TAKING OWNERSHIP OF OUR CREDENTIALS

Peter Leijnse and Menno Scheers (SURF)

EUNIS conference, June 15, 2023
A fast review of the road towards credentials and wallets

**European Union**
- Electronic signatures
- Cross-border eID & Trust (eIDAS)
- EUDI – European Digital Identity (eIDAS2, proposed)
  - EUDI Wallet – a secure solution that basically allows any citizen to carry around proof of identity and other personal attributes and credentials
  - Legislation & Large scale pilots (LSPs)
  - ARF architectural reference framework

**Educational sector**
- Diplomas and certificates
  - Diploma supplement
- Open badges, microcredentials
  - Verifiable credentials
- Cross-border student mobility
- Life-long learning
- Employment
A short primer on educational use cases for credentials (if required)

Issuer
- Course Enrollment credential
- Study Enrollment credential
- Course completed credential
- Diploma credential
- Internship credential
- Thesis credential
- Teacher credential
- Education support credential
- Study accreditation credential
- Course accreditation credential

Holder
- I want to enroll for this study
- I want to start this course now
- I want to interview you
- I want to do my internship here
- I want a waiver for these courses
- I want to receive my diploma
- I want to evaluate this course
- I want to contact the teacher
- I want to apply for this job

Verifier
- Completed prerequisite study?
- Enrolled for study?
- Is course completed?
- Does this person have a diploma?
- Is this person an apprentice?
- Does this person work on a thesis?
- Is this person a teacher?
- Is this an accredited study?
- Is this an accredited course?
- Is the college fee paid?

Verifiable Data Registry
- Maintains identifiers and schemas

https://www.w3.org/TR/vc-data-model/
The EUDI Architectural Reference Framework in brief

- First published version in Feb 2023
- Primary roles can be mapped to W3C VC datamodel, additional governance roles
- Three main types of attestations (attribute sets/credentials)
  - PIDs and QEAAs: establishing core identity and attributes, equivalent of legal identification documents
  - EAAs: a ‘placeholder’ for all other types of credentials and attestations
- Central question: How does the reference framework map to roles and credentials as we know them in education?
## Comparison template

<table>
<thead>
<tr>
<th>Governance roles</th>
<th>Core Identity Credentials (PIDs and QEAAs)</th>
<th>Education Specific Credentials (Education EAAs)</th>
<th>Other types of credentials (non-Education EAAs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issuer</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>(ARF: EAA Provider, Authentic source)</td>
<td></td>
<td></td>
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<tr>
<td>Verifier</td>
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<tr>
<td>(ARF: Relying Party)</td>
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<tr>
<td>Holder</td>
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<tr>
<td>(ARF: User)</td>
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<tr>
<td>Registry</td>
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<tr>
<td>(ARF: Trusted list provider)</td>
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### Projecting ARF primary roles to different credential types

<table>
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<td>(Education EAAs)</td>
<td>(non-Education EAAs)</td>
</tr>
<tr>
<td><strong>Issuer</strong>&lt;br&gt;(ARF: EAA Provider, Authentic source)</td>
<td>Member state approved identities&lt;br&gt;Driving licence&lt;br&gt;Identity Card</td>
<td>Diploma&lt;br&gt;Microcredentials&lt;br&gt;Proof of enrollment&lt;br&gt;‘ECTS credits’</td>
<td>e.g. Licences for Educational content</td>
</tr>
<tr>
<td><strong>Verifier</strong>&lt;br&gt;(ARF: Relying Party)</td>
<td>All types of credentials can be expected, depending on the desired business interaction</td>
<td></td>
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</tr>
<tr>
<td><strong>Holder</strong>&lt;br&gt;(ARF: User)</td>
<td>Any citizen&lt;br&gt;Any legal entity&lt;br&gt;‘Anonymous’</td>
<td>Student&lt;br&gt;Teacher&lt;br&gt;Examinator</td>
<td>‘Customer’</td>
</tr>
<tr>
<td><strong>Registry</strong>&lt;br&gt;(ARF: Trusted list provider)</td>
<td>List of Member state certified parties/roles&lt;br&gt;Generic data schemes</td>
<td>Trust lists of institutions, studies, courses&lt;br&gt;Educational credential data schemes</td>
<td>Sector specific trust lists &amp; data schemes</td>
</tr>
</tbody>
</table>
## Projecting ARF governance roles to different credential types

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<tr>
<td><strong>Legal Governance</strong></td>
<td>Identity framework</td>
<td>Education specific</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(EU/national)</td>
<td>(national) regulation</td>
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<tr>
<td><strong>Standards Governance</strong></td>
<td>EU + member</td>
<td>Standards (‘schemes’)</td>
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<td></td>
<td>countries</td>
<td>for education content and</td>
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<td>+ Conformant to ARF standards</td>
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<td>for interoperability with</td>
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<td>framework</td>
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<td><strong>QA, supervision and</strong></td>
<td>National accreditation</td>
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<tr>
<td><strong>accréditation</strong></td>
<td>body</td>
<td>agencies and bodies</td>
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<td>(European Regulation</td>
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</tbody>
</table>
Separate ecosystems, connected by credentials

Identity framework
- Human
- Organization

Educational sector
- Identity
- Enrolment
- Agreement
- Access
- Credits
- Results
- Learner
- Teacher
- Researcher
- ...
‘I don’t trust the identity ecosystem to issue my diploma’

How to assure that diplomas and other credentials will be recognized as ‘ours’?

- Standards, standards, standards
  - Divergence will not help our case, a coherent set is needed
- Adequate representation at EU level
  - Member state model vs. Cross-border cooperation between institutions
- Active sharing of knowledge, solutions and experiences
  - Outside the ‘boxes’ of projects, initiatives, programs
- Smart design of education credential ecosystem roles
  - Leverage existing infrastructures and governances
GRACIAS POR LA ATENCIÓN!

Peter Leijnse
E-mail: peter.leijnse@surf.nl
https://www.surf.nl/en
linkedin.com/in/peterleijnse

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