AI Bytes

Making Sense of Artificial Intelligence in Literacy and Basic Skills Education

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Literacy Link South Central

By now, you've likely heard numerous claims about how artificial intelligence (AI) is revolutionizing education, including at the literacy and basic skills level. There's no question AI is here to stay. And since literacy education means helping learners adapt to the world around them, AI poses a terrific opportunity.

We as educators have a responsibility to equip learners with the knowledge and skills they need to thrive in a rapidly changing economy and workforce. We also need to help them understand how AI can impact their lives.

AI opens up new cognitive terrain in both teaching and learning — and if we embrace this reality, instructors and learners will grow together.

Inside *AI Bytes*

This bulletin is the first in a series of six scheduled for distribution throughout 2024 and 2025. We specifically designed it to provide valuable insights and resources for educators in adult education, with an emphasis on Literacy and Basic Skills programs (LBS).

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Meet the *AI Bytes* team

Carolina Cohoon is a project manager and edtech innovation strategist at Literacy Link South Central. Her professional background encompasses education and rehabilitation, with a passion for inclusion and accessibility. Carolina is dedicated to designing learning experiences that celebrate and embrace diversity. Her interest in artificial intelligence (AI) is fueled by her enthusiasm for innovation, knowledge sharing, enhancing accessibility, and improving the learning experience through personalized learning adaptations that AI can offer within the framework of Universal Design for Learning (UDL).

Jeremy Marks works for Literacy Link South Central as a project manager and edtech researcher. He recently completed the Teacher/ Trainer of Adults program at Conestoga College. Jeremy has taught learners in public and secondary schools and colleges and universities, in Canada and the U.S., since 2002. His fascination with AI comes from his longstanding passion for educational theory and cognitive philosophy.

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AI: Promises and risks

Advocates for AI have made many promises, such as how AI tools can save time for instructors and students, liberate their creativity, and enable them to produce papers, presentations and images that enhance their work.

On the other hand, you've likely also heard about the risks. For example, learners can (and will) use AI tools to write papers, generate presentations and produce research that borrows irresponsibly from copyrighted sources.

Of course, AI offers both promises and risks. Our goal in these bulletins is to examine both the merits and demerits, while exploring how AI technology can transform the way instructors and learners approach the learning process.

The more we interact with AI, the better we become at understanding its strengths and limitations. This will help us map our own thinking and discover new ways to interact with AI tools, adapt them to our purposes, and have more clarity around how we ask questions and approach problems in teaching and learning.

AI: Common terms and definitions

Artificial intelligence: This branch of computer science aims to create systems capable of performing tasks that would normally require human intelligence. AI breaks down complex problems into simpler parts to solve them more effectively, allowing computers to perform tasks such as recognizing patterns, understanding speech, making decisions and learning from experience. AI also helps understand the context and implications of actions. It is not only about mimicking human intelligence; it's about augmenting it to solve complex problems more efficiently.

AI tools: AI tools are technologies, software or platforms that use algorithms or artificial intelligence. They analyze data, automate tasks and make predictions or recommendations. These tools are designed to learn from data so they can improve their performance over time. They can also simulate human decision-making processes, which makes them highly effective for a wide range of applications.

Generative AI: This form of AI can generate new content in various formats, including text, images, audio and data based on user inputs.

Chatbot: A chatbot is a computer program that simulates human conversation with an end user.
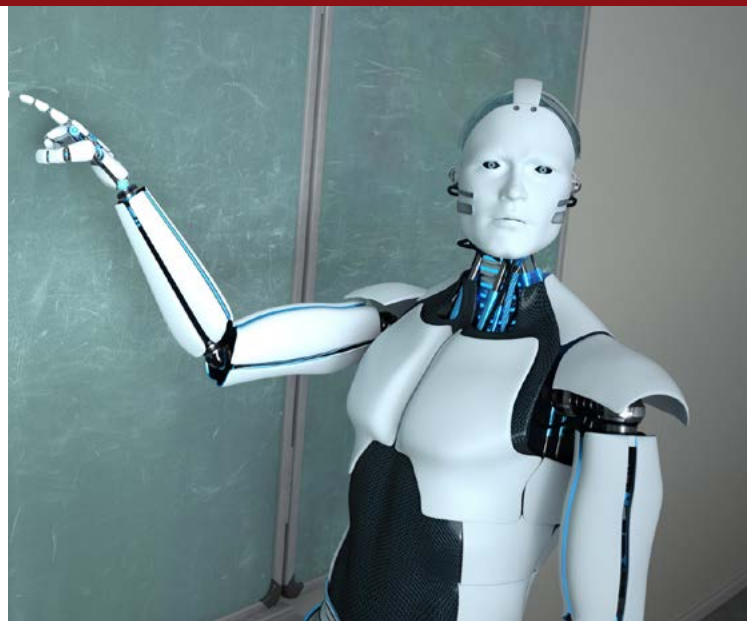
Natural language processing: This is a subfield of AI that helps computers understand human language. It breaks down language into smaller parts, using different techniques and models to allows the computer to understand both written text and spoken words.

AI bias: This refers to a biased outcome produced by an AI system, especially when it is unfair, oppressive or adversely affects socially marginalized groups.

AI ethics: This multidisciplinary field studies how to optimize AI for good while reducing risks and adverse outcomes. It addresses issues like data responsibility and privacy, fairness, explainability, robustness, transparency, environmental sustainability, inclusion, moral agency, value alignment, accountability, trust and technology misuse.

Computer vision: This type of AI aims to classify or identify objects, features or individuals in images or videos.

Machine learning: This involves algorithms that can learn from large datasets by identifying patterns within the data. This enables the algorithm to adopt an iterative and adaptive approach to problem-solving.

AI in LBS: Endless possibilities

If you're brand-new to the world of AI, you might be wondering: What can I actually do with it? How will it make me be a better instructor? What will it do for my learners?

Subsequent editions of *AI Bytes* will break everything down for you, but here's a quick sampling of what AI can do to make your tasks quicker and more efficient:

Generate quizzes, outlines and full lesson plans in seconds

Create images to facilitate easier literacy learning

Generate text such as explanations, summaries and practice questions

Create engaging and interactive learning materials and presentations

Make the ESL learning journey easier

Assess a learner's progress

Provide feedback in real time

Give personalized instruction so learners can develop literacy skills at their own pace

Help learners create resumes and cover letters that pop

Facilitate easier job searches

Navigate social media, and create post content

Facilitate a smoother learner-intake process

Generate thought-provoking discussion prompts

Recommend resources based on a learner's interests

Provide tutoring and language learning support

A tool, not a threat

As the AI industry grows and changes at lightning speed — it'll be worth an estimated $3.8 billion CAD by 2032 — it's clear AI isn't going anywhere, which means we've all got to learn and adapt to the changes.

Seeing AI as a tool rather than a threat will help us prioritize, evaluate the use of AI in education and ensure it is used in a responsible and ethical manner.

The next five *AI Bytes* bulletins will explore some of the most useful tools in literacy education. You may already have heard of some of them, while others might be completely new to you. We'll break them down in ways that are easy to understand so you can start incorporating AI into your work right away.

The beauty of *AI Bytes* is you can pick and choose what works best for you and your students.

Stay tuned for much more on navigating the new realities of AI in literacy education.

AI Bytes edition 2: What's next

Watch your inbox for the second edition of *AI Bytes*, which gives you an overview of generative AI. We'll explore some of the most common generative AI tools, including ChatGPT, Copilot and Gemini. From there, we'll delve into some specifics so you can start using these tools right away in your LBS practice.

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