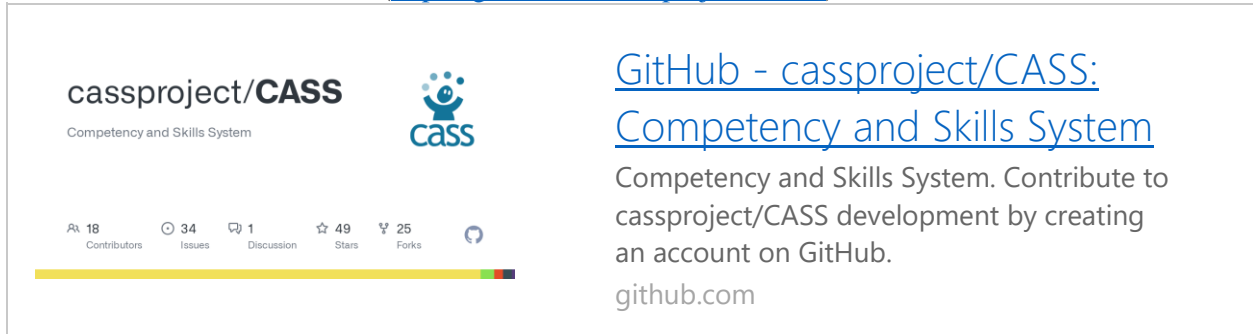


Competency management standards and software (follow up to Oil IT Journal 2024 N° 1 XXXX <https://oilit.com/2024+1+1>)

By Jennifer Rogers (People Accelerator)

It is important to clarify that there are actually multiple [IEEE standards](#) at work here. One is xAPI, which is the Learning Experience Standard (9274.1.1). It measures the actions that a user takes during any particular interaction. Some of these actions may culminate in partial/complete evidence toward a competency or group of competencies (1484.20.3). A great application of these used together can be found via CaSS (<https://www.cassproject.org/>), which is freely available via Apache 2.0 license. CaSS was originally developed for the Department of Defense (in collaboration with IEEE), but is freely available and well-documented (<https://github.com/cassproject/CASS>).



Additionally, hot of the presses, the IEEE shareable competency definition standard (of which CaSS is modeled) has been making its way through the IEEE SA Open Source process and has just been released in the public domain: <https://opensource.ieee.org/scd/scd>.



Our hope is that the release of the SCD documentation above will lead to rapid adoption across a variety of competency management platforms. I would love to do a follow-on with you later a few months from now so that we can discuss updates and further adoption details.

With regards to the vendors that are mentioned specifically in the presentation:

- [Warp VR](#): Warp and I worked together on an xAPI proof of concept specifically for Oil and Gas, where we did a data transform on some of their existing simulations: <https://ieeexplore.ieee.org/document/9853723>, so they certainly have the capability and know-how at this point, though many of their clients aren't necessarily at the point in which they are able to store and visualize this kind of data

(they need an LRS - see next bullet point). Warp itself is very much a commercial product.



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[Standardized Risk Mitigation Measurement in Extended Reality Environments Utilizing the IEEE Experience API \(xAPI\) Standard](#)

ieeexplore.ieee.org

□

- [Veracity](#) is a Learning Record Store that is definitely a commercial product. A Learning Record Store is the place in which xAPI statements (captured in various interactions, etc.) are stored, aggregated, and visualized. There are a variety of other xAPI-conformant 2.0 applications available commercially and you can find those here: <https://adopters.adlnet.gov/products/modernSearch/all/0>

- [Credential Engine](#) is more of registry that includes a collection of shareable competency definitions that others have already created and have published for others in CTDL, a standard that is supported by IEEE's Shared Competency Definition standard (1484.20.3).



[Credential Registry | Credential Engine](#)

The Credential Registry holds detailed information for all kinds of credentials and skills in an easily accessible format.

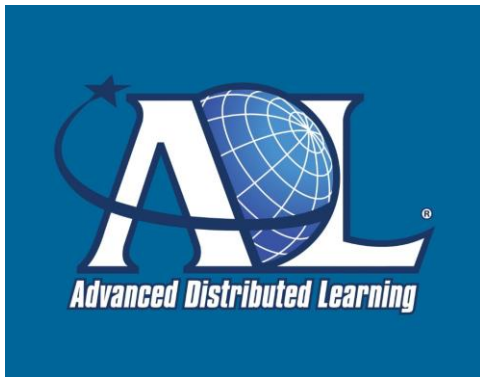
credentialengine.org

In terms of real-world implementations, I believe that I mentioned it in my original talk, but the US Army's STEEL-R is very much an "in the wild" implementation of all of the above:

https://gifttutoring.org/attachments/download/4745/2022_iiitsec_22461_steelr_Enhancing_TLA.pdf

It was a collaboration between EduWorks (the developers behind CaSS), as well as Yet Analytics (an LRS provider) and the US Army. Pretty impressive stuff and definitely one of the most mature implementations out there.

The Department of Defense also makes their [Total Learning Architecture](#) available in the public domain, which is also application of the whole suite of IEEE standards. All applications in their infrastructure going forward must be fully compliant with the TLA. There's a great list of implementations listed on that site, as well.



[Total Learning Architecture \(TLA\)](#)

TLA is a project conducted in collaboration with stakeholders from across the defense community, professional standards organizations, industry, and academia.
adlnet.gov

Hope this helps and, once again, please let me know if there's anything else I can do to support. If you'd like to chat in real time (might be helpful), a link with my availability is below.

Thanks so much for promoting adoption of our standards! I really do believe they will be a game changer as more people start to learn about them and understand that they are indeed 100% open and available for use!

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