



ALABAMA  
Talent Playbook



**Interoperability**

# Interoperability

**Scaling Statewide  
Talent Development Systems:  
the Alabama Model**

# Interoperability



## Interoperability: Scaling Statewide Talent Development Systems: The Alabama Model

No workforce or education digital tool that seeks to facilitate mobility can succeed if it operates in isolation. Interoperability, the ability of data systems to work together, exchange, and make use of information from other systems, is the key to success, scale, and impact.

The same is true for Learning and Employment Records (LERs), which use open data standards in order to be portable, verified records of an individual's education and work-based earned skills, credentials, and experience. LERs are designed to free education and workforce data from static resumes, proprietary systems, and education providers' file cabinets, ensuring smooth transfer of data between education providers, employers, and learners.

The Alabama Talent Triad has been centered on interoperability from the outset. This brief provides insights into the design of interoperable systems, highlighting effective approaches taken by the Alabama Talent Triad.

## Key Takeaways

**The application of LERs is vast – they can be used for job applications, upskilling and reskilling initiatives, advancement strategies, education planning, recognition of non-traditional earning for credit, and other ways we have not yet considered but only to the degree that can integrate and align with other systems.**

The Alabama Talent Triad was built to host an open talent marketplace where residents can easily access education and training connected to family sustaining jobs. By combining data from the state's K-12, community college, university and workforce training systems, and non-degree training providers within the Alabama Credential Registry, the Talent Triad is intentionally designed to interoperate with Alabama's skills-based job description generator and Learning & Employment Records (LERs). This openness enables seamless access for students, job-seekers, educators, and employers to easily connect and share information across systems that were previously siloed.

# Interoperability

Connecting multiple data sources creates value for stakeholders, including learners, employers, education providers, and the state. Connecting multiple data sources drives opportunities to create more tailored and curated experiences for end users. By linking together skills, competencies, credentials, learning recommendations, and job postings, the Talent Triad is a talent marketplace that allows users to see a much fuller picture of opportunities and candidates that have not been previously discoverable with non-integrated systems. Furthermore, the connection of this data across systems enables intelligence gathering that can solve systemic problems and build comprehensive solutions.

The Talent Triad's commitment to open standards and interoperability reflects its commitment to the platform's users: students, job seekers, employers and education providers, which ultimately creates public good for the state of Alabama. While led by the government, the Talent Triad creates value for individuals. The platform is not a data system that has utility for some groups, or even primarily for the government—it is an intentionally designed tool that drives results for citizens, businesses, and education, all while generating learning and insights for the public good.

Committing to interoperability principles will drive improved:

- **Portability**—Interoperability allows individuals, wherever they are on their learning journey, to carry their skills, competencies, credentials and employment records with them, ensuring records are not trapped inside separate systems or institutions.
- **Efficiency**—Interoperability, while requiring effort at the outset, will ultimately create efficiencies within systems as data is exchanged seamlessly. It may eliminate the need, for example, for fulfilling transcript requests or conducting separate verification of credentials by employers.
- **Accuracy**—Interoperability improves accuracy and reduces fraud, eliminating the risk of data errors and intentionally misleading information finding its way onto resumes and job applications.
- **Continuity over time** - Interoperability supports lifelong learning, enabling learners to aggregate a holistic record of their learning and employment over time.
- **Connectivity across sectors**—Interoperability drives improved collaboration and connection across systems, enabling state and public-facing actors to see trends, gain insights and build intelligence that standalone data systems cannot.
- **Ease of Access**—Interoperable systems enable information and data that may be locked behind administrative processes or fee-for-service engagements to be managed by individuals at no cost, allowing those who have low incomes or no access to credit or banking to participate.

# Interoperability

## Issue Overview

**Interoperability is defined as the ability of systems, devices, and applications to work together; exchange and communicate information; and importantly, to do those without any additional effort by the end user. A product or application is interoperable if it creates a seamless experience that does not require users to repeat actions, open multiple programs, or use parallel systems.**

Within LERs, interoperability efforts drive multiple objectives:

- Collect and verify information across different systems and institutions which are often siloed and operate in different sectors, industries, geographies and administered with different data systems
- Allow learners to accumulate skills, credentials, and experiences into their LER over time
- Enable multiple entities, including learners, job seekers, education providers, employers and other stakeholders to contribute to and verify LERs, regardless of their size, sector, geography, and technical capacity

The Alabama Talent Triad was conceived as a platform for integrating high-quality credential data, skills-based job descriptions and postings and verified digital resumes(s) and skills profile data from Alabama's education systems & employers. The structure effectively brings together disparate systems, which creates value without requiring additional effort by end users.

The Talent Triad approaches interoperability across multiple dimensions. It is, by design, a "headless" digital wallet that works across sectors and systems and is not owned by any one entity. Frequently, LER efforts prioritize sharing directly from data sources to the digital wallet, enabling learning and work experiences to show up in individual records. The Triad does this and more, considering interoperability across four perspectives:

### Education and Training Providers

The Talent Triad connects in real time with Alabama institutional student information systems such as the Community College System's Banner Student Information System (SIS), among other systems, enabling employers to see a real-time talent pipeline emerging from the state's education systems at all levels of education.

### Self-Attested LER Contributions

Learners can self-attest, or submit their own learning experiences, for inclusion in their digital wallets, including the ability to import learning experiences, skills, and credentials through platforms like Open Badges and military joint service transcripts via MilGears into their records.



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## Partner Interoperability

The Talent Triad links to the Credential Engine Registry Search, maintaining a real-time accounting of available credentials from non-Alabama registries. The Talent Triad also has the ability to import and/or integrate existing learning and employment records from outside of Alabama, as well as from license, certificate, and program provider registries. Finally, the team is building partnerships with leading student and human resources information systems as well as additional training provider verification systems.

## Standards Interoperability

The Talent Triad is capable of exporting and importing credentials, records and other data factors from multiple sources. All job and credential records are openly-linked data and share key skills vocabularies.

The Competency-Based Education Network released a [statement of interoperability principles](#). These principles are a framework for shared action in advancing LERs that achieve their fullest potential. In many ways, the Talent Triad exemplifies best practices across the interoperability principles.

## Open Standards

Open standards in technology are requirements or criteria for technical tasks and processes that are open and accessible to anyone. An example of an open standard is wifi access, where wifi from any source can work with any wifi-enabled device, regardless of the location, owner or service provider.

- The Talent Triad is built using open standards and is effectively able to connect to any other data platform using those standards. Every component of the Talent Triad uses existing open data standards. Furthermore, while the Talent Triad is launching in Alabama, nothing in its design or application precludes employers, learners, and stakeholders from other states from joining the platform, or for learners to take their data with them should they wish to use a different platform.

The Talent Triad adopted open standards that represent best practice for today and prioritize the exchange of data between systems.

## Privacy and Security

Interoperable systems provide exceptional access and ease of use but never sacrifice privacy or the security of users' data.

# Key Takeaways

- The Talent Triad enables users to control their own data. Individuals can share all or none of their information, presenting curated, tailored information to employers based on their individually curated digital resumes, which they can align to skills-based jobs.
- Verified data is secure. The Talent Triad connects with other data systems through real time Application Programming Interfaces (APIs), including student information systems and enrollment management systems. Because data is coming directly from education providers, it is fraud-proof and completely verifiable.
- Digital wallets populate with verified data only when a learner/earner is active on the platform and at the user's discretion. No verified learning and employment data is permanently housed within the application client.

## Unlock Learning Everywhere

Interoperable learning and employment records are able to connect to and include records of learning from all venues, from classrooms to military experience to on-the-job.

- The Talent Triad enables any qualified entity to validate an individual's credentials, competencies, and employment. While early efforts prioritized competencies gained through Alabama's K12 system, community colleges, and workforce system, future plans integrate military learning, licensure & certificate providers, and enable employers to verify learning gained through work.
- Learners and workers, especially those who attend more than one institution or who stop and start on their education journey, benefit from the seamless collection of academic, employment, military and other records, regardless of where they live, where they studied, or their current circumstances. Interoperable learning and employment records also enable seamless sharing of these records with employers, securely, efficiently and without bias.

## Universal Access

Effective and interoperable platforms are built with the end user in mind and enable any user to access their information. Interoperable platforms do not require special access or skills. They also put control of individual data firmly in the hands of individuals.

- The Talent Triad, powered by EBSCOed has conducted extensive user experience research over the years with all levels of technology comfort, creating tools that can enable browsing and searching of complex, extensive data information systems that resonate with every type of user. The platform can be used with basic digital skills and operates in ways that most users with those skills are familiar with if they are using common online accounts.

# Interoperability

## Alignment

When public, private and non-profit organizations and agencies collaborate, each committed to interoperability, LERs can reach their maximum potential.

- The Talent Triad serves three primary audiences: learners and earners, employers, and education and training providers. But the Talent Triad engages more than a dozen public agencies and entities that have all aligned behind the open standards and interoperability principles that power the platform. Led by the Alabama Governor's Office of Education and Workforce Transformation, multiple agencies including the State Department of Education, the Alabama Department of Commerce the Alabama Community College System, and the State Office of Apprenticeship collaborated to share data and maximize the benefit of the platform for learners, employers, and educators.

## Public/Private Partnerships Creating Public Good

Interoperable LERs balance benefits for stakeholders, prioritizing those benefits that will create the greatest public good. Effective platforms are both scaled and regulated to ensure all stakeholders continue to benefit, and leverage, the unique attributes of all sectors.

- The Talent Triad is a unique model, led by state government, powered by private industry, supported by non-profit, leveraging data from public education providers, and operating with initial financial backing from philanthropy. This mix of actors, which enabled appropriate risk-taking, guaranteed connection to public data systems, engagement of the private sector, and deep partnership with education systems, resulted in a comprehensive effort that is working to solve systemic problems for all involved.

## Global Mobility

Interoperable LERs have the benefit of being applicable in any geography, industry or environment. Effective systems are not trapped by their technology, applicable only in certain states or unable to work at local, state or regional levels.

- The digital wallet component of the Talent Triad is "headless," meaning it can live anywhere. No single entity in Alabama "owns" the platform, and as a result, no single stakeholder's priorities are elevated over others'.
- The Talent Triad launched in December 2023. In its initial pilot, Alabama prioritized healthcare and manufacturing students and employers. However, the Talent Triad's technology, built on open standards, has been applied to meet all industries, and the use cases continue to grow throughout the state.



# Interoperability

A north star goal facilitated by these interoperability principles is a national system in which a digital wallet would follow a learner anywhere in the country. While the data and tech systems needed to operate on that scale are still being developed, the Talent Triad is a best practice model for reaching that goal.

## Action Items

**Reach out to partners in the field and consider leveraging an existing platform to complement your work. The state of Alabama is interested in partnering with states and organizations that are committed to interoperability, maximizing the benefits for learners, job seekers, education providers, and employers across state and regional boundaries.**

For actors with existing learning and employment records under development or in operation that use principles of interoperability, share your story. Tell others about how your work has benefited from commitment to open standards and your efforts to work across systems and sectors.

We encourage you to reach out for more information. Please visit <https://www.alabamatalenttriad.com/> to learn more about the Alabama Talent Triad.

## Research & Resources

- The Competency-Based Education Network released [Interoperable Learning and Employment Records](#), laying out the key principles for creating accessible, transparent records.
- [T3 Innovation Network](#), led by the US Chamber of Commerce Foundation, promotes data interoperability within the talent marketplace. The T3 Innovation Network hosts a wealth of tools and resources on the [T3 Network Hub](#), including a working network for Data and Technology Standards and for Jobs and Workforce Data.
- The [Open Skills Network](#), an initiative of Western Governors University, supports a national skills infrastructure that would eliminate silos between sectors and organizations and advance skills as a sharable, interoperable currency.
- The American Workforce Policy Advisory Board Digital Infrastructure Working Group produced a [2020 white paper](#) recommending key steps and practices for advancing Learning and Employment Records.
- The American Workforce Policy Advisory Board Data Transparency Working Group produced a [2019 white paper](#) on Interoperable Learning Records, providing an early foundation for efforts to link data across systems.
- Brookings Institution produced a report entitled "[Going digital: How learning and employment records shape access to quality education and jobs](#)" that provides an effective framework for implementation and highlights the role of interoperability in effective implementation.

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- [Credentials to Employment: The Last Mile](#) from the Digital Credentials Consortium highlights the role of interoperability in creating incentives and value specifically for employers, noting, “merely digitizing academic/university credentials alone does not bring enough value to employers for them to show much active interest in them.”
- [Hire Standards: A Hiring & Advancement Playbook](#) from Learning Economy Foundation emphasizes the role of open standards to improve hiring and advancement systems and practices.
- [The Wellspring Initiative](#), led by IEdTech, includes a series of resources, tools and case studies that aim to accelerate the adoption of an education-to-work ecosystem based on open technology standards.

The logo features a stylized 'A' composed of overlapping geometric shapes in shades of red and white. 

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