

Advancing Skills Intelligence in Post-Secondary & Higher Education:

Universitat Oberta de Catalunya

Anticipation, Alignment, and the Future of Work

IFSI Key Takeaways

Unit of Skills Intelligence, UOC

#IFSI2025



10 Key Takeaways







Skills Intelligence needs

multiple data sources and
methodlogies in order to
understand the labour
market & skills ecosystem, no
single source is enough.





Combine data + people driven insights, LMI cannot do the whole work, among other things because it looks at the past not at the future.





Skills Intelligence is **a complex puzzle.** It isn't about finding a single perfect source
—it's about weaving together different data types, methodologies, and stakeholder perspectives





Big Data: Granular insights, with limitation. NLP and Al can help identify skill trends from large data sets, but they also risk losing sight of the bigger picture; they need to be combined with other methods.





Generative AI can be a key enabler for advancing interoperability between taxonomies and institutions.





Skills intelligence needs
credential intelligence:
helping map and design the
credentials, qualifications and
skills landscape with clear
information,





Agile methods make it possible to respond to emerging questions, inform timely decisions, and connect insights across institutions and sectors.





We need to build better data systems to track people's careers and postgraduate outcomes and to do education-to-occupations mappings.





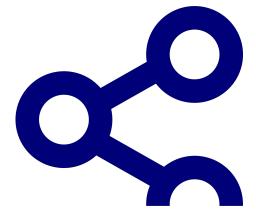
Misalignment of the learning-to-labour ecosystem.

There is a need to close the confidence and readiness gap between the classroom and the labour market.





Skills Intelligence Forums: a recognized need. The demand is clear, Skills Intelligence forums are infrequent, but critical

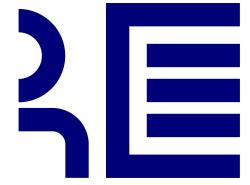


Skills intelligence needs multiple data sources and methodologies

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We need multiple data sources to understand labor & skill need; no single source is enough.

In a **fast-changing labor market**, informed education and career guidance decisions rely on multiple data sources and methodologies — from surveys and focus groups to online job postings. No single source is enough; **combining methods helps align education with real market needs.**



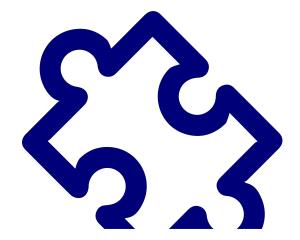
Combine data + and people driven Insights

Combine data driven + people driven insights.

It is important to combine data driven and people driven insights.

LMI cannot do the whole work, among other things because it looks at the past not at the future.





Skills intelligence is a complex puzzle

Skills intelligence = A Complex Puzzle

Skills intelligence is about putting the pieces of a complex puzzle together, requiring effort and investment.

Skills intelligence isn't about finding a single perfect source—it's about weaving together different data types, methodologies, and stakeholder perspectives. By building strong collaborations, we can generate insights that are more robust, timely, and actionable.

Big data: Granular insights but limitations

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Natural Language Processing (NLP) and Artificial Intelligence (AI) models allow us to analyze large volumes of data (for example: job postings, patents, surveys) to identify trends in required skills. These methods provide very detailed (granular) information, but they can also lead to losing sight of the bigger picture. Need to complement with other data.



Generative Al

The role of generative AI to support common reference frameworks and interoperability.

Generative AI can be a **key enabler for advancing interoperability** between reference frameworks, taxonomies and institutional contexts.

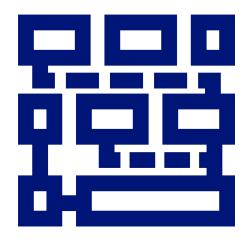
Generative AI has become central in helping to tag and classify natural descriptions of skills and jobs into our taxonomies. The shift from focusing solely on semantic interoperability—ensuring shared meaning across systems—to emphasizing technical interoperability—ensuring that different technologies and systems can actually communicate and function together—is crucial, even if it's difficult to achieve.

Skills Intelligence needs Credential Intelligence

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New forms of credential intelligence – the use of data, analytics, and digital tools to better understand, manage, and optimize how credentials (such as degrees, diplomas, micro-credentials, certificates, badges, etc.) function within education, employment, and broader skills ecosystems– are necessary.

Credential intelligence can help map and design the credentials, qualifications and skills landscape with clear information, supporting the evolution of Educational Models across higher education and post-secondary institutions.



Agile methods: for data generation + data sharing to support actionable decision making

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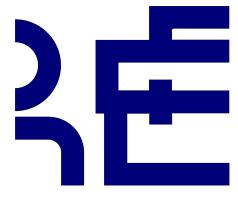
Agile approaches make it possible to respond to emerging questions, inform timely decisions, and connect insights across institutions and sectors.



Better data systems

Better data systems.

We need to build better data systems to track people's careers and postgraduate outcomes and to do education to occupations mappings.

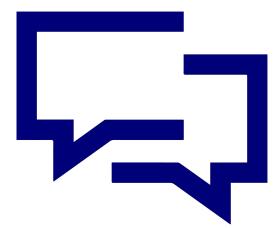


Misalignment of the learning-to-labour ecosystem

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Strengthening of education-employer collaboration is critical. There is a need to close the confidence and readiness gap between the classroom and the labour market.

The classroom to career ecosystem is poorly aligned. In many contexts, only a minority of employers strongly believe that education and training systems are producing work-ready professionals. This misalignment undermines trust in credentials, damages institutional reputation, and weakens the effectiveness of the entire learning-to-labor ecosystem.



Skills Intelligence forums: a recognized need

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The multi-actor, heterogeneous field of skills intelligence is growing. Building impactful skills intelligence eco-systems remains a challenge, while a space for collaborative sharing, learning, and growing is uncommon. The demand is clear, skills Intelligence forums are **infrequent but crucial**.



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