### Move around our *virtual* campus

Victoriano Giralt

Central ICT Services University of Málaga

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# A challenge

#### ten universities, one campus



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## A challenge

ten universities, one campus



#### Campus Andaluz Virtual CAV

(Andalusian Virtual Campus)



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Move

# A solution

Let's form a federation



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# A solution

Let's form a federation



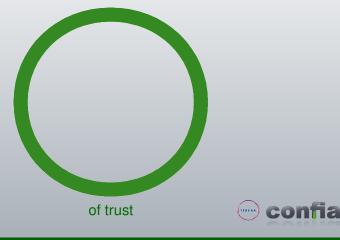


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# A solution

Let's form a federation



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# Learning management systems

the tool for teaching over the net



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# Learning management systems

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#### We had three of them to connect



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# Learning management systems

the tool for teaching over the net

#### We had three of them to connect

- Moodle
- Ilias
- WebCT



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# Student registration systems

where course relationships are stored



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# Student registration systems

where course relationships are stored

We also had several flavours



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# Student registration systems

where course relationships are stored

#### We also had several flavours

- Universitas XXI
- Sigma
- Homegrown



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### Course codes

The connection



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## Course codes

The connection

We were also very creative at that



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## Course codes

The connection

We were also very creative at that

- Home university codes
- Receiving university codes
- CAV codes



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# Interoperation

a clear need

#### Interoperability is the degree to which a provider and a consumer can succesfully interface having never met

Coppeto, T.: Introduction To OSID V3 for developers



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# Interoperation

a clear need

#### Interoperability is the degree to which a provider and a consumer can succesfully interface having never met

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In order to achieve this, the parties need a common language with semantics and syntax that both of them understand



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### Consensus

our way to reach a goal





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### Language

our common vehicle for sharing knowledge



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Move

### Language

our common vehicle for sharing knowledge

#### Our language is made of three attribute schemas



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## Language

our common vehicle for sharing knowledge

#### Our language is made of three attribute schemas

- eduPerson
- SCHAC
- irisEduPerson



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#### Language a simple vocabulary



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#### Language a simple vocabulary

#### We defined three sets of attributes



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#### Language a simple vocabulary

#### We defined three sets of attributes

- Mandatory
- Recommended
- Optional



the crown jewel

urn:mace:terena.org:schac:userStatus:es: campusandaluzvirtual.es:XX3031:2009:student:A

- A code for the Andalusian Virtual Campus
- Course 3031 (needs to be mapped to local code)
- Term start year
- User role
- Status (active/inactive)



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# Provisioning

how to get the LMSs to play in the federation



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# Provisioning

how to get the LMSs to play in the federation

# We developed provisioning plugins for the LMSs that use the identity assertions for



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# Provisioning

how to get the LMSs to play in the federation

We developed provisioning plugins for the LMSs that use the identity assertions for

- creating or updating the user accounts
- granting access to courses
- blocking access to courses



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#### Usage numbers about our use case

#### Usage of our federated virtual campus

- 9000 students
- 100 courses
- 15000 authentications / month
- < 5 problems / month</p>



# Thank you



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# Thank you

#### **Questions?**

answers not assured



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