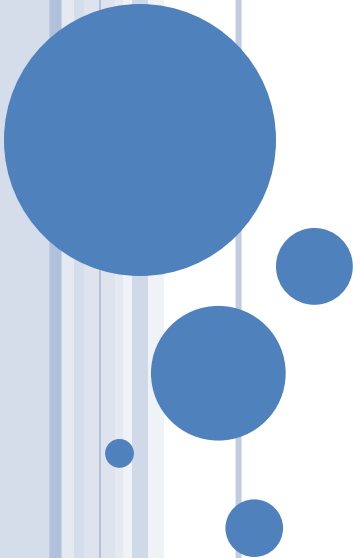


# LOD VIZ

**VISUALIZZATORE DI OPEN DATA**



Progetto di semestre 2012

Omar Davide Molteni

Stefano Mondini

The left side of the slide features a series of vertical stripes in various shades of blue, ranging from light to dark. Overlaid on these stripes are several circles of different sizes, also in shades of blue. One circle contains the number '2'.

# INTRODUZIONE

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# Cos'È LOD Viz?

- Visualizzatore grafico di open data per il Laboratorio Sistemi Semantici e Multimediali (DTI-ISIN-LSMS)
- Costruito con moderni standard web (HTML5, CSS3)
- Core in JavaScript
- Caricamento dinamico dei dati JSON

# COMPITI E OBIETTIVI

- Acquisire competenze sul semantic web
- Studio di nuove tecnologie web
  - HTML5, JavaScript, CSS3
- Studio stato dell'arte

# TECNOLOGIE UTILIZZATE

- JSON
- HTML 5
- CSS 3
- JavaScript
- jQuery
- Mustache
- Twitter Bootstrap

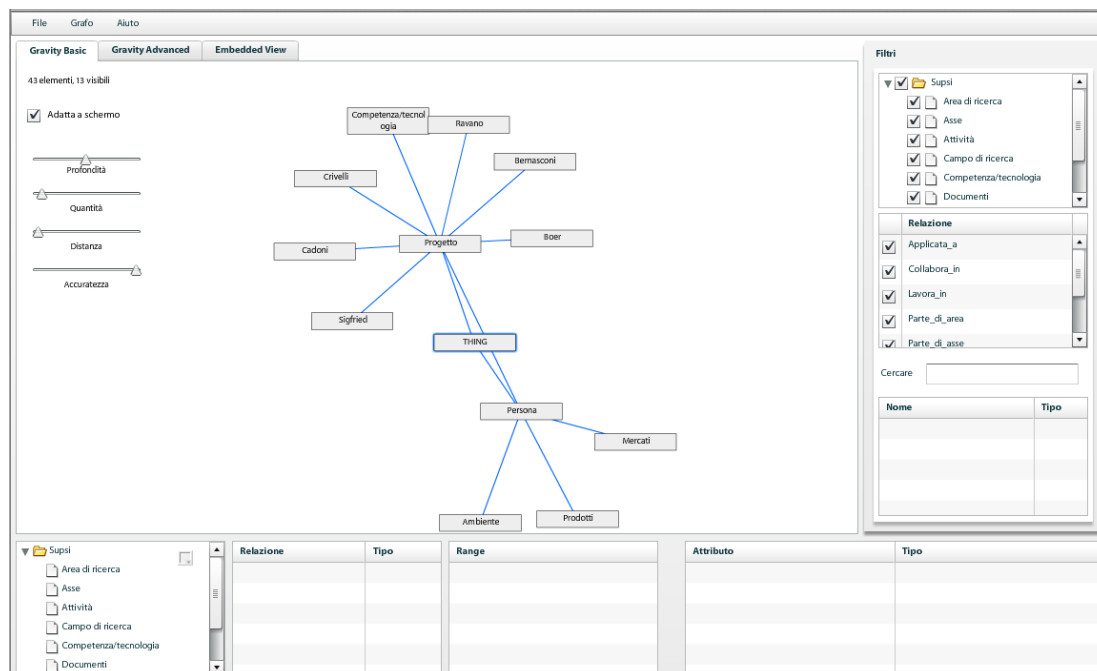


# STUDIO DELLE SOLUZIONI

6

# STATO DELL'ARTE

- Progetti di diploma precedenti
  - EasyOnto, di Alessandro Ruggeri (A.A. 2008/09)



# STATO DELL'ARTE

- Progetti di diploma precedenti
  - Brick, di Nicholas Urech (A.A. 2010/11)

The screenshot shows the LSMS website interface. At the top, there is a search bar with the text "insert your search word(s)" and a magnifying glass icon. Above the search bar, the text "simple search | sparql search" is visible. Below the search bar, there is a navigation menu with the following items: Laboratory, Persons, Research Areas, Projects, Courses, Publications, and Modules. The "Laboratory" item is selected. The main content area displays the following information:

[Laboratory]  
Description LSMS provides resources and competences in the area of Semantic Web, Web 2.0, XML technologies, web applications, multimedia, e-learning and interaction design  
has head [RDF](#) Lorenzo\_Sommaruga  
has [RDF](#) Lorenzo\_Sommaruga  
member [RDF](#) Riccardo\_Mazza  
[RDF](#) Andrea\_Baldassari  
[RDF](#) Nadia\_Catenazzi  
[RDF](#) Nicola\_Rizzo  
[RDF](#) Tiziana\_Formilli  
[RDF](#) Roberto\_Guidi  
[RDF](#) Ingrid\_Domenighetti  
Institute <http://isin.dti.supsi.ch/home.html>  
Email [lsms@supsi.ch](mailto:lsms@supsi.ch)  
Homepage <http://isin.dti.supsi.ch/LSMS/>  
Name Lab for Semantic and Multimedia Systems



# STATO DELL'ARTE

- Librerie grafiche
  - D3.js
  - Raphaël

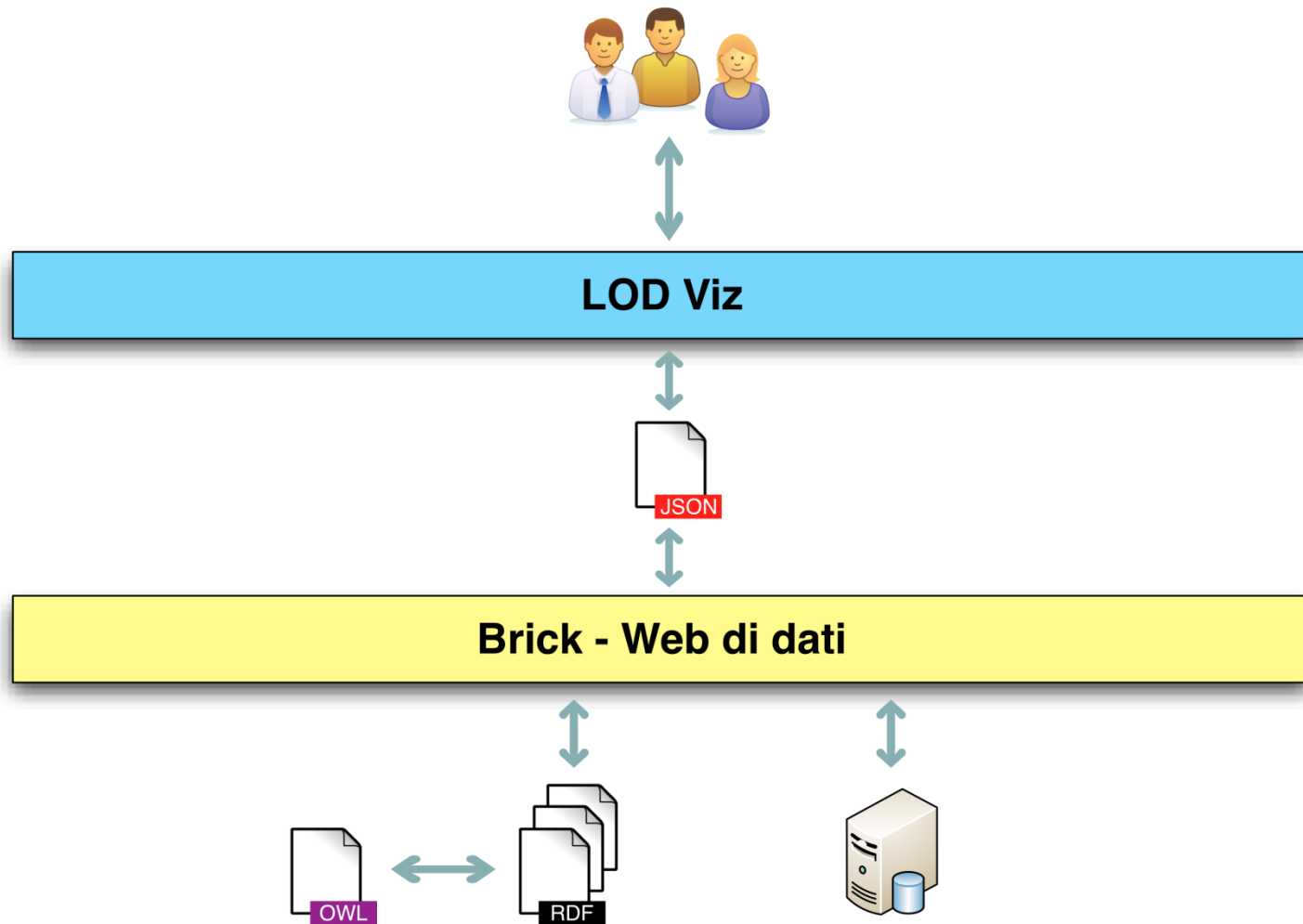
# RISK MANAGEMENT

- Ritardo nelle consegne
- Raggiungimento degli obiettivi
- Perdita o danneggiamento dei dati
- Problemi organizzativi o di comunicazione

# DESIGN E CONCEZIONE

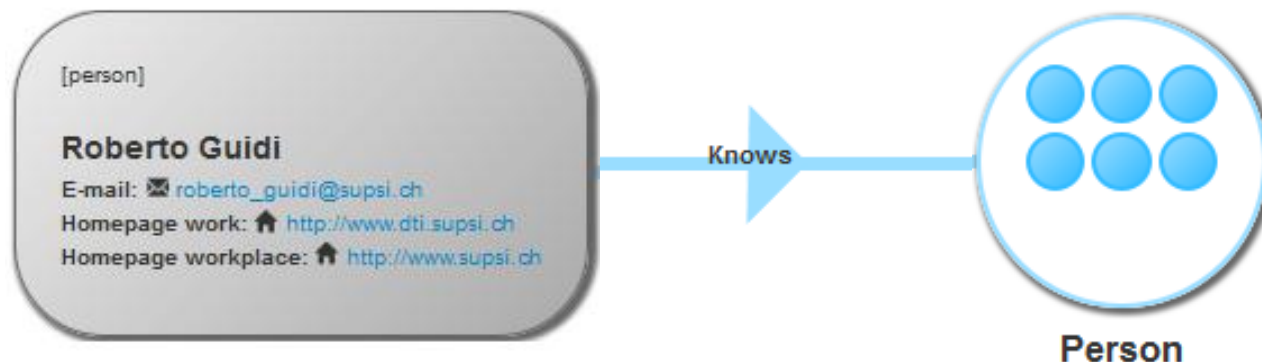
11

# FUNZIONAMENTO



# INTERFACCIA GRAFICA

- Blocco centrale per le informazioni dell'elemento scelto
- Blocchi periferici contenenti le risorse
  - Divise per tipo
  - Collegate con frecce direzionali al blocco centrale



# EVOLUZIONE DELL' INTERFACCIA

## Prima

Laboratory **People** Research Areas Projects Courses Publications Modules

[person]

**Lorenzo Sommaruga (LoS)**

Telephone: +41-(0)58-666-6531

SkypeID: lorenzosommaruga

Homepage: <http://www.dti.supsi.ch/~sommarug>

Email: [lorenzo.sommaruga@supsi.ch](mailto:lorenzo.sommaruga@supsi.ch)

Workplace Homepage: <http://www.supsi.ch>

Work Info Homepage: <http://www.dti.supsi.ch>

Knows:

- RDF** Riccardo\_Mazza
- RDF** Nadia\_Catenazzi
- RDF** Nicola\_Rizzo
- RDF** Andrea\_Baldassari
- RDF** Tiziana\_Formilli
- RDF** Roberto\_Guidi
- RDF** Ingrid\_Domenighetti

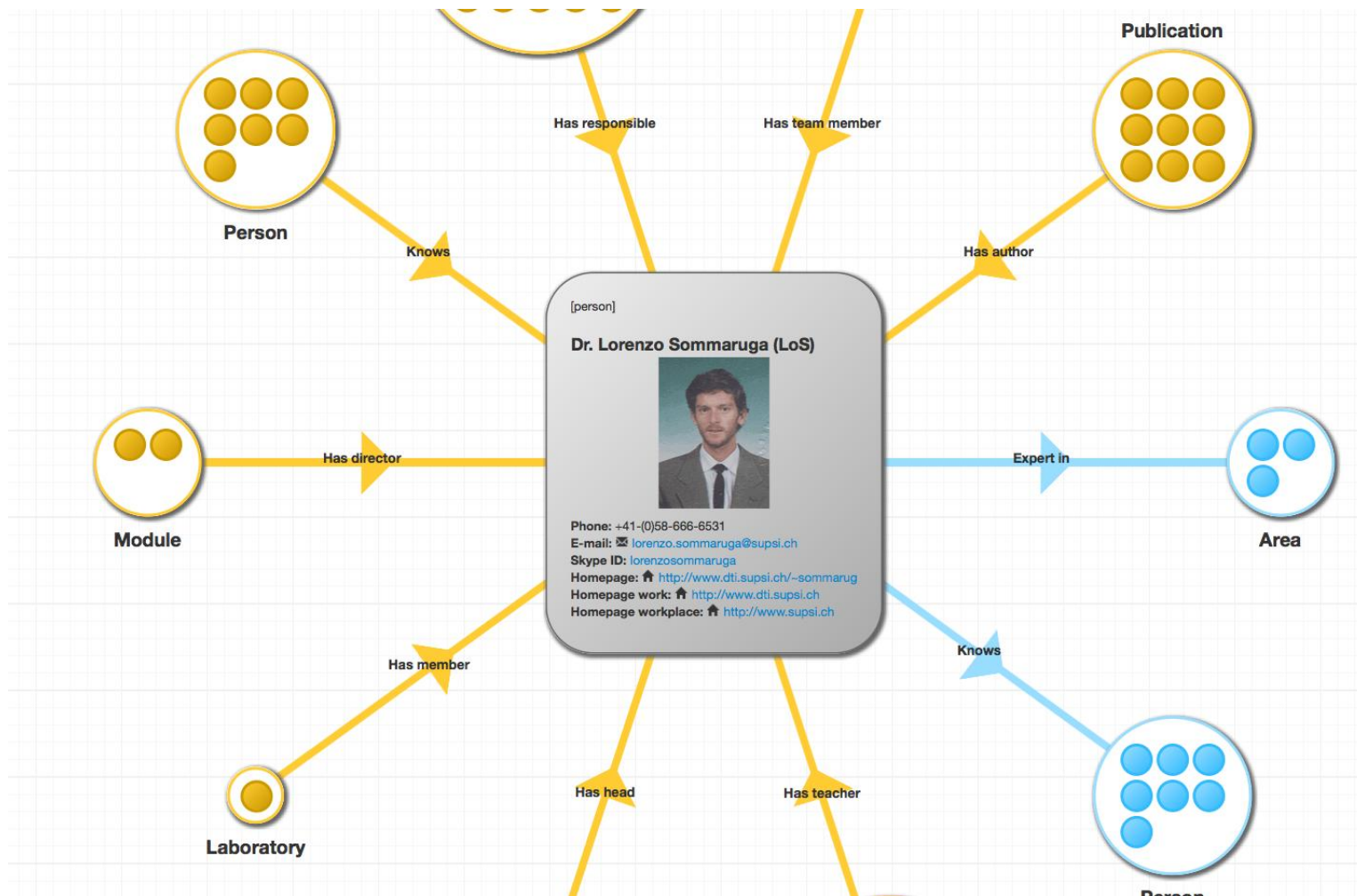
Expert in:

- RDF** Multimedia\_for\_the\_Web
- RDF** E-Learning
- RDF** Innovative\_Web\_Tech



# EVOLUZIONE DELL' INTERFACCIA

## Dopo



# REALIZZAZIONE E TEST

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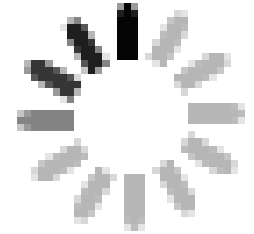


# ARCHITETTURA

- Visualizzazione
  - HTML (template, documentazione)
  - Fogli di stile (CSS)
- Lettura ed elaborazione dati
- Formattazione dei dati e posizionamento degli oggetti

# ARCHITETTURA (HTML)

```
<div id='loader'  
  class='hideCover'  
    <img src='css/loader.gif'>  
</div>
```



```
<div id="base">
```

...

```
</div>
```

# ARCHITETTURA (CSS)

```
.circleinside {  
  position: absolute;  
  ...  
}
```

```
.circleinside:hover{ ... }
```

```
.circleinside.out{... }
```

```
.circleinside.out:hover{... }
```

# ARCHITETTURA (CSS)

```
#centrale {  
    background: #EEEEEE;  
    background: #EEEEEE -moz-linear-  
        gradient(-45deg, #EEEEEE,  
            #AAAAAA) ;  
  
    box-shadow: 2px 2px 2px 2px #666;  
    ...  
    max-width: 360px;  
    z-index: 100;  
}
```

# ARCHITETTURA (JS)

```
$(function () {  
    "use strict";
```

```
    var Core = {  
        ...  
        start:function(args) {  
            ...
```

```
Core.start({base: '#base',  
    loader: '#loader'}) ;
```

# ARCHITETTURA (JS)

```
$.when(loadOutDataFunc).always(function  
    (outData) {  
    $.when(loadInDataFunc).always(function  
        (inData) {  
  
        var outResolved =  
            loadOutDataFunc.isResolved();  
        var inResolved =  
            loadInDataFunc.isResolved();  
  
        ...
```

# ARCHITETTURA (JS)

```
var ctx =  
    this.node.getContext('2d');  
ctx.beginPath();  
...  
ctx.moveTo(zerox, height - zerox);  
ctx.lineTo(width - zerox, zerox);  
...  
ctx.closePath();  
ctx.stroke();
```

# TEST E COMPATIBILITÀ

- Firebug per il debug e controllo dei messaggi di avviso/errore

|                                                    |                                                                                                                                                                                                 |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ⊕ in                                               | Object { http://www.supsi.ch/ontologies/lab/0.1/has_teacher={...}, http://www/ontologies/lab/0.1/has_member={...}, altri elementi... }                                                          |
| ⊖ out                                              | Object { http://www.supsi.ch/ontologies/lab/0.1/expert_in={...}, http://xmlns.                                                                                                                  |
| ⊖ http://www.supsi.ch/ontologies/lab/0.1/expert_in | Object { type="uri", data=[3], value="Expert in", altri elementi... }                                                                                                                           |
| ⊕ data                                             | [ Object { value="http://isin06.dti.supsi.../Multimedia_for_the", value="http://isin06.dti.supsi...esource/area/E-Learning", typ value="http://isin06.dti.supsi...rea/Innovative_Web_Tech", typ |
| source                                             | "Laboratory"                                                                                                                                                                                    |
| type                                               | "uri"                                                                                                                                                                                           |
| value                                              | "Expert in"                                                                                                                                                                                     |
| ⊕ http://xmlns.com/foaf/0.1/knows                  | Object { type="knows", data=[7], value="Knows", altri elementi... }                                                                                                                             |
| ⊖ priority                                         | Object { http://www.w3.org/2000/01/rdf-schema#label={...}, http://xmlns.com elementi... }                                                                                                       |
| ⊕ http://www.w3.org/2000/01/rdf-schema#label       | Object { type="uri", data=[1], value="", altri elementi... }                                                                                                                                    |
| ⊕ http://xmlns.com/foaf/0.1/depiction              | Object { type="image", data=[1], value="", altri elementi... }                                                                                                                                  |
| ⊕ http://xmlns.com/foaf/0.1/family_name            | Object { type="uri", data=[1], value="Surname" }                                                                                                                                                |
| ⊕ http://xmlns.com/foaf/0.1/givenname              | Object { type="uri", data=[1], value="First Name" }                                                                                                                                             |



# TEST E COMPATIBILITÀ

- Verifica tramite più browser
  - Firefox
  - Chrome
  - Safari
  - IE 9
  - Opera
- Sistemi operativi
  - Windows 7, OS X Lion 10.7
- Problema cross-domain AJAX

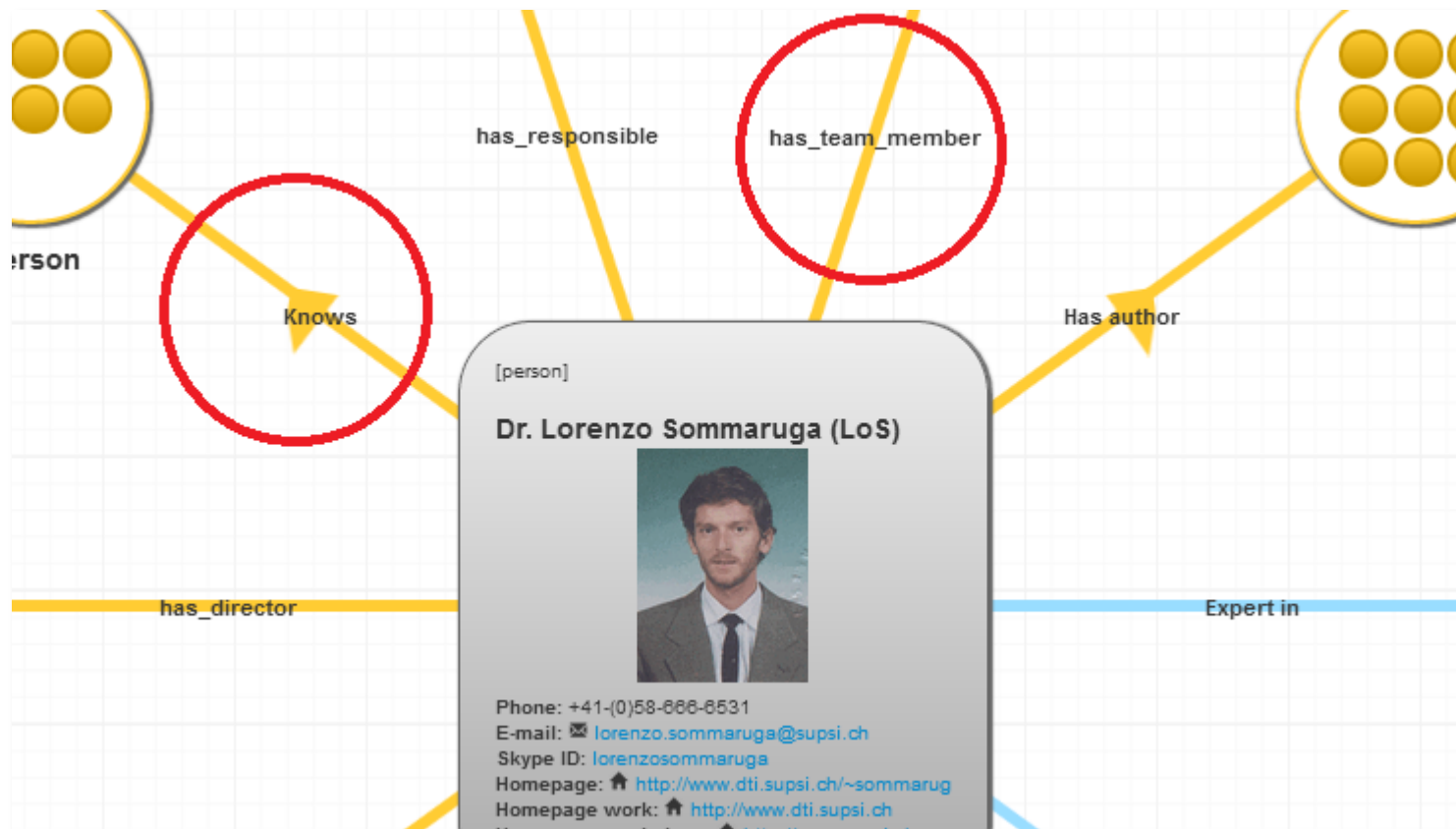
# COMPATIBILITÀ

## Firefox



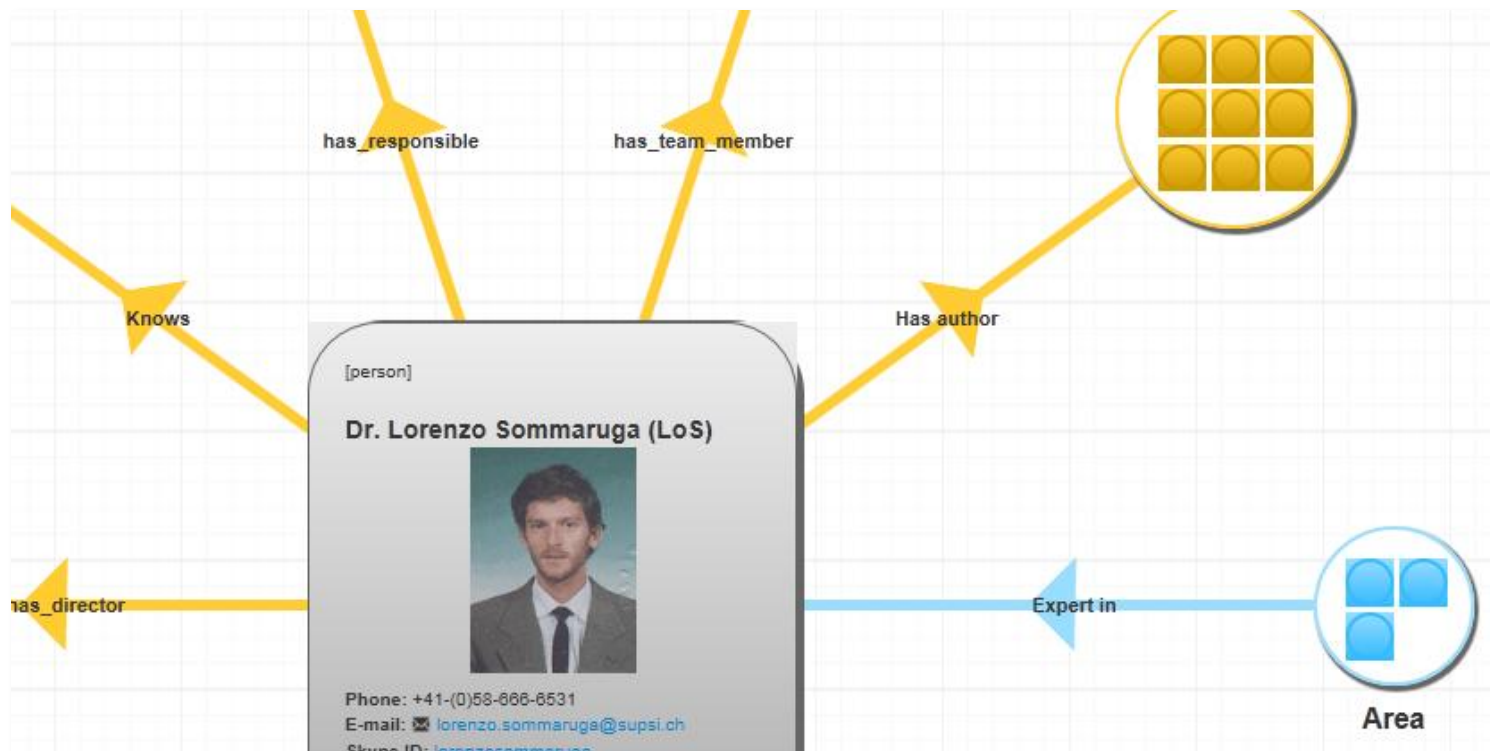
# COMPATIBILITÀ

## Chrome (18) sotto Windows 7



# COMPATIBILITÀ

## Internet Explorer 9

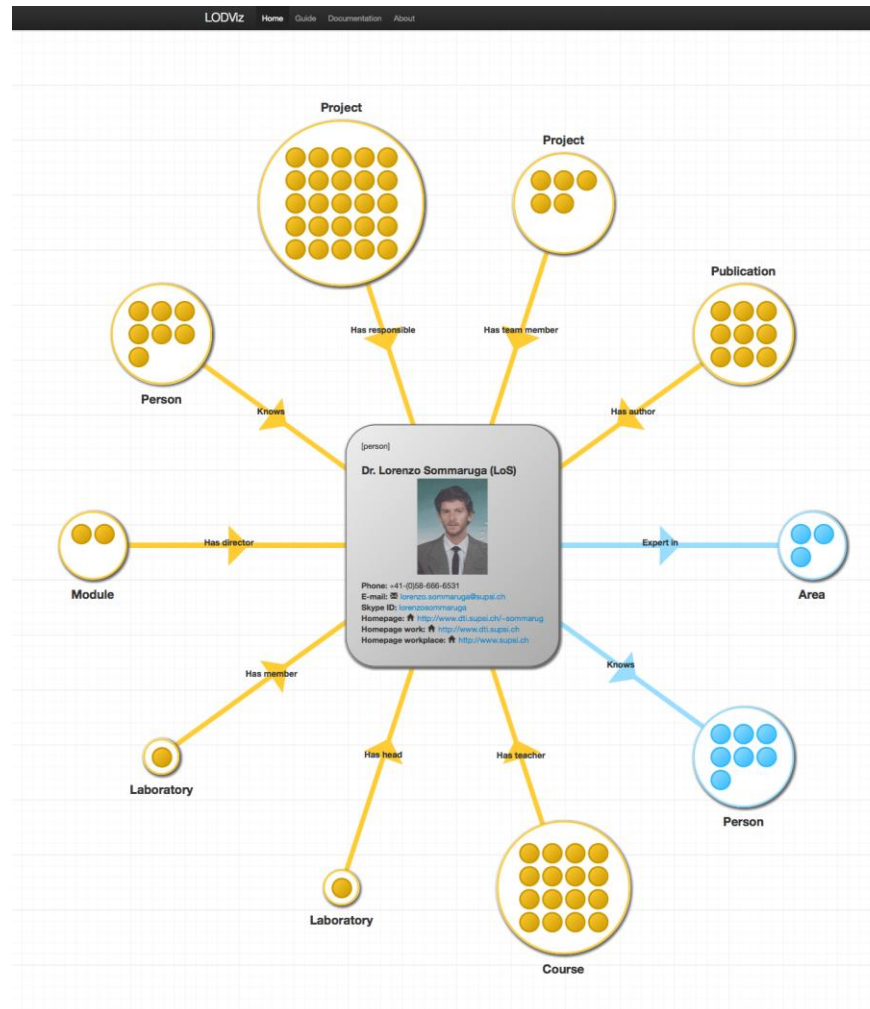


The left side of the slide features a series of vertical stripes in various shades of blue, ranging from light to dark. Overlaid on these stripes are several circles of different sizes, also in shades of blue. One circle is particularly large and prominent, while others are smaller and scattered around it.

# DEMO

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# DEMO



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# CONCLUSIONI

# CONCLUSIONI

- Obiettivi raggiunti
- Studio e analisi con elementi di ingegneria software 3
- Problemi riscontrati
  - Tempo studio linguaggio impegnativo
- Sviluppi futuri
  - Indipendenza dati progetto Brick
  - Miglioramento compatibilità browser
  - Maggiore modularità



The left side of the slide features a series of vertical stripes in various shades of blue and white. Overlaid on these stripes are several blue circles of different sizes. One circle contains the number 33.

# DOMANDE

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