Identity Architectures for Innovative e-Learning

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1. EXECUTIVE SUMMARY

Integrated learning environment are commonplace nowadays in universities. However, in spite of the initial expectations and the Bolonia focus on learner centred approach, its use has not involved too many changes in actual learning models. It could be stated that in most of the cases they have only meant the extension from a physical space -the classroom- to a kind of virtual annex -the platform- in which they are developed, nevertheless, the same teaching and learning practices.

1.1. Looking for innovative learning tools: tool-centred vs user-centred design.

Many factors could be pointed out at the origin of this fact but, from our point of view, the main one is the gap between the user's experience in these environments and their experience in his daily use of the net. Attempting to include the user's experience outside the platform within the learning process has wide pedagogic implications, but also of design and technological choices.

The commonly used alternative nowadays is the one named as *tool-centred design*. This approach leads, however, to an endless race or *kitchen sink* syndrome without real learning innovation.

On the other side, this proposal focus on the convenience of a *user-centred* design model to turn e-learning platforms into *permeable* tools, and how these principles are being implemented in our test bed platform, Ágora Virtual. This approach is directed to restructuring the tools for being able to share a same user identity and leads to wonder what architectures can be the most appropriate, that, in short, means to talk about *identity centred architectures* and, in consequence, of *applications that collaborate with each other*.

1.2. Identity and interoperability: OSID-OKI, PAPI, SAML 2

This proposal builds upon a set of existing technologies and tools: interoperability is facilitated by OSID-OKI (*Open Service Interface Definitions*) and the actual OSID PHP implementation is based on the *Harmoni* framework developed by the Curricular Technologies team at Middlebury College.

Authentication architecture makes use of two identity technologies: PAPI (Point of Access to Providers of Information) is a system developed by RedIRIS, the Spanish NREN, for providing access control to restricted information resources and disposes of a set of tools in diverse programming languages. Our implementation uses the PHP version, known as PoA.php (Point of Access) .

SimpleSAMLphp is a clever SAML 2 SP and IdP PHP implementation developed by norwegian NREN Uninett and easily integrating any service in that language with any identity management infrastructure using SAML 2. It's the simplest way to put federation into PHP applications.

1.3. Conclusions

Using these technologies we dispose of a simple and clean authentication architecture making us able to easily integrate in our environment a full bunch of applications without need of reinventing the wheel anymore, offering better opportunities for true innovation to teachers, students and researchers.