with these competencies does not match up to the demand yet – 48% of students do not feel adequately prepared for an AI-enabled workforce.³

Major Implication

How to acquire and demonstrate AI skills?

As AI develops and is increasingly integrated into the workplace, there is demand for professionals to acquire and demonstrate AI competencies.

¹Digital Education Council, Global AI Faculty Survey, 2025.

²The Future of Jobs Report 2025. World Economic Forum. <https://www.weforum.org/publications/the-future-of-jobs-report-2025/>

³Digital Education Council, Global AI Student Survey, 2024.

Objectives of AI Literacy

What AI literacy can do

- 1 Guide individuals to acquire knowledge of AI**
Equip individuals with knowledge of AI functionality and capabilities, as well as what different AI tools can do to help enhance human abilities and work.
 - 2 Build the foundation for appropriate AI use**
Help ensure that AI is used responsibly and appropriately, with consideration for potential ethical implications of using AI, such as misinformation, plagiarism, and AI's societal impact.
 - 3 Enable desirable human-AI collaboration**
Enable greater application of key human skills such as critical thinking, creativity, and adaptability with the use of AI, ensuring humans stay at the core of AI development.
-

2. AI Literacy Frameworks Review

Literacy, Digital Literacy, and AI Literacy

	Literacy	Digital Literacy	AI Literacy
Definition	The ability to read and write, with understanding, a simple statement related to one's daily life. (UNESCO)	The ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills. (American Library Association)	There is currently no commonly agreed definition of AI Literacy. One definition is provided by Ng et al. (2021): AI literacy means having the essential abilities that people need to live, learn and work in our digital world through AI-driven technologies.
Key Skills Required	• Read • Write • Critical thinking	• Understand technology • Use and instruct technology • Critically thinking and evaluating • Create with technology • Cultural and social understanding • Cybersecurity • Collaboration • Effective communication	• Understanding AI technology • Use and instruct AI • Critically thinking and evaluating • Create with AI • Ethical awareness • Data privacy and security • Human-centred skills • Collaboration & Communication • Adaptability & continuous learning



Emphasised skills compared to digital literacy

AI Literacy Frameworks Review

Author(s)	Summary	Comments
UNESCO AI Competency Framework	UNESCO has developed two AI competency frameworks: one for students and one for teachers. Both frameworks highlight common dimensions of AI competencies, including a human-centred mindset, AI ethics, and AI applications. They also feature tailored dimensions – such as AI system design for students and AI pedagogy and AI for professional development for teachers. Each framework follows a progression model with three competency levels, from understanding or acquisition to creation.	These two frameworks are specifically tailored for students and teachers, making it hard to scale to other domains. The emphasis on applying a human-centred mindset to the uses and ethics of AI is notable, and is referenced in the DEC AI Literacy Framework.
Selber (2004)	Selber (2004) introduced a digital literacy framework that categorises digital literacy into three key dimensions: functional literacy, critical literacy, and rhetorical literacy. Functional literacy focuses on the ability to use digital tools and technologies effectively. Critical literacy is about the ability to scrutinise the assumptions and biases embedded in digital technologies. Rhetorical literacy refers to the ability to use digital tools to influence and persuade audiences.	This is one of the key frameworks referenced for digital literacy and AI literacy. The three literacy dimensions – functional, critical, rhetorical – have shaped the foundations for a number of AI literacy frameworks.
Stanford GenAI Literacy Framework	Inspired by frameworks such as Selber's 2004 Multiliteracies for a Digital Age and UNESCO AI competency framework for teachers, Stanford proposed an AI literacy framework tailored for educators, encompassing 4 literacy domains: functional literacy, ethical literacy, rhetorical literacy, and pedagogical literacy. This framework adopts a progression model with three competency levels, advancing from novice-level, intermediate-level, to advanced-level.	Stanford's framework is built upon the two frameworks above and tailored to higher education context. The multi-dimensional and progression-based model inspired the development of DEC AI Literacy Framework.

Selber, S. (2004). Multiliteracies for a Digital Age. In The Conference on College Composition and Communication of the National Council of Teachers of English/Southern Illinois University Press.

AI Literacy Frameworks Review

Author(s)	Summary	Comments
EDUCAUSE AI literacy Framework	EDUCAUSE introduces a four-level AI literacy framework structured as a pyramid, comprising of: understanding AI, using and applying AI, analysing and evaluating AI, and creating AI. This framework does not require learners to fully master one level before progressing to the next. At the highest level, learners should be able to conceptualise novel AI use, develop AI software, or propose new theories about AI.	Progression from understanding to creating underpins this framework. It emphasises that learners do not need to follow a linear path. It suggests that everyone should achieve the highest level of AI literacy and the ability to create AI, which is open to debate.
Allen & Kendeou (2024)	Allen & Kendeou (2024) introduced ED-AI literacy framework for students, encompassing six components: Knowledge, Evaluation, Collaboration, Contextualisation, Autonomy, and Ethics. This multidimensional framework emphasises that AI literacy extends beyond having foundational knowledge on AI, but requires individuals to critically evaluate, communicate, and collaborate with AI to achieve their goals.	This framework, tailored to students, describes the diverse components of AI literacy and highlights 'Autonomy' - self learning and decision making with AI - as a critical part of AI literacy. Its does not provide actionable guidance on AI literacy development.
Stolpe & Hallström (2024)	Stolpe & Hallström (2024) analysed 5 AI literacy frameworks and developed a specialised framework for technology education. This framework consists of three components: 1) Technological scientific knowledge - understanding what AI is, 2) Technical skills - learning how to use AI, and 3) Socio-ethical technical understanding - examining why AI should be used in a certain way and its potential consequences. Tailored for technology education, this framework emphasises a more advanced and technical approach to AI, including coding and programming.	This domain-specific framework is tailored to technology education. It emphasises practical, technical, and advanced AI knowledge and skills for students. It highlights that AI literacy is a stakeholder-specific construct.

Allen, L. K., & Kendeou, P. (2024). ED-AI Lit: An Interdisciplinary Framework for AI Literacy in Education. *Policy Insights from the Behavioral and Brain Sciences*, 11(1), 3–10.

Stolpe, K., & Hallström, J. (2024). Artificial intelligence literacy for technology education. *Computers and Education Open*, 6, 100159.

AI Literacy Frameworks Review

Author(s)	Summary	Comments
Knoth, et al. (2024)	Knoth, et al. (2024) developed a holistic AI literacy assessment matrix, considering three types of AI literacy: generic AI literacy, domain-specific AI literacy, and AI ethics literacy. Each type of literacy encompasses three competence dimensions: knowledge, skills, and attitude. This framework extends beyond generic AI literacy to address specific AI competencies tailored to the needs of specific professional domains.	This framework considers both generic and domain-specific AI literacy. This focus on domain-specific knowledge is expanded upon in the DEC AI Literacy Framework.
Cetindamar, et al. (2022)	Cetindamar, et al. (2022) developed an AI literacy framework for employees in the workplace. This framework identifies 4 key capabilities for employees: 1) Technology-related capabilities, 2) Work-Related capabilities, 3) Human-machine-related capabilities, and 4) Learning-related capabilities. This framework highlights the importance of complementary skills needed for effective AI deployment, such as critical thinking and problem-solving. It also emphasises that continuous learning is a critical capability in the age of AI.	This domain-specific framework is designed for employees, emphasising complementary skills such as critical thinking and learning-related capabilities such as lifelong learning, which is referenced in the development of the DEC AI Literacy Framework.
Shiri (2024)	Shiri (2024) proposed a taxonomy of AI literacy and identified 13 high-level facets: 1) Conceptualisation of AI, 2) Contextualisation of AI literacy, 3) Applied knowledge, 4) AI applications and its interdisciplinarity, 5) Skills, 6) Data, 7) Ethical, legal, social aspects, issues, concerns, 8) Physical and digital environments, 9) Organisational context, 10) Embodiment/tangibility, and 11) Time and chronology. This conceptual framework serves to support AI literacy education, research, and curriculum development.	This framework outlines the various dimensions of AI literacy, providing a foundation for future research. However, it lacks the practicality needed for implementation in specific contexts.

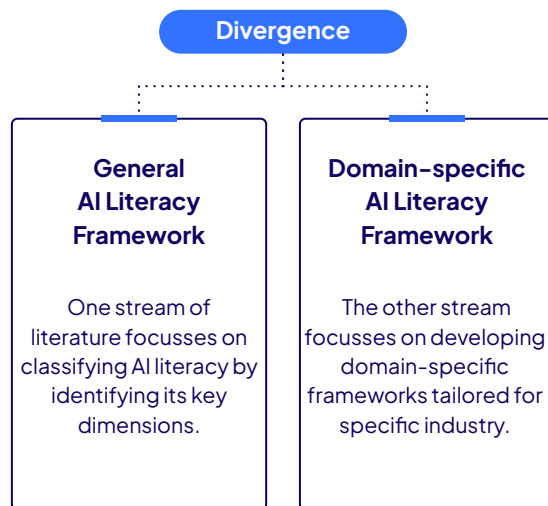
Shiri, A. (2024). Artificial intelligence literacy: a proposed faceted taxonomy. *Digital Library Perspectives*, 40(4), 681–699.

Cetindamar, D., Kitto, K., Wu, M., Zhang, Y., Abedin, B., & Knight, S. (2022). Explicating AI literacy of employees at digital workplaces. *IEEE transactions on engineering management*, 71, 810–823.

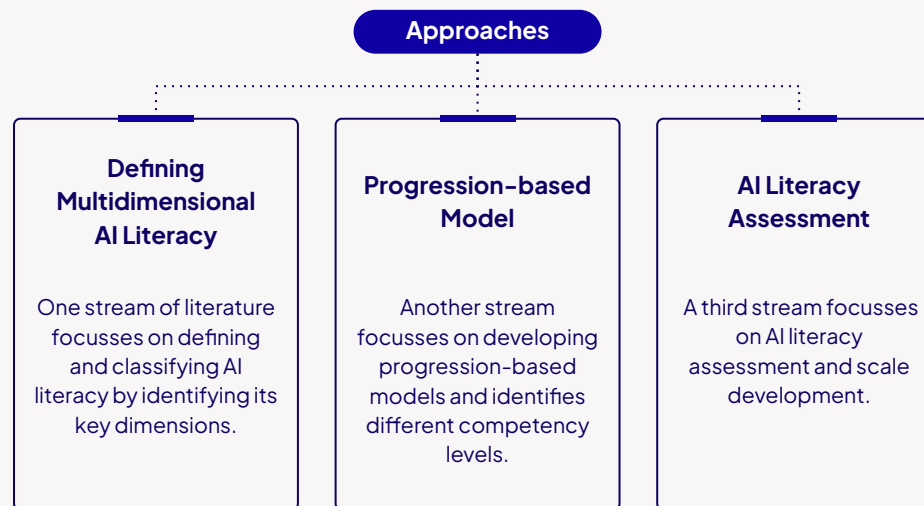
Knoth, N., Decker, M., Laupichler, M. C., Pinski, M., Buchholtz, N., Bata, K., & Schultz, B. (2024). Developing a holistic AI literacy assessment matrix—Bridging generic, domain-specific, and ethical competencies. *Computers and Education Open*, 6, 100177.

Current AI Literacy Frameworks: Divergence and Approaches

Existing AI literacy frameworks widely acknowledge the multi-dimensional nature of AI literacy. These frameworks diverge in two main directions.



Current AI literacy research follows different approaches, which can be broadly categorised into three key streams.



Current AI Literacy Frameworks: Challenges



AI literacy gap: General vs. Specialised

Existing frameworks mainly focus on either discipline-agnostic general AI literacy or domain-specific applications with limited scalability. Frameworks that accommodate both general AI literacy and domain-specific adaptations are still under development.

Is AI literacy the same for everyone? Which skills are essential and which are only domain-specific?



Assumption of linear learning paths

Progression-based AI literacy frameworks often assume a linear learning path, progressing from foundational knowledge to AI creation. However, they fail to fully capture the diverse, non-linear development of AI literacy, which varies based on individual competency levels and needs.

Does everyone need to reach the same AI proficiency level? How do we decide the desired level?



Insufficient emphasis on complementary skills

Despite broad focus on diverse dimensions, existing frameworks have not adequately emphasised critical complementary skills such as critical thinking, problem-solving, and strategic leadership. These are essential for effective AI use and adapting to the rapidly changing AI landscape.

The more we want to teach AI, the less we need to focus on it?



Lack of defined evaluation criteria for AI literacy

AI literacy frameworks emphasise various competencies, including critical thinking and problem-solving, but lack clear evaluation criteria for these broad concepts. Without well-defined assessment metrics, measuring AI literacy effectively and structuring the necessary learning resources and materials remains a challenge.

How can we effectively measure AI proficiency?

3. DEC AI Literacy Framework

5 Dimensions of the DEC AI Literacy Framework

AI Literacy (Digital Education Council, 2025): *The essential knowledge and skills needed to understand, interact with, and critically assess AI technologies. AI literacy includes the ability to use AI tools effectively and ethically, evaluate their output, ensure humans are at the core of AI, and adapt to the evolving AI landscape in both personal and professional settings.*



5 AI Literacy Dimensions Defined

Literacy Dimensions	Definition
Understanding AI and Data <i>How does AI work?</i>	Encompasses understanding how AI systems work, the principles of data collection, processing, and interpretation, and the implications of AI-generated output. Proficiency in this area enables individuals to critically engage with AI tools, assess their capabilities and limitations, and make informed decisions about their use.
Critical Thinking and Judgement <i>How do I evaluate AI output?</i>	Focusses on the ability to evaluate AI-generated content, discern biases, and apply logical reasoning when using AI in decision-making. It includes skills such as verifying sources, identifying misinformation, recognising limitations in AI-generated insights, and ensuring that human judgment remains central to AI-supported processes. Critical thinking ensures that AI is used as a tool for augmentation rather than blind reliance.
Ethical and Responsible AI Use <i>How do I ensure AI is used ethically and responsibly?</i>	Covers the ethical considerations and governance frameworks necessary for responsible AI adoption. It includes understanding AI ethics principles (such as fairness, transparency, accountability, and privacy), recognising potential risks (such as bias, discrimination, and misinformation), and implementing responsible AI use practices. It also involves navigating regulatory and institutional guidelines to ensure compliance and integrity in AI applications.
Human-centricity, Emotional Intelligence, and Creativity <i>How do I ensure humans remain at the core?</i>	Emphasises the importance of human skills in an AI-driven world, including empathy, adaptability, communication, lifelong learning, and mindset. As AI automates tasks, human-centred skills become critical in maintaining ethical decision-making, fostering inclusive and diverse AI practices, and ensuring AI aligns with societal values. It also includes managing AI's impact on human interactions and well-being in educational and professional environments.
Domain Expertise <i>How do I apply AI in a specific context?</i>	Focusses on the specialised knowledge and skills required to understand, assess, and manage the impact of AI within a specific academic or professional context. It includes the ability to critically evaluate AI applications within a given discipline, adapt AI tools to enhance professional practices, and navigate domain-specific ethical, regulatory, and operational challenges.

DEC AI Literacy Framework

		Competency Level		
		Level 1	Level 2	Level 3
Literacy Dimensions	 Dimension 1 Understanding AI and Data	AI and Data Awareness	AI and Data in Action	AI and Data Optimisation
	 Dimension 2 Critical Thinking and Judgement	Question AI Output	Evaluate AI Output	Challenge AI Output
	 Dimension 3 Ethical and Responsible Use	Understand Risks	Apply Responsible Practices	Shape Responsible Practices
	 Dimension 4 Human-Centricity, Emotional Intelligence, and Creativity	Awareness of Human-AI Interaction	AI as Collaborative Tool	Develop Human-Centred AI Practices
	 Dimension 5 Domain Expertise	Applied AI Awareness	AI Application in Professional Contexts	Strategic AI Leadership

Dimension 1: Understanding AI and Data

	Level 1 AI and Data Awareness	Level 2 AI and Data in Action	Level 3 AI and Data Optimisation
Description	Individuals develop a basic understanding of AI concepts, how AI systems function, and the role of data in AI decision-making.	Individuals can select AI tools for real-world tasks, understand how AI models work, and assess the role of data in AI performance.	Individuals critically engage with AI systems, assess their technical capabilities, and strategically integrate AI into decision-making.
Examples of Competencies	- Define AI and its key components (e.g. machine learning, automation). - Identify common AI applications in daily life. - Understand the basics of how AI processes data to generate output.	- Explain how AI models process data and generate output. - Identify factors affecting AI performance, such as data quality. - Understand how to apply AI tools to automate or support professional tasks.	- Compare different AI models and their applications for a variety of tasks. - Integrate AI into workflows for enhanced efficiency. - Communicate AI system capabilities and limitations to others.
Examples of Actions for Progression	- Engage with foundational AI training materials, including introductory online courses or textbooks. - Learn basic data concepts, such as structured vs. unstructured data, and how AI systems process information. - Explore and experiment how AI systems use training data. - Experiment with widely available AI tools (e.g. AI chatbots, translation tools, and recommendation systems) to observe how they function.	- Conduct comparative analysis of different AI models to evaluate their accuracy and limitations. - Use AI-driven analytics tools (e.g. machine learning models, AI-powered data visualisation, or automated reporting tools) to extract insights from datasets. - Learn about data management systems and how AI interacts with structured datasets. - Work with datasets in AI applications, focussing on improving data quality for better AI performance.	- Lead projects involving AI integration, ensuring effective use of data pipelines and model selection. - Lead discussions or training sessions on AI integration, ensuring stakeholders understand AI strengths and limitations. - Contribute to institutional or policy discussions on AI and data governance. - Develop strategies for handling large datasets, and improve AI performance for the institution.

Dimension 2: Critical Thinking and Judgement

	Level 1 Question AI Output	Level 2 Evaluating AI Output	Level 3 Challenge AI Output
Description	Individuals can identify key evaluation criteria for AI output and understand that AI-generated content may contain biases or errors.	Individuals critically assess AI-generated content using established evaluation criteria and identify biases or inconsistencies.	Individuals demonstrate expertise in evaluating AI-generated output with rigorous methodologies, interrogating AI's reasoning processes, and assessing AI's impact on human cognition.
Examples of Competencies	- Understand the importance of verifying AI-driven insights with human judgement. - Understand basic evaluation criteria for AI-generated content, such as accuracy, consistency, and source reliability. - Identify a number of inconsistencies or biases in AI-generated content.	- Apply evaluation frameworks to assess the validity of AI-generated insights. - Identify and articulate biases or inconsistencies in AI-generated output. - Compare AI-generated information against multiple independent sources for verification.	- Apply logical reasoning to understand how AI generates responses, analyse the strengths and weaknesses of different AI models and their output, and effectively build upon them. - Effectively leverage AI capability to enhance critical thinking skills. - Recognise and manage the nuanced impacts of AI in complex, high-stakes situations.
Examples of Actions for Progression	- Study introductory materials on AI reliability and accuracy metrics. - Compare AI-generated content with verified sources to identify discrepancies. - Engage in case studies where AI-generated information led to errors or misinterpretation. - Explore AI tools to assess their reliability and accuracy.	- Develop structured evaluation rubrics for assessing AI-generated output in an academic or professional setting. - Conduct comparative studies of different AI models to assess reliability across domains. - Engage in interdisciplinary discussions on AI evaluation methodologies. - Start applying AI assessment frameworks to real-world scenarios.	- Conduct independent evaluation of AI tools, comparing their output across multiple sources for consistency and accuracy. - Refine evaluation methodologies based on exposure to new AI advancements and emerging best practices. - Publish assessments or research papers critically examining AI reliability in a specific domain. - Apply advanced AI evaluation frameworks to real-world professional, research, or policy contexts.

Dimension 3: Ethical and Responsible AI Use

	Level 1 Understand Risks	Level 2 Apply Responsible Practices	Level 3 Shape Responsible Practices
Description	Individuals understand fundamental AI ethics principles and can recognise potential risks, such as bias, misinformation, and discrimination.	Individuals apply ethical principles and frameworks to evaluate and mitigate risks associated with AI use in various professional and academic settings.	Individuals demonstrate expertise in evaluating, shaping, and advocating for ethical AI policies, governance frameworks, and institutional best practices.
Examples of Competencies	- Define key AI ethics principles (e.g. fairness, transparency, accountability, privacy). - Recognise how AI systems can perpetuate bias and inequality. - Identify ethical concerns in AI-driven decision-making (e.g. hiring, surveillance, law enforcement).	- Assess AI systems for compliance with ethical standards and legal frameworks. - Identify and mitigate risks related to bias, discrimination, and data privacy in AI applications. - Implement strategies to ensure fairness and accountability in AI decision-making.	- Critically evaluate ethical implications of AI adoption at an institutional or societal level. - Contribute to the development of AI governance frameworks and ethical AI policies. - Provide guidance on ethical AI adoption in professional, academic, or policy environments.
Examples of Actions for Progression	- Study introductory materials on AI ethics, including case studies of ethical failures in AI. - Reflect on personal experiences using AI tools and consider ethical implications. - Analyse a real-world case study where AI ethics were challenged, such as biased hiring algorithms or misinformation spread by AI - Engage in discussions on ethical dilemmas involving AI decision-making.	- Conduct ethical impact assessments for AI applications in an organisation or research setting. - Engage in interdisciplinary discussions on responsible AI use across different sectors. - Reflect on internal guidelines for the ethical implementation of AI in a professional or academic environment. - Apply ethical AI principles in project development or policy analysis.	- Draft or contribute to ethical AI guidelines within an organisation, academic institution, or regulatory body. - Publish research, reports, or policy papers analysing ethical AI challenges and solutions. - Conduct workshops or training sessions on ethical AI adoption. - Collaborate with AI ethics advisory groups or contribute to national or international policy discussions.

Dimension 4: Human–Centricity, Emotional Intelligence, and Creativity

	Level 1 Awareness of Human–AI Interaction	Level 2 AI as Collaborative Tool	Level 3 Develop Human–Centred AI Practices
Description	Individuals have a foundational understanding of how AI affects human decision-making, communication, and emotional intelligence.	Individuals integrate human-centred skills into AI-assisted environments to promote responsible, ethical, and inclusive AI use.	Individuals advocate for human-centred AI approaches, ensuring AI remains a tool that complements rather than replaces human skills.
Examples of Competencies	- Recognise how AI influences human behaviour, decision-making, and interactions. - Identify situations where AI may lack human sensitivity (e.g. AI-generated feedback, automated decision-making). - Understand the importance of empathy and adaptability in AI-augmented environments.	- Apply effective communication strategies and human-in-the-loop strategies when using AI tools in professional and educational settings. - Identify opportunities to enhance human-centred skills and foster creative thinking with AI, and propose strategies for continued development. - Assess AI tools to ensure inclusivity for different user groups.	- Develop AI-driven workplace or education policies that safeguard human agency in decision-making. - Establish guidelines for using AI in professional or educational environments that ensure AI complements, rather than replaces, human interaction and creativity - Conduct empirical studies or pilots testing the impact of AI in human-centred roles
Examples of Actions for Progression	- Observe how AI influences human interactions in customer service, education, or workplace settings. - Reflect on personal experiences when using AI-powered communication tools (e.g. chatbots, virtual assistants). - Engage in discussions on the limitations of AI in recognising human emotions. - Explore literature on the psychological and social impact of AI in human interactions.	- Develop case studies on human-centred AI practices and their impact in different industries. - Participate in collaborative projects where AI is integrated into human-driven decision-making. - Explore frameworks for ensuring that AI tools respect social and cultural norms. - Analyse the impact of AI on workforce skills and creativity, and propose strategies for maintaining essential human abilities.	- Lead research or policy development on the role of emotional intelligence in AI-driven work environments. - Create training programmes focussed on balancing AI integration with human-centric skills. - Engage with industry or academic stakeholders to define best practices for human-AI collaboration. - Create reports or guides advocating for human-centred AI principles in education, governance, or business.

Dimension 5: Domain Expertise

	Level 1 Applied AI Awareness	Level 2 AI Application in Professional Contexts	Level 3 Strategic AI Leadership
Description	Individuals develop a basic understanding of how AI is used in their specific field and can identify relevant AI tools and applications.	Individuals can effectively use AI tools to support tasks, optimise workflows, and improve decision-making within their discipline.	Individuals develop advanced expertise in AI applications within their discipline, ensuring AI is effectively integrated into strategic decision-making.
Examples of Competencies	- Identify key AI applications relevant to a specific domain (e.g. AI in medicine, law, education, finance). - Recognise how AI is transforming professional roles and industry standards. - Understand the basic limitations of AI when applied in a particular field.	- Select and apply AI tools that enhance efficiency and accuracy in a professional or academic setting. - Assess the strengths and weaknesses of AI applications within specific processes or parts of the value chain. - Integrate AI insights into professional decision-making while understanding AI's role as a complement to human expertise.	- Evaluate and refine AI adoption strategies within the field, considering regulatory, ethical, and operational constraints. - Lead the implementation of AI-driven innovations in a professional or academic context. - Develop training materials or guidelines to enhance AI literacy among peers and colleagues in the field.
Examples of Actions for Progression	- Explore and experiment with domain-specific AI tools. - Participate in discussions or case studies related to AI applications in the field. - Engage in introductory training sessions focussed on AI for a specific sector.	- Implement AI-powered solutions in professional workflows, assessing their impact on efficiency and accuracy. - Compare multiple AI tools within the field to determine best-fit applications. - Conduct small-scale research or pilot projects testing AI solutions in a specific professional setting.	- Conduct industry-level assessments of AI adoption trends and their impact on professional practice. - Publish findings on AI applications in a particular field through research, white papers, or industry reports. - Participate in advisory or policy groups to influence AI adoption and governance at an institutional level.

4. AI Literacy for Faculty

Domain Expertise for Faculty

Top Skills for Faculty to Define Domain Expertise of AI Literacy



Facilitating student critical thinking and learning



Promoting AI & digital literacy



Innovating pedagogy



Adaptability and responsiveness to change



Expertise in ethical and responsible AI

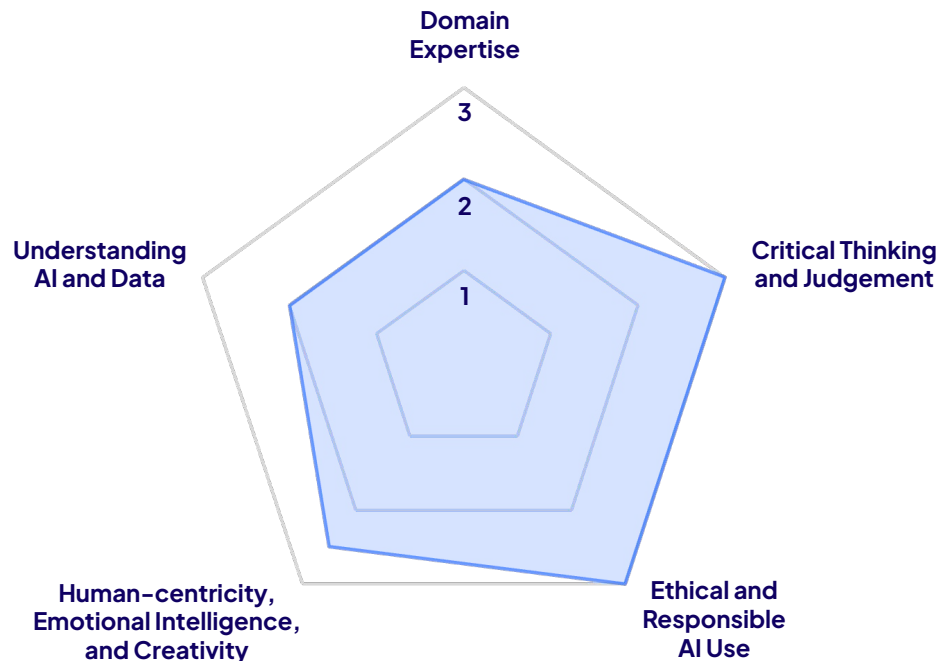
Dimension 5: Domain Expertise for Faculty

	Level 1 Foundational Applied AI Awareness	Level 2 AI Application in Teaching and Learning	Level 3 Strategic AI Leadership in Higher Education
Description	Faculty develop a foundational understanding of AI's impact on higher education, their discipline, and student learning.	Faculty integrate AI tools into their pedagogy to enhance student engagement, assessment, and personalised learning while maintaining academic integrity.	Faculty lead institutional AI adoption, contribute to AI curriculum development, and innovate pedagogy using AI-driven methodologies.
Example of Competencies			
Facilitating student critical thinking and learning	- Identify how AI impacts the ability of students to think critically. - Recognise how students engage with AI-generated content and the risks of over-reliance. - Introduce AI-awareness activities to help students distinguish between AI-generated and human-generated content.	- Design learning activities that challenge students to critically assess AI-generated content. - Embed AI literacy into assignments, requiring students to evaluate AI sources, biases, and reliability. - Teach students frameworks for verifying AI-generated claims and distinguishing AI assistance from original thought.	- Develop institutional strategies to integrate critical thinking into the curriculum as a core academic skill. - Lead faculty training on embedding AI-critical engagement into assessments and learning activities. - Conduct research on AI's impact on student cognitive development and critical thinking skills.
Promoting AI & digital literacy	- Introduce students to basic AI concepts, applications, and limitations. - Explain how AI systems generate output and highlight potential biases in automated decision-making. - Guide students in navigating AI-powered tools.	- Embed AI and digital literacy into course curricula, ensuring students can assess AI use in their studies and field. - Teach students to critically analyse AI-generated data, algorithms, and their real-world implications. - Encourage students to experiment with AI tools while maintaining academic integrity.	- Contribute to the development of institution-wide AI and digital literacy programmes. - Design AI literacy frameworks that are embedded across disciplines and degree programmes. - Contribute to national or global discussions on AI literacy education in higher education.

Dimension 5: Domain Expertise for Faculty (Continued)

	Level 1 Foundational Applied AI Awareness	Level 2 AI Application in Teaching and Learning	Level 3 Strategic AI Leadership in Higher Education
Innovating pedagogy	- Identify AI's potential to enhance pedagogy through automation, personalisation, and student engagement. - Recognise opportunities to incorporate AI into classroom activities (e.g. AI-driven tutoring, automated feedback). - Experiment with AI-enhanced lesson planning and assessment design.	- Develop student-centred AI-enhanced learning experiences, using AI to support personalised instruction. - Implement AI-driven learning analytics to inform instructional decisions and improve student engagement. - Redesign assessments to align with AI's role in research and problem-solving, ensuring learning objectives remain relevant.	- Lead pedagogical innovation initiatives using AI to enhance student success and faculty effectiveness. - Conduct research on AI's impact on teaching and learning outcomes. - Contribute to institutional strategies for AI-driven teaching transformation and faculty professional development.
Adaptability and responsiveness to change	- Recognise how AI is transforming academic disciplines, the role of educators, and workforce expectations. - Identify key AI trends relevant to one's field and their implications for students. - Introduce some curriculum adjustments to reflect AI's emerging role in the profession	- Update curricula to reflect AI-driven industry shifts, ensuring students develop future-ready skills. - Continuously modify teaching methods and assessments dynamically to account for AI's evolving capabilities. - Encourage students to reflect on how AI is shaping professional competencies.	- Lead institutional efforts to align academic programmes with AI-driven changes in industry. - Advocate for flexible curriculum models that integrate AI as a transformative force in professional education. - Conduct research on the effectiveness of AI-enhanced curricula and evolving learning needs.
Expertise in ethical and responsible AI	- Introduce students to fundamental AI ethics principles, such as fairness, transparency, and accountability. - Identify risks of AI bias, discrimination, and misinformation in academic and professional contexts. - Encourage discussions about ethical dilemmas arising from AI use in different fields.	- Guide students in applying ethical frameworks to AI use in academic and professional settings. - Require students to critically evaluate ethical risks associated with AI-generated recommendations and decisions. - Ensure that AI-assisted assignments and projects incorporate responsible AI principles.	- Lead institutional discussions on responsible AI adoption in education and research. - Develop policies and best practices for ethical AI use in teaching, assessment, and institutional decision-making. - Contribute to academic discourse on AI governance and regulation in higher education.

Ideal Framework Mastery for Faculty



Faculty Framework Mastery

Faculty should aim for the following mastery levels of the DEC AI Literacy Framework:

Understanding AI and Data



Faculty should be able select AI tools for real-world tasks, and be able to assess the role of data in AI performance.

Critical Thinking and Judgement



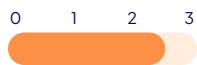
Faculty should be experts in rigorously evaluating AI-generated output, and be able to assess AI's impact on human cognition.

Ethical and Responsible AI Use



Faculty should be able to evaluate, shape and advocate for ethical AI use, governance frameworks and best practices.

Human-centricity, Emotional Intelligence, and Creativity



Faculty should advocate for and integrate human-centred AI approaches, and promote responsible and inclusive AI use.

Domain Expertise: AI Application in Teaching and Learning



Faculty should be able to integrate AI tools into their pedagogy to enhance teaching and learning, while maintaining academic integrity.

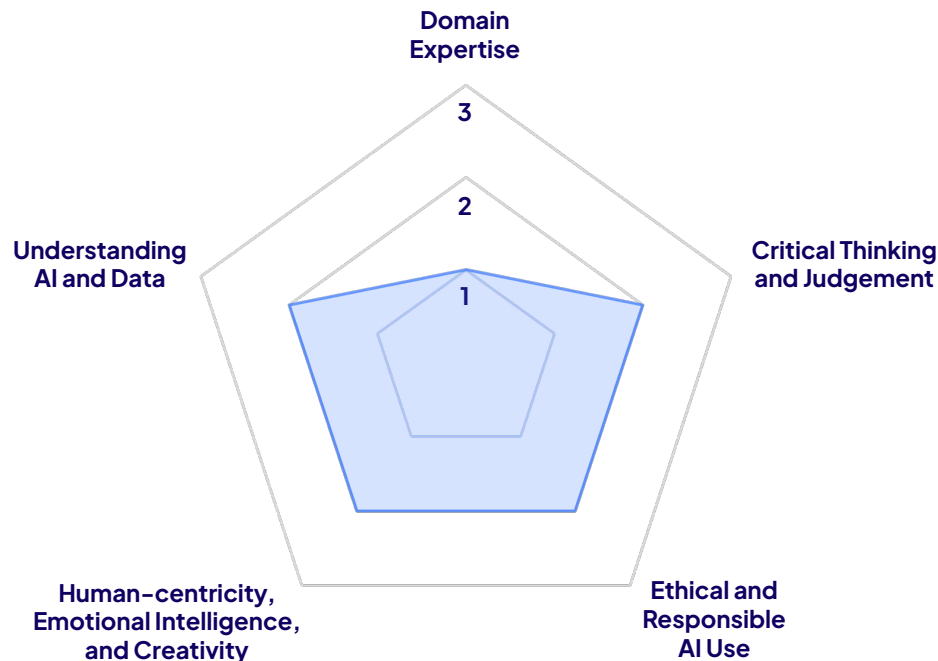
5. AI Literacy for Students

AI Literacy Framework for Students

Literacy Dimensions

		Competency Level		
		Level 1 Baseline	Level 2 Expected	Level 3 Forward-looking
Literacy Dimensions	 Dimension 1 Understanding AI and Data	Recognise AI's role in daily life, my studies, and society. Understand basic AI concepts and how AI systems use data.	Use AI tools for learning, research, and productivity. Understand AI limitations and biases.	Engage with AI implementation, optimisation, or customisation in my work. Strong technical understanding of AI models.
	 Dimension 2 Critical Thinking and Judgement	Understand the importance of verifying AI-driven insights. Recognise when AI-generated content may oversimplify or misrepresent concepts.	Understand and apply evaluation criteria for AI-generated content, such as accuracy, explainability, bias, and source reliability.	Critically analyse the strengths and weaknesses of different AI models and their output in various contexts.
	 Dimension 3 Ethical and Responsible Use	Understand academic integrity in the age of AI. Recognise ethical risks such as bias, misinformation, and plagiarism.	Apply ethical AI principles in coursework and research. Use AI tools responsibly while maintaining academic integrity.	Contribute to AI ethics discussions, policies, or student-led governance initiatives.
	 Dimension 4 Human-Centricity, Emotional Intelligence, and Creativity	Recognise how AI affects communication, creativity, and human skills, and understand when human oversight is needed when using AI.	Use AI as a collaborative tool to enhance creativity and problem-solving. Develop adaptability in AI-driven environments.	Support peers to focus on human-centred skills when using AI, ensuring that AI is used as a complementary tool.
	 Dimension 5 Domain Expertise	Identify AI trends and their impact on your future career. Understand how AI is changing the industry and what is expected by young professionals.	Use AI tools for field-specific tasks (e.g. AI for data analysis in business, AI-assisted research in sciences, AI for content creation).	Develop AI augmentation strategies for enhancing work and decision-making in professional settings.

Ideal Framework Mastery for Students



Student Framework Mastery

Students should aim for the following mastery levels of the DEC AI Literacy Framework:

Understanding AI and Data

0 1 2 3



Students should be able to use AI tools for learning, research, and productivity, and understand AI limitations and biases.

Critical Thinking and Judgement

0 1 2 3



Students should be able to understand and apply evaluation criteria for AI-generated content, such as reliability and accuracy of source content.

Ethical and Responsible AI Use

0 1 2 3



Students should apply ethical AI principles in coursework and research, and use AI tools responsibly while maintaining academic integrity.

Human-centricity, Emotional Intelligence, and Creativity

0 1 2 3



Students should use AI as a collaborative tool to enhance creativity and problem-solving, and be adaptable in AI-driven environments.

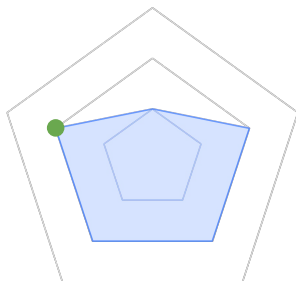
Domain Expertise: AI for Career Readiness

0 1 2 3



Students should be able to identify AI trends and their impact on future careers, and understand how AI is changing the industry and expectations.

Elevating Students to the Desired AI Proficiency Level



Dimension 1
**Understanding AI
and Data**

Desired level for students

0 1 2 3



Example of Teaching Strategy

Understanding AI Systems Through Data Exploration

Teach students how AI systems use data to generate output and how biases can emerge.

Classroom Applications

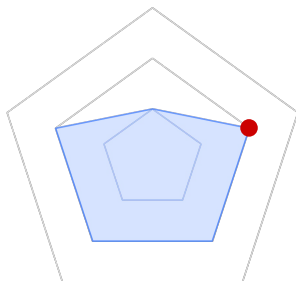
- Have students analyse datasets used in AI models and identify potential biases.
- Assign projects where students modify training data and observe changes in AI behaviour.
- Encourage students to critically assess sources of data and how they impact AI outcomes.

Mind Mapping AI Concepts and Interconnections

Combine visual and verbal representation to enhance comprehension of complex AI concepts.

- Ask students to create mind maps of AI technologies, ethical considerations, and real-world applications.
- Have students map relationships between AI models, data sources, and decision-making processes.
- Encourage students to present their mind maps in class for peer discussion.

Elevating Students to the Desired AI Proficiency Level



Dimension 2
**Critical Thinking and
Judgement**

Desired level for students



Example of Teaching Strategy

Evaluating AI Output for Accuracy and Bias

Help students critically assess AI-generated content and recognise biases in its output.

Classroom Applications

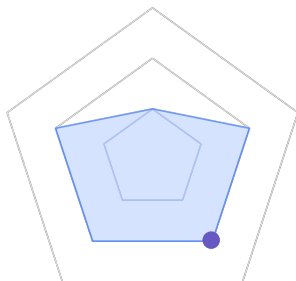
- Provide students with AI-generated articles or images and have them fact-check and annotate inaccuracies against key evaluation criteria.
- Use real-world AI-generated misinformation cases for group analysis and discussion.
- Have students compare AI output across different tools to assess reliability and consistency.

Evaluating Misinformation in AI-Generated Content

Train students to detect misinformation and misleading AI-generated content.

- Provide students with AI-generated content and have them verify its accuracy using trusted sources.
- Discuss strategies for detecting deepfakes and AI-generated misinformation.
- Ask students to compare AI output with traditional sources for reliability assessment.

Elevating Students to the Desired AI Proficiency Level



Dimension 3
**Ethical and
Responsible Use**

Desired level for students



Example of Teaching Strategy

Ethical Dilemmas in AI

Engage students in discussions on ethical dilemmas related to AI's impact on society and personal lives.

Classroom Applications

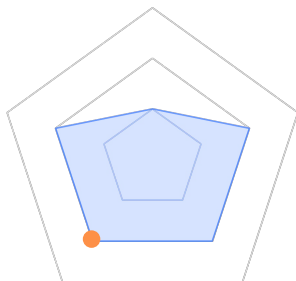
- Present ethical scenarios (e.g. AI's role in surveillance, bias in hiring algorithms, privacy concerns in AI-driven platforms).
- Facilitate group discussions, debates, and reflection exercises where students propose solutions.
- Allow students to present their perspectives through essays, posters, or creative storytelling.

Case-Based Learning on AI Failures and Bias

Learning from real-world AI failures helps students grasp the importance of responsible AI design.

- Analyse well-documented AI failures (e.g. biased facial recognition systems, AI-generated misinformation).
- Guide students to propose alternative solutions ensuring fairness, transparency, and accountability.
- Have students research and present contemporary AI ethics cases.

Elevating Students to the Desired AI Proficiency Level



Dimension 4

**Human-Centricity,
Emotional Intelligence,
and Creativity**

Desired level for students



Example of Teaching Strategy

Visualising Human Involvement in the AI Life Cycle

Help students understand human involvement in AI decision-making and its impact on businesses and society.

Classroom Applications

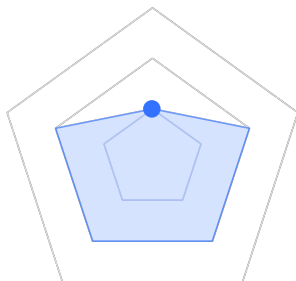
- Ask students to draw concept maps of human involvement across AI life cycle stages (data collection, algorithmic processing, decision-making, and evaluation).
- Include considerations such as data ownership, privacy, explainability, and human control.
- Encourage students to reflect on the consequences of losing human involvement at each step.

AI-Augmented Creative Problem-Solving

Explore AI as a tool for enhancing creativity and problem-solving while ensuring human-driven oversight.

- Assign projects where students use AI for creative tasks (e.g. AI-assisted writing, digital art).
- Facilitate discussions on how AI enhances creativity versus where human judgment remains essential.
- Have students critique AI-generated creative output and propose improvements.

Elevating Students to the Desired AI Proficiency Level



Dimension 5
Domain Expertise

Desired level for students



Example of Teaching Strategy

Industry Engagement and Career Readiness

Prepare students for AI-integrated workplaces by exposing them to industry trends and required skills.

Classroom Applications

- Host guest lectures by professionals using AI in their fields.
- Assign industry-based projects where students apply AI tools to field-specific challenges.
- Encourage students to research AI-driven changes in their intended careers and propose adaptation strategies.

AI-Enabled Decision-Making in Professional Fields

Analyse how AI supports decision-making in different industries

- Assign case studies where AI-driven insights impact decisions in professional settings (e.g. medical, legal, or finance).
- Guide discussions on how AI can be used as an assistive tool rather than a replacement for professionals, focussing on the challenges for young professionals.
- Have students identify risks of automating decision-making without human oversight.



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