Introduction to the Semantic Web

Pedro Szekely

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Why Do We Want a Semantic Web?

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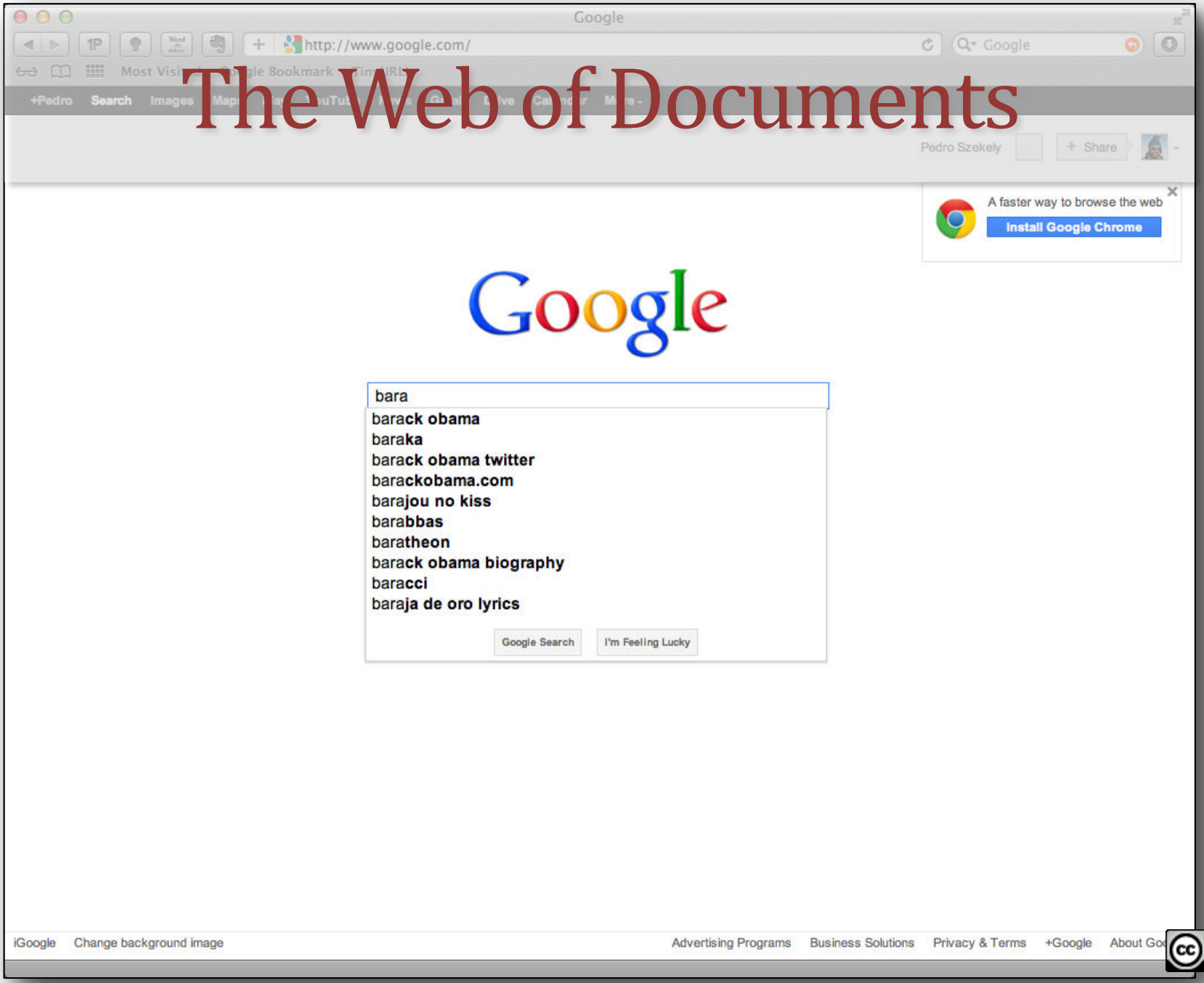
The Web of Documents



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What We See

Barack Obama – Wikipedia, the free encyclopedia

http://en.wikipedia.org/wiki/Obama

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Barack Obama

From Wikipedia, the free encyclopedia
(Redirected from Obama)

"Barack" and "Obama" redirect here. For other uses, see Barak (disambiguation) and Obama (disambiguation). For President Obama's father, the Kenyan economist, see Barack Obama, Sr.

Barack Hussein Obama II (/bəˈrɑːk huːˈseɪn oʊˈbɑːmə/; born August 4, 1961) is the 44th and current President of the United States. He is the first African American to hold the office. In January 2005, Obama was sworn in as a U.S. Senator in the state of Illinois. He would hold this office until November 2008, when he resigned following his victory in the 2008 presidential election.

Born in Honolulu, Hawaii, Obama is a graduate of Columbia University and Harvard Law School, where he was the president of the *Harvard Law Review*. He was a community organizer in Chicago

Barack Obama

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Honolulu – Wikipedia, the free encyclopedia

http://en.wikipedia.org/wiki/Honolulu

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Honolulu

From Wikipedia, the free encyclopedia

Coordinates: 21°18′32″N 157°49′34″W

This article is about the urbanized area in Hawaii. For the City and County of Honolulu, see Honolulu County, Hawaii. For other uses, see Honolulu (disambiguation).

Honolulu /hoʊnoʊˈluːluː/ is the capital and the most populous city of the U.S. state of Hawaii.[a] Honolulu is the southernmost major U.S. city. Although the name "Honolulu" refers to the urban area on the southeastern shore of the island of Oahu, the city and county government are consolidated as Honolulu County which covers the entire island. For statistical purposes, the U.S. Census Bureau recognizes the urban part of Honolulu as a census-designated place.[4] Honolulu is a major financial center of the islands of the Pacific

Honolulu, Hawaii

— State Capital —

City and County of Honolulu

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Go to "http://en.wikipedia.org/wiki/Honolulu"

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What the Computer Sees

Barack Obama – Wikipedia, the free encyclopedia

http://en.wikipedia.org/wiki/Obama

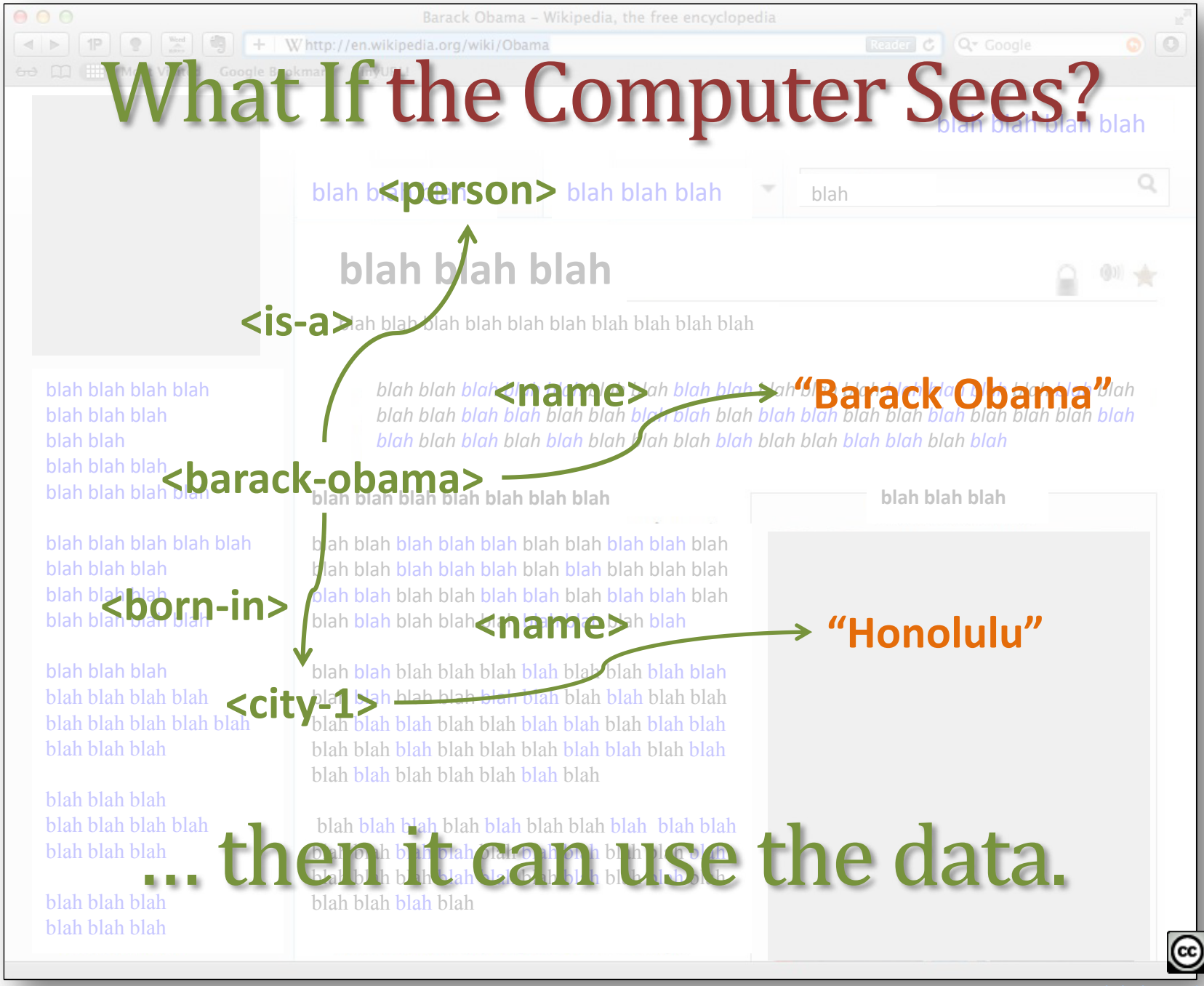
blah blah blah blah blah blah blah blah blah blah blah blah blah

blah blah blah

blah blah blah blah blah blah blah blah blah blah

*blah blah blah blah blah blah blah blah blah blah blah blah blah

What If the Computer Sees?



… then it can use the data.

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What If the Web Had?

Structured Data

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Español
Esperanto
Euskara
Français
Gàidhlig
한국어
Bahasa Indonesia

Juan Manuel Santos

From Wikipedia, the free encyclopedia

This name uses Spanish naming customs; the first or paternal family name is Santos *and the second or maternal family name is* Calderón.

Juan Manuel Santos Calderón (Spanish pronunciation: [xwan maˈnwel ˈsantos kaldeˈron]; born August 10, 1951) is a Colombian politician who has been the President of Colombia since 7 August 2010.[1] He previously served as Minister of Foreign Trade, Minister of Finance, and Minister of National Defense.[2]

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Early Life [edit]

Juan Manuel Santos attended the prestigious Colegio San Carlos, a private secondary school in Bogotá, where he spend most of his school years until 1967, when he transferred to the Naval School of Cartagena and graduated from it in 1969. He continued in the Colombian Navy until 1971, earning a B.A. and finishing as Naval Cadet NA-42 139.[3]

After leaving the Navy, Santos decided to continue his education in the United States where he attended the University of Kansas and joined Delta Upsilon Fraternity. He graduated in 1973 with a B.A. in Economics and Business Administration. From there he moved to the United Kingdom to study at the London School of Economics and received a MSc in Economic Development, and in Law and Diplomacy from the Fletcher School of Law and Diplomacy at Tufts University.[4]

Career [edit]

Juan Manuel Santos has been Chief Executive of the Colombian Coffee Delegation to the International Coffee Organization[5] in London and Sub-Director of his family owned newspaper *El Tiempo*. He was Minister of Foreign Trade during the administration of president César Gaviria in 1991[*citation needed*]. In 1992 he was appointed President of the VII United Nations Conference on Trade and Development for a period of four years.[*citation needed*]

In 1994, Juan Manuel Santos founded the Good Government Foundation, whose stated objective

Juan Manuel Santos

59th President of Colombia
Incumbent
Assumed office
7 August 2010
Vice President Angelino Garzón
Preceded by Álvaro Uribe

Minister of National Defense
In office
19 July 2006 – 18 May 2009
President Álvaro Uribe
Preceded by Camilo Ospina Bernal
Succeeded by Freddy Padilla de León

Minister of Finance and Public Credit
In office
7 August 2000 – 7 August 2002
President Andrés Pastrana Arango
Preceded by Juan Camilo Restrepo
Succeeded by Roberto Junguito Bonnet

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What If the Computer Sees

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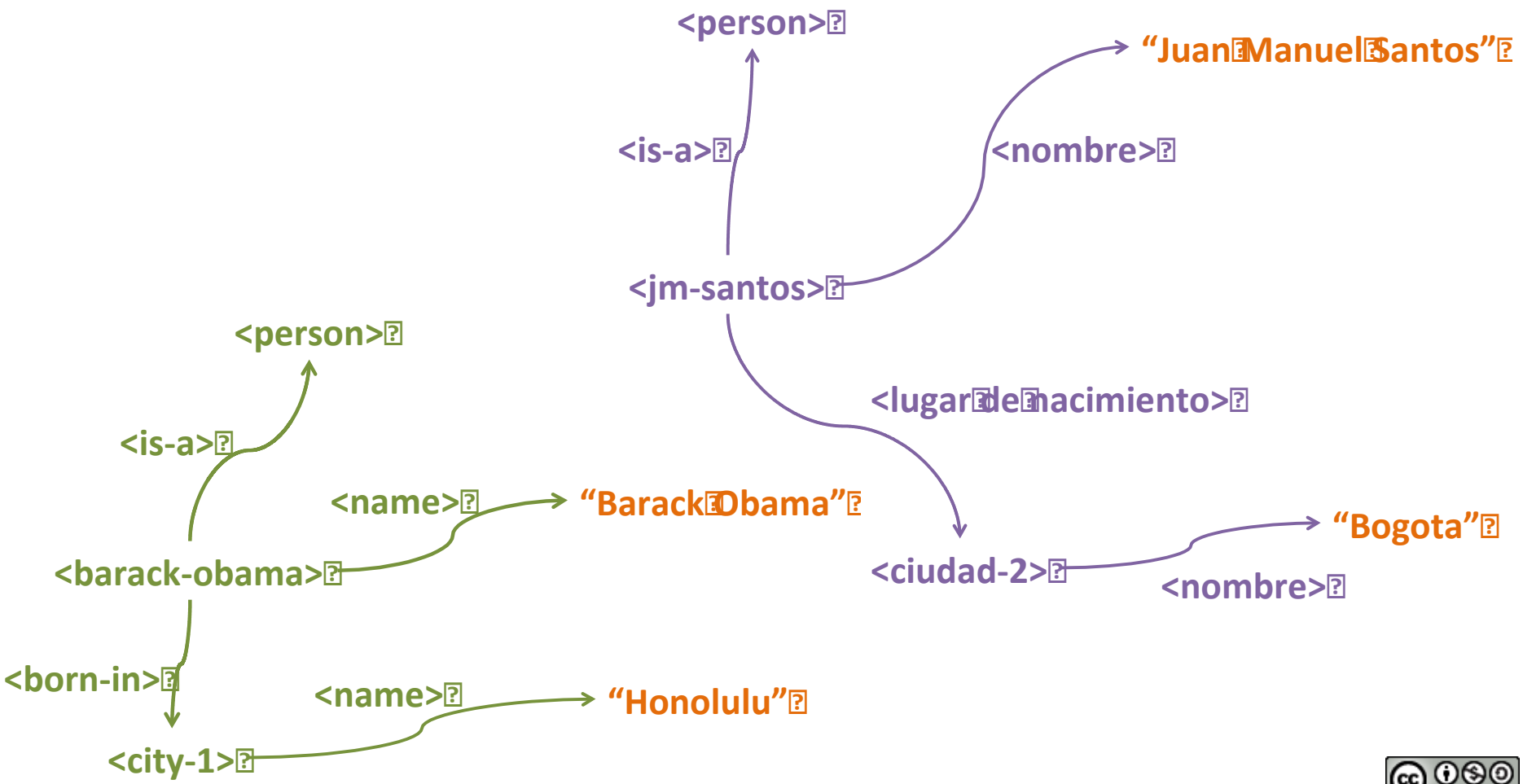
What If the Computer Sees Both?



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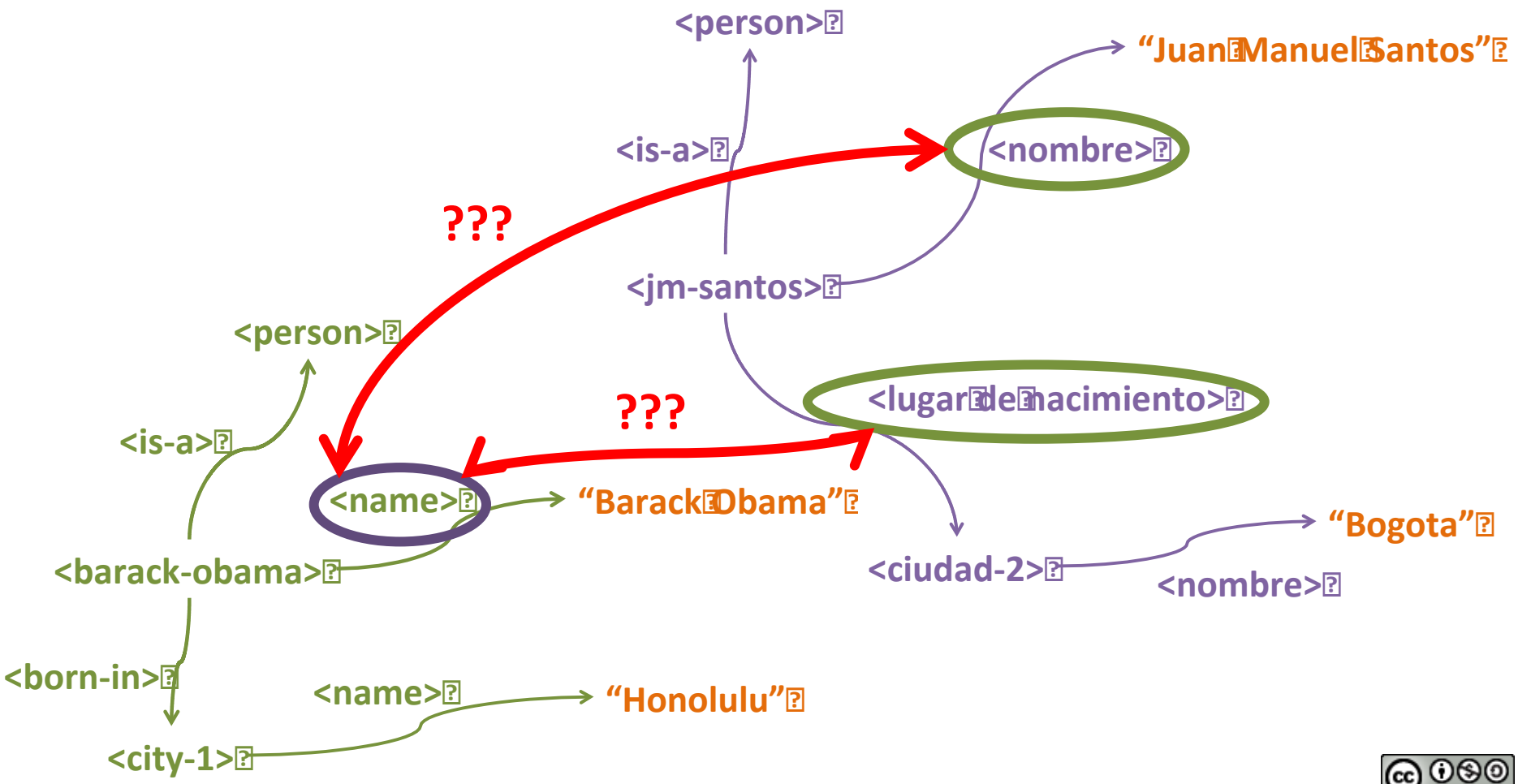

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What If the Web Had?

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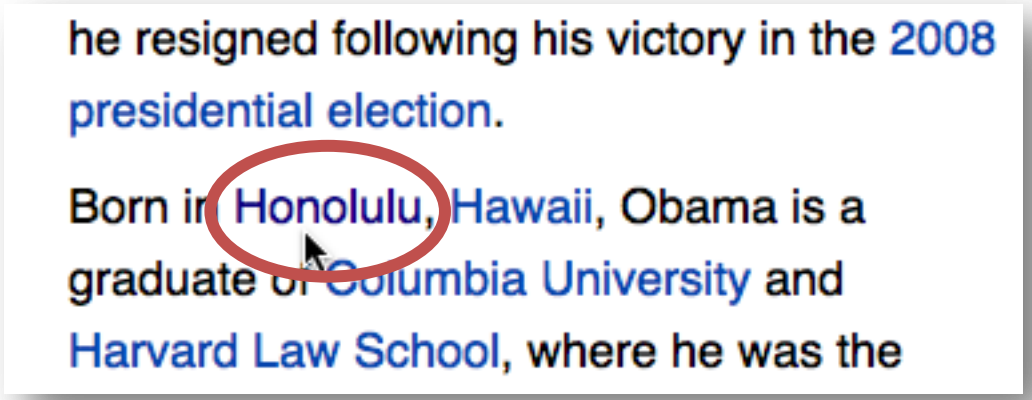
Web Has Links




```
<p>Born in
    <a      href="/wiki/Honolulu"
            title="Honolulu">Honolulu</a>,
    <a      href="/wiki/Hawaii"
            title="Hawaii">Hawaii</a>,
Obama is a graduate
```

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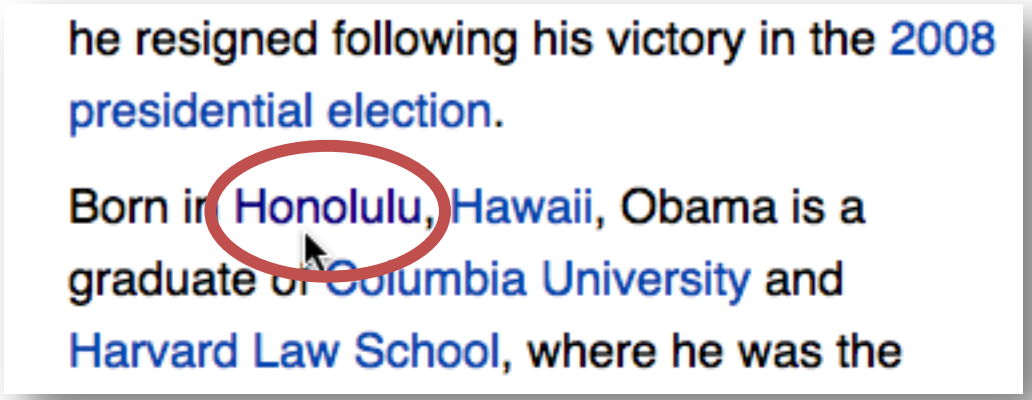
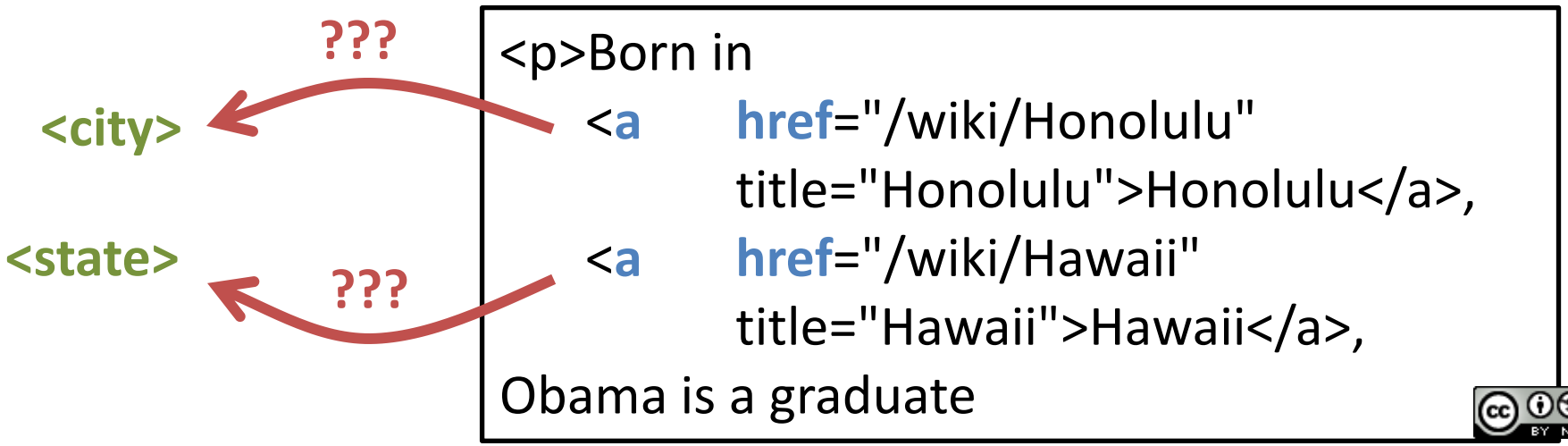
Web Has No Data Relationships





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How About Structured Sources?

What is this?

Name of what?

Accession_Id	Name	Gene_Accession_ID	Gene_Name	Drug_Accession_Id	Drug_Name	Disease_Accession_I
PA2039	Methotrexate Pat	PA267	ABCB1	PA452621	antineoplastic	PA443434
PA2040	Thiopurine Pathw	PA397	ABCC4	PA452621	antineoplastic	PA446116
PA145011108	Statin Pathway (P	PA267	ABCB1	PA448500	atorvastatin	PA443635
PA145011115	Phenytoin Pathwa	PA27093	CYP1A2	PA450947	phenytoin	PA444065
PA164713560	il22 soluble recep	PA29779	IL10RA			
PA164713561	alpha-synuclein a	PA32942	PARK2			
PA164713575	endocytotic role (	PA24852	AP2A1	PA164743471	adenosine triphosphate	
PA154422660	Bisphosphonate R	PA26266	CDC42			

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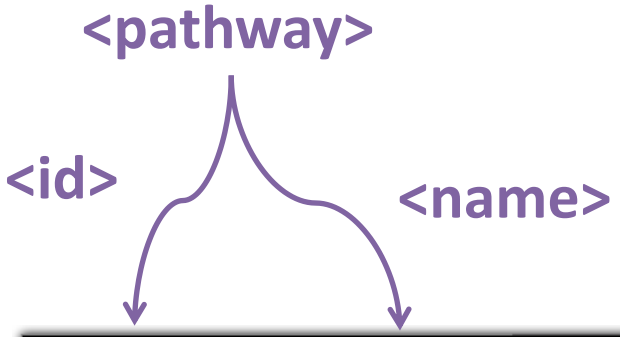
What's In the Columns?



Accession_Id	Name	Gene_Accession_Id	Gene_Name	Drug_Accession_Id	Drug_Name	Disease_Accession_Id
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PA145011108	Statin Pathway (P	PA267	ABCB1	PA448500	atorvastatin	PA443635
PA145011115	Phenytoin Pathwa	PA27093	CYP1A2	PA450947	phenytoin	PA444065
PA164713560	il22 soluble recep	PA29779	IL10RA			
PA164713561	alpha-synuclein a	PA32942	PARK2			
PA164713575	endocytotic role	PA24852	AP2A1	PA164743471	adenosine triphosphate	
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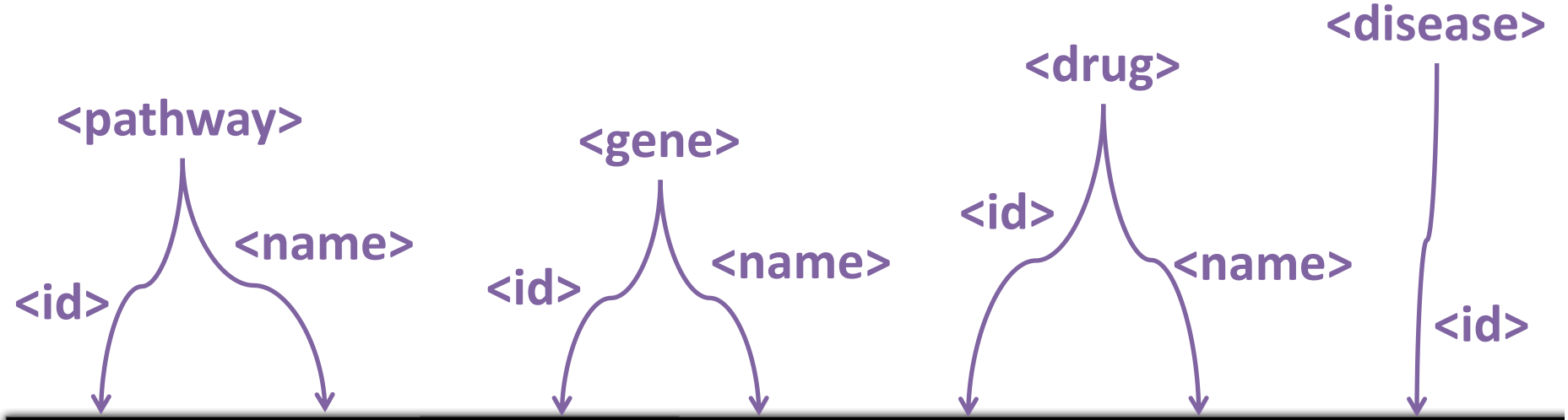

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PA154423660	Bisphosphonate P	PA26266	CDC42			

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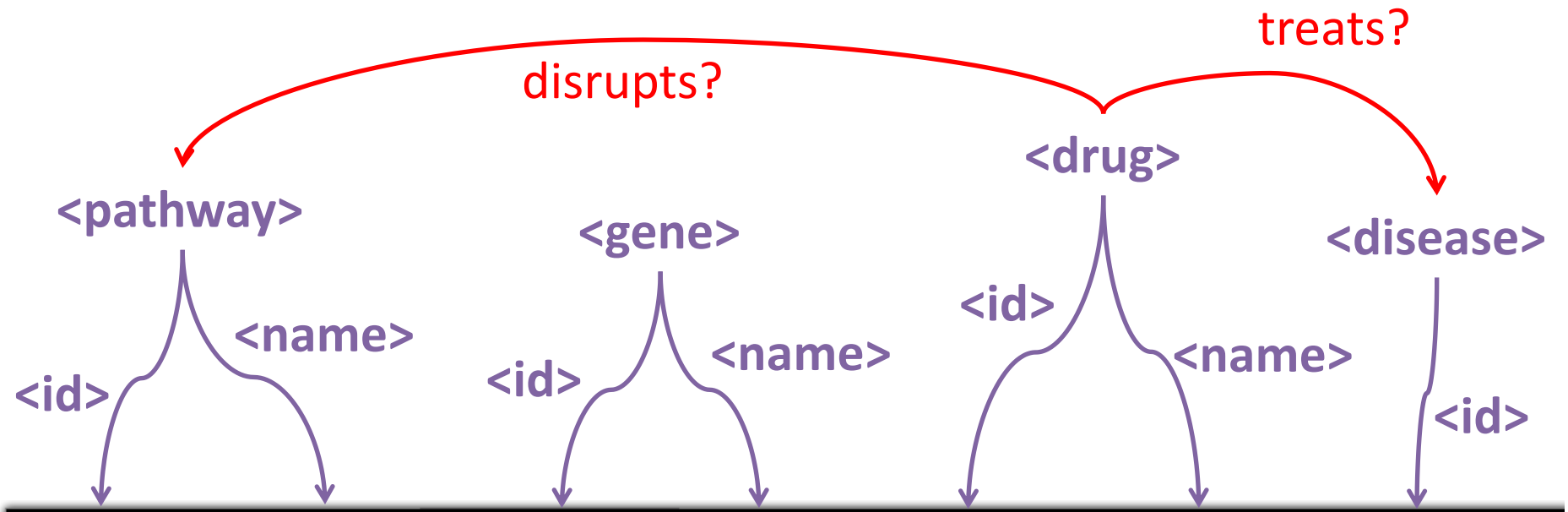
How Are Columns Related?



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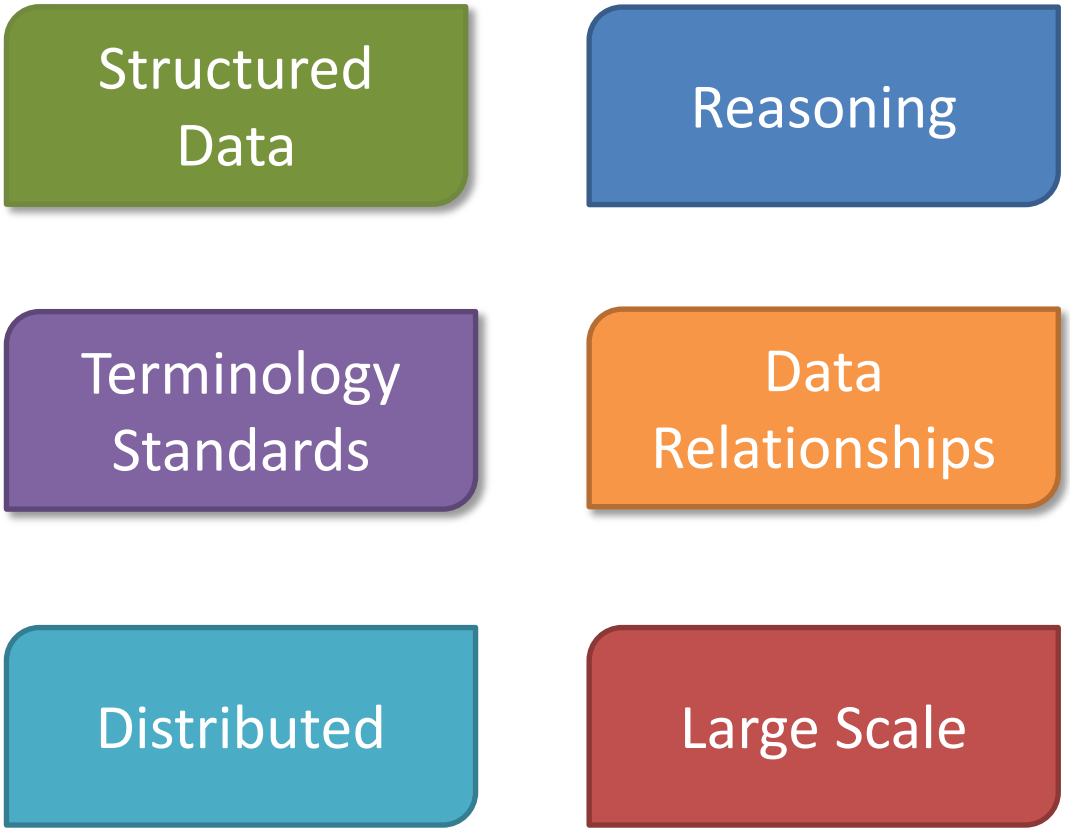

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