

LMiC Snapshot

Using AI in Labour Market Information: Six Things to Consider

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Why did we undertake this research?

AI is increasingly being used to produce, analyze, and share labour market information (LMI). These tools can help provide more timely and detailed insights, but their value depends on how they are designed, governed, and used.

We undertook this research to better understand the practices and challenges associated with AI-driven LMI tools and what can make them more trustworthy. We also wanted to identify practical considerations that can help people make more informed decisions when developing, assessing, or using these tools.

What did we find?

Our conversations suggest that the value of AI-driven LMI tools depends on how they are built, governed, and used. While these tools can help produce more timely and detailed LMI, factors like data quality, model validation, transparency, explainability, and human oversight all affect whether the results are trustworthy and fit for purpose.

From these conversations, we identified six things organizations should consider when adopting, developing, or using AI-driven LMI tools:

1. Recognize that data sources matter

Ask where the data come from, how often they are updated, how they are validated and what may be missing. Look for tools and vendors that are open about data gaps and limitations.

2. Keep humans in the loop

Look for tools that include ongoing human oversight in training, validation, and maintenance. Consider whether subject-matter experts or the communities affected by the tool are involved in reviewing its outputs.

3. Understand the range and risk of AI use cases

Consider what the tool will be used for and the consequences if its outputs are inaccurate or inappropriate for the intended use. Uses like taxonomy updates or exploratory analysis may carry less risk than applications like job matching or career advising, where explainability and accountability matter more.

4. Build user awareness

Help users understand what a tool can and cannot do. Look for clear documentation and plain-language explanations that help users understand and interpret the results appropriately.

5. Prioritize transparency and explainability in higher-stakes contexts

The greater the potential impact of a tool's output, the more important transparency and explainability become. For uses that can affect funding decisions or people's careers, look for information about data sources, model logic, assumptions, and how outputs are generated.

6. Acknowledge and mitigate bias

Bias cannot be fully eliminated, so ask how vendors identify, test for and mitigate it. Look for transparency about where data may under- or over-represent certain industries or communities. Regular benchmarking and inclusive validation processes can help identify and address these gaps.

How was this research conducted?

We reviewed relevant research and policy literature and conducted eight semi-structured interviews with Canadian organizations that develop or provide AI-driven LMI tools.

The findings reflect the experiences and perspectives of a limited group of organizations active in Canada's LMI landscape. They are not intended to provide a complete picture of all AI-driven LMI tools or practices, but to highlight emerging themes and considerations for their responsible development and use.

For more information about the methodology, read the [full LMIC Insights piece](#).



What does this mean for you?

The six considerations can help you ask the right questions about AI-driven LMI tools. What you need to consider will depend on whether you use LMI to make decisions, adopt or procure an AI-driven LMI tool, or develop or provide one.



For people who use LMI to make decisions

If you use LMI to make decisions about work, education or training—or to advise clients or students—it is important to understand what an AI-driven LMI tool can and cannot tell you.

Consider where the data come from, what may be missing and whether the tool clearly explains how its results are generated. AI-driven results may also benefit from additional context or human expertise, especially when they inform decisions with significant consequences.

Look for clear, plain-language information about the tool's purpose, data sources, and limitations. Understanding these factors can help you interpret the results appropriately and decide how much weight to give them in your decision-making.





For organizations that adopt or procure AI-driven LMI tools

Before adopting an AI-driven LMI tool, first identify the problem the tool is intended to solve and how it will be used. Then assess whether the tool is appropriate for that purpose, including the level of risk involved if its outputs are inaccurate or used inappropriately.

Ask providers where the data come from, how often they are updated, how the tool and its outputs are validated, and what gaps or limitations may affect the results. Consider the level of transparency and explainability required for the intended use, as well as where human oversight is needed.

Different applications carry different levels of risk. Uses like taxonomy updates, translation, or exploratory analysis may carry less risk than applications like job matching, career advising, or forecasting. Higher-stakes uses require greater attention to validation, transparency, explainability, and human oversight.

When comparing tools, also ask how providers identify and mitigate bias and how they document limitations. Ongoing monitoring, human review, and clear documentation can help organizations determine whether a tool remains appropriate for its intended purpose.





For people and organizations that develop, provide or work directly with AI-driven LMI tools

Trustworthy AI-driven LMI depends on more than the technology itself. Data quality, human oversight, transparency, explainability, and bias management all influence whether a tool and its outputs are trustworthy and fit for purpose.

Build human expertise and oversight into the development, validation, and maintenance of AI-driven LMI tools. Subject-matter experts and affected communities can provide important context when assessing whether data and outputs reflect real-world conditions and experiences.

Be transparent about data sources, methods, and limitations, including where data may under- or over-represent certain industries or communities. Clearly explain what the tool can and cannot do and provide users with the information they need to interpret its outputs appropriately.

Bias cannot always be fully eliminated, so establish processes to identify, test for, and mitigate it. Regular benchmarking and inclusive validation can help identify gaps and support ongoing improvements.

Continued collaboration among developers, data providers, researchers, policymakers, and users can also help strengthen practices related to data quality, validation, transparency, governance, and human oversight as AI-driven LMI tools continue to evolve.





Related research

Camargo, L., & Chatoor, K. (2026). *Conversations with experts: Six things to think about when using AI and emerging technologies in labour market information (LMIC Insights)*. Labour Market Information Council (LMIC).

