

DESCOMPLICANDO

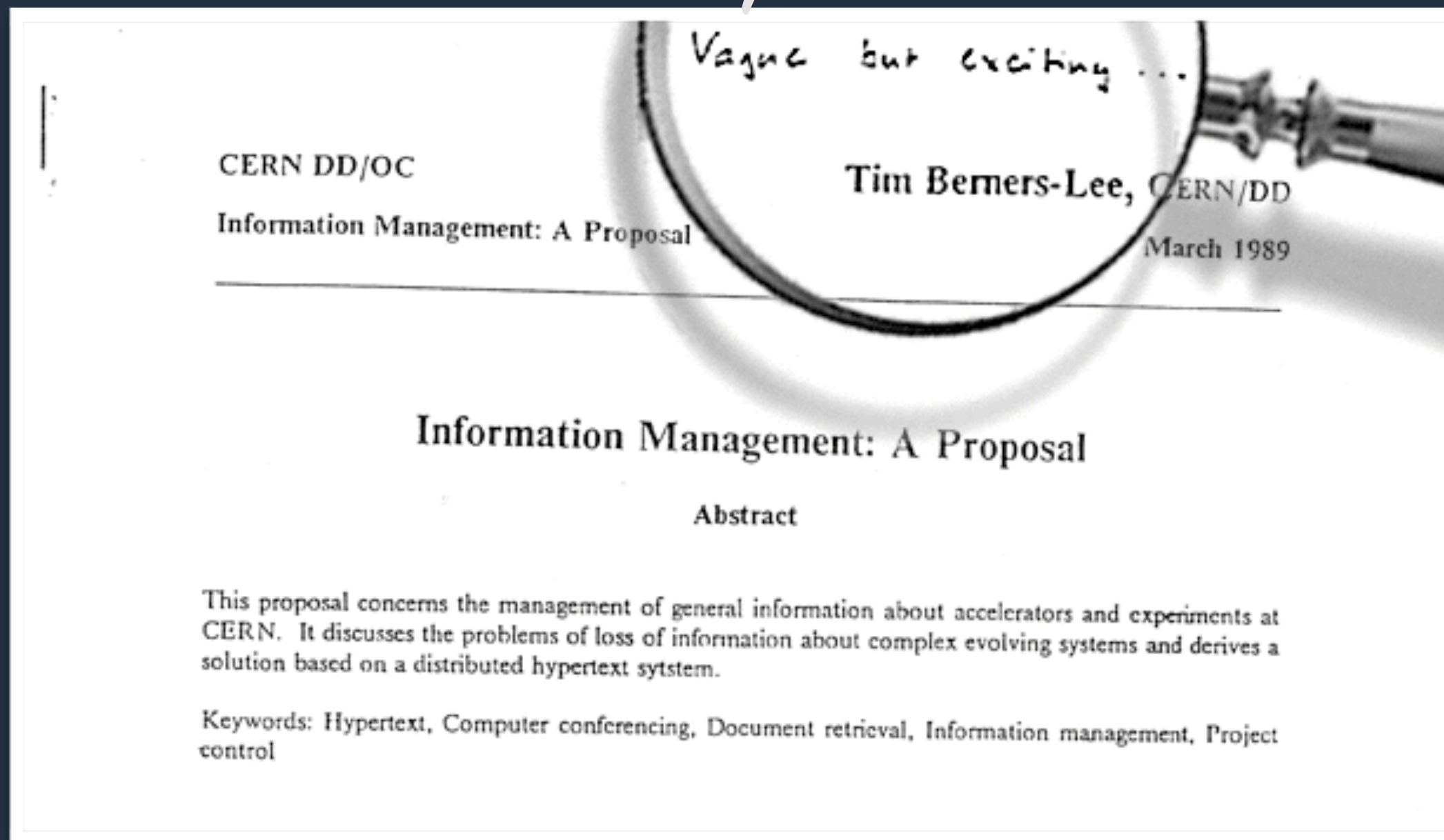
Web Semântica

Newton Calegari
@newtoncalegari



World Wide Web

“vague but exciting”



a proposta da World Wide Web





MORE ACM AWARDS



A.M. TURING CENTENARY CELEBRATION WEBCAST

Search TYPE HERE



A.M. TURING AWARD WINNERS BY...

ALPHABETICAL LISTING

YEAR OF THE AWARD

RESEARCH SUBJECT



FEATURED AWARD WINNER:
Sir Tim Berners-Lee

For inventing the World Wide Web, the first web browser, and the fundamental protocols and algorithms...

Inventor of World Wide Web Receives ACM A.M. Turing Award

Sir Tim Berners-Lee Designed Integrated Architecture and Technologies that Underpin the Web

ACM named Sir Tim Berners-Lee, a Professor at Massachusetts Institute of Technology and the University of Oxford, the recipient of the 2016 ACM A.M. Turing Award. Berners-Lee was cited for inventing the World Wide Web, the first web browser, and the fundamental protocols and algorithms allowing the Web to scale. Considered one of the most influential computing innovations in history, the World Wide Web is the primary tool used by billions of people every day to communicate, access information, engage in...

HTML



SEMÂNTICA NO HTML5 = SEMÂNTICA NA ESTRUTURA



DIV

DIV EVERYWHERE

BLOCOS E ELEMENTOS AGORA POSSUEM SIGNIFICADO

```
<div class="header">
```

```
<div class="nav">
```

```
<div class="section">
```

```
<div class="article">
```

```
<div  
class="asi  
de">
```

```
<div class="footer">
```

```
<header>
```

```
<nav>
```

```
<section>
```

```
<article>
```

```
<aside>
```

```
<footer>
```

ENTÃO { **NAVEGADOR**
WEB CRAWLERS **SABEM ONDE ENCONTRAR CADA TIPO DE CONTEÚDO**
APLICAÇÕES

<article>



Web Semântica



TIM BERNERS-LEE

2001

Web

of



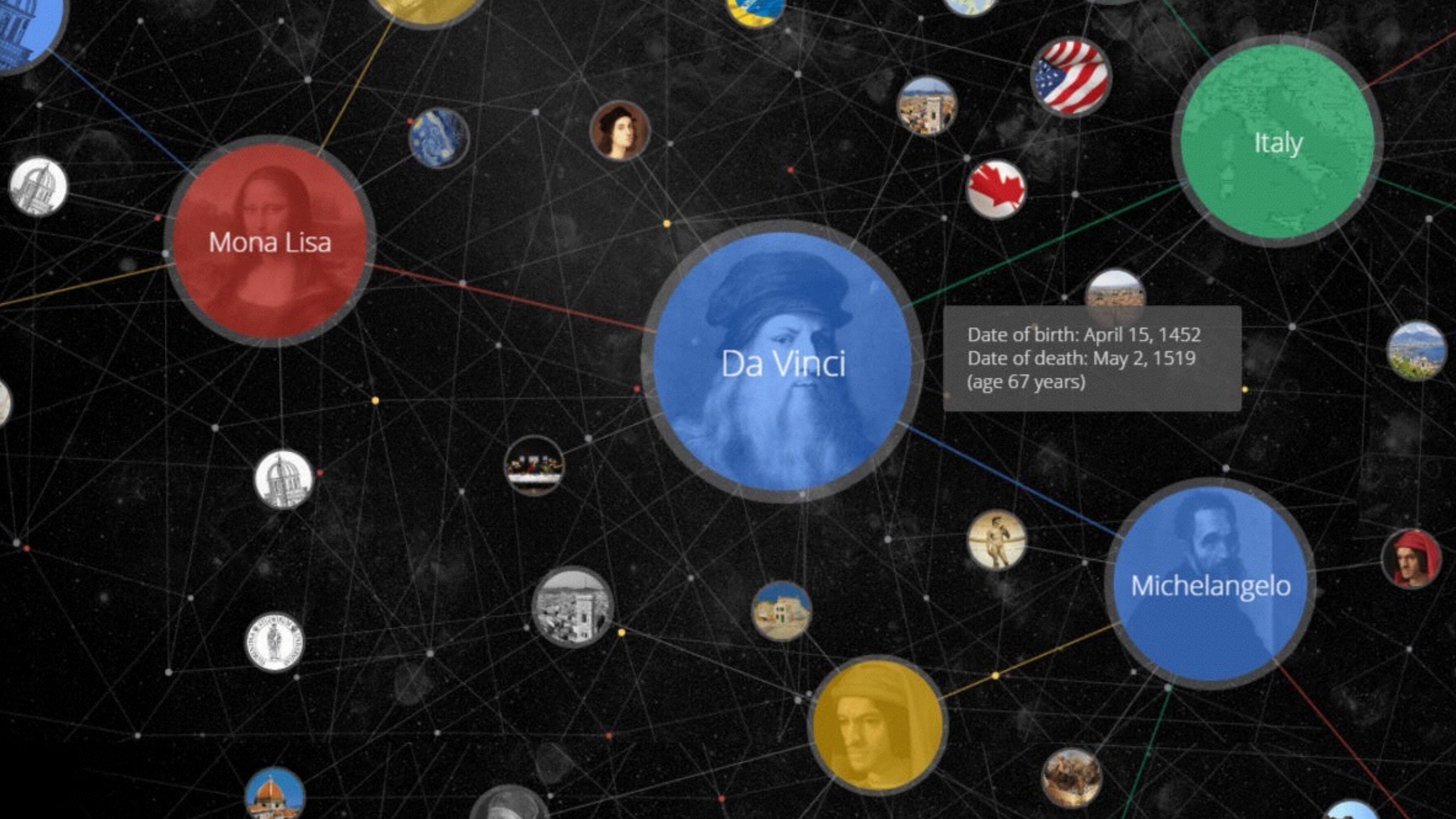
Documents

Data

Things



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





Microsoft



English

Entrar



Web

Imagens

Vídeos

Mapas

Notícias

Meus itens salvos

19.300.000 RESULTADOS

Data ▾

Região ▾

Microsoft® Office 365™ - Seu Office Completo na Nuvem. ⓘ

Anúncio · microsoft.office.com

Seu Office Completo na Nuvem. Experimente Microsoft® Office 365™!

Histórias de Clientes

Saiba Como Companhias Estão Usando Office 365 para Crescer no Mercado.

Office no PC/Mac e Mobile

Android, iOS e Windows Mobile Apps
Baixe Grátis em Todos Dispositivos!

Office Online - Navegador

Word, Excel e Powerpoint pelo Navegador em Tempo Real

Armazene e Compartilhe

Armazem de 1TB na Nuvem c/ OneDrive
Gestão Segura para seus Documentos

Fluig Gestão de Sistemas - Integração e Mobilidade | fluig.com

Anúncio · www.fluig.com

Conheça Todos Os Benefícios Que Um Digital Workplace Pode Fazer Por Sua Empresa!

Microsoft Office - Home and Student 2013

Anúncio · microsoft.siliconaction.com.br

Compre em até 10x sem juros. Word, Excel, PowerPoint e Onenote.

Microsoft – Home Page oficial

www.microsoft.com/pt-br ▾

Na Microsoft, nossa missão é ajudar pessoas, empresas e parceiros a atingirem todo o seu potencial.

Download Center

Baixe as novidades do Windows, aplicativos do Windows, Office, ...

Conta da Microsoft

Você tem o controle sobre as configurações de privacidade da sua ...

Microsoft Security Essentials

O Microsoft Security Essentials fornece proteção em tempo real ao seu ...

[Ver resultados somente de microsoft.com](#)

Suporte

Need help? Microsoft's Virtual Agent beta is ready to assist you. ASK ...

Atualização do Windows 10

Adquira a versão completa do Windows 10 ou compre os mais inovadores ...

Inscreva-se Agora

Uma caixa de entrada para todas as facetas da sua vida. Crie um único ...

Microsoft Office | Melhor Pacote de Aplicativos Essenciais

<https://products.office.com/pt-br/home> ▾

26/06/2012 · Experimente grátis ou compre o Microsoft Office para sua casa ou

Microsoft

Empresa



Microsoft Corporation é uma empresa transnacional americana com sede em Redmond, Washington, que desenvolve, fabrica, licencia, apoia e vende softwares de computador, produtos eletrônicos, computadores e serviços pessoais. Entre seus ... +



Site oficial



Wikipedia



Twitter



Facebook



LinkedIn

Fundado em: 4 de abr de 1975 · Albuquerque, Estados Unidos

Sede: Redmond, Estados Unidos

CEO: Satya Nadella (Desde 2014)

Fundadores: Bill Gates · Paul Allen

Subsidiárias: LinkedIn · LinkedIn · Microsoft Studios · Rare · Lionhead Studios · Ensemble Studios · Microsoft Skype Division +

Presidente: John W. Thompson

Pessoas relacionadas



Bill Gates
Fundador



Paul Allen
Fundador



Satya
Nadella
CEO
(Presidente ...)



Steve
Ballmer
Antigo(a) CEO



John W.
Thompson
Presidente

Pesquisas relacionadas



Apple



Google



IBM



Sony



Facebook



elenco designated survivor

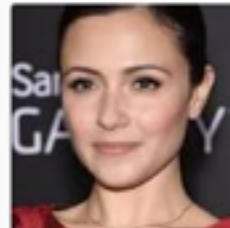


All Videos Images News Shopping More Settings Tools

Designated Survivor > Cast



Kiefer Sutherland
Tom Kirkman



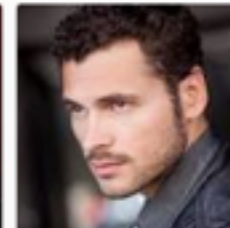
Italia Ricci
Emily Rhodes



Maggie Q
Hannah Wells



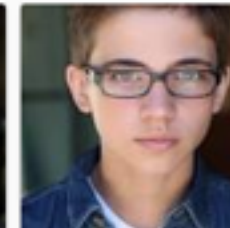
Natascha McElhone
Alex Kirkman



Adan Canto
Aaron Shore



Kal Penn
Seth Wright



Tanner Buchanan
Leo Kirkman



LaMonica Garrett
Mike Ritter



Kevin McNally



Malik Yoba

Designated Survivor: Elenco da 1ª temporada - AdoroCinema

www.adorocinema.com/series/serie-20098/temporada.../elenco/ - Translate this page

Encontre todos os astros (como Kiefer Sutherland, Natascha McElhone...) e equipe técnica da 1ª Temporada de Designated Survivor.

Designated Survivor - Série 2016 - AdoroCinema

www.adorocinema.com > ... > Todas as séries > Séries Drama - Translate this page

★★★★★ Rating: 4.6 - 242 votes

Designated Survivor, uma série criada por David Guggenheim com Kiefer Sutherland, Natascha McElhone: O Presidente dos ... Elenco Designated Survivor.

Designated Survivor – Wikipédia, a enciclopédia livre

https://pt.wikipedia.org/wiki/Designated_Survivor - Translate this page

Jump to **Elenco** - Elenco[editar | editar código-fonte]

Enredo · Elenco · Episódios · Referências

Designated Survivor (2016) | Elenco | Omelete

omelete.uol.com.br/series-tv/designated-survivor/elenco/ - Translate this page

Confira o elenco de Designated Survivor: Kiefer Sutherland, Maggie Q, Kal Penn...

Designated Survivor (1ª temporada) - 2016 | Filmow

<https://filmow.com/designated-survivor-1a-temporada-t198865/> - Translate this page

★★★★★ 398 votes

Designated Survivor (1ª temporada) avaliado por quem mais entende de ... Designated Survivor (season 1) ... Elenco de Designated Survivor (1ª temporada).

Designated Survivor | Novidades no elenco da nova série estrelada ...

Designated Survivor

American drama series



4.6/5

AdoroCinema

4.2/5

Filmow

7.9/10

IMDb

As a lower-level cabinet member, Tom Kirkman never imagined something would happen that would catapult him to the oval office. When a devastating attack on the night of the State of the Union address claims the lives of the president and most of the Cabinet, the Housing and Urban Development secreta... [More](#)

Network: American Broadcasting Company

Production location: Toronto

Characters: Aaron Shore, Emily Rhodes, Tom Kirkman, Hannah Wells, Alex Kirkman, Leo Kirkman, Seth Wright, Mike Ritter

Executive producers: Mark Gordon, Jeff Melvoin, more

Episodes

21. Brace for Impact

Season 1 · May 17, 2017

ep 17, 2014

[View Pull Request ↗](#)

33

[View Issue ↗](#)

at! However. |

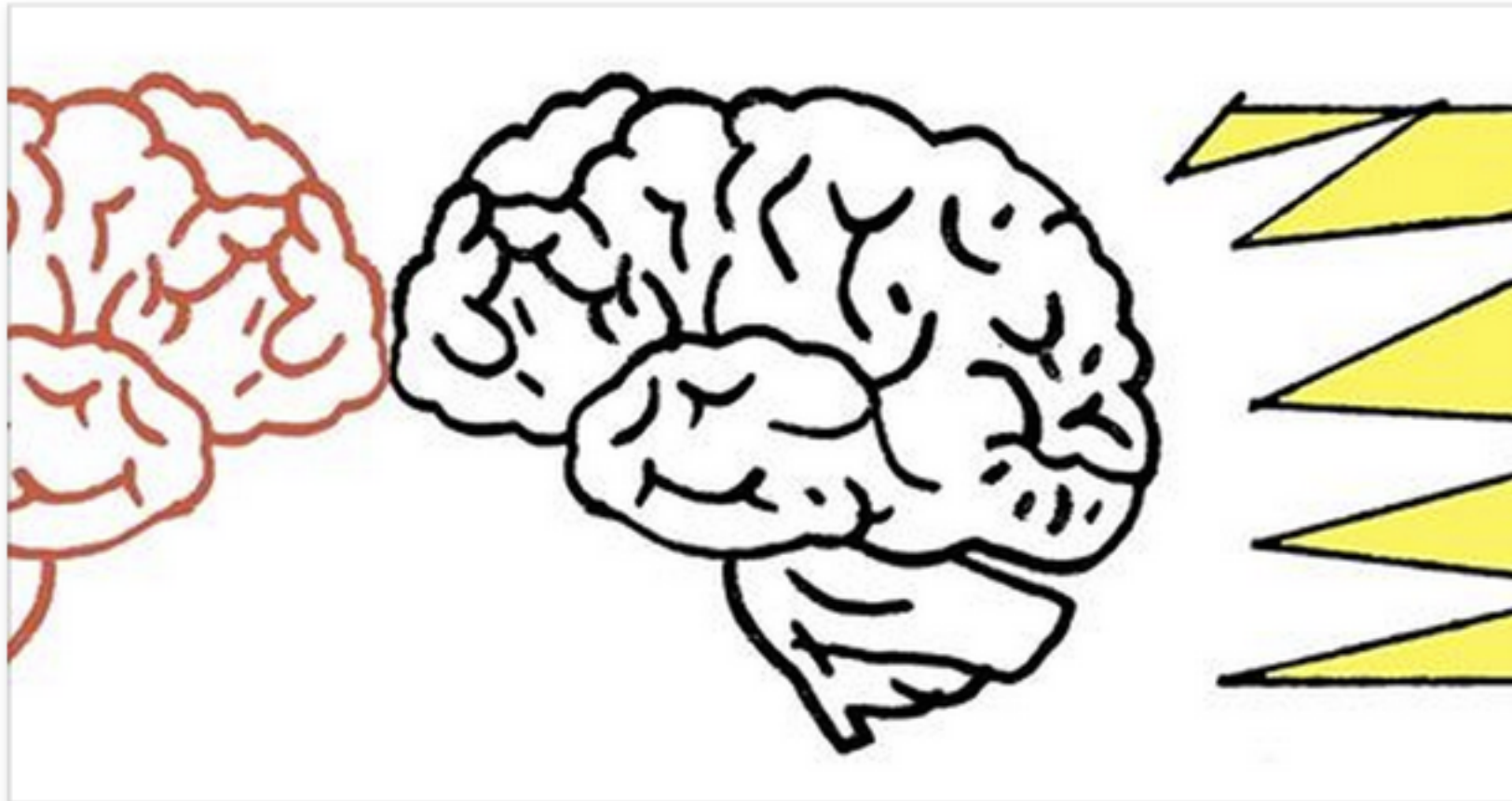


The New York Times

35 mins · 🌐



How an identical brainstorming exercise produced very different results in two distinct cultural contexts.



When Great Minds Don't Think Alike

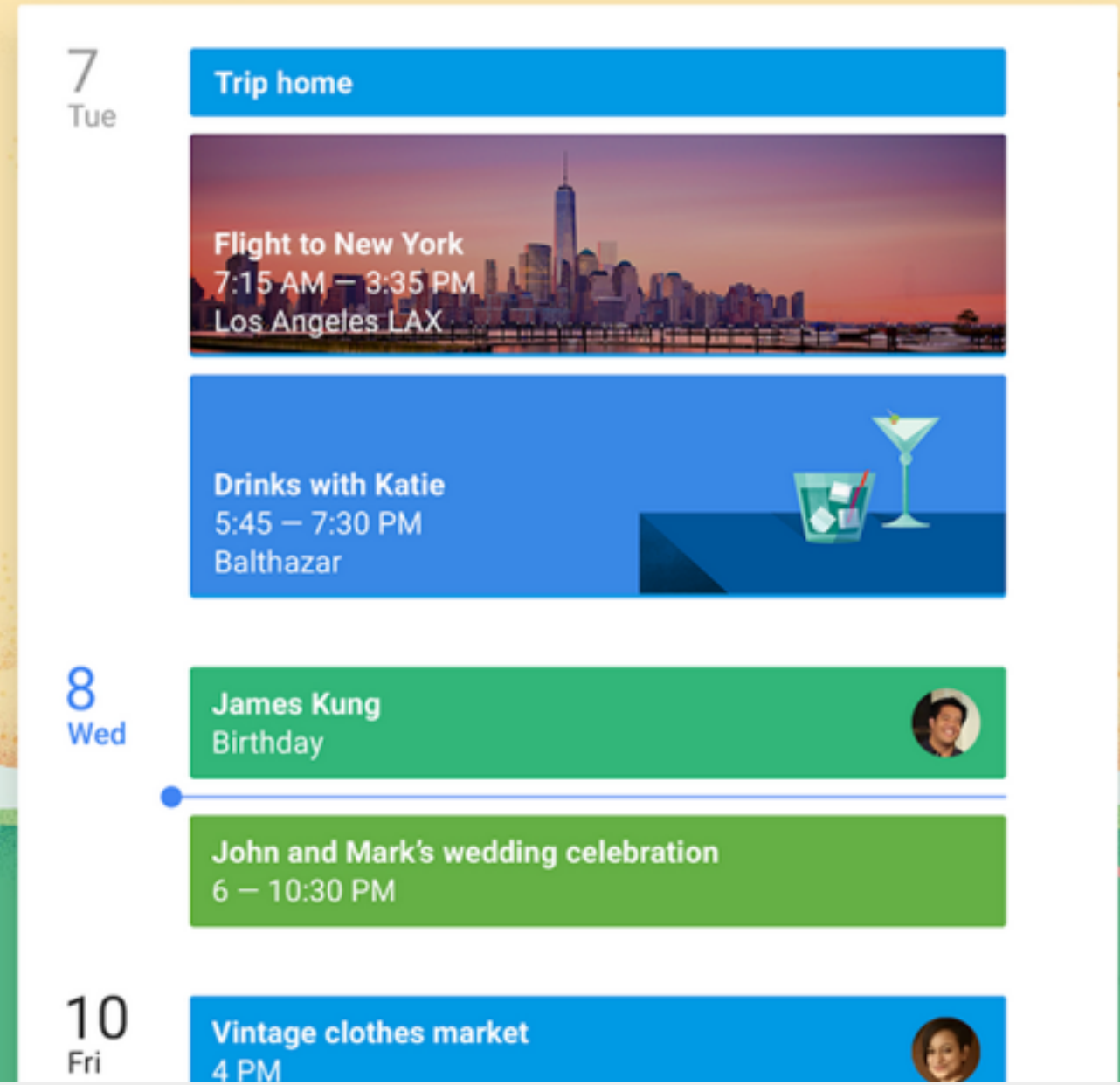
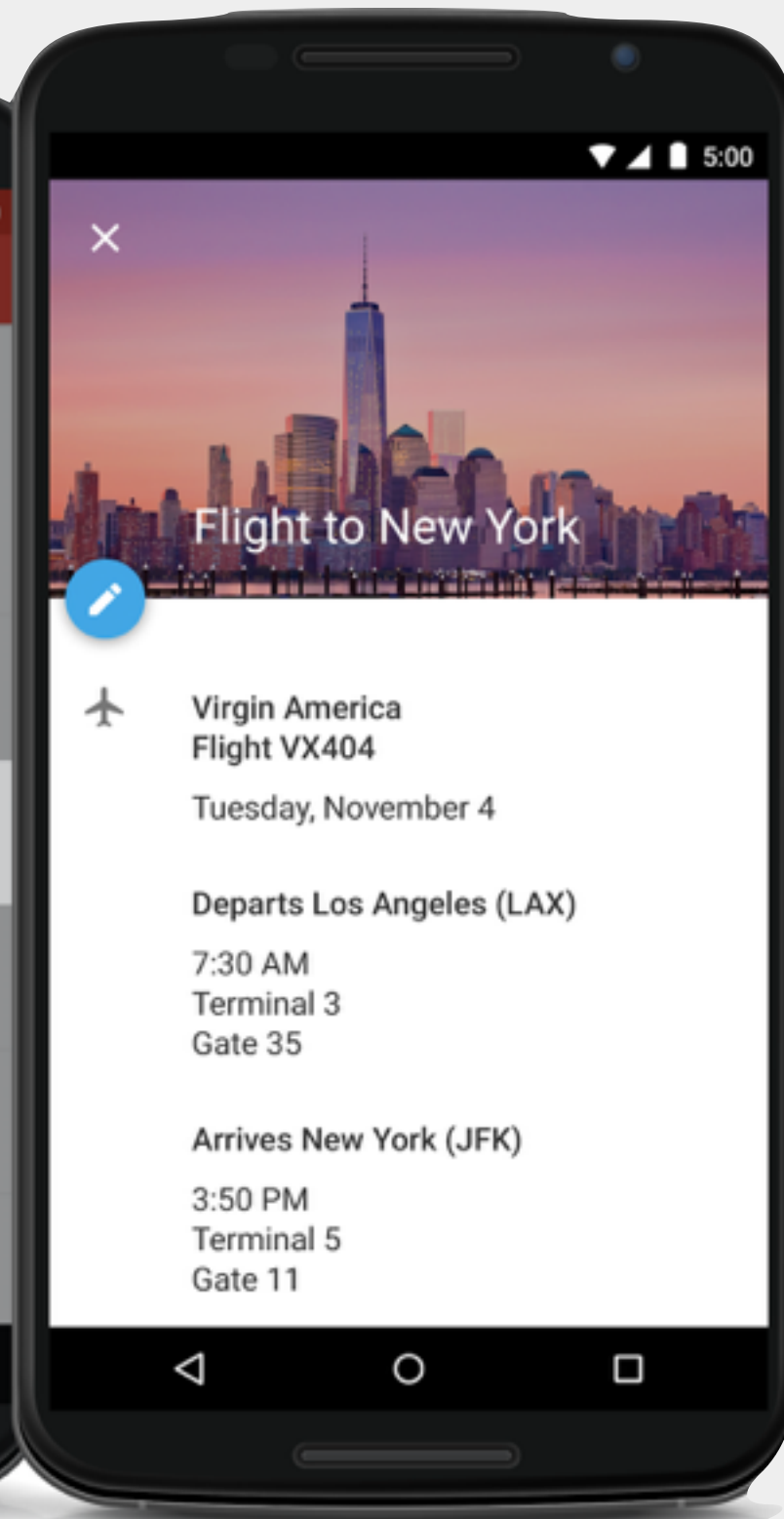
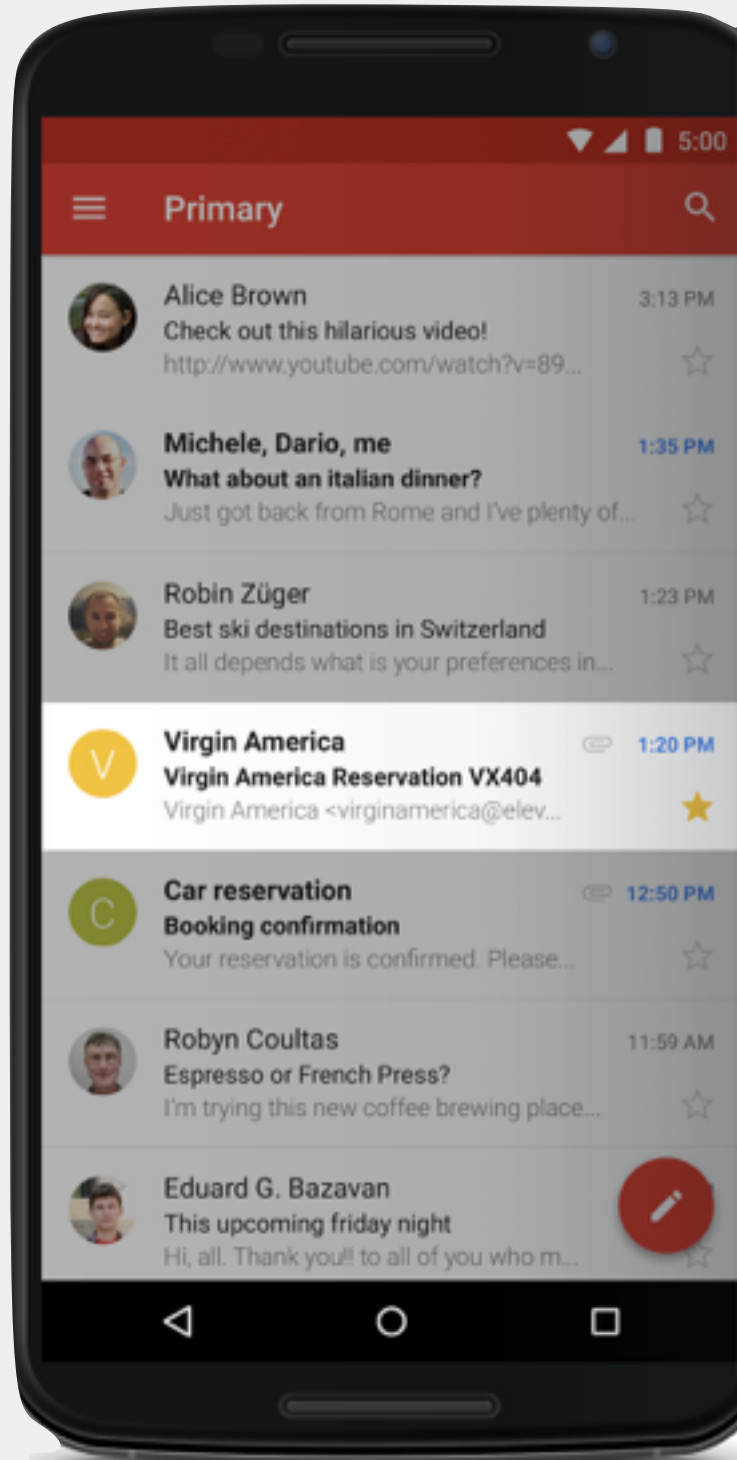
How much does culture influence creative thinking?

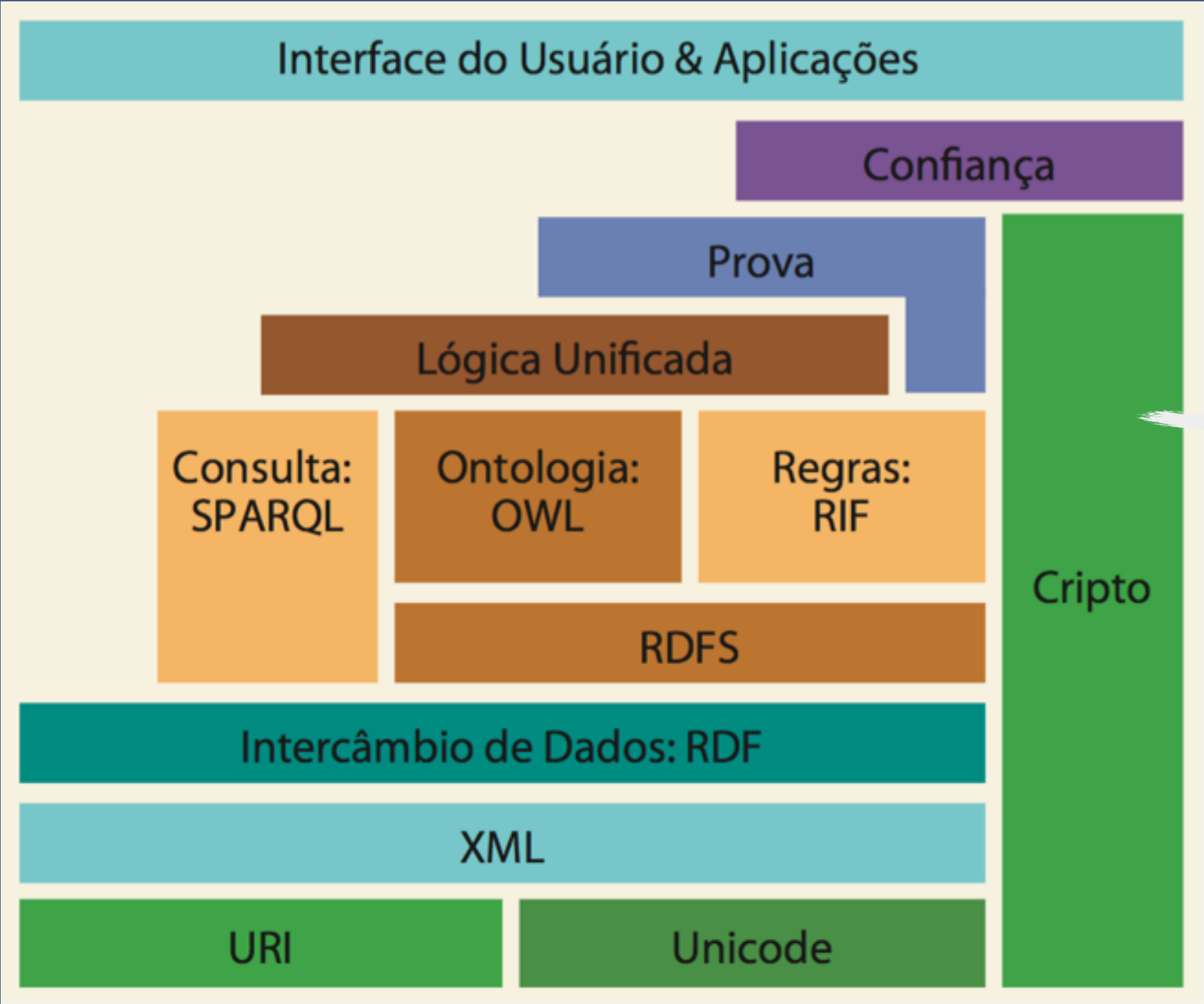
NYT.MS | BY STEPHEN HEYMAN



Like · Comment · Share · Send · 👍 153 💬 6 ➦ 54







Semantic Web Stack

RDF

Newton está no FSXP

FSXP é na Microsoft

Newton conhece Cynthia

Newton conhece Jean

Sujeito, Predicado, Objeto

ONTOLOGIAS E VOCABULÁRIOS

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](#)

Newton está no FSXP

<https://newtoncalegari.com.br/>

schema:attendee

<http://fsxp.org/>

Newton está no FSXP

<https://newtoncalegari.com.br/>

rdf:type

schema:Person

<http://fsxp.org/>

rdf:type

schema:Event

RDFA



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.

[Copyright](#) © 2015 [W3C](#)® ([MIT](#), [ERCIM](#), [Keio](#), [Beihang](#)). [W3C liability](#), [trademark](#) and [document use](#) rules apply.

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 machine-readable data in documents like HTML, SVG, and XML. While it is not a complete solution for advanced data markup tasks, it does work for most day-to-day needs and can be learned by most a day.

<p>

0 Full Stack Experience é no dia 09 de Junho

</p>

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

0 Full Stack Experience é no dia 09 de Junho

```
</p>
```

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

```
  0 <span property="name">Full Stack Experience</span>  
  é no dia 09 de Junho
```

```
</p>
```

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

```
  0 <span property="name">Full Stack Experience</span>  
  é no dia
```

```
<span property="startDate" content="2017-06-09">  
09 de Junho</span>
```

```
</p>
```



```
<http://fsxp.org/> a schema:Event;  
  schema:name "Full Stack Experience";  
  schema:startDate "2017-06-09" .
```

JSON-LD



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](#)

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

Authors:

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

[Dave Longley](#), [Digital Bazaar](#)

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

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

[Niklas Lindström](#)

Please refer to the [errata](#) for this document, which may include some normative corrections.

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.

Copyright © 2010-2014 [W3C](#)® ([MIT](#), [ERCIM](#), [Keio](#), [Beihang](#)), All Rights Reserved. [W3C liability](#), [trademark](#) and [document use](#) rules apply.

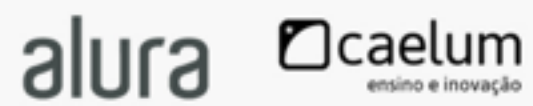
[Abstract](#)

```
{  
  "@context": "http://schema.org/",  
  "@type": "Person",  
  "name": "Newton Calegari",  
  "jobTitle": "Project Lead",  
  "url": "https://newtoncalegari.com.br/"  
}
```

PATROCÍNIO PLATINUM



PATROCÍNIO BRONZE



```
{
  "@context": "http://schema.org/",
  "@type": "Event",
  "@id": "http://fsxp.org/",
  "name": "Full Stack Experience",
  "sponsor": [
    {
      "@id": "http://microsoft.github.io",
      "@type": "Organization",
      "name": "Microsoft"
    },
    ...
  ]
}
```



```
<http://fsxp.org/> a schema:Event ;  
    schema:name "Full Stack Experience" ;  
    schema:sponsor <http://microsoft.github.io> ;  
  
<http://microsoft.github.io> a schema:Organization ;  
    schema:name "Microsoft"
```



elenco designated survivor



All Videos Images News Shopping More Settings Tools

Designated Survivor > Cast



Kiefer Sutherland
Tom Kirkman



Italia Ricci
Emily Rhodes



Maggie Q
Hannah Wells



Natascha McElhone
Alex Kirkman



Adan Canto
Aaron Shore



Kal Penn
Seth Wright



Tanner Buchanan
Leo Kirkman



LaMonica Garrett
Mike Ritter



Kevin McNally



Malik Yoba

Designated Survivor: Elenco da 1ª temporada - AdoroCinema

www.adorocinema.com/series/serie-20098/temporada.../elenco/ - Translate this page

Encontre todos os astros (como Kiefer Sutherland, Natascha McElhone...) e equipe técnica da 1ª Temporada de Designated Survivor.

Designated Survivor - Série 2016 - AdoroCinema

www.adorocinema.com > ... > Todas as séries > Séries Drama - Translate this page

★★★★★ Rating: 4.6 - 242 votes

Designated Survivor, uma série criada por David Guggenheim com Kiefer Sutherland, Natascha McElhone: O Presidente dos ... Elenco Designated Survivor.

Designated Survivor – Wikipédia, a enciclopédia livre

https://pt.wikipedia.org/wiki/Designated_Survivor - Translate this page

Jump to **Elenco** - Elenco[editar | editar código-fonte]

Enredo · Elenco · Episódios · Referências

Designated Survivor (2016) | Elenco | Omelete

omelete.uol.com.br/series-tv/designated-survivor/elenco/ - Translate this page

Confira o elenco de Designated Survivor: Kiefer Sutherland, Maggie Q, Kal Penn...

Designated Survivor (1ª temporada) - 2016 | Filmow

<https://filmow.com/designated-survivor-1a-temporada-t198865/> - Translate this page

★★★★★ 398 votes

Designated Survivor (1ª temporada) avaliado por quem mais entende de ... Designated Survivor (season 1) ... Elenco de Designated Survivor (1ª temporada).

Designated Survivor | Novidades no elenco da nova série estrelada ...

Designated Survivor

American drama series



4.6/5

AdoroCinema

4.2/5

Filmow

7.9/10

IMDb

As a lower-level cabinet member, Tom Kirkman never imagined something would happen that would catapult him to the oval office. When a devastating attack on the night of the State of the Union address claims the lives of the president and most of the Cabinet, the Housing and Urban Development secreta... [More](#)

Network: American Broadcasting Company

Production location: Toronto

Characters: Aaron Shore, Emily Rhodes, Tom Kirkman, Hannah Wells, Alex Kirkman, Leo Kirkman, Seth Wright, Mike Ritter

Executive producers: Mark Gordon, Jeff Melvoin, more

Episodes

21. Brace for Impact

Season 1 · May 17, 2017

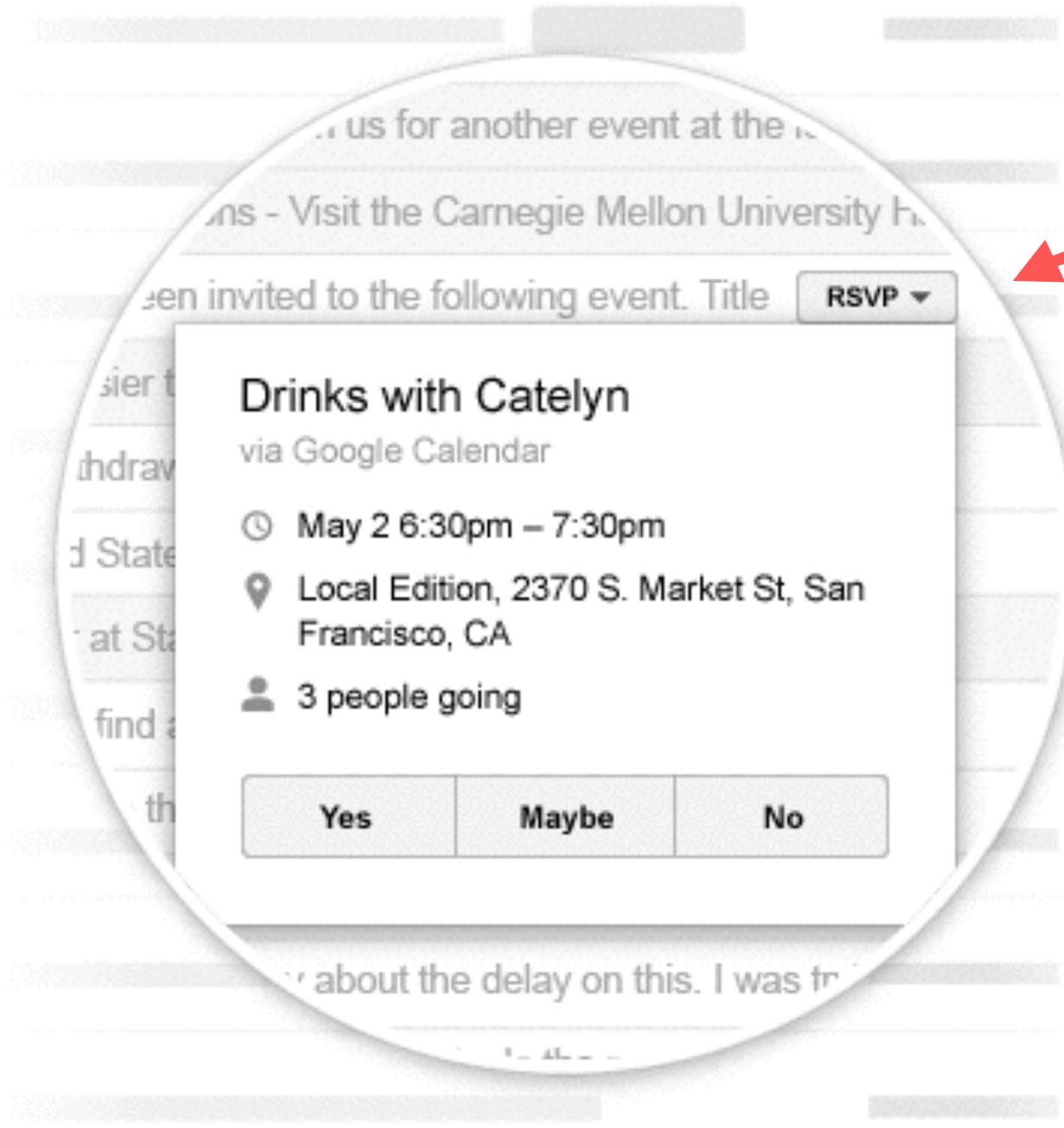
Designated Survivor: Season 1 - Rotten Tomatoes

https://www.rottentomatoes.com/tv/designated_survivor/s01/ ▼

★★★★★ Rating: 85% - 52 votes

Season 1 of "**Designated Survivor**" begins with the lowly Secretary of Housing and Urban Development, Tom Kirkman (Kiefer Sutherland), being told he's literally ...





... us for another event at the ...

... ns - Visit the Carnegie Mellon University ...

... en invited to the following event. Title

RSVP ▾

Drinks with Catelyn

via Google Calendar

🕒 May 2 6:30pm - 7:30pm

📍 Local Edition, 2370 S. Market St, San Francisco, CA

👤 3 people going

Yes

Maybe

No

... about the delay on this. I was fr ...

Introduction to Structured Data

Google Search

INÍCIO GUIDES REFERENCE TOOLS SUPPORT PARTNERS ENVIAR COMENTÁRIOS

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 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](https://www.w3.org/TR/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",
    "telephone": "+1-401-555-1212",
    "contactType": "customer service"
  }
}
</script>
```

Structured data markup describes *things* on the web, along with their *properties*. For example, if your site has recipes, you could use markup to describe properties for each recipe, such as the summary, the URL to a photo for the dish, and its overall rating from users.

When you provide structured data markup for your online content, you make that content eligible to appear in two categories of Google Search features:

- **Rich results**—Structured data for things like recipes, articles, and videos can appear in Rich Cards, as either a single element or a list of items. Other kinds of structured data can enhance the appearance of your site in Search, such as with [Breadcrumbs](#), or a [Sitelinks Search Box](#).
- **Knowledge Graph cards**—If you're the authority for certain content, Google can treat the structured data on your site as factual and import it into the [Knowledge Graph](#), where it can power prominent answers in Search and

Introduction

Structured data

- About Search features
- Search feature gallery
- [Introduction to structured data](#)
- Enhance your site's attributes
- Mark up your content items
- Test your structured data
- Feature guides

AMP

- [Introduction to AMP](#)
- Use AMP

Debugging

- Debug your pages

Prepare your content

- Create quality pages
- Associate your online resources
- Make mobile-friendly websites
- Add voice actions

Index your content

- Introduction to indexing
- Create a list of URLs
- Submit URLs to Google

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

Recipe Markup In Action

[SEE MARKUP](#)

Organization - schema.org

schema.org/Organization

Posquisar

More specific Types

- [Airline](#)
- [Corporation](#)
- [EducationalOrganization](#)
- [GovernmentOrganization](#)
- [LocalBusiness](#)
- [MedicalOrganization](#)
- [NGO](#)
- [PerformingGroup](#)
- [SportsOrganization](#)

More specific Types available in extensions

- [Consortium](#), [LibrarySystem](#), [WorkersUnion](#)

Examples

Example 1

Without Markup Microdata RDFa **JSON-LD**

```
<script type="application/ld+json">
{ "@context" : "http://schema.org",
  "@type" : "Organization",
  "url" : "http://www.t-mobile.com",
  "contactPoint" : [
    { "@type" : "ContactPoint",
      "telephone" : "+1-877-746-0909",
      "contactType" : "customer service",
      "contactOption" : "TollFree",
      "areaServed" : "US"
    }, {
      "@type" : "ContactPoint",
      "telephone" : "+1-505-998-3793",
      "contactType" : "customer service"
    }, {
      "@type" : "ContactPoint",
      "telephone" : "+1-877-296-1018",
      "contactType" : "customer service",
      "contactOption" : ["HearingImpairedSupported","TollFree"] ,
      "areaServed" : "US"
    }, {
      "@type" : "ContactPoint",
      "telephone" : "+1-877-453-1304",
      "contactType" : "technical support",
      "contactOption" : "TollFree",
      "areaServed" : ["US","CA"],
      "availableLanguage" : ["English","French"]
    }, {
      "@type" : "ContactPoint",
```

Browser window showing the website **ceweb.br**. The page features a navigation menu with items: Notícias, Eventos, Publicações, Projetos, Cursos, Quem somos, and Contato. The main header includes the logo **nic.br | ceweb.br**, the language **EN**, and social media icons for IMPRENSA, YouTube, Twitter, Facebook, Instagram, and RSS.

ceweb.br

Centro de Estudos sobre Tecnologias Web

» Saiba mais sobre este importante passo para a Web brasileira

Confira como foi o Workshop de Acessibilidade na Web

No dia 15 de fevereiro, o Ceweb.br promoveu um Workshop de Acessibilidade na Web em São Paulo, que teve como objetivo trazer especialistas para debater e apresentar boas práticas no desenvolvimento de sistemas acessíveis.

Hoje é dia Mundial de conscientização da Acessibilidade

No dia 18 de maio acontece ao redor do mundo o Global Accessibility Awareness Day (GAAD), um movimento para conscientizar as pessoas sobre a importância da acessibilidade digital. O Ceweb apoia este movimento. Confira o vídeo produzido por nossa equipe.

A Web segue adiante - destaques de final de ano da Plataforma Aberta da Web

Com a missão de estudar e contribuir para a melhoria da qualidade de implementações baseadas na Web e participar do desenvolvimento global de seus padrões, o Ceweb.br e o W3C Brasil divulgam uma síntese do

PRÓXIMOS EVENTOS

- JUN 07** VII Ciclo de Oficinas Segurança, Ética e Cidadania na Internet - Macapá/AP
Macapá/AP 7 de junho de 2017
- JUN 13** 1ª Convenção ABRANET
Salvador/BA 14 e 15 de junho de 2017

[>VEJA OUTROS](#)

Cursos

Confira os cursos disponibilizados Ceweb

ceweb.br/sobre-o-ceweb-br/



OBIGADO!

@newtoncalegari

newton@nic.br