

Experience You Project Paper

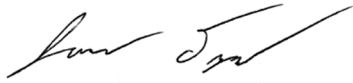
A Letter from Education Design Lab and The U.S. Chamber of Commerce Foundation

Through the T3 Innovation Network, Education Design Lab—a national nonprofit reinventing the learner journey in a skills-based economy—and the U.S. Chamber of Commerce Foundation—the nonprofit affiliate of the world’s largest business association—have partnered to support the growth of Learning and Employment Records (LERs) through the Experience You project. The T3 Network, made up of employers and business associations, educators, technology vendors, government agencies and others, is facilitating the digital transformation of the talent marketplace by engaging in projects that (1) make all learning count, (2) enable competencies and skills to be used like currency in the labor market, and (3) empower learners and workers with data they can use to advance their career and education journeys. LERs hold the promise of being able to make this vision a reality. LERs have matured from an exciting idea about how, through technology, all learning can count, and how employment experiences can better be documented and shared, to now a growing ecosystem of rich research, development, prototyping, and testing.

However, while much of the work on LERs to date has focused on how to generate and share new records in a trusted way based on new or recent learning and employment experiences, there remains a major gap. For example, what of the past education and employment experiences of over 160 million workers in the United States? We believe that in order for LERs to scale and be successful in transforming the talent marketplace, we will need to bring everyone’s past achievements forward. Experience You is testing tools and will be highly complementary to current LER research and activities related to issuing new verifiable and trusted records. By allowing the past to join with the present, Experience You provides a pathway for everyone to be part of the LER movement.

Imagine a world where in just a handful of years, the Experience You project can catalyze the development of tools to create up to 25 million self-asserted LERs with well over 250 million machine readable skills to the benefit of opportunity seekers and employers. This, combined with an evolving ecosystem that is issuing and verifying new records can be the tipping point we need to bring about change and foster transformative impact.

We would like to thank the Bill & Melinda Gates Foundation for their support of this project and the larger T3 Network and its funders for helping seed it. And thank you to those that will join us in this project moving forward to prove the concept and make LERs available to everyone.



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Introducing Experience You

The birth of the information age ignited an explosion of digital activity, democratized access to information, and transformed the way humans learn and work. With the emergence of new digital tools for creating, storing, and sharing information came an endless stream of opportunity that has become increasingly difficult to navigate. The current learning to employment pipeline is riddled with disaggregated information composed of paper records, digital artifacts, centralized databases, and piecemeal solutions that have historically served institutional priorities, leaving individuals left to their own devices and means for navigating the learning and employment ecosystem. Experience You is an ambitious, innovative project that endeavors to aggregate learning and employment data for those that might otherwise not have access into valuable assets that empower individuals to accelerate into the future of work.

The current discussions around LERs are dominated by the technology and policies needed to support those that issue LERs. However, this only applies to newly issued records and does not address the vast amount of learner and worker experiences that already exist. Typical employment and continuing education artifacts like resumes and cover letters are commonly used in traditional workflow processes but these exclude the vast amount of learning and employment validation that will elevate and capture skills and experience to serve individuals who need this tool the most. Furthermore, past and present systems of education and employment often neglect learning experiences and on-the-job training that have been delivered through non-traditional methods, which has historically disproportionately impacted disconnected youth, racialized people, and incarcerated populations. If LERs are going to minimize discrimination in the hiring process and improve equity in the talent marketplace, we must ensure that past experiences are captured in ways that showcase in-demand skills, highlight abilities, and connect individuals to economic opportunities that currently exist.

Experience You has significant potential implications for individual learners and those skilled through alternative routes (STARS), workers and employers; government agencies; postsecondary education and workforce development providers; nonprofits; human resources professionals; data standards organizations; technology vendors, and others. More recent advancements in technologies, like that of artificial intelligence, coupled with emerging data

standards, like those from the World Wide Web Consortium (W3C) and others¹, are providing building blocks to help address this need at scale. If we can successfully generate millions of learning and employment records for workers across all industries, we may be able to narrow the skills gap and meet the current labor force and talent pipeline demand where it is. This means capturing individual experiences in machine-readable data formats, aligning skills definitions with job descriptions, and matching learners and workers to employment opportunities they are qualified for.

In addition to issues of equity and impact, the LER concept faces an uphill climb in terms of large scale adoption and implementation. A [recent report](#) from the Digital Credentials Consortium presented many of the most pressing related challenges. Experience You strives to address concerns around digital trust models, tools for verification, and the building of credentials that have value in the current and future learning to employment ecosystem.

Defining a Learning and Employment Record

A Learning and Employment Record is an individual's digital record of learning and work experiences that can be combined with other digital records for use in pursuing educational and employment opportunities. As digital credentials proliferate all learning contexts, especially digital platforms and certifications, there has never been a greater need for the ability to curate these achievements into organized digital packaging for validation, presentation, and sharing. LERs serve as the tool for individuals to present their learning and work history to effectively showcase skills and qualifications.

With skills-based hiring on the rise, many employers and higher education institutions are expanding the sole focus on traditional learning degree outcomes towards stackable pathways and intermediate requirements resulting in credentials aligned with the skills necessary for fulfilling job roles and requirements. The concept of "skill as currency" will produce value when skills begin translating directly into economic opportunity and human mobility.

Meeting the workforce where they are is critical to creating and implementing LERs at scale. As with many disruptive technologies, incremental innovations will not only energize the conversation surrounding skills-based hiring and LERs but will also support shifting industry priorities and long term adoption. The current attention given to LERs and existing tools for their creation could be a passing trend that falls victim to the trough of disillusionment in Gardner's Hype Cycle. If we are not able to make a substantial demonstration of the development and effectiveness of an LER at a scale to meet the demands of our present and future workforce this opportunity will fade away.

¹ Although not an exhaustive list, some of the standards groups impacting and informing this work include 1EdTech, HROpen, and IEEE. More references and citations will be included in the final project paper.

An LER Ecosystem

Learning and Employment Records are digital records of life experiences and achievements but are only one component of a larger ecosystem. Scaled LERs can be grouped together with additional types of credentials to power an economy with verified skills data and assertions issued by trusted bodies and organizations to ensure an individual's sovereignty over their records. Powered by open standards and protocols, these components will work together to create a dynamic, machine-actionable alternative to existing resume and CV options. In a similar fashion to the organic nature of resume creation, as a part of Experience You, individuals will have the ability to make assertions about their learning and/or work experiences that can be validated by relevant employers or issuing organizations. These individual statements and contributions to an LER are called self-assertions and offer (l)earners the ability to contribute to their own record in more descriptive, accurate, and meaningful ways. These self-assertions can also be validated in a variety of non-traditional ways to externally authenticate that what I say about myself is indeed accurate and credible.

As with any important individual data, like resumes, LERs will need a storage solution that is secure, reliable, and self-governed. Although this project will not focus on creating or directly utilizing digital wallets, their role in individual ownership and presentation of experience records and data is paramount to their success and adoption. There is an increasing number of storage solutions, including digital wallets, available to any person with an LER needing a home. The benefits and challenges associated with digital wallets, including some of the more dynamic skills data solutions, and associated technical requirements, leading the charge are outlined in a [market scan](#) authored by Jobs For the Future. The report also sheds light on ways that open standards, and relevant technologies, are offering storage solutions in secure and reliable ways that also preserve privacy.

Making Past Experience Future Ready

There has never been greater promise or interest in resolving the talent pipeline challenges to provide access to living wages and skilled labor for organizations. The work underway to capture, compile and verify credentials and skills is being conducted broadly by large organizations. Individuals not associated with these forward thinking organizations or those not currently engaged in the earning of credentials are isolated from the potential benefits. Therefore, while most efforts to document learning outcomes, certify job skills, and capture work experiences are focused on present and future credentials, Experience You endeavors to bring relevant past experiences and skills data into the future.

While there is no shortage of existing online platforms that allow for individuals to document their education and work experience, these centralized platforms collect user data for internal purposes and lack the data formats, and dynamic export features necessary to transfer data ownership to the individual. In addition, barriers exist that limit the ability to connect individuals

and employers in a trusted, verifiable manner. By taking existing data and structuring it according to open data standards to facilitate the integration and interoperability of systems, the last mile to hire pipeline, with multiple entry points, can harmoniously serve the needs of individuals, issuers, and employers.

To be clear, an LER is not the same as a resume but it can serve individuals by providing verified credentials and validated experiences that will populate a resume of the future, one that is created from a trusted framework supported by open standards. Learning and employment records filled with individual achievements and credentials can be combined, or stacked, to showcase qualifications and skills acquired through trusted issuers (e.g., past schools, employers, exams, etc) and stored in self-sovereign digital wallets. By sharing responsibility and ownership of experience data with the individuals that have earned it, learners and STARS will be empowered to navigate the learning and employment landscape through a new lens, one that presents opportunities with a focus on skills and qualifications. Once scaled, these tools can reach every worker and learner and help convert their experience into an LER for use in pursuing continuing education, employment, and career advancement.

Individuals will have the ability to

- make self-assertions about their achievements that can be validated by previous employers, learning institutions, and more
- confirm the skills, achievements, employment, and other experiences that are auto-generated in the LER
- select and disclose skills that are issued and verified by trusted parties.
- apply for, enroll in, and complete learning, training, and credentialing opportunities that are necessary for career advancement
- manage and explore career opportunities, including transitions and advancement that are matched based on validated information and qualifications
- identify eligible benefits and entitlements based upon employment, earnings history, and current status/title

Employers will have the ability to

- navigate a larger pool of talent based on verifiable skills data and proof of experience
- document and store employee trainings, skill development, and certifications
- recognize learning and skills developed on the job or through a work-based learning experience, such as an internship
- broaden access to job opportunities and mitigate systemic bias in the hiring process
- confidently match qualified candidates to in-demand jobs and opportunities and hire based on skills
- Optimize productivity by matching existing employee skills with projects and roles

Institutions of Learning will have the ability to

- verify digital credentials for past learning, including coursework, degree programs, and on-the-job learning
- more reliably issue credit for or waive requirements based on prior learning assessment
- verify non-degree courses and learning outcomes that have created previously undocumented impact
- support alumni and past students in by validating skills data and helping with job placement
- capture mastered competencies to better send signals of credential completer actual skills, which then creates a direct bridge to employers

Many individuals have a transcript, certificate from professional development, and course learning artifacts from various sources that are disaggregated into different formats and generally lack any kind of universal data structure. This reality has led those seeking work to create a bespoke “course of life” (CV) or resume that best compiles their education and employment history in one document. In addition to a traditional resume, individuals must invest time and personal resources to contact references, past employers, and learning institutions to fetch paper documents, like letters of recommendations and transcripts, that lack any meaningful data about skill proficiencies, professional competencies, or practical abilities.

If Experience You is able to successfully demonstrate the ability to automate and scale the development of an LER, human time and money will be saved and therefore, many of the larger challenges in the learn-earn process will be addressed. In an effort to root this project in a human centered approach, Experience You will highlight three specific learner and worker personas that will benefit greatly from obtaining a learning and employment record of past and present experiences.

The Incumbent Worker

An employed individual seeking to upskill, gather third party validation of skills, advance in their current job role and/or find a new opportunity that matches their skillset. An example persona for the project would be a non-white, middle aged female, single parent of two with little or no college experience but has been working in the supply chain and distribution industry for their entire career. They coach their child’s softball team in the evenings and have been volunteering in their local community for more than a decade.

Unemployed but Experienced Worker

Previously employed individuals with uncredentialed experiences and transferable skills acquired through on-the-job delivery, training, and learning. An example persona for the project would be a recently laid off worker with 30+ years of work experience as an electrical engineer, happily married black male with four children, willing to relocate for a work opportunity, and has paper certificate documentation of alternative learning experiences earned through the local

engineering association. This person also supports his aging parents and is actively involved in civic engagements.

Military Veteran

Individual soldier that has transitioned to civilian life and in-need of translating military training and certifications to skills language essential for civilian job applications. An example persona for the project would be a white female in her late twenties that recently transitioned from six years of naval service. She has passed virtual simulation assessments of critical thinking and was awarded digital micro-credentials for 21st century skills gained through life experiences.

Empowering the Workforce of the Future

In order for this project to have a meaningful impact, LERs must meet learners and workers where they are today and leave no experience or skill behind. For LERs to become a mainstream, scalable innovation that can be adopted and used to transform and improve workflow processes (e.g., skills-based hiring), then it requires a new set of enabling technologies and tools. These new tools must easily and accurately convert large quantities of existing unstructured data and artifacts (e.g., transcripts, alternative credentials, resumes, employment history, etc) associated with an individual's education, employment, and community experience into structured, machine actionable data about knowledge, skills, and abilities that can be self-verified, validated, and shared.

At their best, the hopes and promises of learning and employment record creation, adoption, and proliferation are admittedly ambitious, altruistic, and aspirational in their current state. Not to mention, the impact purports economic impact while simultaneously transforming systems that have created well-documented bias toward specific populations resulting in economically disadvantaged groups. This is a hypothesis being tested in the Experience You project and the development of a technology solution at scale must respond to the challenge of not perpetuating existing inequities in the learning and earning ecosystem. We must intentionally protect against the acceleration and expansion of the economic skills gaps that exist in the modern workforce.

Designing for Equitable Outcomes

Experience You teams will establish solutions that explicitly address bias and barriers in the prototype design. Designing equitable outcomes requires an acknowledgement that individuals start from different places and have varying needs and factors related to their learning and employment experiences. Designing for equity is a human endeavor that requires thoughtful consideration of design elements, and should include participation from all stakeholder groups, including the intended audience and user groups. There is no panacea for this intentional work and purposeful development, implementation and adoption is required. For this project, we will lean on guidance and collaboration with a diverse panel of global experts and look to resources such as [Inclusive Design Principles for LERs](#) from Digital Promise to support our design criteria

and project implementation. This is an imperfect effort; however, we are to prioritize the skills and experiences of those who will most benefit from access to innovative technologies and forward thinking solutions.

Experience You intends to work with technical teams and project partners to make concerted, and explicit, design considerations throughout the scope of our shared work. At a minimum, we expect each project will include information about their assessment of bias in technical elements, maintain transparency in algorithms and aggregation tools being considered or implemented, while actively reflecting on and soliciting feedback regarding project developments, experimental outcomes, and measurable impact.

Engage in the Experience You Journey

The opportunity to transform past experiences into valuable learning and employment data that can empower our workforce is exciting to say the least. It is incumbent upon us to strive toward a future where data, and the tools that support its democratization, empower individuals and communities. Leveraging existing technologies and tools to build innovative solutions is a privilege that we must steward toward a scale that is capable of digitizing the next generation of learners and earners.

To learn more about ways you can get directly involved and signal your interest and willingness to participate in this project, continue reading the [Experience You Call for Participation](#) overview.

Glossary of Terms

- **Assertion** is a statement that is made or claimed as being true. In the context of verifiable credentials, an assertion typically refers to a statement made by an issuing party (such as a school, employer, or professional organization) about an individual's qualifications, skills, or achievements (ChatGPT).
- **Content Rich** means the content includes competency and skills data that is machine readable and actionable. (T3 Network)
- **Digital Wallet** is an online or smartphone application that individuals use to control and manage their learning and employment data. This could be particularly useful for individuals who elect to market themselves or generate a job application package or portfolio for potential employers or education programs. Digital wallets allow users to accept, store, display, and exchange digital credentials (Jobs for the Future, 2022)
- **Digital Credential Issuer** is an entity that issues credentials that may be in the form of certificates, badges, or other digital tokens that represent some level of accomplishment, achievement, or affiliation. The issuer is typically the organization or institution that has verified the information contained in the credential and has signed it with a digital signature. (ChatGPT)
- **Digital Credential Publisher** is an organization that issues and manages digital credentials. Publishers work with credential issuers to create and manage digital credentials, and they also provide the infrastructure and support needed to issue and verify credentials.
- **Interoperable** refers to the ability of different systems, devices, or applications to work together and exchange information with each other. In the context of digital credentials, interoperability means that a credential issued by one organization or system can be easily understood and accepted by another organization or system. (ChatGPT)
- **Last Mile to Hire** refers to the final stages of the hiring process which often includes skills assessments, reference checks, and final interviews. This is a critical juncture for employers looking to hire the right person or best fit candidate.
- **(L)earner** is a term coined by Education Design Lab that encompasses both learners and earners (workers), recognizing individuals who have acquired skills and knowledge from learning and/or work experience. This term is a reference to opportunity seekers in the talent pipeline that could benefit from LER innovations that power economic mobility.
- **Learning and Employment Records (LER)** is a digital record of learning and work experiences that can be linked to an individual and combined with other digital records for use in pursuing educational and employment opportunities.
- **Self-sovereign Identity (SSI)** is a concept that refers to a system in which individuals have full control over their own digital identity and the information associated with it.

- **Skilled Through Alternate Route (STAR)** according to [Opportunity@Work](#) are “individuals at least 25 years old, currently active in the workforce, and having a high school diploma, but not having a bachelor’s degree”.
- **Skills Registry** is a database or online platform that is used to store and manage information about an individual's skills and qualifications. A skills registry typically includes information about an individual's education, work experience, training, and other qualifications, and can be used to help employers and other organizations identify and evaluate potential candidates for job openings.
- **Structured Data** is data that is organized and easily searchable, making it suitable for analysis and decision-making. Structured data typically has a pre-defined data model or fixed schema, which means that it is organized in a way that makes it easy to understand and interpret.
- **Validation** refers to the process of verifying the authenticity and accuracy of a particular credential or record. This might involve checking the validity of a credential by verifying that it was issued by an accredited institution or organization, or by verifying that the information contained in an employment record is accurate and corresponds to the individual who is claiming it. (ChatGPT)
- **Vendor Neutral** refers to the ability of a technology or standard to be utilized by multiple vendors without requiring a proprietary tool or agreement that forces vendor lock-in.
- **Verifiable** is a trusted claim that can be made and delivered about what someone knows and is able to do.
- **Verifiable Credential** is a tamper-evident credential that has authorship that can be cryptographically verified.
- **Unstructured Data** is a type of data that does not have a pre-defined data model or fixed schema, making it difficult to organize and process using traditional data management tools.

References

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- [Learning and Employment Record Action Guide](#) (Credential Engine, January 2023)

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- [Hire Standards](#) (Learning Economy Foundation, September 2022)
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- [OECD Digital Education Outlook](#) (OECD, June 2021)
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