

# A Semântica na Web e os dados estruturados no Google

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**#10kdays**

CERN DD/OC

Information Management: A Proposal

Vague but exciting ...  
Tim Berners-Lee, CERN/DD

March 1989

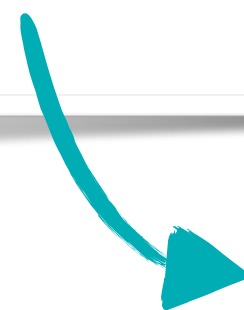
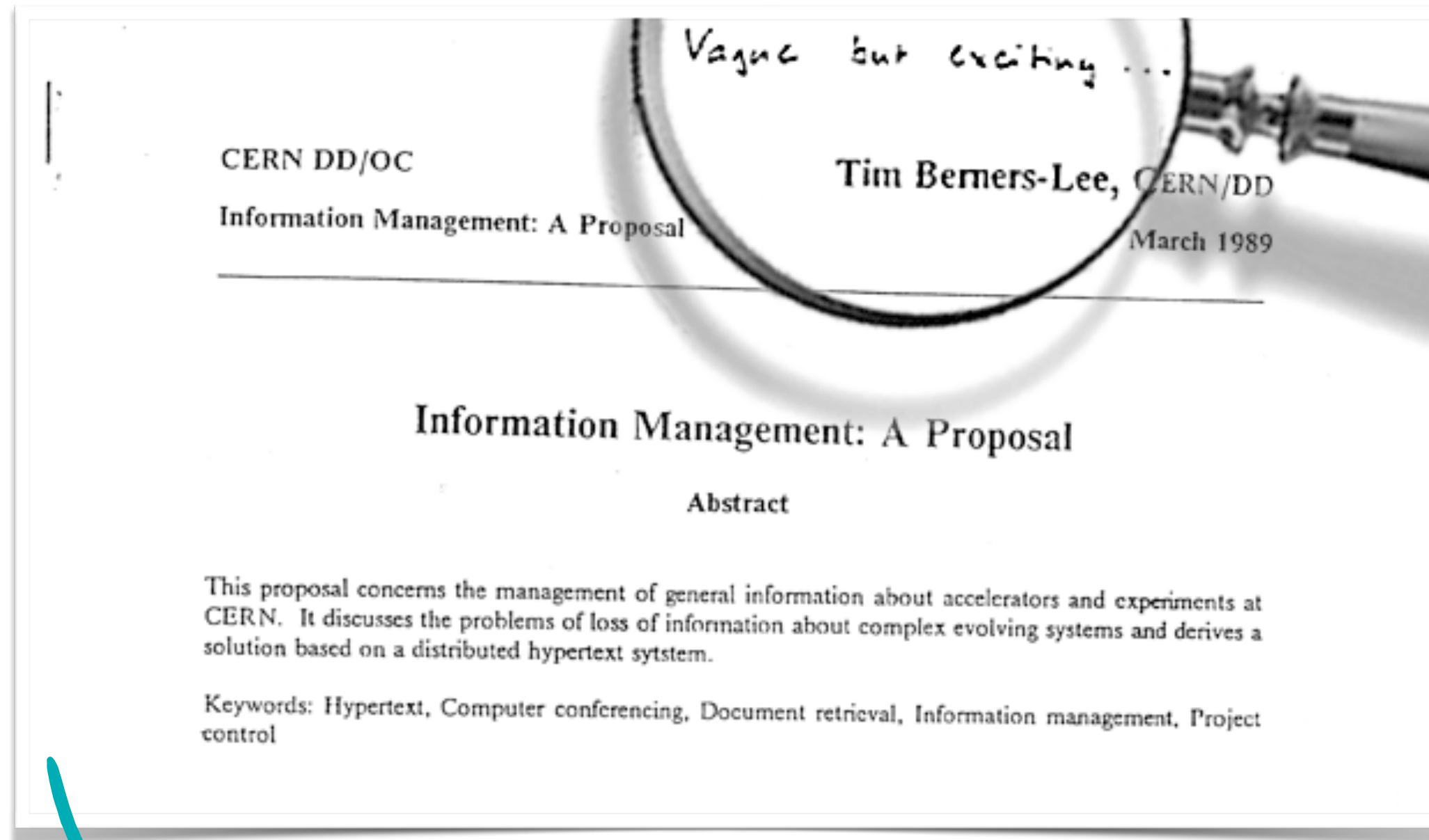
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## Information Management: A Proposal

### Abstract

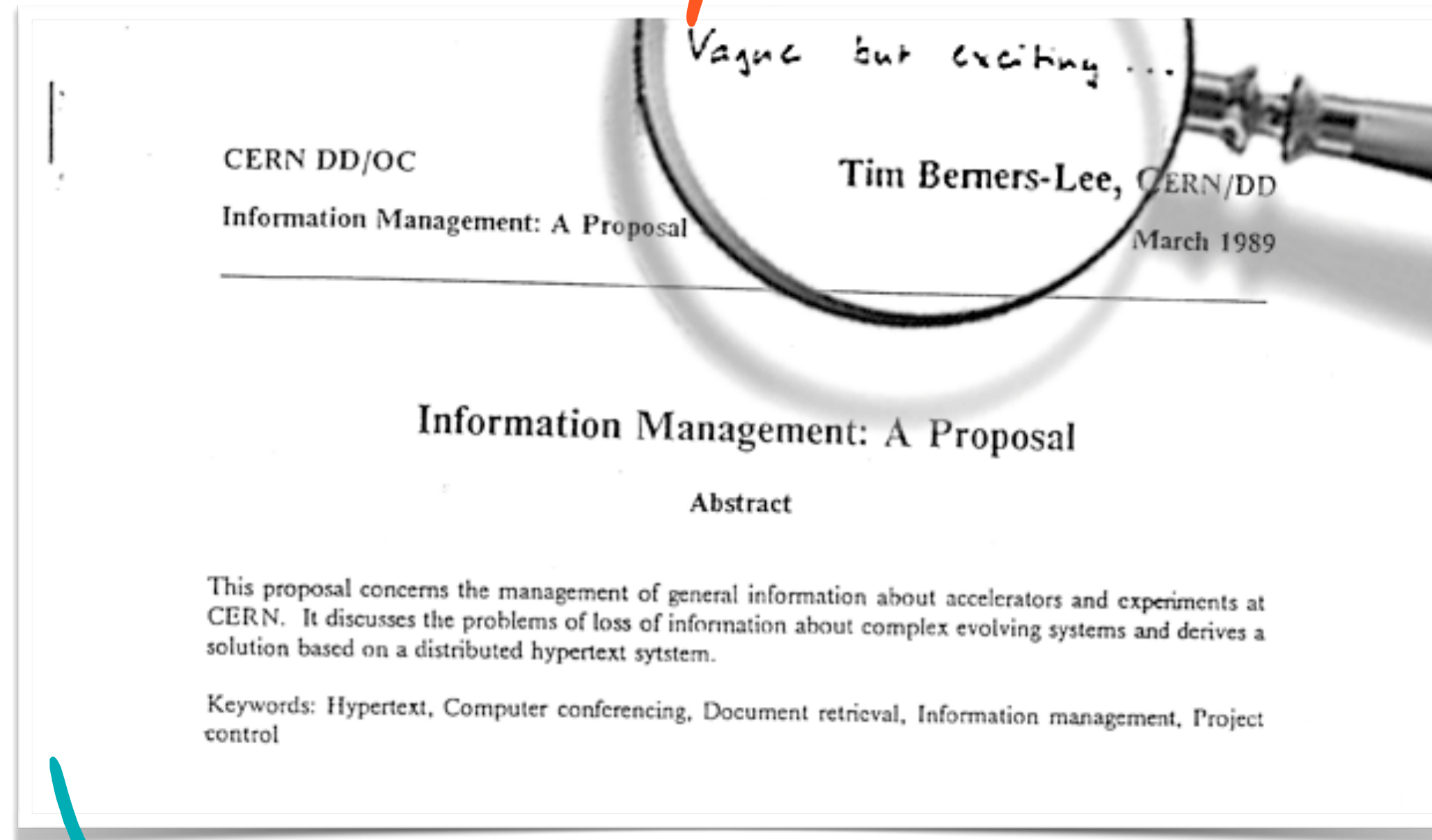
This proposal concerns the management of general information about accelerators and experiments at CERN. It discusses the problems of loss of information about complex evolving systems and derives a solution based on a distributed hypertext system.

Keywords: Hypertext, Computer conferencing, Document retrieval, Information management, Project control



**a proposta da World Wide Web**

**“vague but exciting”**



**a proposta da World Wide Web**

**Web**

*of*



**Documents**

**Data**

**Things**

# Web Semântica

Berners-Lee et. al, 2001



**HTML**



# HTML



Semântica  
na ***estrutura***

**HTML**



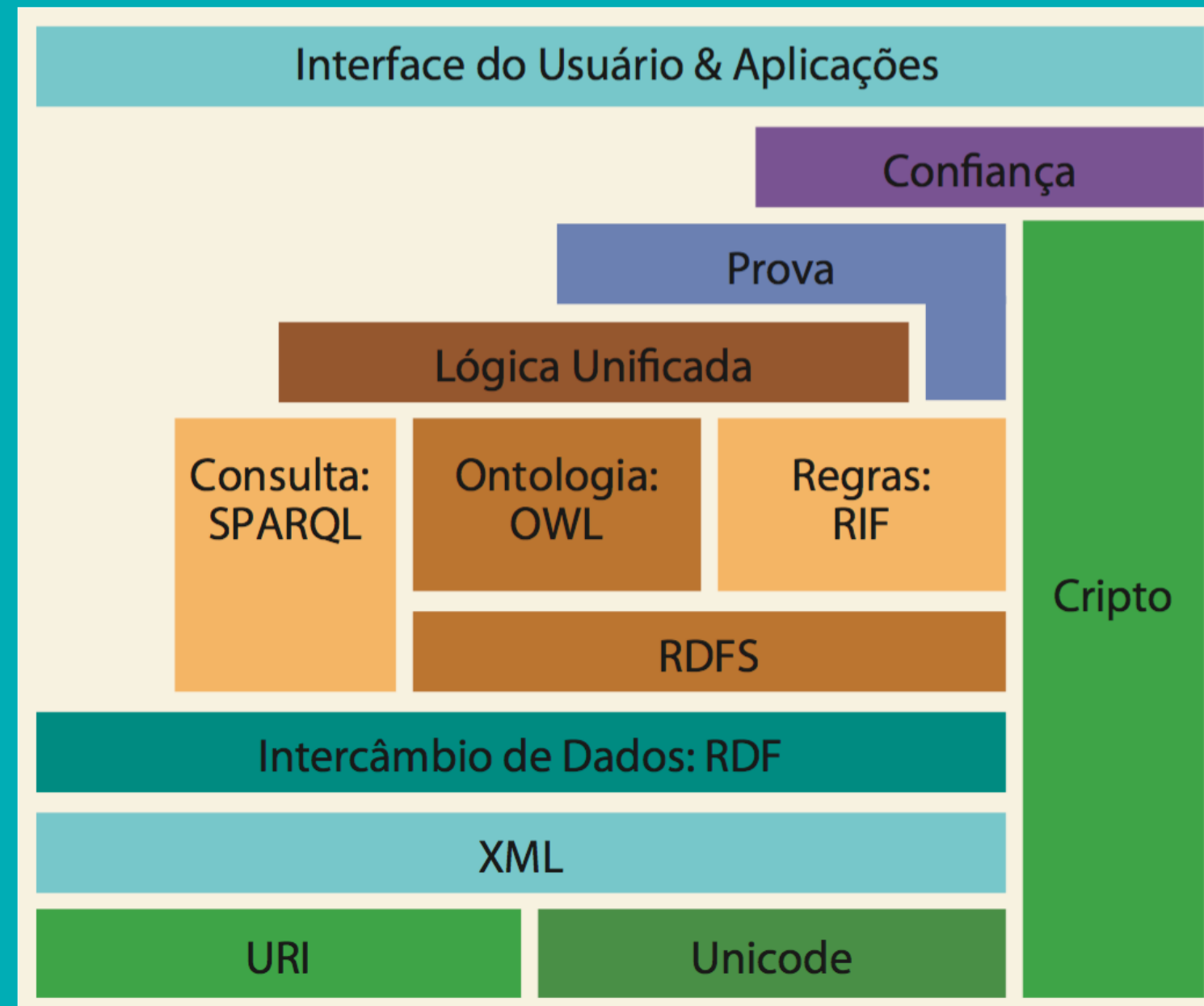
Semântica  
na **estrutura**



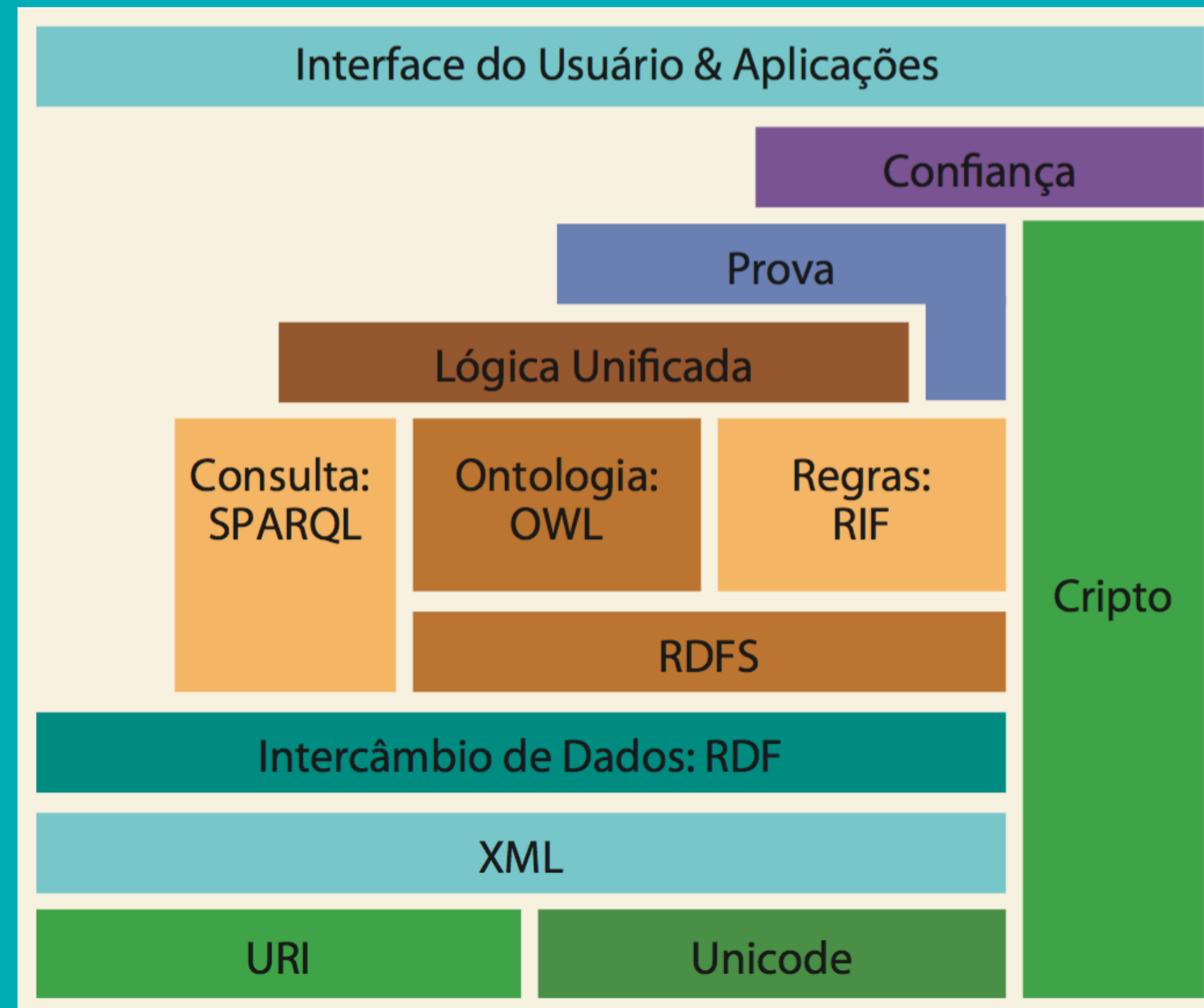
Semântica  
no **conteúdo**

**~ 10 anos**

**... para vermos grandes aplicações**



# Semantic Web Stack



# Semantic Web Stack

***Dados estruturados no Google***

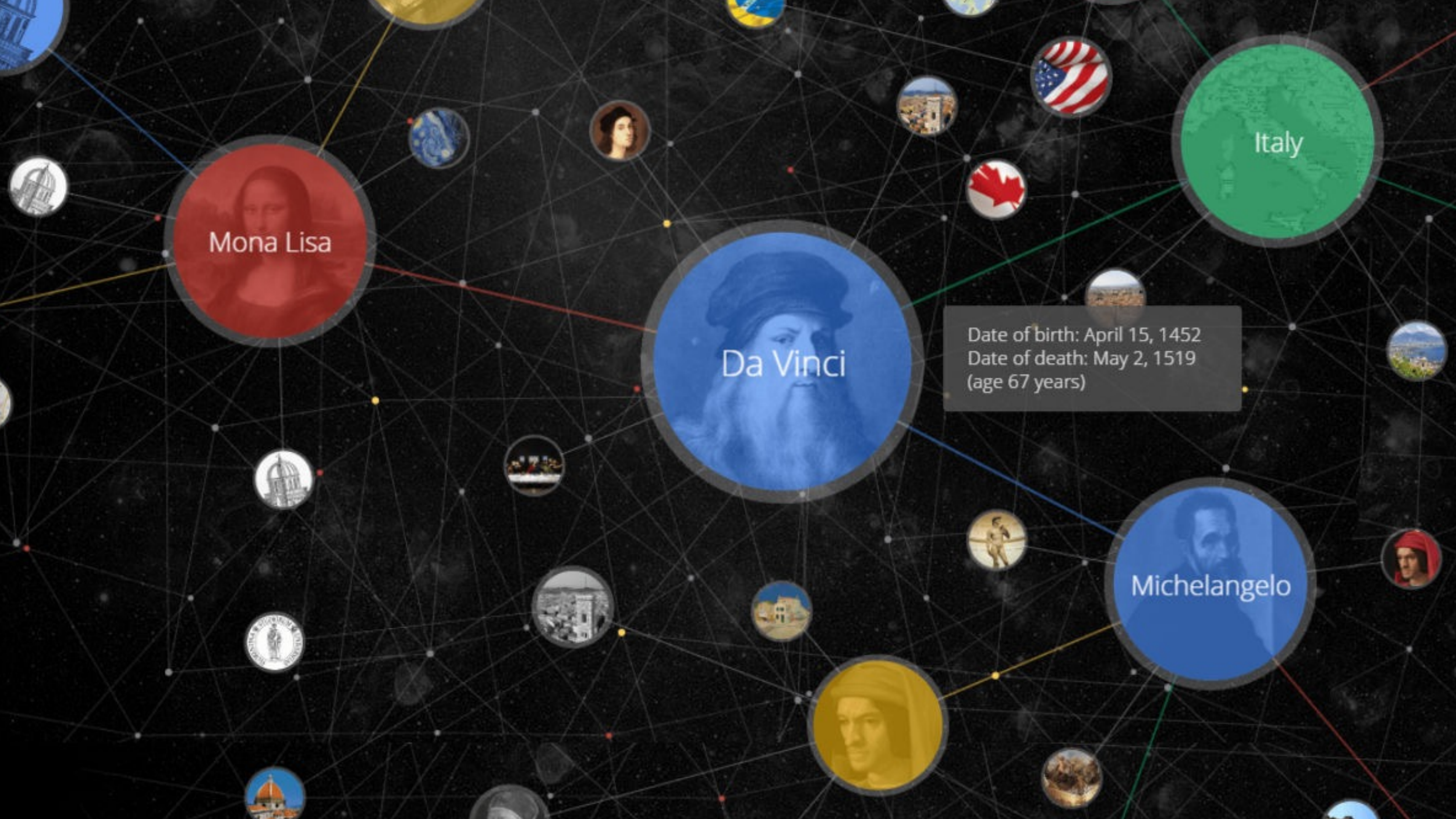
Mona Lisa

Da Vinci

Date of birth: April 15, 1452  
Date of death: May 2, 1519  
(age 67 years)

Italy

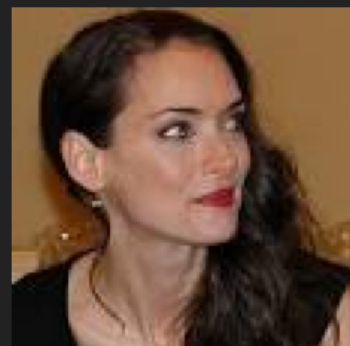
Michelangelo



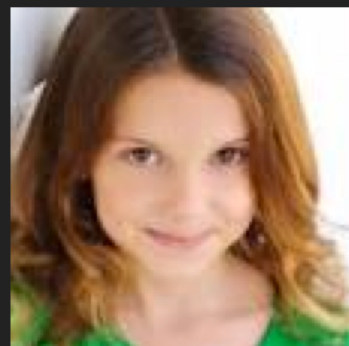




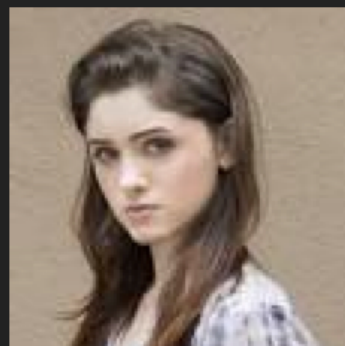
## Stranger Things / Elenco



Winona Ryder  
Joyce



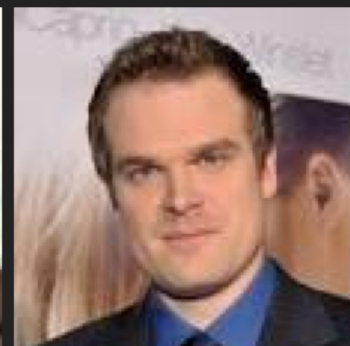
Millie Brown  
Eleven



Natalia Dyer  
Nancy



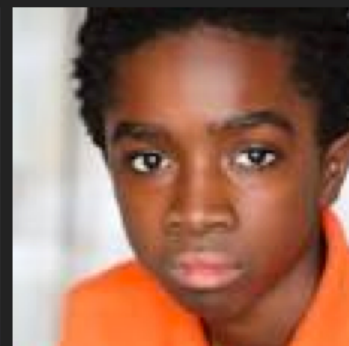
Charlie Heaton  
Jonathan



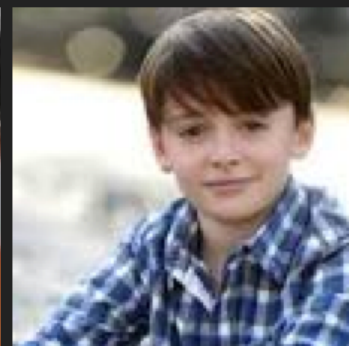
David Harbour  
Chief Hopper



Gaten Matarazzo  
Dustin



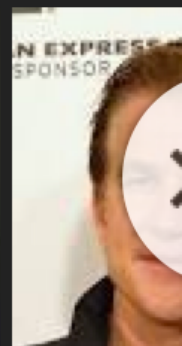
Caleb McLaughlin  
Lucas



Noah Schnapp  
Will



Finn Wolfhard  
Mike



Matthew  
Dr. Martin

## Stranger Things - Série 2016 - AdoroCinema

[www.adorocinema.com](http://www.adorocinema.com) › Séries › Melhores séries › Todas as séries › Séries Drama

**Stranger Things**, uma série criada por Matt Duffer, Ross Duffer com Winona Ryder, **David Harbour**: Ambientada em Montauk, Long Island, conta a história de um garoto que desaparece misteriosamente. Enquanto a ... **Elenco Stranger Things**.

## Stranger Things: Elenco da 1ª temporada - AdoroCinema

[www.adorocinema.com/series/serie-19156/temporada-26101/elenco/](http://www.adorocinema.com/series/serie-19156/temporada-26101/elenco/)

**David Harbour** · Millie Brown Personagem: Eleven. **Finn Wolfhard** Personagem: Mike. Caleb McLaughlin. Personagem: Lucas. **Gaten Matarazzo** Personagem: ...

## Stranger Things – Wikipédia, a enciclopédia livre

[https://pt.wikipedia.org/wiki/Stranger\\_Things](https://pt.wikipedia.org/wiki/Stranger_Things)

Ir para **Elenco** - Divorciada de seu marido Lonnie, Joyce depende fortemente de Jonathan para ajudá-la. **David Harbour** como o Delegado Jim Hopper

# Stranger Things

Seriado de ficção científica



Stranger Things é uma websérie americana dos gêneros suspense, ficção científica e terror criada pelos irmãos Matt e Ross Duffer e distribuída pela Netflix. [Wikipédia](#)



**Emissora original:** [Netflix](#)


**Número De Episódios:** 8

# Knowledge Graph cards

## IBM

Computer hardware company



 [ibm.com](http://ibm.com)

International Business Machines Corporation is an American multinational technology and consulting corporation, with corporate headquarters in Armonk, New York. [Wikipedia](#)

**Stock price:** [IBM \(NYSE\)](#) \$150.50 +1.35 (+0.91%)  
Apr 27, 5:33 PM EDT - Disclaimer

**CEO:** [Ginni Rometty](#)

**Customer service:** 1 (877) 426-6006






**Sales:** 1 (888) 746-7426

**Headquarters:** Armonk, North Castle, NY






**Founder:** [Charles Ranlett Flint](#)

**Founded:** June 16, 1911, New York City, NY

### Profiles

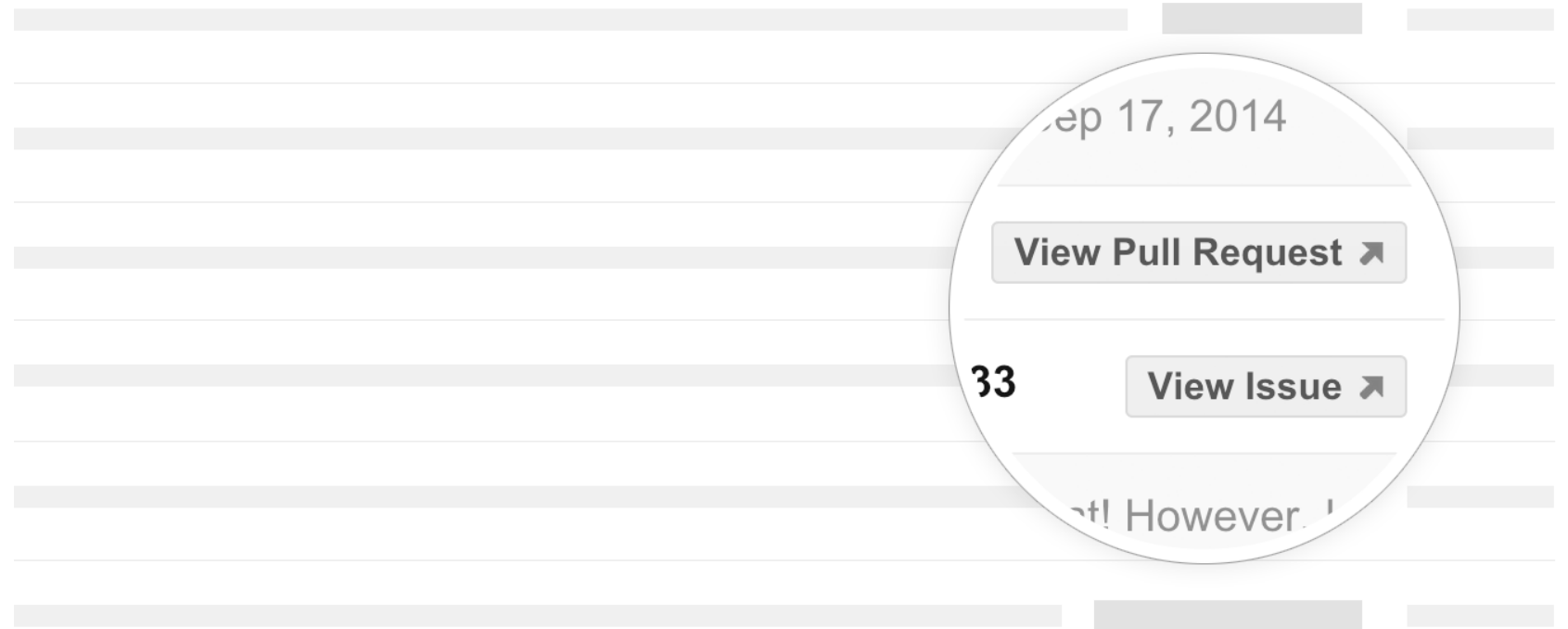
 Facebook  LinkedIn  Twitter  YouTube  Instagram

### People also search for

 Microsoft Corporation  Apple  Lenovo  Hewlett-P...  Dell [View 15+ more](#)

[Feedback](#)

# GMail Actions



# Rich Snippets (Events)

conferences san francisco

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Aproximadamente 115.000.000 resultados (0,60 segundos)

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[lanyrd.com/places/san-francisco/](http://lanyrd.com/places/san-francisco/) ▼ Traduzir esta página

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1 de ago - 10 de ago [SANS Security Awareness Summit & Training 2016](#)  
5 de ago - 9 de ago [5-Day Classical Feng Shui Training](#)  
8 de ago - 29 de ago [Cultivating Company Culture: eProgram \(4 Sessions\)](#)

[Conferences & Events](#) · [San Francisco Bay Area](#) · [Past events 2543](#)

# Rich Snippets (Reviews)

Lava Lite Classic Lava Lamp, Purple/Blue -  
Walmart.com

[Walmart](#) › [Lava-2118-Lava-Lite-Classic-...](#)

★★★★★ Rating: 3.5 - 60 votes - \$13.17 - In  
stock

Mobile-friendly - Buy Lava Lite Classic Lava Lamp,  
Purple/Blue at Walmart.com.

***Legal, como faz?***



# RDFa Lite 1.1 - Second Edition

W3C Recommendation 17 March 2015

**This version:**

<http://www.w3.org/TR/2015/REC-rdfa-lite-20150317/>

**Latest published version:**

<http://www.w3.org/TR/rdfa-lite/>

**Implementation report:**

<http://www.w3.org/2010/02/rdfa/wiki/CR-ImplementationReport>

**Previous version:**

<http://www.w3.org/TR/2014/PER-rdfa-lite-20141216/>

**Previous Recommendation:**

<http://www.w3.org/TR/2012/REC-rdfa-lite-20120607/>

**Editor:**

[Manu Sporny](#), [Digital Bazaar, Inc.](#)

Please check the [errata](#) for any errors or issues reported since publication.

This document is also available in this non-normative format: [diff to previous version](#)

The English version of this specification is the only normative version. Non-normative [translations](#) may also be available.

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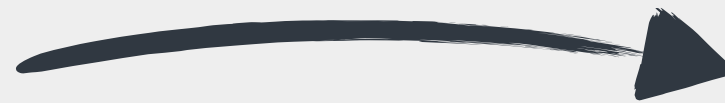
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## Abstract

RDFa Lite is a minimal subset of RDFa, the Resource Description Framework in attributes, consisting of a few attributes that may be used to express machi

# RDFa (Lite)

**4 propriedades  
para começarmos**



**vocab  
property  
typeof  
content**

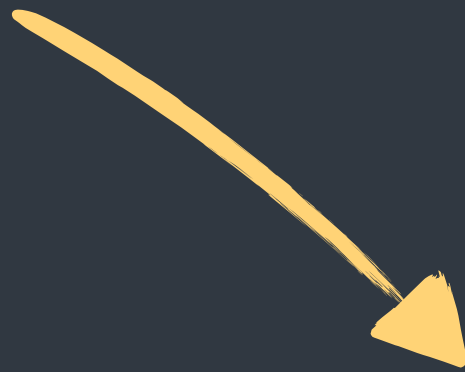


<p>

0 FrontInBH ocorre no dia 06/08/2016!

</p>

# @vocab



```
<p vocab="http://schema.org/">
```

```
  0 FrontInBH ocorre no dia 06/08/2016!
```

```
</p>
```

# @typeof

```
<p vocab="http://schema.org/"  
  typeof="Event">
```

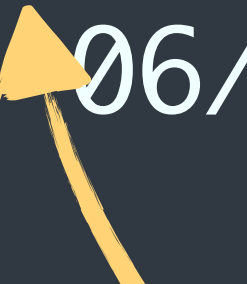
0 FrontInBH ocorre no dia 06/08/2016!

```
</p>
```



# @property

```
<p vocab="http://schema.org/"  
  typeof="Event">  
  0 <span property="name">FrontInBH</span>  
  ocorre no dia 06/08/2016!  
</p>
```



# @content

```
<p vocab="http://schema.org/"  
  typeof="Event">  
  0 <span property="name">FrontInBH</span>  
  ocorre no dia  
  <span property="startDate"  
    content="2016-08-16T08:00">  
    06/08/2016</span>!  
</p>
```





# JSON-LD 1.0

A JSON-based Serialization for Linked Data

W3C Recommendation 16 January 2014

**This version:**

<http://www.w3.org/TR/2014/REC-json-ld-20140116/>

**Latest published version:**

<http://www.w3.org/TR/json-ld/>

**Previous version:**

<http://www.w3.org/TR/2013/PR-json-ld-20131105/>

**Editors:**

[Manu Sporny](#), [Digital Bazaar](#)

[Gregg Kellogg](#), [Kellogg Associates](#)

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[Markus Lanthaler](#), [Graz University of Technology](#)

[Niklas Lindström](#)

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The English version of this specification is the only normative version. Non-normative [translations](#) may also be available.

# JSON for Linking Data

Data is messy and disconnected. JSON-LD organizes and connects it, creating a better Web.

## ⇔ Linked Data

**Linked Data** empowers people that publish and use information on the Web. It is a way to create a network of standards-based, machine-readable data across Web sites. It allows an application to start at one piece of Linked Data, and follow embedded links to other pieces of Linked Data that are hosted on different sites across the Web.

## A Simple Example

```
{
  "@context": "http://json-ld.org/contexts/person.jsonld",
  "@id": "http://dbpedia.org/resource/John_Lennon",
  "name": "John Lennon",
  "born": "1940-10-09",
  "spouse": "http://dbpedia.org/resource/Cynthia_Lennon"
}
```

## JSON-LD

JSON-LD is a lightweight Linked Data format. It is easy for humans to read and write. It is based on the already successful JSON format and provides a way to help JSON data interoperate at Web-scale. JSON-LD is an ideal data format for programming environments, REST Web services, and unstructured databases such as CouchDB and MongoDB.

## Full Hierarchy

Schema.org is defined as two hierarchies: one for textual property values, and one for the things that they describe.

## Thing

This is the main schema.org hierarchy: a collection of types (or "classes"), each of which has one or more parent types. Although a type may have more than one super-type, here we show each type in one branch of the tree only. There is also a parallel hierarchy for [data types](#).

Select vocabulary view:

- Core vocabulary  Core plus all extensions

## Core plus extension vocabularies

- [Thing](#)
  - [Action](#)
    - [AchieveAction](#)
      - [LoseAction](#)
      - [TieAction](#)
      - [WinAction](#)
    - [AssessAction](#)





## Documentation

GUIAS

DATA TYPES

ENVIAR COMENT

## Developer Checklist

## Prepare Your Content

[Create Quality Pages](#)[Associate Your Online Resources](#)[Use AMP HTML](#)[Make Mobile-friendly Websites](#)[Add Voice Actions](#)

## Index Your Content

[Introduction to Indexing](#)[Create a List of URLs](#)[Submit URLs to Google](#)

## Help Google Present You

[Introduction to Structured Data](#)[Enhance Your Site's Attributes](#)[Mark Up Your Content Items](#)[Mark Up Your Lists](#)

# Introduction to Structured Data



*Structured data* refers to kinds of data with a high level of organization, such as information in a relational database. When information is highly structured and predictable, search engines can more easily organize and display it in creative ways. *Structured data markup* is a text-based organization of data that is included in a file and served from the web. It typically uses the [schema.org](https://schema.org) vocabulary—an open community effort to promote standard structured data in a variety of online applications.

Structured data markup is most easily represented in [JSON-LD](#) format, which stands for JavaScript Object Notation for Linked Data. The following is a simple JSON-LD structured data example you might use for contact information for your company:

```
<script type="application/ld+json">
{
  "@context": "http://schema.org",
  "@type": "Organization",
  "url": "http://www.your-company-site.com",
  "contactPoint": [{
    "@type": "ContactPoint",
```

## Índice

[Common use cases](#)[Markup formats and placement](#)[Testing and publishing your markup](#)[Structured data guidelines](#)[Technical guidelines](#)[Quality guidelines](#)[Multiple entities on the same page](#)[Image markup guidelines](#)

***what's next?***

***aplique em seus projetos!***

***vale a pena?***

**... a evolução da Web**

**Web**

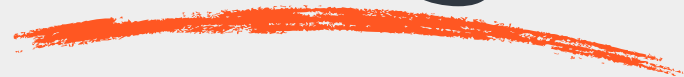
*of*



Documents

Data

**Things**



***interoperabilidade semântica***

***obrigado!***

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