Multilingual Ontology Repository and User Interface

DE4A WP3 Semantics
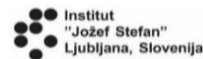
Ana Rosa Guzmán

Spanish Secretariat-General for Digital Administration

OOTS Implementer's Café (May 5, 2023)

Consortium

*DE4A Coordinator   **Linked Third Party

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Melting pot of European languages and cultures: European Semantic Interoperability for the OOP

DE4A
Digital Europe
For All

Amelie is French and wants to access a PhD programme in her country after completing an international Master's degree in Bulgaria. At the Master's and with her friends she spoke English, so she didn't learn Bulgarian...

Darius is Lithuanian and needs his birth certificate to get married. He was born in Portugal during his parents' short stay. He cannot speak or read Portuguese and knows very little English....

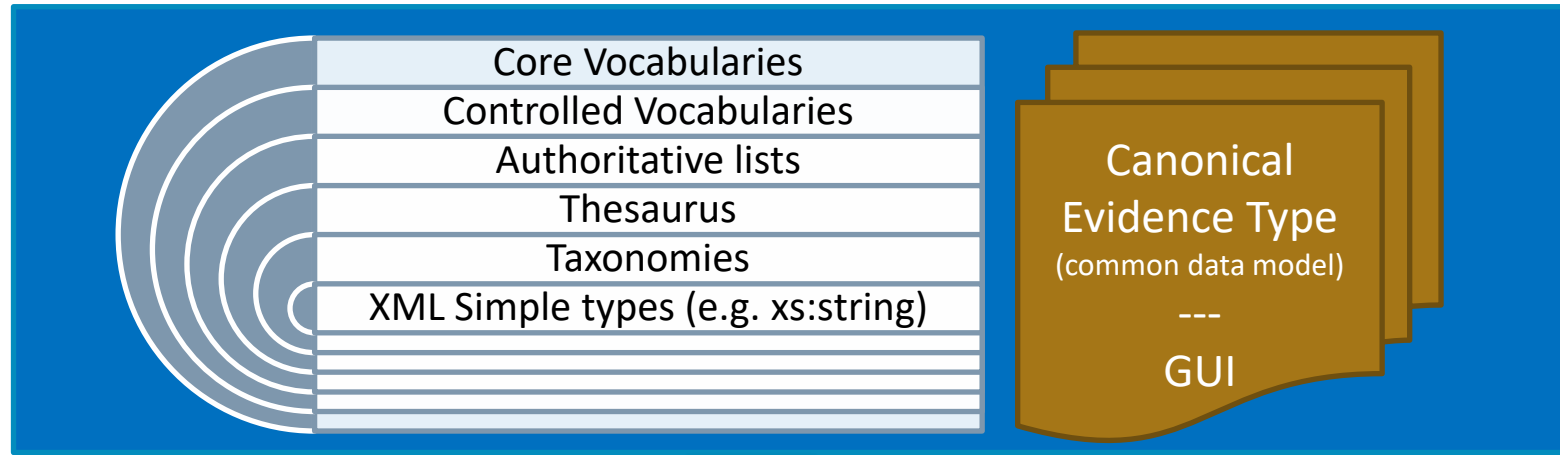«Common dialogs with the user for the OOP»
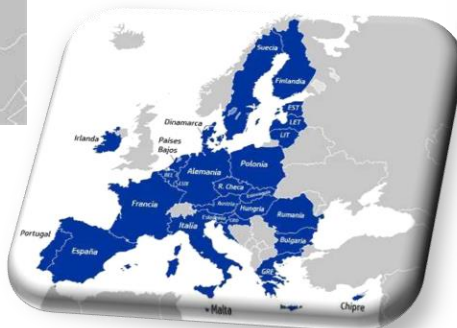
Explicit Request

Additional Parameters

Preview Area

Semantic Design: Multilingual Ontology Repository

Core Vocabularies

Controlled Vocabularies

Authoritative lists

Thesaurus

Taxonomies

XML Simple types (e.g. xs:string)

Canonical
Evidence Type
(common data model)

GUI

MOR

- Term URI
- Type
  o Inheritance
  o Overloading

Semantic Expert
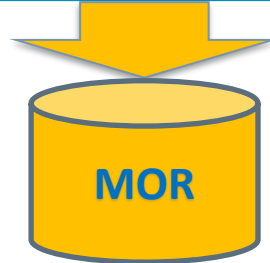
- Cardinality
- Multilingual definition
  - Label
  - Description
  - Example

Domain Expert

i18n Recommendation

DE4A
Digital Europe
For All

Term English definition
- Label
- Description
- Example

Lang-specific
- Label
- Description
- Example
- Verified ☒

Automatic Translation

Lang-specific
- Label
- Description
- Example
- Verified ☑

Domain Expert Verification

Term (URI)

Multiple languages

Light MOR Json-Like Storage

```
"Jurisdiction/Name"  {
  "type"       : "CountryEnum",
  "cardinality"  : "11",
  "es" : {
    "label"      : "Nombre",
    "description" : "El nombre es una cadena simple que identifica una
jurisdicción, normalmente un con o sin una etiqueta de idioma.",
    "example"    : "ES",
    "verified"   : true
  },
  "sl" : {
    "label"      : "Ime",
    "description" : "Ime je preprosto niz, ki identificira jurisdikcijo;
            običajno država z ali brez jezikovne oznake.",
    "verified"   : false
  }
},
```

Simple XSD type or another MOR Term

Mandatory and multiple values

Verified translation

Automatic translation not verified yet

MOR REUSABLE CLIENT-SIDE COMPONENTS

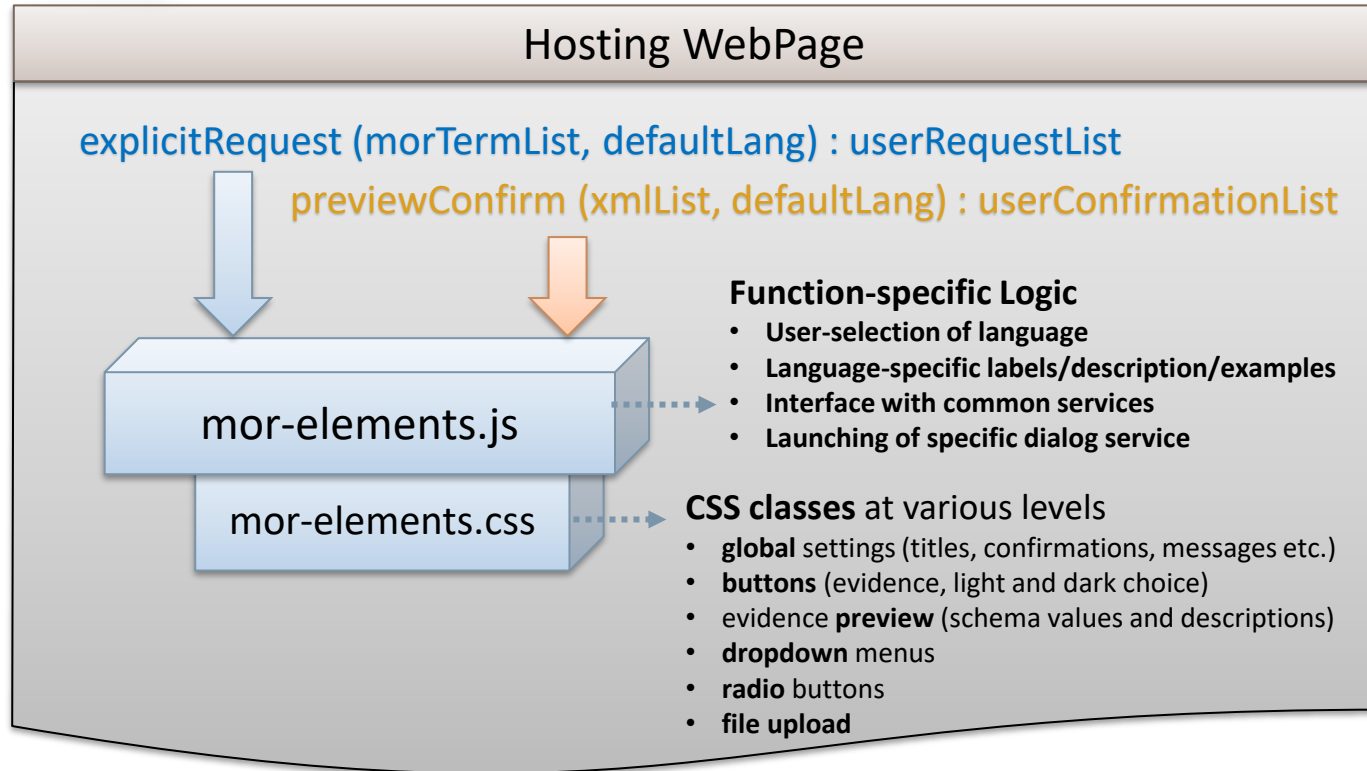Customizable and integrable dialog interface for users
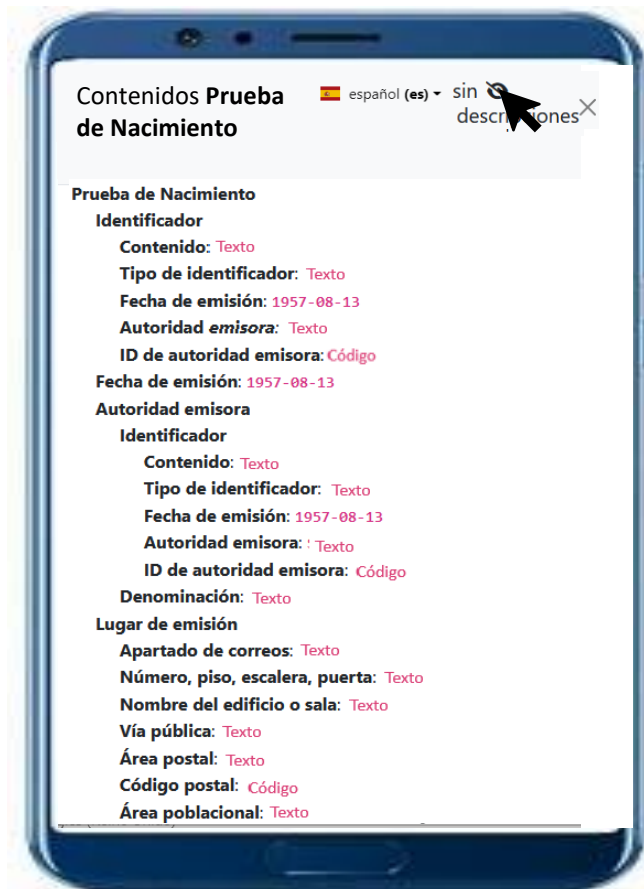
Semantic Web component for existing pages

MOR client-side dialog web interface

Hosting WebPage

explicitRequest (morTermList, defaultLang) : userRequestList

previewConfirm (xmlList, defaultLang) : userConfirmationList

mor-elements.js

mor-elements.css

Function-specific Logic
- **User-selection of language**
- **Language-specific labels/description/examples**
- **Interface with common services**
- **Launching of specific dialog service**

CSS classes at various levels
- **global** settings (titles, confirmations, messages etc.)
- **buttons** (evidence, light and dark choice)
- evidence **preview** (schema values and descriptions)
- **dropdown** menus
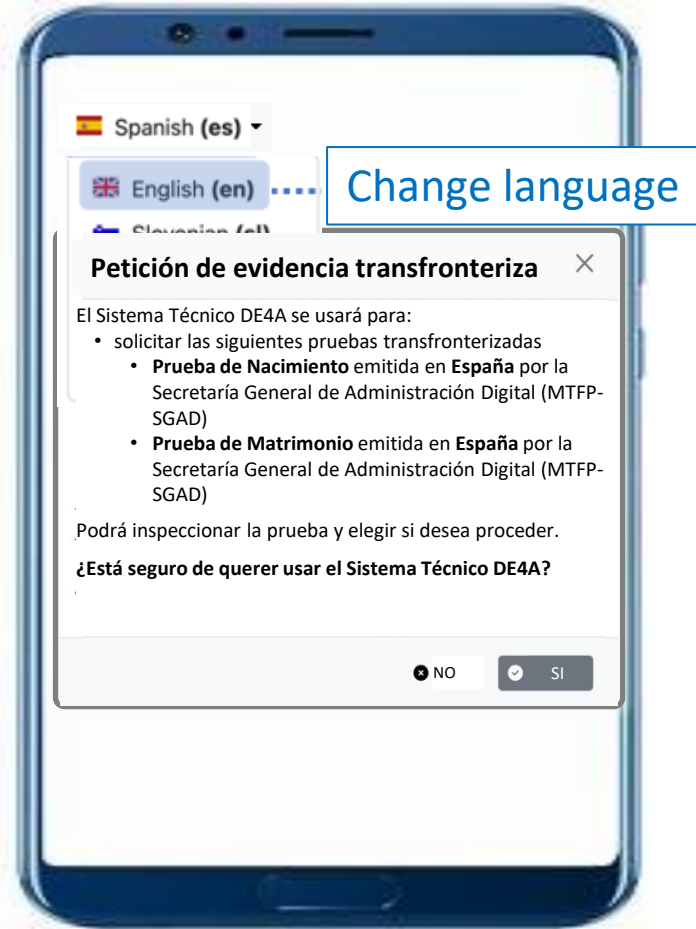- **radio** buttons
- **file upload**

Explicit Request:
select issuing authority

explicitRequest (morTermList, defaultLang) :
userRequestList

Explicit Request:

informed request by showing the Information to request

explicitRequest (morTermList, defaultLang) : userRequestList

Change language

Petición de evidencia transfronteriza ✕

El Sistema Técnico DE4A se usará para:
- solicitar las siguientes pruebas transfronterizadas
  - **Prueba de Nacimiento** emitida en **España** por la Secretaría General de Administración Digital (MTFP-SGAD)
  - **Prueba de Matrimonio** emitida en **España** por la Secretaría General de Administración Digital (MTFP-SGAD)

Podrá inspeccionar la prueba y elegir si desea proceder.

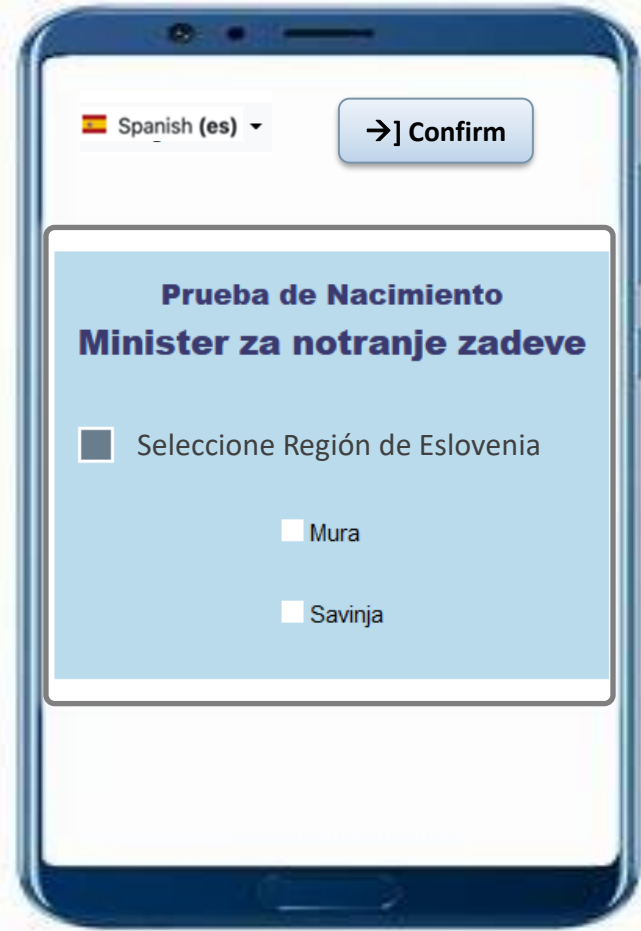**¿Está seguro de querer usar el Sistema Técnico DE4A?**

⊗ NO   ✔ SI

Explicit Request: informed request by user consent

explicitRequest (morTermList, defaultLang) : userRequestList
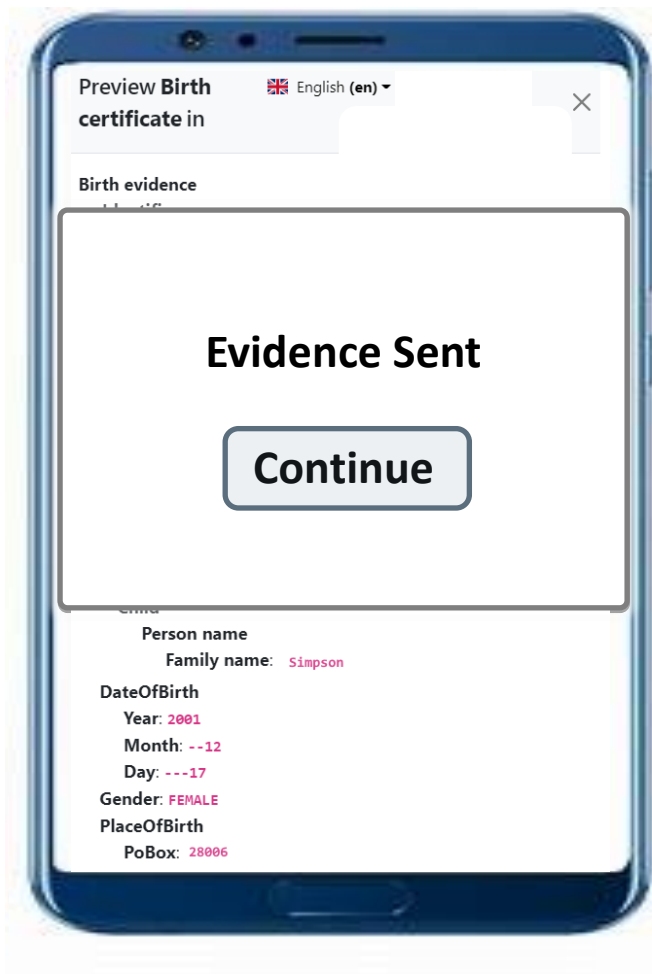
Preview Area

previewConfirm (xmlList, defaultLang)
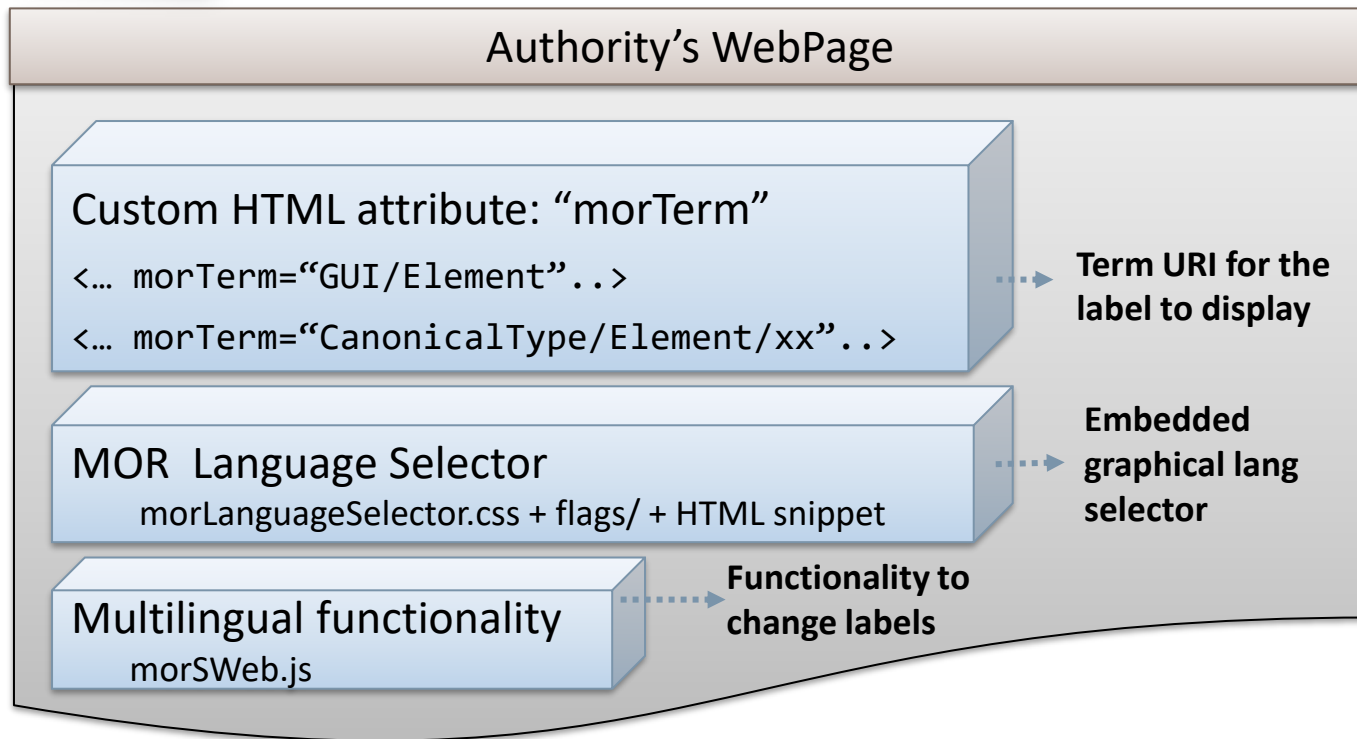: userConfirmationList

Additional Parameters

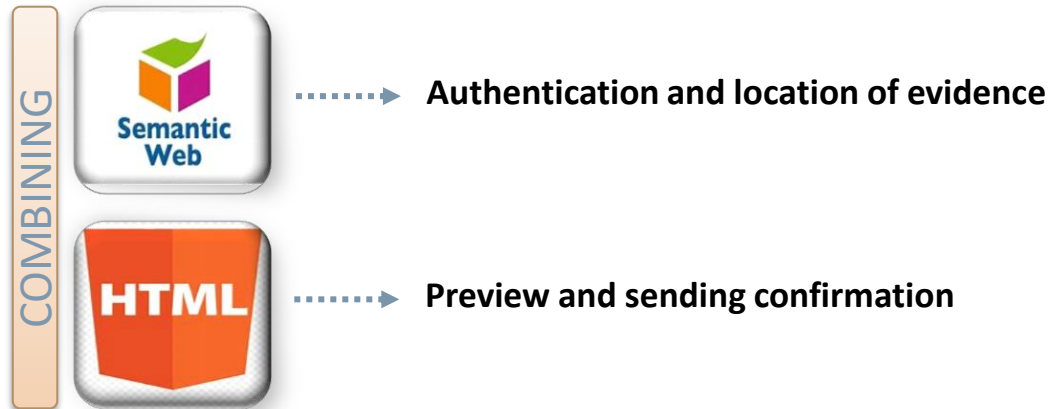additionalPars (pars, defaultLang) : userParValueList

MOR Semantic Web component

Authority's WebPage

Custom HTML attribute: "morTerm"

`<… morTerm="GUI/Element"..>`

`<… morTerm="CanonicalType/Element/xx"..>`

⟶ **Term URI for the label to display**

MOR Language Selector
  morLanguageSelector.css + flags/ + HTML snippet

⟶ **Embedded graphical lang selector**

Multilingual functionality
  morSWeb.js

⟶ **Functionality to change labels**

Preview Area

MOR REUSABLE CLIENT-SIDE COMPONENTS
Preview Space

COMBINING

......▸ **Authentication and location of evidence**

......▸ **Preview and sending confirmation**

Thank You

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