

# RDFa for structured data in HTML.

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Online Courses : <http://www.jarrar.info/courses>

Thanks to Anton Deik for helping me preparing this lecture

# RDFa

## for structured data in HTML



**Part 1: Why RDFa**

Part 2: RDFa Basics

Part 3: RDFa Tools

Part 4: Practical Session

Part 5: RDFa Project

# Motivation

- Bridges the gap between the Web of Documents and the Web of Data (Web 3.0).
- Makes web pages structured data (by embedding RDF triples inside HTML).
  - i.e., using RDFa we build small RDF graphs and embed them inside HTML pages.

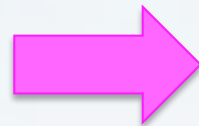
# Motivation

- As stated by Google Webmasters guide, RDFa can be roughly viewed as a way to label content to describe a specific type of information, such as a restaurant review, an event, a person, or a product listing.
- RDFa is heavily for declaring structured data inside webpages so that search engines can understand its content.
- Very important for search engine optimization

# RDFa

## for structured data in HTML

Part 1: Why RDFa



**Part 2: RDFa Basics**

Part 3: RDFa Tools

Part 4: Practical Session

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# RDFa Basics

- Each entity has a number of **properties**. For example, a Person has the properties name, address, job title, company, and email address.
- In general, **RDFa uses simple attributes in HTML tags** (often `<span>` or `<div>`) to assign brief and descriptive names to entities and properties.

# RDFa by Example

Consider this HTML block:

```
<div>
```

```
My name is George Mousa. My friends call me Geno. I live in  
Nablus, Palestine. I work as an engineer at Birzeit  
University.
```

```
</div>
```

Annotate the HTML block above with RDFa:

```
<div xmlns:v="http://rdf.data-vocabulary.org/#"  
typeof="v:Person">
```

```
My name is <span property="v:name"> George Mousa </span>.  
My friends call me <span property="v:nickname"> Geno </span>.  
I live in Nablus, Palestine.  
I work as an engineer at <span property="v:affiliation">  
Birzeit University </span>.
```

```
</div>
```



# RDFa by Example

```
<div xmlns:v="http://rdf.data-vocabulary.org/#" typeof="v:Person">
  My name is <span property="v:name"> George Mousa </span>.
  My friends call me <span property="v:nickname"> Geno </span>.
  I live in Nablus, Palestine.
  I work as an engineer at <span property="v:affiliation"> Birzeit University
  </span>.
</div>
```

- The example begins with a namespace declaration using `xmlns`. This indicates the namespace where the vocabulary is specified.
- Also on the first line, `typeof="v:Person"` indicates that the marked-up content represents a Person.
- Each property of the person (such as the name and nickname) is labeled using `property`.
- To indicate a URL, use `rel` instead of `property`. Consider adding the following to our example inside the Person div

```
My home page is: <a href="http://www.example.com"
rel="v:url"> www.example.com </a>.
```

- "`rel`" is used to convey the relationship between two entities—in this case, a Person entity and a webpage entity.

# RDFa by Example

In our example, we are addressing information about George Mousa.

```
<div> ... I live in Nablus, Palestine. I work as an engineer ... </div>
```

We use nesting. Nesting is when one information type includes the other.

In this case, we want to include George's Address information (typeof="v:Address" ) in the typeof="v:Person" entity.

Here, we use `rel` to indicate a relationship between George (the entity `v:Person`) and his address (the entity `v:Address`).

```
<div xmlns:v="http://rdf.data-vocabulary.org/#" typeof="v:Person">
```

```
My name is <span property="v:name"> George Mousa </span>.
```

```
My friends call me <span property="v:nickname"> Geno </span>.
```

```
I live in
```

```
<span rel="v:Address">
```

```
  <span typeof="v:Address">
```

```
    <span property="v:city">Nablus</span> ,
```

```
    <span property="v:country">Palestine</span>
```

```
  </span>
```

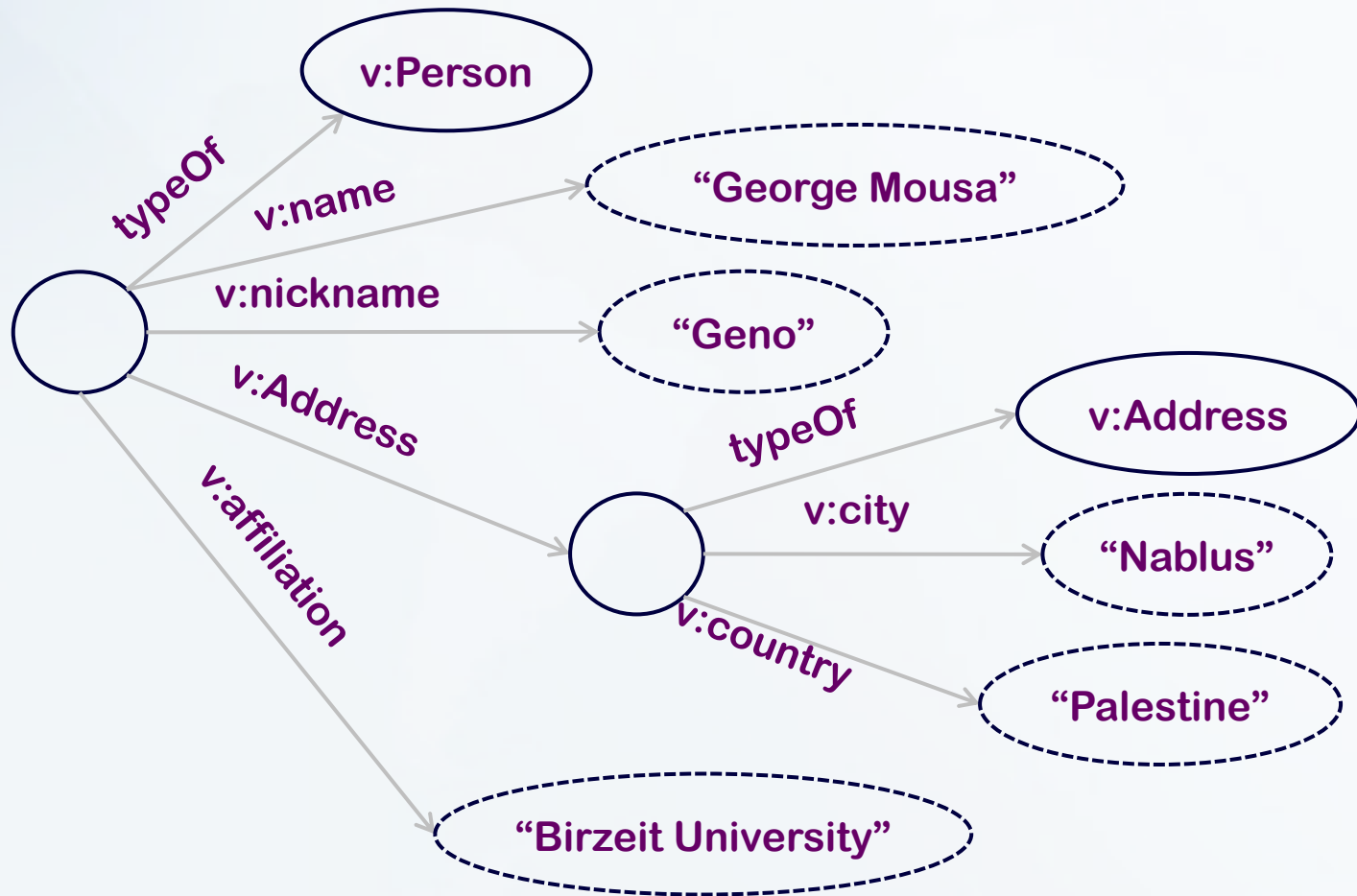
```
</span>.
```

```
I work as an engineer at <span property="v:affiliation"> Birzeit University </span>.
```

```
</div>
```

# RDFa by Example

Let's draw a graph of our example!



# RDFa Example (my publications page)



## Dr. Mustafa Jarrar

Associate Professor  
Director of Sina Institute, at Bizzati University  
Director of The Palestinian E-Government Academy.

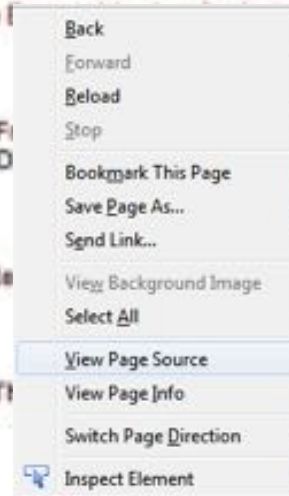


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By Topic( Data Mashups And Pipes , Semantic Web, Ontology Engineering, Reasoning, Business Rules, Object-Role Modeling, Verbalization, Lexical Semantics )  
Citations > 1000, H-index > 18, (excluding self-citations, in Feb 2011)

### Refereed Articles

#### 2011

- Mustafa Jarrar: Building A Formal Arabic Ontology (Invited Paper) . In proceedings of the ( Alecco, Arab League. Tunis, July 26-28, 2011.  
[Abstract](#) - [Bibtex](#) - [Discussion](#) - [Cited By](#) - [ArabicOntologyProject](#) - [Slides](#)
- Mustafa Jarrar, Anton Deik, Bilal Faraj: Ontology-Based Data And Process Governance For Palestine. In pre-proceedings of the IFIP International Symposium on Data-Driven Process D 978-88-903120-2-1. Campione, Italy. June 30, 2011.  
[Abstract](#) - [Bibtex](#) - [Discussion](#) - [Cited By](#) - [ZinnarProject](#) - [Slides](#)
- Gianluca Elia, Mustafa Jarrar: Guest Editorial: Knowledge Management And E-Human Res Knowledge and Learning (UKL). Inderscience Publishers. (To Appear).  
[Abstract](#) - [Bibtex](#) - [Discussion](#) - [Cited By](#)
- Paolo Ceravolo, Chengfei Liu, Mustafa Jarrar, Kai-Uwe Sattler: Guest Editorial: Querying Th On The Web.. The World Wide Web Journal. Springer. August 2011. ISSN:1573-1413.  
[Abstract](#) - [Bibtex](#) - [Discussion](#) - [Cited By](#) - [More](#)



#### 2010

# RDFa Example (my publications page)

```
<div id="block-J11-412" style="display: none" class="BitText"> <a href="#" onclick="toggle_visibility('block-J11-412');" class="style17">closed
  <article:open property="dc:hasPart">J114/open, </>
  <author><open rel="dc:hasAuthor">
    <open typeof="foaf:Person" href="http://dlp.ils.ub.ac.id/page/authors/Mustafa_Jarrar" property="foaf:name">Mustafa Jarrar/open>
  </>
  <title><open property="dc:hasTitle">Building a Formal Arabic Ontology (Invited Paper)</open></>
  <booktitle><open property="dc:hasBookTitle">Proceedings of the Expert Meeting on Arabic Ontologies and Semantic Networks/open></>
  <year><open property="dc:hasYear">2011/open></>
  <month><open property="dc:hasMonth">7/open></>
  <publisher><rel="dc:hasPublisher" href="http://www.sisaco.org.sa">Albayan Arab League/open></>
  <location><open property="dc:hasLocation">Doha/open></>
  <url><rel="dc:hasURL" href="http://www.jarrar.info/publications/J114/open">http://www.jarrar.info/publications/J114/open/</>
</div>
</div></div>
</div>
<div
  <div typeof="dc:isproceedings" href="http://www.jarrar.info/publications/J114">
    <a id="J114" ></a> Mustafa Jarrar, Avion Dalk, Bilal Faraj; <a href="#" onclick="toggle_visibility('block-J114');" class="ArticleTitle"> C
    <open class="Article-Item">
      <a href="J114.pdf" ></a> </a><open style="margin-left: 10px; margin-right: 10px;">
      <a href="#" onclick="toggle_visibility('block-J114');" class="ArticleMenuItems">Abstract</a><open style="margin-left: 10px; margin-right: 10px;">
      <a href="#" onclick="toggle_visibility('block-J114-412');" class="ArticleMenuItems"> BIBTEX</a><open style="margin-left: 10px; margin-right: 10px;">
      <a href="http://jarrar-publications.blogspot.com/2011/08/ontology-based-data-and-process.html" class="ArticleMenuItems">Discussion</a>
      <a href="http://scholar.google.com/citations?user=J114&hl=en" class="ArticleMenuItems">Cited by</a>
      <a href="http://www.gsa.gov" class="ArticleMenuItems">GSA Project</a><open style="margin-left: 10px; margin-right: 10px;"></open>
      <a href="http://www.fishbase.org/jarrar/ontology-based-data-and-process-governance-2011-08" class="ArticleMenuItems">GSA Project</a>
    </open>
  </div>
  <div class="Abstract" id="block-J114" style="display: none" > <a href="#" onclick="toggle_visibility('block-J114');" class="style17">closed/
  <strong></strong></div><open property="dc:hasAbstract"> The major challenge when integrating information systems in any domain is
  <strong></strong></div><open property="dc:hasKeywords"> Interoperability, Data Integration, e-Government, Ontology, Data Govern
  </div>
  <div id="block-J114-412" style="display: none" class="BitText"> <a href="#" onclick="toggle_visibility('block-J114-412');" class="style17">cl
  <article:open property="dc:hasPart">J114b/open, </>
  <author><open rel="dc:hasAuthor">
    <open typeof="foaf:Person" href="http://dlp.ils.ub.ac.id/page/authors/Mustafa_Jarrar" property="foaf:name">Mustafa Jarrar/open> and
    <open typeof="foaf:Person" href="http://dlp.ils.ub.ac.id/page/authors/Avion_Dalk" property="foaf:name">Avion Dalk/open> and
  </>
  <title><open property="dc:hasTitle">Building a Formal Arabic Ontology (Invited Paper)</open></>
  <booktitle><open property="dc:hasBookTitle">Proceedings of the Expert Meeting on Arabic Ontologies and Semantic Networks/open></>
  <year><open property="dc:hasYear">2011/open></>
  <month><open property="dc:hasMonth">7/open></>
  <publisher><rel="dc:hasPublisher" href="http://www.sisaco.org.sa">Albayan Arab League/open></>
  <location><open property="dc:hasLocation">Doha/open></>
  <url><rel="dc:hasURL" href="http://www.jarrar.info/publications/J114b/open">http://www.jarrar.info/publications/J114b/open/</>
</div>
</div></div>
</div>
```



# Jobs.ps Use Case

Suppose webpages announcing job offers are written in RDFa, then [www.jobs.ps](http://www.jobs.ps) can crawl this data automatically.

The screenshot shows the Jobs.ps website interface. At the top, there is a banner with Arabic text: "نجمع ما فرقته الحدود" (We gather what separates the borders). Below the banner is a navigation menu with options like "الرئيسية" (Home), "ابحث عن وظيفة" (Search for a job), "ابحث عن عمل" (Search for work), "حجك سيرتك الذاتية" (Your resume), "صاحب عمل" (Employer), and "اعلن عن وظيفة" (Post a job). The main content area displays a list of job offers with columns for ID, location, title, and date. Some job titles include "M&E & Training Coordinator", "موظف جوازات السفر", "مستشار في المساعدة القانونية", "Career Guidance Supervisor", "موظف منسق البرامج", "Consultant", "NSET Operational Manager", "موظف برنامج التدريب", and "Programme Director". Logos for USAID, Mercy Corps, and Canada are visible on the right side of the job listings.

This screenshot shows the search form on the Jobs.ps website. It includes a search bar with the text "ابحث عن وظيفة" (Search for a job) and a "ابحث" (Search) button. There are also dropdown menus for "الوظائف" (Jobs) and "البلد" (Country). The form is set against a blue background with a header image of a building.

Page 1

This screenshot is identical to the one above, showing the search form on the Jobs.ps website with the search bar, buttons, and dropdown menus.

Page n

# RDFa

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 **Part 3: RDFa Tools**

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# W3C RDFa Distiller

You may extract the RDFa from a website using this tool



The screenshot shows the W3C Semantic Web RDFa 1.1 Distiller and Parser interface. At the top left is the W3C Semantic Web logo. Below it is the title "W3C RDFa 1.1 Distiller and Parser". A warning message states: "Warning: This version implements [RDFa 1.1 Core](#), including the handling of the [Role Attribute](#). The distiller can also run in XHTML+RDFa 1.0 mode (if the incoming XHTML content uses the RDFa 1.0 DTD and/or sets the `version` attribute). The [package available for download](#), although it may be slightly out of sync with the code running this service." Below the warning are three tabs: "Distill by URI" (selected), "Distill by File Upload", and "Distill by Direct Text Input". Under the "Distill by URI" tab, there is a label "URI:" followed by an empty text input field.

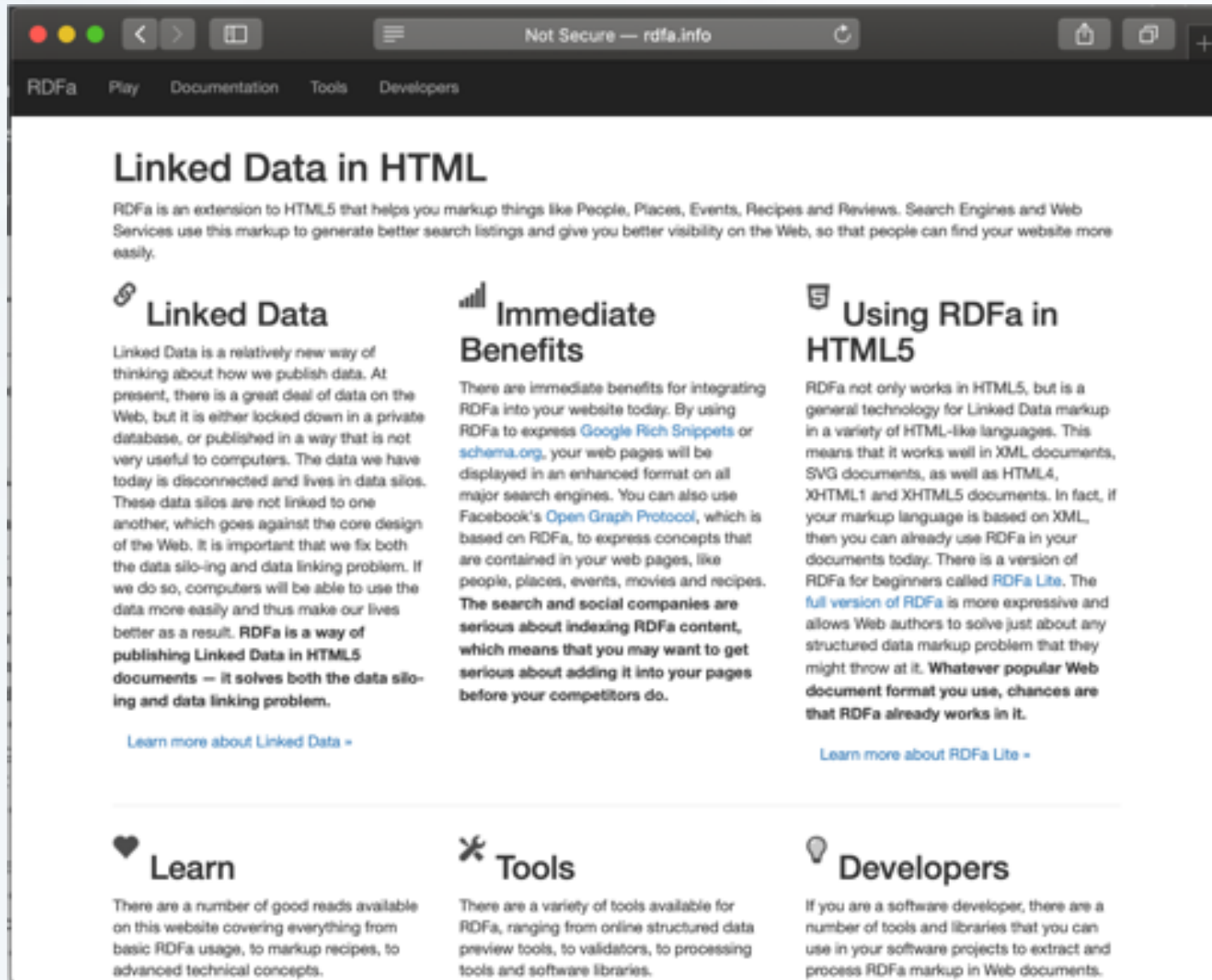


# RDFa Community Wiki

See more

- Tools
- Examples
- tutorials

<http://rdfa.info>



The screenshot shows a web browser window with the address bar displaying "Not Secure — rdfa.info". The website has a navigation menu with "RDFa", "Play", "Documentation", "Tools", and "Developers". The main content area is titled "Linked Data in HTML" and contains three columns of text. The first column, "Linked Data", explains that RDFa is an extension to HTML5 that helps markup things like People, Places, Events, Recipes and Reviews. The second column, "Immediate Benefits", states that there are immediate benefits for integrating RDFa into your website today. The third column, "Using RDFa in HTML5", notes that RDFa not only works in HTML5, but is a general technology for Linked Data markup. Below the main content, there are three sections: "Learn", "Tools", and "Developers", each with a brief description of the resources available.

RDFa is an extension to HTML5 that helps you markup things like People, Places, Events, Recipes and Reviews. Search Engines and Web Services use this markup to generate better search listings and give you better visibility on the Web, so that people can find your website more easily.

## Linked Data

Linked Data is a relatively new way of thinking about how we publish data. At present, there is a great deal of data on the Web, but it is either locked down in a private database, or published in a way that is not very useful to computers. The data we have today is disconnected and lives in data silos. These data silos are not linked to one another, which goes against the core design of the Web. It is important that we fix both the data silo-ing and data linking problem. If we do so, computers will be able to use the data more easily and thus make our lives better as a result. **RDFa is a way of publishing Linked Data in HTML5 documents — it solves both the data silo-ing and data linking problem.**

[Learn more about Linked Data -](#)

## Immediate Benefits

There are immediate benefits for integrating RDFa into your website today. By using RDFa to express [Google Rich Snippets](#) or [schema.org](#), your web pages will be displayed in an enhanced format on all major search engines. You can also use Facebook's [Open Graph Protocol](#), which is based on RDFa, to express concepts that are contained in your web pages, like people, places, events, movies and recipes. **The search and social companies are serious about indexing RDFa content, which means that you may want to get serious about adding it into your pages before your competitors do.**

## Using RDFa in HTML5

RDFa not only works in HTML5, but is a general technology for Linked Data markup in a variety of HTML-like languages. This means that it works well in XML documents, SVG documents, as well as HTML4, XHTML1 and XHTML5 documents. In fact, if your markup language is based on XML, then you can already use RDFa in your documents today. There is a version of RDFa for beginners called [RDFa Lite](#). The [full version of RDFa](#) is more expressive and allows Web authors to solve just about any structured data markup problem that they might throw at it. **Whatever popular Web document format you use, chances are that RDFa already works in it.**

[Learn more about RDFa Lite -](#)

## Learn

There are a number of good reads available on this website covering everything from basic RDFa usage, to markup recipes, to advanced technical concepts.

## Tools

There are a variety of tools available for RDFa, ranging from online structured data preview tools, to validators, to processing tools and software libraries.

## Developers

If you are a software developer, there are a number of tools and libraries that you can use in your software projects to extract and process RDFa markup in Web documents.

# RDFa using Schema.org

Instead of using ontologies, many people currently use the vocabularies provided by schema.org to write RDFa

See example 3 at <https://schema.org/Person>

```
An example of an order for multiple items, shipped separately.  
ACME Supplies  
Customer: Jane Doe  
Order:  
  Item abc123: 1 Widget: delivered 2015-03-10  
  Item def456: 3 Widget accessories: shipped 2015-03-12
```

```
<div vocab="http://schema.org/" typeof="Order">  
  <div property="seller" typeof="Organization">  
    <b property="name">ACME Supplies</b>  
  </div>  
  <div property="customer" typeof="Person">  
    <b property="name">Jane Doe</b>  
  </div>  
  <div property="orderedItem" typeof="OrderItem">  
    Item number: <span property="orderItemNumber">abc123</span>  
    <span property="orderQuantity">1</span>  
    <div property="orderedItem" typeof="Product">
```

# RDFa

## for structured data in HTML

Part 1: Why RDFa

Part 2: RDFa Basics

Part 3: RDFa Tools

 **Part 4: Practical Session**

Part 5: RDFa Project

# Description

Given two HTML files, [people.html](#) and [projects.html](#), each student must embed both documents with RDFa. Consider the following when doing the exercise:

- Both documents are validated HTML documents. We have validated them using the standard W3C Validator: <http://validator.w3.org/>
- Students must use standard known ontologies when annotating the documents, such as FOAF, Dublin Core, etc.
- Students must validate their work using the standard W3C validator.
- Each student must expect to present and discuss his/her work at class.
- Final delivery must include links of the two RDFa-annotated documents.

# Projects.html

Copy and Paste this code into Notepad++

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" lang="en">
<head>
<title>Sina Institute - Projects</title>
</head>
<body>
<div id="box" style="text-align: center;"><strong><span class="largeFontSpan">[ </span><a title="Projects" href="#Active-Projects"><span class="largeFontSpan">Active Projects</span></a> | <a title="Past Projects" href="#Past-Projects">
<span class="largeFontSpan">Past Projects</span></a><span style="color: #ffffff;"> </span></a><span class="largeFontSpan"> ]</span></strong></div>
<h1 id="Active-Projects">Active Projects</h1>
<table style="height: 786px;" width="475">
<tbody>
<tr>
<td></td>
<td style="vertical-align: middle;"><strong>GovSeer - Interoperability of e-Governmental Services</strong>
Page:<span><a href="http://sites.birzeit.edu/comp/GovSeer/">http://sites.birzeit.edu/comp/GovSeer/</a></span></td>
</tr>
<tr>
<td></td>
<td style="vertical-align: middle;"><strong>PalGov - e-Government Lifelong Learning Consortium</strong>
Page:<span><a href="http://sites.birzeit.edu/comp/PalGov/">http://sites.birzeit.edu/comp/PalGov/</a></span></td>
</tr>
<tr>
<td></td>
<td style="vertical-align: middle;"><strong>Arabic Ontology</strong>
Page:<span><a href="http://sites.birzeit.edu/comp/ArabicOntology/">http://sites.birzeit.edu/comp/ArabicOntology/</a></span></td>
</tr>
<tr>
<td></td>
<td style="vertical-align: middle;"><strong>Wojood</strong>
Page:<span><a href="http://localhost/sina/wojood/" target="_blank">http://localhost/sina/wojood/</a></td>
</tr>
<tr>
<td></td>
<td style="vertical-align: middle;"><strong>A Suite of Automated Tools for Efficient Management and Search in Web-based Arabic Documents</strong>
Page:<span><a href="http://localhost/sina/SATEMSAD/">http://localhost/sina/SATEMSAD/</a></span></td>
</tr>
<tr>
<td></td>
<td style="vertical-align: middle;"><strong>MashQL: A novel approach for querying the Data Web</strong>
Page:<span><a href="http://sites.birzeit.edu/comp/mashql/">http://sites.birzeit.edu/comp/mashql/</a></span></td>
</tr>
<tr>
<td></td>
<td style="vertical-align: middle;"><strong>Mobile Information Technology for the Visually Impaired</strong>
Page:<span><a href="http://localhost/sina/MITVI/" target="_blank">http://localhost/sina/MITVI/</a></span></td>
</tr>
</tbody>
</table>
<br class="spacer" />
<h1 id="Past-Projects">Past Projects</h1>
<table style="height: 86px;" width="473">
<tbody>
<tr>
<td></td>
<td style="vertical-align: middle;"><strong>Model Generation for Selected Applications</strong>
Page:<span><a href="http://localhost/sina/ModelGeneration/" target="_blank">http://localhost/sina/ModelGeneration/</a></span></td>
</tr>
</tbody>
</table>
```

# People.html

Copy and Paste this code into Notepad++

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" lang="en">
<head>
<title>Sina Institute - People</title>
</head>
<body>
<div id="box" style="text-align: center;"><strong><span class="largeFontSpan">[ </span><a title="Current Members" href="#Current"><span class="largeFontSpan">Current Members</span></a> |
<a title="Collaborators" href="#Collaborators"><span class="largeFontSpan">Collaborators</span></a> | <a title="Former Members" href="#Former"><span class="largeFontSpan">Former Members</span></a>
<span class="largeFontSpan"> ]</span></strong></div>
<h1 id="Current">Current Members</h1>
<table style="height: 149px;" width="617">
<tbody>
<tr>
<td style="vertical-align: middle; width: 109px; height: 160px;"></td>
<td style="text-align: left; margin: 0px 0px 0px 0px; vertical-align: middle;" width="220" height="160"><strong>Dr. Mustafa Jarrar</strong>
<em>OnTo Group Director</em>
<a href="mailto:mjarrar@birzeit.edu">mjarrar@birzeit.edu </a>
<a href="http://localhost/sina/mjarrar/" target="_blank">localhost/sina/mjarrar/</a></td>
<td style="vertical-align: middle; width: 130px; height: 160px;"></td>
<td style="text-align: left; margin: 0px 0px 0px 0px; vertical-align: middle;" width="220" height="160"><strong>Dr. Adnan Yahya</strong>
<em>ALTIR Group Director</em>
<a href="mailto:yahya@birzeit.edu">yahya@birzeit.edu </a>
<a href="http://localhost/sina/ayahya/" target="_blank">localhost/sina/ayahya/</a></td>
</tr>
</tbody>
</table>
<!-- ***** _-->
<table style="height: 147px;" width="603">
<tbody>
<tr>
<td style="vertical-align: middle; width: 220px; height: 160px;"><strong>Secretary</strong>:
Rawan Taha
<a href="mailto:rntaha@birzeit.edu">rntaha@birzeit.edu </a>
Tel: +972 2 2982917</td>
<td style="text-align: left; margin: 0px 0px 0px 0px; vertical-align: middle;" width="130" height="160"></td>
<td style="vertical-align: middle; width: 130px; height: 160px;"></td>
<td style="text-align: left; margin: 0px 0px 0px 0px; vertical-align: middle;" width="220" height="160"></td>
</tr>
</tbody>
</table>
<!-- ***** _-->
<hr /><!-- ***** _-->
<table style="height: 149px;" width="617">
<tbody>
<tr>
<td style="vertical-align: middle; width: 130px; height: 160px;"></td>
<td style="text-align: left; margin: 0px 0px 0px 0px; vertical-align: middle;" width="220" height="160">Majd Al-Ashhab
<a href="mailto:mashhab@birzeit.edu">mashhab@birzeit.edu </a>
<a href="http://localhost/sina/mashhab/">localhost/sina/mashhab/</a></td>
<td style="vertical-align: middle; width: 130px; height: 160px;"></td>
<td style="text-align: left; margin: 0px 0px 0px 0px; vertical-align: middle;" width="220" height="160">Ali Salhi
<a href="mailto:asalhi@birzeit.edu">asalhi@birzeit.edu </a>
<a href="http://localhost/sina/asalhi/">localhost/sina/asalhi/</a></td>
</tr>
</tbody>
</table>
```

# People.html – continued

Copy and Paste this code into Notepad++

```
<!-- ***** -->
<table style="height: 149px; width: 617">
<tbody>
<tr>
<td style="vertical-align: middle; width: 130px; height: 160px;"></td>
<td style="text-align: left; margin: 0px 0px 0px 0px; vertical-align: middle;" width="220" height="160">Anton Deik
<a href="mailto:anton.deik@gmail.com">anton.deik@gmail.com</a>
<a href="http://localhost/sina/adeik/">localhost/sina/adeik/</a></td>
<td style="vertical-align: middle; width: 130px; height: 160px;"></td>
<td style="text-align: left; margin: 0px 0px 0px 0px; vertical-align: middle;" width="220" height="160">Bilal Farraj
<a href="mailto:bfarraj@gmail.com">bfarraj@gmail.com </a>
<a href="http://localhost/sina/bfarraj/">localhost/sina/bfarraj/</a></td>
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<td style="text-align: left; margin: 0px 0px 0px 0px; vertical-align: middle;" width="220" height="160">Ala' Hawash
<a href="mailto:ala.hawash@gmail.com">ala.hawash@gmail.com</a>
<a href="http://localhost/sina/ahawash/">localhost/sina/ahawash/</a></td>
<td style="vertical-align: middle; width: 130px; height: 160px;"></td>
<td style="text-align: left; margin: 0px 0px 0px 0px; vertical-align: middle;" width="220" height="160">Rana Rishmawi
<a href="mailto:rgr.4.12@gmail.com">rgr.4.12@gmail.com </a>
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<a href="mailto:shaheen.hiba@gmail.com">shaheen.hiba@gmail.com </a>
<a href="http://localhost/sina/hshaheen/">localhost/sina/hshaheen/</a></td>
<td style="vertical-align: middle; width: 130px; height: 160px;"></td>
<td style="text-align: left; margin: 0px 0px 0px 0px; vertical-align: middle;" width="220" height="160">Rami Khaleel
<a href="mailto:ramikh@yahoo.com">ramikh@yahoo.com </a>
<a href="http://localhost/sina/rkhaleel/">localhost/sina/rkhaleel/</a></td>
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<a href="mailto:4mmelhem@gmail.com">4mmelhem@gmail.com </a>
<a href="http://localhost/sina/mmelhem/" target="_blank">localhost/sina/mmelhem/</a></td>
<td style="vertical-align: middle; width: 130px; height: 160px;"></td>
<td style="text-align: left; margin: 0px 0px 0px 0px; vertical-align: middle;" width="220" height="160">Hanya Radwan
<a href="mailto:hanya.radwan2010@gmail.com">hanya.radwan2010@gmail.com </a>
<a href="http://localhost/sina/hradwan/">localhost/sina/hradwan/</a></td>
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# People.html – continued

Copy and Paste this code into Notepad++

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<td style="text-align: left; margin: 0px 0px 0px 0px; vertical-align: middle;" width="220" height="160">Nafiz Qasim
<a href="mailto:nafizqasim@gmail.com">nafizqasim@gmail.com </a>
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<ul>
<li><a href="mailto:wfasha@birzeit.edu">Wasim Abu Fasha</a></li>
<li><a href="mailto:lshamieh@birzeit.edu ">Luna Shamieh</a></li>
<li><a href="mailto:jamal@birzeit.edu">Jamal Daher</a></li>
</ul>
<br class="spacer" />
<h1 id="Former">Former Members</h1>
<ul>
<li><a href="mailto:samara.1050074@gmail.com">Hamam Samara</a></li>
<li><a href="mailto:smr.ayesh@gmail.com">Samar Aish</a></li>
<li><a href="mailto:mrbadaw@gmail.com">Muath Badawi</a></li>
</ul>
</body>
</html>
```



# RDFa

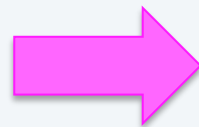
## for structured data in HTML

Part 1: Why RDFa

Part 2: RDFa Basics

Part 3: RDFa Tools

Part 4: Practical Session



**Part 5: RDFa Project**

# Project Description

**Goal:** Train students on how how to build a web page using RDFa

## **Project description:**

- Each student should a create a personal web page for him/her self using RDFa. The page should contain the following sections at least:
- Personal info such as photo, name, email, phone, address, affiliation, etc.
- Academic section, which should include at least one mark sheet.
- Each students should use his/her ontology (and more ontologies if needed) to annotate his/her web page.
- The more data elements in the page are annotated the better he mark will be. The better the generated RDF structure the better the mark will be. Students should use the W3C RDFa distiller to distil the RDF graph.

**Deliverables:** Each student will deliver report that contains the following: 1) A screenshot of his/her web page. 2) The source code of his web page, 3) a screen shot of the distilled RDF data (graph only). 4) each student will be asked to present his/her page and explain his/her RDFa tags.

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