



# BRINGING RICHER, VERIFIABLE CANDIDATE DATA INTO HR SYSTEMS: AN ECOSYSTEM ROADMAP

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## Major gaps exist between innovations in education and the ability of employers' talent acquisition systems to interpret and manage them.

In order to imagine improvements to the hiring process that would facilitate better inclusion of information about non-degree credentials, Northeastern and 1EdTech conducted workshops with HR leaders, tested today's job application process, and examined the data flow to and from HR systems. We learned the following:



**There is high interest in non-degree credentials among employers, but HR leaders are concerned about the quality of the information they get from algorithmically-driven tools.** They also need information they don't have now to help prioritize the credentials they think are most relevant for their hiring managers to pay attention to, want better reporting on how non-degree credentials drive better outcomes for them, and want better integrations with credential verification companies to close the loop.



**When applicants apply for a job, there are two parallel technology ecosystems to provide data inputs:** the nascent Learning Employment Record (LER) and digital credential ecosystem with limited uptake and layers of relatively new standards, and the mainstream one that has existed for 20-30 years and processes millions of resumes per day now.



**In the mainstream ecosystem, there are two key integrations to make things faster for applicants:** professional profile websites and resume parsers. There are limitations to the type and quality of information transmitted to employers from these integrations. Notably, information about education is very limited. A typical resume or professional profile only includes credential name, issuing institution and date. A non-degree credential may or may not get recognized.

Northeastern University  
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## What HR Leaders Want

Using feedback gathered from process improvement workshops with HR professionals and hiring managers, we created four composite personas that each capture a particular challenge.



### Nick: I Want to Trust the Information

Nick expresses a strong desire for trust in the information he receives through his ATS. He worries, however, that he gets incomplete or inconsistent information from candidate to candidate and that this variation can lead to ambiguity and inconsistency in assessment. Nick is right to be concerned about the information he gets now. The reality is that in the journey from a candidate's online application to how the data is presented to Nick, there is a strong likelihood that data will get lost or mangled in some way.



### Frances: I Want Information I Can Use

Frances is deeply committed to advancing skills-based HR practices, but faces significant challenges in implementing them effectively. A primary concern for her is helping her hiring managers clearly articulate their requirements. She also encounters resistance in convincing hiring managers of the value of non-degree credentials. In her experience, managers view non-degree credentials as a promising avenue for enhancing understanding of a candidate's basic character, but criticize the lack of accurate and relevant information about credentials to leverage them more specifically.



### Briana: I Want Integrations with Other Services That Work

Briana also needs different information in her HRIS platform, but in her case, the information already exists. Her problem is that the information she wants is very difficult to access. Briana expresses a clear need for seamless integrations with various services, particularly concerning the verification of credentials from a fairly wide range of different issuing bodies.



### Malik: I Want to Analyze Data to Assure Better Fit

Malik is heavily involved in frequent hiring and maintains a system that efficiently identifies and recruits candidates. A significant challenge he faces is a lack of diversity and high turnover rates among employees. Malik is keenly interested in the potential of post-hire reviews to assess the overall quality of the hiring decisions. This kind of data could potentially enhance his understanding of what sources generate applicants who work out best and what experiences correlate most highly with more successful hiring outcomes. It also helps him offer proactive guidance to candidates about what microcredentials to pursue, allowing him to turn a pool of rejected applicants into a pipeline of potential future successful candidates.

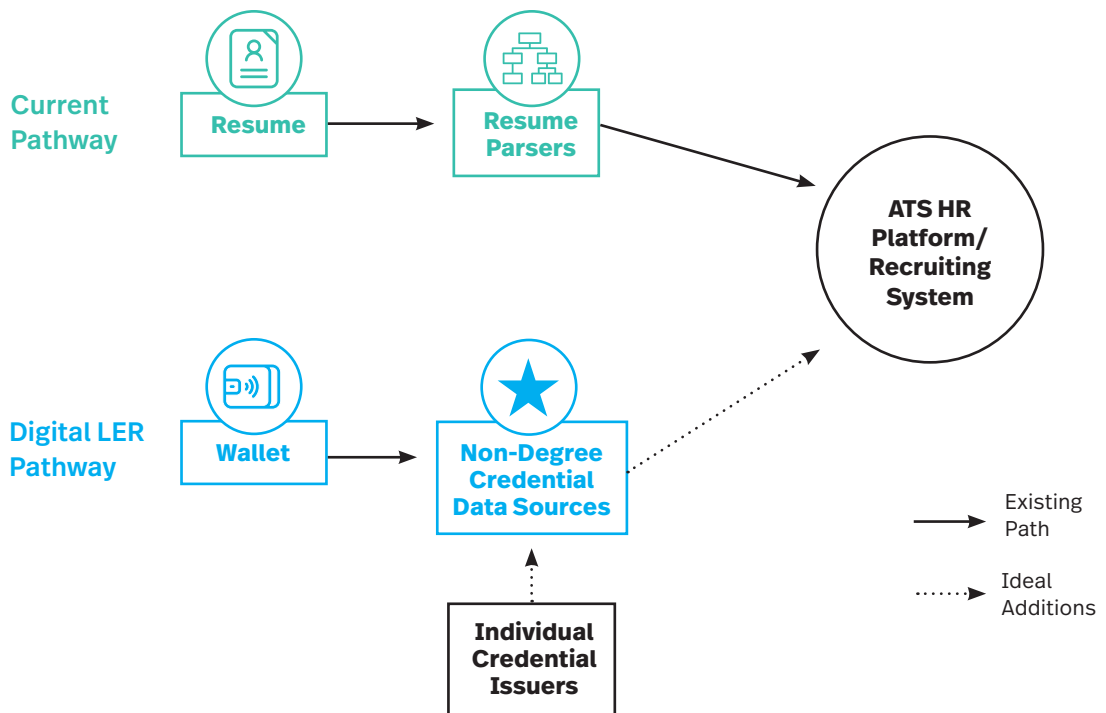
The fundamental issue at the root of each major challenge was inadequate information about the learning experiences of candidates.

We propose a roadmap to bring richer, verifiable credential data into HR systems in three stages:

# STAGE 1

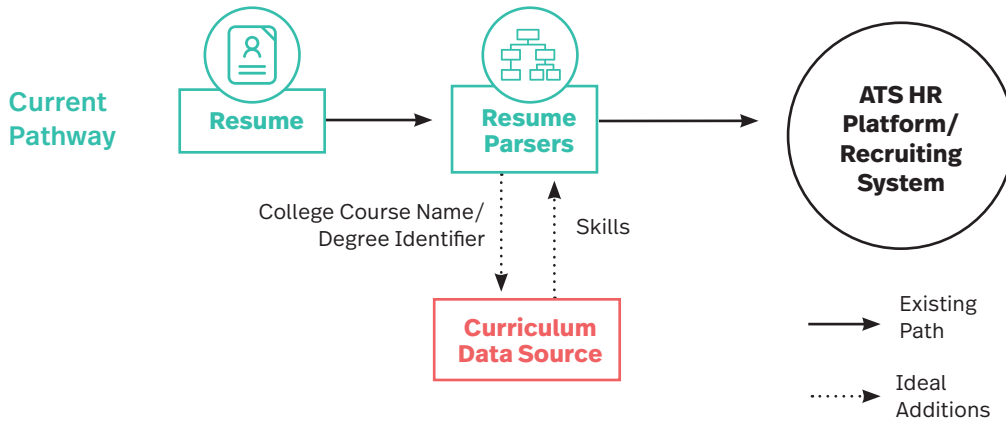
## Assigning Skills to Learning

There are two pathways for data flow: the more established pathway used for the majority of jobs in which resumes are parsed into structured data, including skills, that is shared with ATS and other HR systems; and the pathway that has been proposed by newer entrants in the LER wallet space. Digital wallets store credential information and verification that the credential has been issued to the wallet owner.



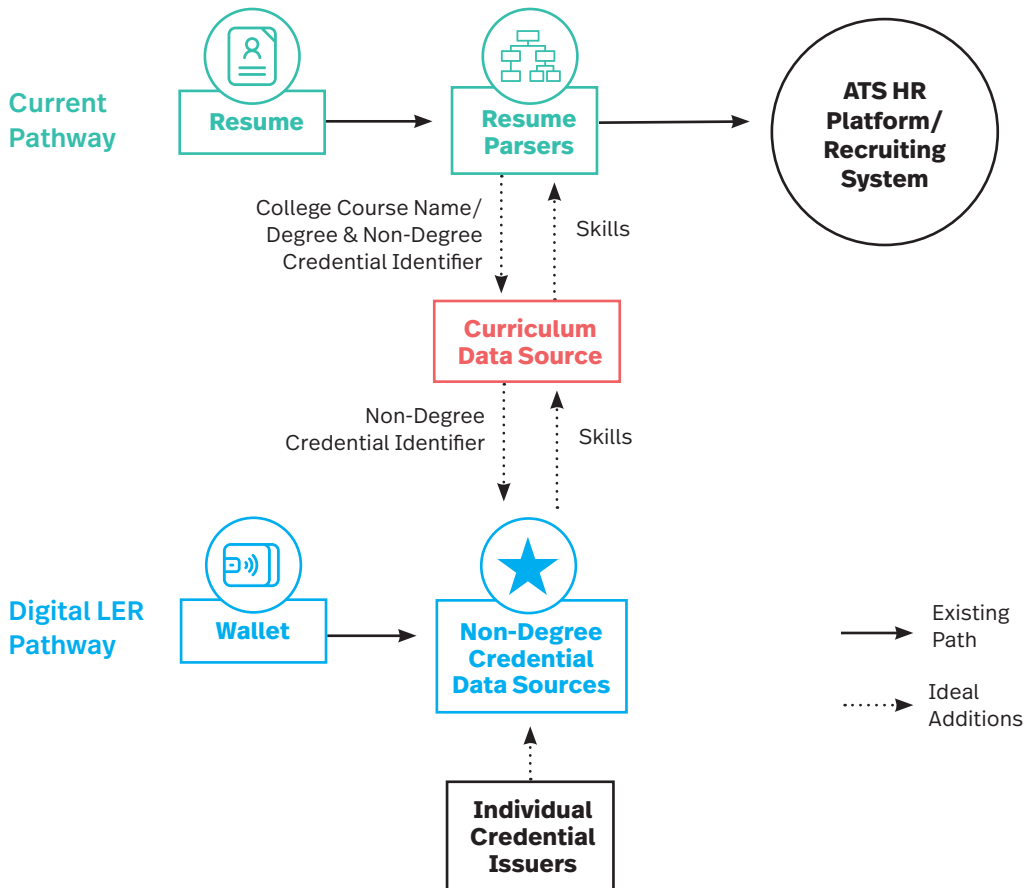
### Step 1: Link Curriculum Data Source.

Connect resume parsing services to a repository of curriculum information. This repository ties course names listed in resumes to detailed course descriptions and syllabi. Skills are extracted from course information and returned to resume parsers.



### Step 2: Link Non-Degree Credential Data Sources.

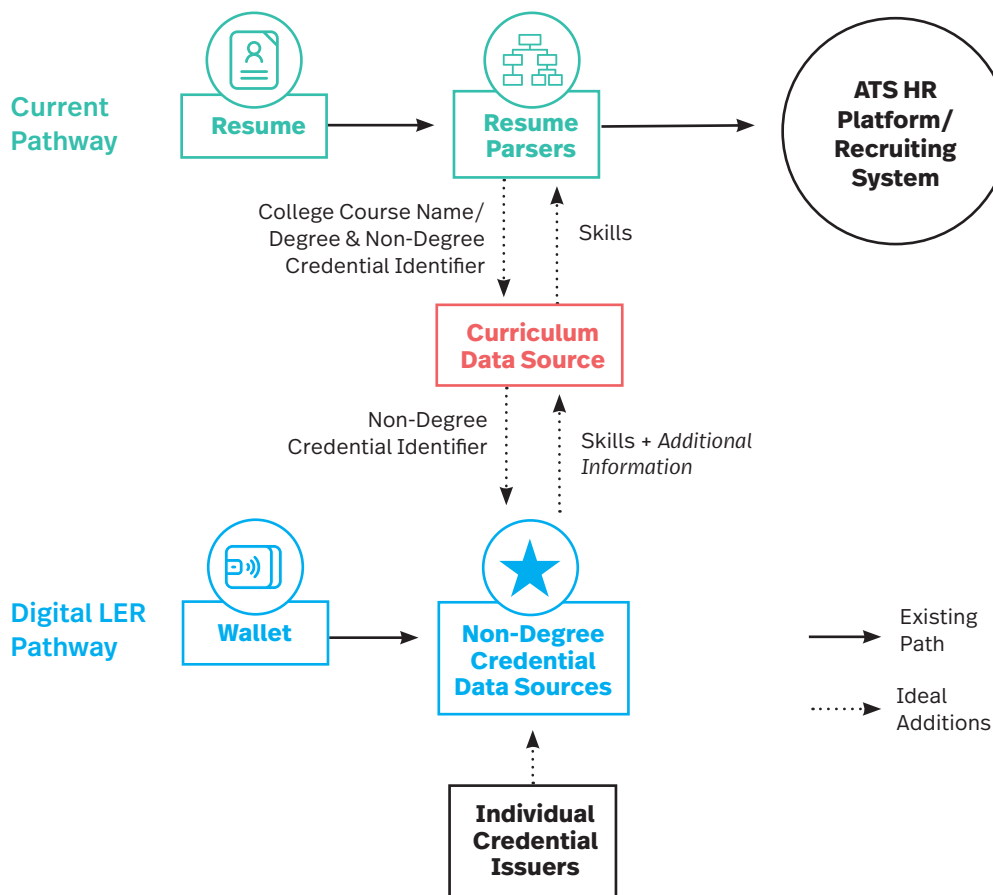
The curriculum data source passes requests for information on non-degree credentials to a repository of non-degree credential data. Skills are returned to the resume parser using the data flow channels already established for the curriculum data source, allowing for skills data associated with non-degree credentials to be shared with downstream hiring tools.



# STAGE 2

## Assigning Context to Learning

The net result of the connections imagined in stage one is that skills information attached to degrees, as well as to non-degree credentials, will become more visible in the systems used by hiring managers. This can drive client demand for more information about non-degree learning by candidates. The next step is to expand data flow to include additional information about credentials that is captured in LERs.



**STAGE 3**

## Expanding the Ecosystem

Jumpstarting data flow has focused upon successfully connecting, not a large number of smaller players, but rather a small number of players with large amounts of data. Once data flow is established and end-users become more aware of and find value in the additional data elements, there will be momentum for further integrations with a broader range of information owners and processors, large and small.

