

# English language education in the era of generative AI: our perspective

Currently the education community has more questions than answers about the impact and use of generative AI (genAI hereafter). This paper follows on from the [Cambridge University Press & Assessment approach to AI and assessment](#), and describes how this technology applies to English language teaching, learning and assessment.

Teachers and learners are at the heart of everything we do, and our new programme of AI research will draw on experiences and expertise from a wide range of teachers, learners, and experts worldwide. As we experiment and learn more, we will be applying those insights into our products and propositions and we will be sharing them with the English language community.

“GenAI is developing at a breath-taking pace and will have a profound impact on education, including English language teaching, learning and assessment. We are excited by the possibilities which genAI offers for making language education more effective and more accessible than ever before.

It’s always been important to us to be at the forefront of English language education, from the introduction of the first communicative exams in English, through our pioneering involvement with the creation of the Common European Framework of Reference, to launching Touchstone – the world’s first fully blended online English course, to our ‘best of both worlds’ hybrid marking which powers some of our tests. We draw on unique sources of data on learners’ English, on a team of specialists from key disciplines, and on our collaborations across the University of Cambridge to engage and inspire millions of people throughout their entire learning journey.

Our work is built on a communicative approach to language learning and assessment. We are committed to using technology to enhance, and not limit, this approach. This means that we need to take account of the social and emotional aspects of learning, and that genAI (and AI more broadly) needs to support the development of these aspects of learning, as well as the acquisition of knowledge and skills.

We are looking forward to working with a community of teachers, academics and other practitioners in schools and exam centres around the world, in envisioning and delivering the benefits of genAI and other technologies in what we do.”

**Dr Evelina Galaczi, Director of Research, English**  
Cambridge University  
Press & Assessment



## What is generative AI?

GenAI is a form of Artificial Intelligence which uses vast quantities of information and powerful machine learning models to create original content, including text, audio, code, images, simulations and video. It's enabled by advanced computer programming with access to big data and the latest advances in AI techniques such as Deep Neural Network models and Large Language Models (LLMs). This emerging technology can predict and generate sequences of words based on patterns observed in their data to create high quality, genuinely human-like content with much greater ease and accessibility than has previously been possible.

Currently, genAI can only replicate a small subset of the types of intelligence and capabilities that define human beings. GenAI is still in its infancy, but the available tools are evolving and improving at great speed. LLMs can be prone to creating inappropriate and/or inaccurate content, and their outputs can display bias. They can also invent 'facts', known as 'hallucinations'. Because of this, there is currently a need to maintain expert professional input, whether from a teacher, a publisher or assessment specialist, to monitor and edit outputs to ensure suitability and integrity.

## What are the our principles on using genAI to support language teaching, learning and assessment?

GenAI presents a number of important considerations in the areas of teaching and learning practices, educational policy and regulation. As with all emerging technology, it brings substantial opportunities but also considerable risks which need to be managed. It is important, therefore, to develop and adhere to robust principles which guide best practice.

Our key principles on using genAI stem from the [Cambridge University Press & Assessment approach to AI and assessment](#) and extend our core position into the domain of English language learning and assessment.

1. Be **clear and transparent** both internally and externally about the role of AI in our approach to language learning and assessment, including how risks are controlled
2. Ensure that there is always **human input**, which can be minimal or extensive depending on the language learning and/or assessment context
3. Use genAI to support language teachers, learners and test-takers, to **consolidate rather than replace** the role of educators in use in language education
4. Ensure that **quality, diversity and equity** are maintained at all times
5. Maintain the **quality and scope** of our language assessments and learning resources – not letting technology determine the educational approach, or cutting corners to suit the technology
6. Protect the **privacy and data** of our learners, test-takers and stakeholders
7. Ensure that any approach takes account of the legal risks associated with the development and/or use of genAI tools, including intellectual property and data protection risks; and follow **clear and ethical guidelines** concerning such development and/or use

GenAI has the potential to transform language teaching and learning, but it must be integrated responsibly and ethically. We believe that the role of teachers remains indispensable, as they bring invaluable expertise and personalised guidance to learners. Collaboration, research, and informed insights must shape the future of genAI in language teaching and assessment, to benefit teachers, learners, and education institutions worldwide.

## What does genAI mean for language teaching and learning?

We believe that genAI will become an invaluable tool for language teachers and learners, supported by specialists in AI, language assessment and other fields. In the future, genAI will help us to develop resources which enhance language teaching, learning and assessment by capturing and using specific types of data to facilitate, for example:

- Personalised learning experiences and content based on each learner's individual needs, abilities and interests
- Intelligent tutoring to provide adaptive, interactive practice and feedback in real time, as well as recommendations on what to do next
- Learning analytics on learner performance and behaviour, providing insights into learning and helping teachers and learners make data-driven decisions
- Virtual and augmented reality to create immersive, interactive learning experiences that can enhance learners' engagement and learning outcomes

Many teachers are already making effective use of the new technologies with their classes. For example, genAI is used in a supporting role by reducing the time it takes to generate content for lessons, which is geared to individual classes or learners in terms of topics, difficulty, progress to date, specific skills profiles, preferences or learning behaviour. It's also used to provide examples and ongoing feedback on errors. All of these are essential elements of language learning and improvement, and when used well, genAI can become a useful 'study buddy' within the more traditional – and essential – human contexts of learning.

GenAI, and indeed other forms of AI, can extend and complement the work of the educator, but they should not be seen as a replacement for skilled, experienced teachers. Learning a language is a time-consuming, challenging process that requires constant practice, motivation, feedback and advice. GenAI tools can help with all of these challenges, but they can't replace the support and insight which a skilled teacher brings to the learning journey.

GenAI tools can assist teachers and learners with providing many of the essential 'ingredients' of successful language learning, such as suitable content, ample opportunities for practice, tracking of progress, effective feedback and recommendations. But often a teacher or another expert is needed to help shape the available content into an experience that effectively enables learning. A teacher can help provide pedagogically sound teaching, tailored to the context, to notice and bridge the gaps between the learner's interaction with technology and the development of communicative competence.

AI can empower learners to use automatically generated content but teachers will remain an essential part of the mix, providing sound teaching and stepping in where AI technology falls short, for example in developing the full set of communication skills, inter-personal connections, collaborations, problem solving, critical thinking, self-efficacy, empathy, etc.

We are working to deliver these benefits and minimise concerns through a long-term commitment to integrating learning and assessment content, delivering better learning outcomes and improvements to a learning journey. It's enabled by technology, data, sound pedagogy and research. GenAI – when used in an appropriate way – can play a considerable role in delivering this vision.

Our work draws on exclusive resources, including more than 30 years of calibrated data on the performance of millions of exam candidates. This includes the Cambridge Learner Corpus which provides a uniquely rich database of learners English from across the world. This material will allow us to develop learning and assessment solutions based on in-depth information and insights about *learners* of English which is not available to any other organisation.

## What does genAI mean for language assessment?

It will allow us to speed up the development of test content, using a 'human in the loop' approach to ensure that every question and every test matches the high standards for which our exams have been trusted for 110 years. This is powered by our existing use of AI to support English learning and assessment.

The benefits of faster content development include the ability to produce a much wider range of highly personalised tests based on the needs of each test taker and enhancing test security. It will also support the effective embedding of different forms of assessment throughout the learning journey to give learners and teachers greater insight into their learners' progress, abilities and challenges.

A key challenge genAI poses is our ability to detect cheating and other malpractice. With tools like ChatGPT or Google's Bard, genAI is able to produce human-like text with minimal effort on the user's part, we clearly require the capacity to reliably discern authentic from inauthentic candidate speech and writing. In fact, at the time of writing this paper, we're seeing a diverse set of responses from the education sector to address this risk – some education providers are not banning the use of AI tools in coursework and are working with schools to ensure their ethical use; other exam contexts are (temporarily at least) seeing a return to in-class invigilated exams, and view such tools as a threat to exam integrity.

We believe that we need to ensure the robustness of cheating detection language tests contexts as a way of maintaining the fairness of the assessment. As such, confirmation of malpractice must consider the value on *multiple sources of evidence* including:

- *Text-based approaches.* These seek to identify any especially distinctive properties that genAI texts have, and the extent to which candidate responses are more generally distinguishable from genAI texts; for example, by displaying a greater degree of lexical variety.
- *Process-based approaches.* These seek to monitor and detect real-time exam behaviour that would be extremely unexpected given a human response.

We are also building investigations into our plans that focus on contexts where test-takers can explicitly use genAI tools in their assessments, and we're re-thinking the focus of these assessments to maintain their value and purpose.

## How can we use genAI to create learning and assessment content?

As noted earlier, one of the biggest strengths of genAI tools is the possibility of producing specific content types quickly for use by teachers, publishers and assessment organisations. This offers clear benefits for the creation of assessment and learning content. It enables efficiencies and allows personalisation through a dynamic process of generating content as part of the learning process.

In experiments to date, we have used third party commercial LLMs and have shown that they can be applied to creating a range of content types, e.g. multiple-choice reading comprehension questions at different levels of the CEFR or the design of prompts. These genAI models could also enable the calibration of assessment content.

As part of our commitment to using genAI responsibly, we are experimenting with the use of this new technology in learning contexts and in appropriate assessment contexts. Once we understand the limitations and risks of genAI tools better, we will look to deploy them where it makes sense to do so and where we know the output will continue to benefit learners and teachers. Alongside that we will share our insights and experiences with teachers and learners to increase understanding of the strengths and limitations of genAI and how it can be most effectively used.

To underpin our work, we are explicitly defining the *processes* to follow in using genAI for content creation, so that all this new technology is used responsibly and ethically by all relevant internal and external stakeholders. We have also defined genAI use cases – ranging from exploratory and experimental research and classroom materials, to internationally recognised exams. A rigorous approach to process definition and a robust understanding of the ways genAI can be used with the involvement of humans, will support us

in dealing ethically with the legal issues and concerns regarding copyright and plagiarism as well as ensuring fairness and equity.

## How will we collaborate?

We are committed to working together with the English language teaching community to develop a shared vision of how genAI can benefit the next generation of language learners. We will incorporate insights, ambitions and concerns into our planning and share our experience and findings as we develop new products and services which draw on the newest technologies.

We are also working with specialists from a wide range of disciplines to develop models which will support English language teaching and assessment worldwide. We are collaborating closely with experts from across the University of Cambridge as part of the ALTA (Automated Language Teaching and Assessment) Institute, which brings together expertise from the University's Computer Laboratory, and the Departments of Engineering and Theoretical and Applied Linguistics, as well as our own experts.

We believe that the opportunities and challenges presented by generative AI require a rigorously interdisciplinary approach, bringing together the specialist skills of AI experts, educationalists, publishers, assessment specialists, linguists and psychometricians. The technology needs to be designed to serve clearly defined educational needs, if it is to be genuinely useful for learners and teachers.

## What's next?

In addition to our existing activity using AI and Machine learning, we have initiated a comprehensive programme of work focusing on genAI, in order to allow us to make informed decisions about how we use it. We are already working with teachers to better

understand their perceptions of this new technology and how they are using it in their classrooms around the world. Gathering data, learnings and insights will help us serve our learners, teachers, test-takers and other stakeholders better, as well as benefit the language education community.

Our cross-functional programme of research has several priority areas addressing a range of topics, such as:

### *Learning-focused*

- Perceptions of teachers and learners about the role of genAI – and AI more broadly – in language learning
- Current teacher practices in the use of genAI in language learning
- AI-based tutoring systems supporting language learning and the role of human teachers
- Impact of genAI content on learner progress and engagement
- How genAI can be used to support teachers and learners effectively

### *Assessment-focused*

- Language assessment combining 'traditional' tests and AI-enabled digital assessments
- GenAI and test cheating – ways to maintain academic integrity
- AI and marking – rating systems combining genAI and human examiners

### *Content and capability creation*

- Suitability of genAI for different task types
- Use of genAI for classroom-based materials
- Use of genAI for large-scale high-stakes assessment
- Building products and services enabled by genAI

*Reconceptualising language learning and assessment*

- New approaches which accommodate genAI and involve a re-conceptualising of what and how we are teaching and assessing in language education
- New tasks supporting and developing the evolved knowledge and skills needed for appropriate use of genAI tools in language learning

## Summary

**We believe** that our responsible, ethical and evidence-informed approach to GenAI will enable us to continue to put the needs of teachers, learners, test-takers and other stakeholders in the world of language education at the heart of everything we do. Our work supports the wider mission of the University of Cambridge and has a commitment to ensure the impact of our products and services is positive for our education community.

As we build knowledge and informed insights into this emerging technology, we will continue to share, collaborate and invite teachers, learners and education institutions to join us in this exciting new era in English language education. **Join us over on the World of better Learning as we explore all things AI.**

Find out more at  
[cambridge.org/english](https://cambridge.org/english)

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