The Institute for Ethical AI in Education

The Ethical Framework for AI in Education

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Introduction

The Institute for Ethical AI in Education was conceived by Sir Anthony Seldon, Priya Lakhani OBE, and Professor Rose Luckin in the summer of 2018, and launched in October of that year, with the aim of developing an ethical framework that would enable all learners to benefit optimally from AI in education, whilst also being protected against the known risks this technology presents.

The Founders and the Chair of the Institute, Lord Tim Clement-Jones suggested a 2.5 year timetable, after which the Institute is to be wound up. The Institute's work has been funded by McGraw Hill, Microsoft Corporation, Nord Anglia Education, Pearson PLC; and by a discretionary grant from John Fairbairn at Esmee Fairbairn Foundation. Its day-to-day operations have been managed by Executive Lead, Tom Moule.

In February 2020, the Institute published its Interim Report: Towards a Shared Vision of Ethical AI in Education, which provided an overview of the applications of AI in education, outlined the risks and benefits posed by AI's use, and put forward a blueprint for an ethical framework, along with six overarching questions. These questions, which were designed to guide further research, related to stakeholders' perspectives on the risks and benefits of AI in education, how tensions between risks and benefits might be resolved, and how ethical principles could be put into practice.

Building Consensus

The Interim Report also emphasised the need to build consensus around how AI should be used in education. To create consensus, following on from The Interim Report, the Institute embarked upon a programme of wide consultation designed to listen to and learn from the perspectives of a cross-section of stakeholders.

Between March and July 2020, a series of expert interviews were conducted, during which policymakers, academics, philosophers and ethicists, industry experts, and educators (whose expertise ranged from teaching students with special educational needs, to lifelong learning) were consulted. Whilst most of the interviewees were from either the UK or the USA, the Institute also consulted with experts from Africa, Asia, Australia, and South America. Distilling insights from these expert interviews, the Institute published a second report in September 2020 - Developing a Shared vision of Ethical AI in Education - which refined the overarching questions, and aimed to inform and focus future consultations.

Between October and December 2020, eight roundtables were held, including three dedicated to participation by young people. These events allowed a broad range of stakeholders to make their contributions.

In November 2020, The Institute convened The Global Summit on the Ethics of AI in Education. To ensure the event could go ahead despite measures to protect against the spread of Covid-19, an early decision was made to hold the Global Summit virtually. By doing so, the Institute was able to bring together over 200 experts and authorities in fields related to AI in education from around the globe in order to arrive at a shared understanding of the ethical implications of using AI In education, and to make recommendations on how AI should be designed and applied ethically in practice.

The Ethical Framework for AI in Education

Having consulted with a wide range of stakeholders in these ways, the Institute is now in a position to put forward The Ethical Framework for AI In Education. The Framework is grounded in a shared vision of ethical AI in education and will help to enable all learners to benefit optimally from AI in education, whilst also being protected against the risks this technology presents. The Framework is aimed at those making procurement and application decisions relevant to AI in education.

Leaders and practitioners in educational settings are themselves key to ensuring that learners can benefit optimally from AI whilst being protected against its risks because it is they who have the final say over which resources are used. By using the Framework at the procurement stage, decision makers can help ensure that only ethically designed resources are used and procured, and can therefore ideally incentivise suppliers to design AI ethically and with learners' best interests at heart.

The Framework empowers leaders and practitioners to drive the design, procurement and application of AI on behalf of learners. But it cannot and must not be solely their responsibility to ensure that learners benefit optimally from AI in education. Those designing AI resources are ultimately responsible for ensuring that systems do not, amongst other things, discriminate against any group of learners, that they do not manipulate users, and that resources are designed in a pedagogically sound way.

Instead of developing a separate framework for those designing and developing AI systems, the Framework incorporates ethical expectations of designers and developers. In a number of cases, the Framework explicitly states that during the procurement process, decision makers should insist upon relevant information to confirm that AI resources were designed ethically. The Framework provides a robust mechanism for preventing learners from being exposed to unethically designed AI resources. If organisations designing, developing and supplying AI resources cannot provide the information insisted upon in the Framework, the Institute expects this to rapidly impact on procurement decisions.

It is also expected that designers must adhere to local laws and policies in relation to data protection, for example the Age Appropriate Design Code (also commonly referred to as the

Children's Code) developed by the Information Commissioner's Office. Furthermore, by September 2021, The Institute urges that all suppliers of AI products and services for educational purposes should adhere to the requirements specified in The Ethical Framework for AI in Education. In particular, these organisations are encouraged to take account of the information that procurers will insist upon, and take proactive steps to ensure they are able to provide all the information needed to demonstrate their resources are designed ethically.

Wider Reform

It is clear to the Institute for Ethical AI in Education that reforms in education are needed to ensure that all learners can benefit optimally from the use of AI in education. AI has the potential to combat many of the deep-rooted problems facing education systems and learners themselves: from a narrow and shallow curriculum, to entrenched social immobility. AI could allow societies to move away from an outdated assessment system and it could also enable high-quality, affordable lifelong learning to become universally available.

Whilst it is outside of the Institute's scope to put forward a blueprint for how these reforms could be facilitated through the use of AI, it can be said with certainty that reforms will not deliver benefit to all learners if the digital divide is not closed decisively and quickly.

During school closures due to Covid-19 the reality of digital exclusion was laid bare. Those learners who lacked adequate access to devices and internet connections suffered most. The critical loss of learning for many of the most disadvantaged young people could and should have been avoided. The same mistakes will be less likely to be repeated if the work of the Institute is heeded.

In the long-term, the pandemic may prove to be a watershed moment for education. By utilising AI ethically and with purpose, societies can look forward to addressing previously overwhelming educational inequalities and enabling all learners, from all backgrounds, to achieve their full potential, as long as there is universal and equal access to the necessary hardware, infrastructure and connectivity.

The Institute for Ethical AI in Education hence urges all governments to guarantee that every single learner has adequate access to a device and an internet connection, and to heed the recommendations in the Framework. Only then will all learners be able to benefit optimally from AI in education.

The Ethical Framework for AI in Education

Objective	Criteria		Checklist
Achieving Educational Goals. AI should be used to achieve well-defined educational goals based on strong societal, educational or scientific evidence that this is for the benefit of learner (see Annex Section 1 for justification)	1.1	Establish and specify the educational goal that AI is being used to achieve	Have you clearly identified the educational goal that is to be achieved through the use of AI? **(Pre-procurement)**
	1.2	Establish how each relevant AI resource has the capacity to achieve the educational goal specified above	Can you explain why a particular AI resource has the capacity to achieve the educational goal specified above? **(Pre-procurement)**
	1.3	Specify the intended impact of using AI	What impact do you expect to achieve through the use of AI, and how will you measure and assess this impact? **(Pre-procurement)**
	1.4	Insist that suppliers provide information about how their AI resource achieves the desired objectives and impacts. This may include information relating to the assumptions behind the algorithm	What information have you received from the suppliers, and are you satisfied that the AI resource is capable of achieving your desired objectives and impacts? **(Procurement)**
	1.5	Insist that any measures of student performance are aligned with recognised and accepted test instruments and/or measures that are based on societal, educational or scientific evidence	What information have you received from the suppliers, and are you satisfied that measures of student performance are aligned with recognised and accepted test instruments and/or measures that are based on societal, educational or scientific evidence? **(Procurement)**
	1.6	Monitor and evaluate the extent to which the intended impacts and your stated objectives are being achieved	How will you monitor and assess the extent to which the intended impacts and objectives are being achieved? **(Monitoring and Evaluation)**
	1.7	Insist that suppliers conduct periodic reviews of their AI resources to ensure these are achieving the intended goals and not behaving in harmful, unintended ways	Can the supplier confirm that periodic reviews are conducted, and that these reviews verify that the AI resource is effective and performing as intended? **(Monitoring and Evaluation)**
	1.8	Where the impacts of using AI as intended are found to be unsatisfactory, identify whether this is due to how the resource was designed, how the resource is being applied, or a combination of both factors. Create an action plan for achieving improved impacts	If the impacts of using AI as intended were not satisfactory, why was this the case? What steps will you take in order to achieve improved impacts? **(Monitoring and Evaluation)**

Objective	Criteria		Checklist
Forms of Assessment. AI should be used to assess and recognise a broader range of learners' talents (see Annex Section 2 for justification)	2.1	Establish how AI can be used to provide insights into a broad range of knowledge, understanding, skills and personal well-being development in a way that is based on evidence	What knowledge and understanding, and which skills are you intending to measure through the use of AI? Which features of AI will enable these to be assessed, and how will assessments be conducted in practice? **(Implementation)**
	2.2	Establish how AI resources can be used to enhance and demonstrate the value of: formative approaches to assessment, studying learning processes as well as outcomes, and supporting social and emotional development and learner well-being	In what ways is AI being used to enhance and demonstrate the value of formative approaches to assessment, studying learning processes as well as outcomes, and supporting social and emotional development and learner well-being? **(Implementation)**
Administration and Workload. AI should increase the capacity of organisations whilst respecting human relationships (see Annex Section 3 for justification)	3.1	Identify ways that AI could be used to improve current processes in your organisation	Which processes could be improved through the use of AI, and how do you intend to use AI to improve these processes? **(Pre-procurement)**
	3.2	Conduct and implement a risk assessment to establish whether/how using AI to improve current processes in your organisation could undermine or marginalise educators and/or other relevant practitioners	Will implementing the actions arising from this risk assessment ensure that educators and/or other relevant practitioners are not undermined or marginalised as a result of using AI? **(Pre-procurement)**
	3.3	Create and implement a change management strategy and ensure institutional commitment for implementing AI in your organisation	Will the change management strategy, along with institutional commitments, enable AI to be effectively utilised across your organisation? **(Implementation)**
	3.4	Monitor and evaluate the extent to which processes are being improved	How will the extent to which processes are being improved be monitored and assessed? **(Monitoring and Evaluation)**
	3.5	Where improvements in processes are unsatisfactory, identify the reasons for this and develop an action plan for achieving better outcomes	Were the changes to processes due to the implementation of AI satisfactory or unsatisfactory? Where unsatisfactory outcomes were yielded, are you confident that the action plan will enable better outcomes to be achieved? **(Monitoring and Evaluation)**

Objective	Criteria		Checklist
Equity. AI systems should be used in ways that promote equity between different groups of learners and not in ways that discriminate against any group of learners (see Annex Section 4 for justification)	4.1	Insist that suppliers provide relevant information to confirm that appropriate measures were taken, and continue to be taken, to mitigate against biases as part of the design of the resource and within the data sets used for training	What information have you received from the suppliers, and are you satisfied that appropriate measures were taken, and continue to be taken, to mitigate against biases as part of the design of the resource and within the data sets used for training? **(Pre-procurement)**
	4.2	Develop and implement a strategy to reduce the digital divide amongst the cohort of learners you have responsibility for	Will the implementation of this strategy ensure that all learners for whom you are responsible are able to access and benefit from AI? **(Pre-procurement)**
	4.3	Insist that suppliers provide relevant information to confirm that resources have been designed in order to be accessible to and suited to the needs of learners with additional needs, which could be either cognitive or physical	What information have you received from the suppliers, and are you satisfied that AI resources have been designed in order to be accessible to and suited to the needs of learners with additional needs, which could be either cognitive or physical? **(Pre-procurement)**
Autonomy. AI systems should be used to increase the level of control that learners have over their learning and development (See Annex Section 5 for justification)	5.1	Insist that suppliers provide relevant information to confirm that AI resources were not designed, and will never be designed, to coerce learners	What information have you received from the suppliers, and are you satisfied that AI resources were not designed, and will never be designed, to coerce learners? **(Pre-procurement)**
	5.2	Insist that suppliers provide relevant information to confirm that where AI is used to positively influence learners' behaviours, this use of AI is supported by societal, educational or scientific evidence	What information have you received from the suppliers, and are you satisfied that where AI is used to positively influence learners' behaviours, this use of AI is supported by societal, educational or scientific evidence? **(Pre-procurement)**
	5.3	Where a predictive AI system legitimately predicts that an unfavourable outcome will occur (e.g. a student being expelled, failing an exam, or dropping out of a programme), do not penalise or hold the relevant individual to account for an unrealised outcome. Instead, take pre-emptive action to prevent the unfavourable outcome occurring	In your context, what unfavourable outcomes might an AI system predict? What harmful action could potentially be taken based on this prediction? What positive steps could be taken to prevent the predicted outcome from happening? **(Implementation)**
	5.4	Insist that suppliers provide relevant information to confirm that AI resources are not designed to encourage addiction amongst learners, or to compel learners to extend their use of a resource beyond a point that is beneficial for their learning	What information have you received from the suppliers, and are you satisfied that AI resources are not designed to encourage addiction amongst learners, or to compel learners to extend their use of a resource beyond a point that is beneficial for their learning? **(Pre-procurement)**

Objective	Criteria		Checklist
Privacy. A balance should be struck between privacy and the legitimate use of data for achieving well-defined and desirable educational goals (see Annex Section 6 for justification)	6.1	Ensure compliance with relevant legal frameworks to ensure that the use of pupil data for the stated purposes is permitted	Can you confirm that your organisation complies with all relevant legal frameworks? **(All Stages)**
	6.2	Where the use of AI could be considered to be surveillance of learners, provide a clear justification of why this use of AI benefits learners either directly or indirectly.	What uses of AI could be considered to be surveillance of learners, and how could these benefit learners - either directly or indirectly? **(Pre-procurement)**
	6.3	Ensure that where organisations have chosen, or are obligated to assess students on a continuous basis (potentially as a replacement for summative assessments), there are designated safe spaces in which learners are not assessed	In contexts where institutions have chosen or are obligated to assess students on a continuous basis, how have you ensured that there are designated safe spaces in which learners are not assessed? **(Implementation)**
	6.4	Where a system processes data (including but not limited to personal or sensitive data) that could be considered health data insist that suppliers provide relevant information to confirm that this data is required for educational purposes and that processing this data will benefit learners	What information have you received from the suppliers, and are you satisfied that this data is required for educational purposes and that processing this data will benefit learners? **(Pre-procurement)**

Objective	Criteria		Checklist
Transparency and Accountability. Humans are ultimately responsible for educational outcomes and should therefore have an appropriate level of oversight of how AI systems operate (See Annex Section 7 for justification)	7.1	Conduct a risk assessment to establish whether AI resources could undermine the authority of practitioners and disrupt accountability structures, and take action based on the risk assessment	Will implementing the actions arising from this risk assessment ensure that the authority of educators and/or other relevant practitioners is not undermined, and that accountability structures are not disrupted as a result of using AI? **(Pre-procurement)**
	7.2	Insist that suppliers make explicit whether there were any trade-offs between accuracy and explainability in the design of the AI resource, specifying where any compromises have been made and providing a justification	Have you received the relevant information from the suppliers? Where compromises have been made, are you satisfied with the justification you have received? **(Pre-procurement)**
Informed Participation. Learners, educators and other relevant practitioners should have a reasonable understanding of artificial intelligence and its implications (See Annex Section 8 for justification)	8.1	Teach students about artificial intelligence and its societal and ethical implications	Where in the curriculum, or when during extracurricular time, will students be taught about this? What content will they learn? **(Implementation)**
	8.2	Provide educators and/or other relevant practitioners with sufficient training to ensure that they are able to use AI resources effectively, discerningly and with confidence. As part of this training, educators and practitioners should be trained to scrutinise the decisions made and behaviours displayed by AI systems, in order to guard against undue deference	What will the content of this training be, and how much training will educators and/or other relevant practitioners receive? **(Implementation)**
Ethical Design. AI resources should be designed by people who understand the impacts these resources will have (see Annex Section 9 for justification)	9.1	Insist that suppliers provide relevant information to confirm that a range of stakeholders (e.g. learners, educators, careers advisers, youth workers) were consulted as part of the design process	What information have you received from the suppliers, and are you satisfied that a range of stakeholders (e.g. learners, educators, careers advisers) were consulted as part of the design process? **(Pre-procurement)**
	9.2	Insist that suppliers provide relevant information to confirm that a diverse range of people contributed to the design and development of the AI resource	What information have you received from the suppliers, and are you satisfied that a diverse range of people contributed to the design of the AI resource? **(Pre-procurement)**
	9.3	Ensure that the supplier can confirm that AI resources were designed by practitioners who have had training on the ethical implications of AI in education	What information have you received from the suppliers, and are you satisfied that AI resources were designed by practitioners who have had training on the ethical implications of AI in education? **(Pre-procurement)**

Conclusion

The Institute has now concluded its 2.5 year task, but the need to apply ethical principles to AI in education will only grow year on year.

To reinforce The Ethical Framework for AI in Education, the Institute encourages governments and civil society actively to take steps to ensure that learners, educators and all members of society have a strong understanding of AI and its ethical implications. Informed users will invariably be in a better position to make full use of AI whilst diligently guarding against its risks, and whilst The Ethical Framework for AI in Education does not necessitate prior knowledge of AI, a strong understanding of AI will aid judicious use of the Framework. A number of countries are already making progress towards achieving this goal. For instance, the United Kingdom's AI Roadmap urges the government to commit to achieving ambitious goals for AI and data literacy.

The Institute would like to thank all those who participated in the roundtables, the Global Summit, and the expert interviews, along with everyone else who has supported our work. Above all the Institute would like very warmly to thank all members of the Institute's Advisory Council and International Advisory Group (a full list of members is available on our website). They all took precious time out from their very busy lives to guide and steer the Institute. The Institute would like finally to thank those organisations who have funded the Institute's work: McGraw Hill, Microsoft Corporation, Nord Anglia Education, and Pearson PLC.

Looking towards the future, for learners to benefit from AI that is both ethically designed and applied, the Institute's mission must live on through the continued efforts of those with the power to influence the development and deployment of AI in education, and also through The Ethical Framework for AI in Education itself. Only if well-intentioned people from diverse backgrounds continue to work together with the interests of learners, especially the most disadvantaged, in mind, will we ensure that AI is truly going to find its optimal use, which maximises its potential, and minimises its downsides.

The active engagement of governments globally, and the United Nations, and those involved in education at all levels is, as the Institute has repeatedly stated, sine qua non. It will be for others, in the UK and beyond, to take forward the Institute's mission and refine the Framework in light of new developments. The Institute welcomes such developments, be that a foundation - which could be transnational - the development of kitemarks and accreditation schemes, or further research into how AI can be used in education to maximise the gains of learners, especially the most vulnerable, while mitigating the known risks.

Finding togetherness through tech

When you think of the future of AI in education, what images come to your mind? Visions of screens? Robotics and circuitry? I wonder if your first thought includes any people; the close and crucial relationships between leaders and pupils, educators, communities and employers that shape the world around us.

At Pearson, it is the people in education who are our priority; teaching staff, school leaders, students and families alike. Given our passion and focus on digital, lifelong learning, we pride ourselves on working hand in hand with educators to deliver learning through engaging, immersive and highly personalised experiences.

Whether people love the idea or fear it, the impact of AI on learning and the world of work is evident. By supporting the work of the Institute of Ethical AI in Education (IEAIED), we are proud to be part of the conversation about how we harness AI's potential, to amplify great teaching and use these technologies to boost every child's ability to thrive.

The sector has already made incredible progress – not least over the past twelve months. And, with further developments on the horizon many of our educators are already preparing for it. In our recent poll of 7000 teachers, one in seven believe that we will see an increased use of AI educational resources and in our Pearson Global Learner Survey[1] of 11,000 learners, 70% of learners in the UK, US and Europe believe that AI will have a positive impact on education.

Even before Covid created a new focus on remote and hybrid learning, Pearson has supported teachers and schools with digital resources, benefitting a diverse range of pupils. Almost 4 million students globally access our digital learning service ActiveLearn and Pearson's Online Schools provide full-time education to over 105,000 children and young people a year using our online learning platforms.

In the STEM sector, we developed the pioneering KS2 service Maths Flex, building on the foundations of White Rose Maths to shape highly interactive pathways for improved maths practice*. Using established techniques and expert knowledge, and placing our user privacy as paramount, the service provides a truly personalised learning pathway for pupils, with the programme 'flexing' to each individual's style. It targets areas of strength and weakness; leads students down a learning route appropriate to their needs; automarks work to reduce teacher workload and generates easy-to-read insights on which children need stretch and intervention.

For myself and my colleagues, the human-centric nature of the IEAIED framework is paramount and we are proud to demonstrate our commitment to efficacy and ethical products, both in creating new products and in the completion of research, including a new longitudinal study into the impact of remote teaching pedagogy on learners.

We're dedicated to ensuring that AI-enabled pathways such as Maths Flex are just one of the many unrivalled tools in the Educator's Toolkit: one that allows schools to focus on the areas that most require it; to refine what they know about the pupils they care for without discrimination or bias; and to ensure that the progress of every child is counted.

People are using technology in every aspect of their lives and they are now embracing it as part of their education. From online degrees and AI tools to smart devices, people see the future of learning made easier and more engaging with technology.

As leaders, educators, parents, carers, and as members of a global, online community, we have a shared responsibility to lay strong, ethical foundations for this tech-powered future. In partnership with the IEAIED, Pearson is ready to take learning to the next level for all learners.

Want to know more about Pearson's learnings and developments in AI? Visit **go.pearson.com/digitallearning** to find out more.

Sharon Hague is Senior Vice President for Schools at Pearson and a member of the Institute of Ethical AI in Education advisory group.

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[1] https://www.pearson.com/content/dam/global-store/global/resources/Pearson_Global_Learner_Survey_2019.pdf

* Maths Flex follows the White Rose Maths scheme of work but is not endorsed by White Rose Maths.

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"We applaud the important work undertaken by the Institute for Ethical AI in Education. The Ethical Framework for AI in Education is a major milestone in best practice that will help unlock AI's potential as a means to transform teaching and learning.

"We are committed to ensuring that the Framework sits at the heart of our education technology procurement decisions. We believe that the Framework provides clarity and consistency that will benefit educators, learners and resource providers for years to come."

About Nord Anglia Education

Nord Anglia Education (NAE) is the world's leading premium schools organisation, with 73 schools across 30 countries. Our schools **go beyond traditional learning** to deliver a high quality, transformational education to 67,000 students from kindergarten through to the end of secondary school. We offer multiple internationally recognised curriculums, including the English Curriculum, the International Baccalaureate, the Swiss Maturité and the US Curriculum, amongst others.

Our global scale enables us to recruit and retain world-leading teachers and to offer our students **unforgettable experiences** through our partnerships with world-renowned institutions The Juilliard School, the Massachusetts Institute of Technology and UNICEF. As part of the NAE family, every student can connect and collaborate on our Global Campus online platform to **bring their learning to life** beyond the classroom.

Founded in 1972 in the United Kingdom, initially offering learning services such as English-as-a-foreign-language classes, NAE opened its first international school in 1992: the British School Warsaw. In the 2000s, NAE began a strategic focus on premium international schools, with rapid growth in Asia, the Americas, China and across Europe and the Middle East. In July 2019, the company relocated its headquarters from Hong Kong to London.

For more information, please visit www.nordangliaeducation.com

Microsoft

Responsible AI in Education

With the emergence of artificial intelligence, the opportunity to provide truly personalised, accessible learning and experiences to all students around the world is now upon us. Microsoft's mission in education is to empower every student on the planet to achieve more. We believe education leaders should consider opportunities to introduce new technologies like AI into the design of learning and technological blueprints to expand the horizon for driving better outcomes and efficiencies for every student and institution around the world.

Microsoft's AI Business School offers a **learning path for education**; designed to help education leaders, decision-makers and students, understand how AI can enhance the learning environment. Designed to empower learners to gain specific, practical knowledge to define and implement an AI strategy, the learning path is available on **Microsoft Learn**, a free platform to support learners of all ages and experience levels via interactive, online, self-paced learning. Included is a specific module focusing on six principles that we believe should guide AI development and use — fairness, reliability and safety, privacy and security, inclusiveness, transparency, and accountability. For us, these principles are the cornerstone of a responsible and trustworthy approach to AI.

We believe that students today will be the changemakers of tomorrow, so empowering them with the tools and opportunities to learn new skills and be future leaders is core to our mission. Imagine Cup Junior provides students aged 13 to 18 the opportunity to learn about technology and how it can be used to positively change the world. The global challenge introduces students to AI and Microsoft's AI for Good initiatives to come up with ideas to solve social, cultural and environmental issues.

Ensuring AI is open to all across the education system: whether leaders, students or teachers will enable more responsible, ethical and fair use.

Because learning changes everything.®

McGraw Hill (MH), a leader in learning science and digital courseware, enforces the ethical use of Artificial Intelligence to achieve educational goals.

MH solutions give faculty choice, protect the learner's privacy, and help all learners achieve.

- **Supporting Learning Integrity:** McGraw Hill Connect® offers remote proctoring and browser-locking capabilities that enable instructors to support academic integrity and assessment security, with features like preventing students from navigating away from a test environment, verifying students' identities, and monitoring them as they complete assessments. Instructors have the choice to select from a wide range of options and customize the assessment experience based on educator preference, institutional objectives, or an accrediting body's requirements.

- **Offering coaching and feedback on writing skills:** Connect's Writing Assignment helps students improve their written communication skills and conceptual understanding with built-in grammar and writing review.

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- **Meet students where they are in Math:** Building on 20 years of experience in adaptive learning, ALEKS® offers a personalized Math journey with unique backgrounds and foundational knowledge; every student starts in a different place. ALEKS helps instructors provide the equitable support and structure each student needs for success.

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