

Automating Conflict-Of-Interest Reporting



By
J.H. Snider, Ph.D.
President
iSolon.org
Email: contact@isolon.org

Presented at
“How Will Journalism Survive the Internet Age”
March 10, 2010
U.S. Federal Trade Commission
Washington, DC



Overview



- Introduction: The promise of semantic web technologies
 - ❖ Technology overview
 - ❖ Implications for journalism
 - ❖ Implementation timeframe
- Three ontology case studies
 - ❖ 1) Product reviews, 2) Financial reporting, 3) Legislation tracking
 - ❖ Lessons learned
- Overview of bias ontology
 - ❖ What it can do
 - ❖ How it works
 - ❖ Implementation requirements
- Conclusion

The Promise of Semantic Web Technologies



- The basic technical idea is simple
- The potential efficiency gains for open government are great
- Unfortunately, the implementation may be hard
- But the payoff makes it worth it



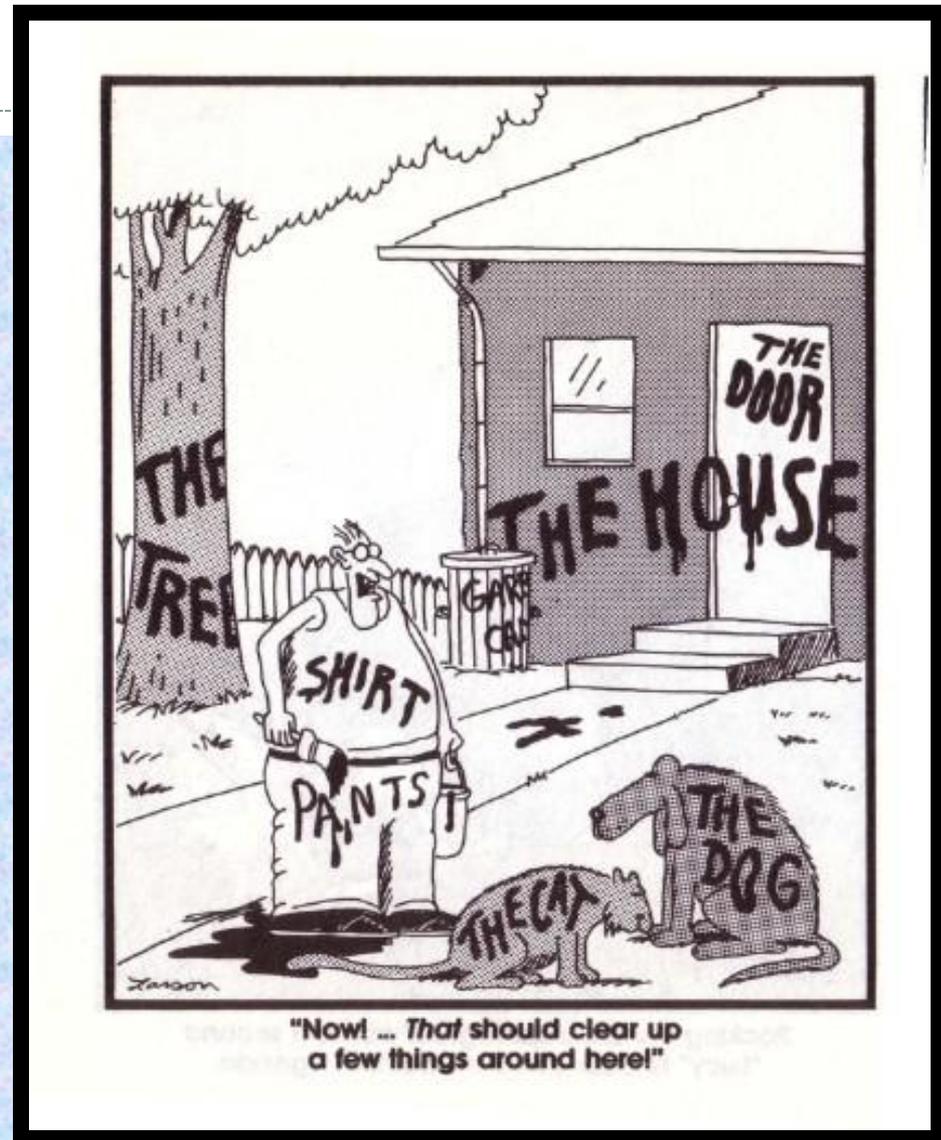
Human Vs. Machine- Readable Web

Metadata

The Tree, The House,.
The Door, Shirt, Pants,
The Cat, The Dog

Ontology

The Door is a part of
The House





Human Vs. Machine- Readable Web

Metadata

FTC (Organization)
600 Penn. Ave. (Street)
Washington (City)
DC (State)
20580 (Zip Code)

Address Ontology

Organization
Street
City
State
Zip Code



FEDERAL TRADE COMMISSION
PROTECTING AMERICA'S CONSUMERS

Privacy Policy | Contact Us | Advanced Search | En Español

Home | News | Competition | Consumer Protection | Economics | General Counsel | Actions | Congressional | Policy | International

About the FTC | Commissioners | Offices & Bureaus | Inspector General | Jobs | FOIA | Budget & Performance

Contact Us

Report a General Complaint

Your complaint, comment, or inquiry may help us spot a pattern of law violations requiring law enforcement action. It also may help us recognize and tell people about bigger trends affecting consumers. We do not resolve individual consumer disputes.

About a Company, an Organization, or a Business Practice

- **Online:** Use our [secure complaint form](#).
- **Phone:** Call our toll-free helpline: 1-877-FTC-HELP (1-877-382-4357); TTY: 1-866-653-4261
- **Mail:** Write to:
Federal Trade Commission
Consumer Response Center
600 Pennsylvania Avenue, NW
Washington, DC 20580

About Identity Theft

- **Online:** Use our [secure complaint form](#).
- **Phone:** Call our toll-free Identity Theft helpline: 1-877-ID-THEFT (1-877-438-4338); TTY: 1-866-653-4261
- **Mail:** Write to:
Federal Trade Commission
Consumer Response Center
600 Pennsylvania Avenue, NW
Washington, DC 20580

About Spam & Phishing

- **Email:** spam@uce.gov
Forward unsolicited commercial email (spam), including [phishing](#) messages, directly to the FTC at spam@uce.gov. These messages will be stored in a database law enforcement agencies use in their investigations.

National Do Not Call Registry

Federal Trade Commission
600 Pennsylvania Avenue, NW
Washington, DC 20580
(202) 326-2222
www.ftc.gov

Find an Office

- **Online:**
[Organization Directory](#)
- **Phone:** (202) 326-2222

Find a Staff Member

- **Online:**
[Agency Staff Directory](#)
- **Phone:** (202) 326-2000

Jobs at the FTC

Visit our [Jobs](#) section for general information.

To ask about a *specific, current* job posting or if you're having trouble submitting your application:

- **Email:**
HRMOEmployment@ftc.gov
Please include the vacancy announcement number in the subject line.
- **Phone:** 202-326-2021
- **TTY:** 202-326-3422

Report Website Issues

To report technical problems with our website, such as a link not

Structured Text

The Hierarchy

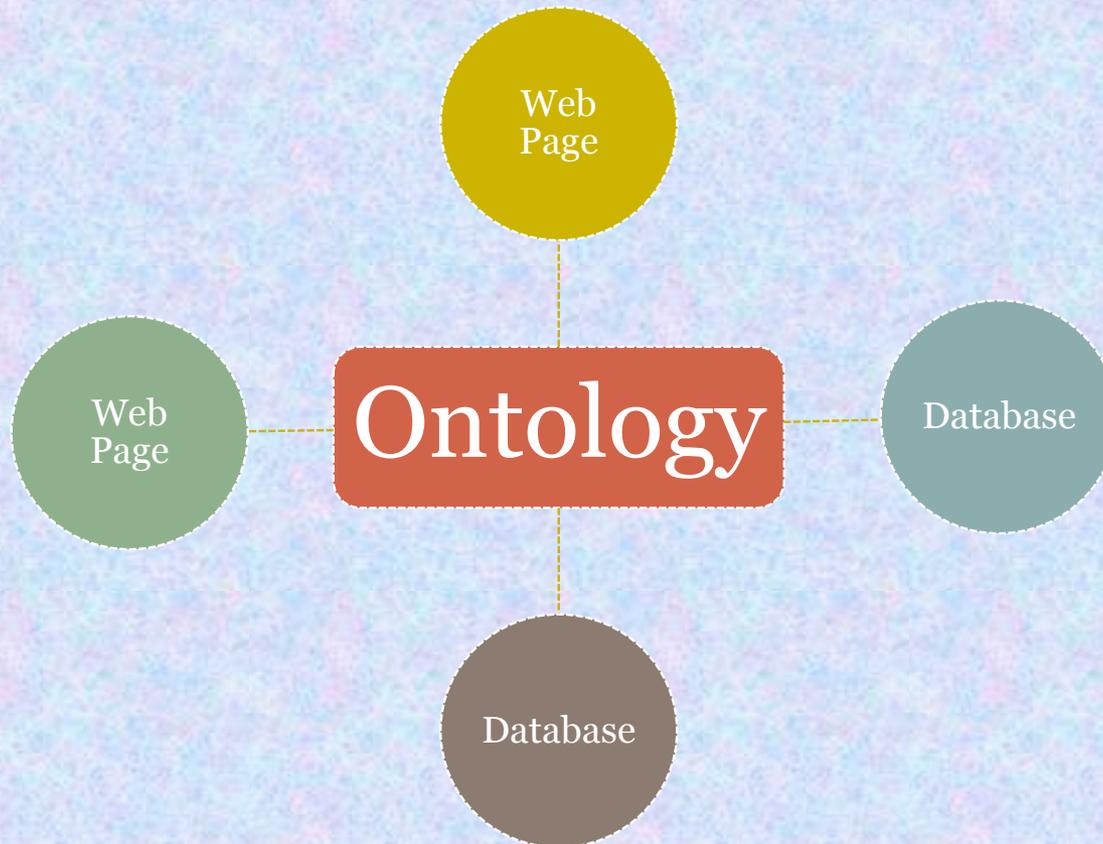


Ontology

Metadata

Data

Ontologies Integrate Dispersed Data



Focus: Implications for Journalism



- Lower cost
- Better journalism
- Examples
 - ❖ Covering Business
 - ❖ Covering Politics

Reasons for a Long Implementation Time Frame



- Technological
- Economic
- Political

Google Rich Snippets: Product Reviews



Google

The Capital Grille Washington, DC

Search

[Advanced Search](#)

Web [+ Show options...](#)

Results 1 - 10 of about 62,100 for The Capital Grille Washington, DC. (0.23 seconds)



The Capital Grille Washington, DC

www.thecapitalgrille.com

601 Pennsylvania Avenue Northwest
Washington, DC 20004
(202) 737-6200

[Get directions](#) - [Is this accurate?](#)

★★★★☆ [128 reviews](#) - [Write a review](#)

"Our server, Eric was simply wonderful. Full of charm and very knowledgeable."

[Menu, reservations, and more »](#)

The Capital Grille ☆

At **The Capital Grille**, we want to be your place and your favorite steakhouse. The restaurant you most want to come to, whether for a special occasion or ...

www.thecapitalgrille.com/ - [Cached](#) - [Similar](#) **#4** in [Steak Houses](#)

[Locations](#) [Gift Cards](#)
[Menu](#) [The Capital Grille Boston Restaurant](#)
[Lunch](#) [Dinner](#)
[Contact Us](#) [Private Dining](#)

[More results from thecapitalgrille.com »](#)

The Capital Grille Washington DC Restaurant ☆

The Capital Grille Home · About Us · Menu · Private Dining · Wine ... Your Location: 601 Pennsylvania Ave, NW Washington, DC 20004. Driving Directions ...

www.thecapitalgrille.com/.../WashingtonDC/MapMain-FS.asp?... - [Cached](#) - [Similar](#)

New
Snippet
Format

Old
Snippet
Format

Product Reviews with Map Functionality



Google maps Search Maps What's Around Here
Find businesses, addresses and places of interest.

Get Directions My Maps

Print Send Link

Traffic More... Map Satellite Terrain

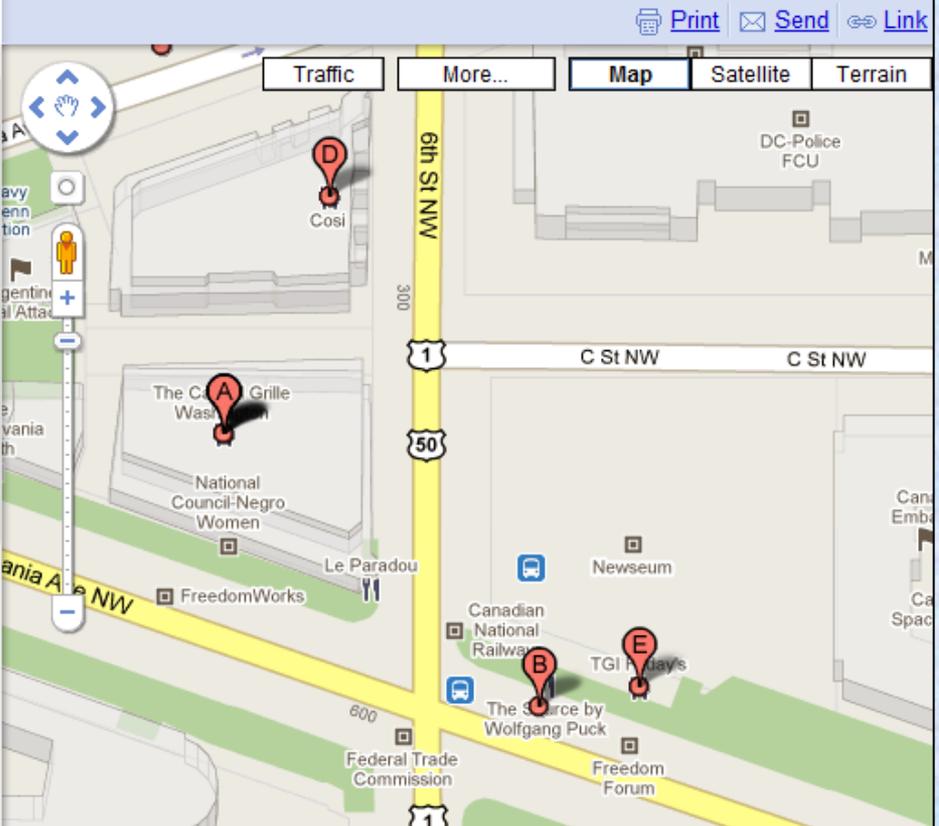
restaurants

- A** [The Capital Grille Washington, DC](#) - [more info »](#)


601 Pennsylvania Avenue Northwest, Washington, DC - (202) 737-6200
Category: Restaurants
★★★★☆ [128 reviews](#)
"Our server, Eric was simply wonderful. Full of charm and very ..."
- B** [The Source by Wolfgang Puck](#) - [more info »](#)


575 Pennsylvania Ave NW, Washington, DC - (202) 637-6100
Category: Restaurants
★★★★☆ [98 reviews](#)
"The food was excellent and the ambiance was wonderful. Our waitress ..."
- C** [Le Paradou](#) - [more info »](#)


601 Pennsylvania Avenue Northwest, Washington, DC - (202) 347-6780
Category: Restaurants
★★★★☆ [11 reviews](#)
"This was a great night of dining and drinks. Great service and beautiful ..."



Product Review Ontology (it's simple)



Property	Description
<code>itemReviewed</code> (<code>item</code>)	The item being reviewed
<code>name (fn)</code>	The name of the item being reviewed.
<code>rating</code>	A numerical quality rating for the item (default: 1) or <code>best</code> (default: 5)
<code>reviewer</code>	The author of the review.
<code>dtreviewed</code>	The date that the item was reviewed.
<code>description</code>	The body of the review.

The Code (again, it's simple)



HTML Markup

```
<h1>Drooling Dog Bar B Q</h1>
...

<em>based on 15 reviews</em>
...
<strong>Price Range:</strong> $$
```

Microformats Markup

```
<div class="hreview-aggregate">
  <div class="item vcard">
    <h1 class="fn org">Drooling Dog Bar B Q</h1>
    ...
    
    <em>based on <span class="count">15</span> reviews</em>
    ...
    <strong>Price range:</strong> <span class="pricerange">$$</span>
  </div>
</div>
```

RDFa Markup

```
<div xmlns:v="http://rdf.data-vocabulary.org/#" typeof="v:Review-aggregate">
  <div rel="v:itemreviewed">
    <span typeof="v:Organization">
      <h1 property="v:name">Drooling Dog Bar B Q</h1>
      ...
      
      <em>based on <span property="v:count">15</span> reviews</em>
      ...
      <strong>Price Range:</strong> <span property="v:pricerange">$$</span>
    </span>
  </div>
</div>
```

Financial Ontology (XBRL)



XBRL: From Idea to Implementation



- 1998: W3C publishes guidelines for XML, which makes it possible to attach “tags” to each piece of information in a document; Charles Hoffman comes up with the idea for XBRL.
- 1999: American Institute of Certified Public Accountants (AICPA) endorses developing XBRL.
- 2000: AICPA releases first draft of XBRL.
- 2002: FDIC endorses XBRL.
- 2004: Chinese stock exchanges adopt XBRL.
- 2005: FDIC adopts XBRL; SEC endorses XBRL.
- 2008: U.S. GAAP published in XBRL.
- 2009: SEC adopts XBRL for largest companies, beginning four year rollout.

Source: Karen Kernan, “The Story of Our New Language,” AICPA, 2009.

Legislation Ontology



Transforming Bills into Structured Data



LDO NO. 77 0412/1 First Regular Session HOUSE BILL NO. **1050**
Fifty-first General Assembly
STATE OF COLORADO JUDICIARY
BY REPRESENTATIVE Burns

A BILL FOR AN ACT

1 CONCERNING RELEASE OF DEEDS OF TRUST.

Bill Summary

(NOTE: This summary applies to this bill as introduced and does not necessarily reflect any amendments which may be subsequently adopted.)

Provides that a deed of trust in favor of the federal government may be released without a cancelled note under certain circumstances indicating the indebtedness has been paid or the purposes of the deed of trust have been otherwise satisfied.

2 Be it enacted by the General Assembly of the State of Colorado:

3 SECTION 1. 38-37-123 (1), Colorado Revised Statutes 1973,
4 as amended, is amended BY THE ADDITION OF A NEW PARAGRAPH to
5 read:

6 38-37-123. When trust deeds shall be released. (1) (c) An
7 affidavit executed by any lending agency of the federal
8 government stating the reasons the original note or deed of trust
9 cannot be produced and that:

10 (I) The indebtedness secured by the deed of trust has been
11 paid; or

12 (II) The purposes of said deed of trust have been fully or
13 partially satisfied.

*Capital letters indicate new material to be added to existing statute.
Dashes through the words indicate deletions from existing statute.*

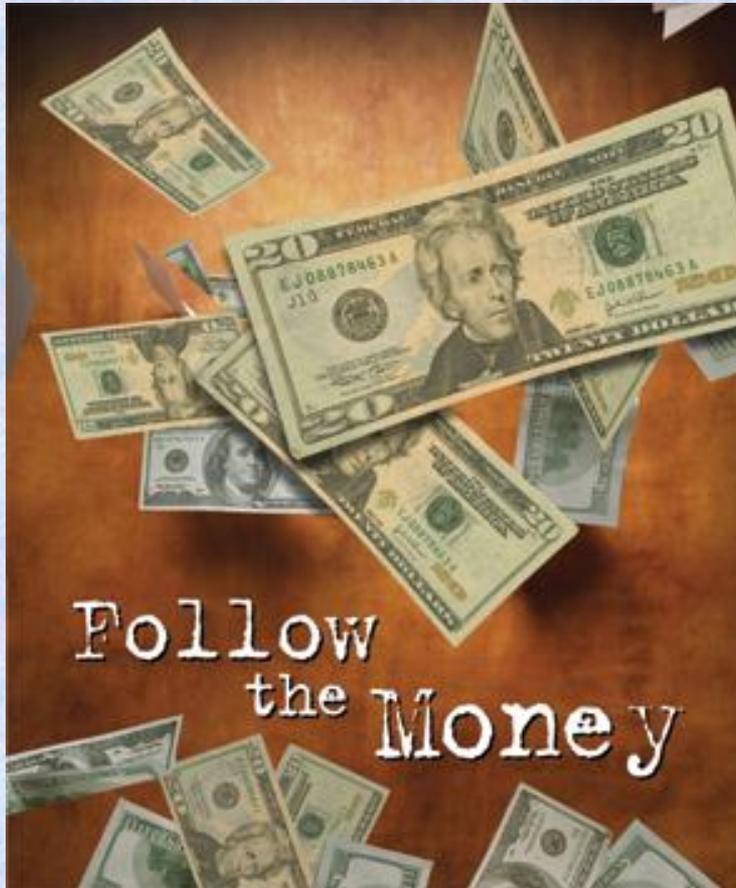
Summary



	Product Review Ontology	Financial Ontology	Legislation Ontology
Complexity	Simple	Complex	Medium
Private vs. Public Standard Setter	Private	Private-Government Partnership	Government
Government Incentive	N.A.	High	Low*
Private Incentive	High	High	N.A.
Extensible	No	Yes	N.A.

* See Snider, J.H., "The Dismal Politics of Legislative Transparency," *Journal of Information Technology & Politics*, Volume 6, Issue 2, 2009.

Bias Ontology



ADB/OECD Anti-Corruption Initiative for Asia and the Pacific

MANAGING CONFLICT OF INTEREST

FRAMEWORKS, TOOLS,
AND INSTRUMENTS FOR
PREVENTING, DETECTING,
AND MANAGING CONFLICT
OF INTEREST

ADB



Why a Bias Ontology is Important



- Progress, the division of labor, and the growth of principal-agent relationships.
- Why conflict of interest disclosure has become increasingly important in economics and politics.
- The benefits of using a conflict of interest ontology.

Structure of Bias Ontology (it's elegant!)



Key Elements

- 1) Author of the Agency Claim
 - a. Government
 - b. Agent
 - c. Third Party (e.g., watchdog)
- 2) The Five Major Components of an Agency Claim
 - a. Principal
 - b. Agent
 - c. Agent's Covered Interests
 - d. Agent's Covered Actions
 - e. Default Settings Linking Covered Interests with Actions

Simple Example: Earmarks



For **U.S. Senator Richard Shelby**, the largest earmark recipient for fiscal year 2009

Agent

Covered Action

Description	Bill	Amount	Indivs	PACs	Lobbying
University of Alabama University of Alabama for an interdisciplinary science and engineering teaching and research corridor <i>Tuscaloosa, AL</i>	Commerce, Justice & Science	\$30,000,000	\$4,000	\$0	\$360,000
Tuscaloosa Federal Building, Alabama <i>Tuscaloosa, AL</i>	Financial Services	\$25,000,000	\$0	\$0	\$0
Tennessee-Tombigbee Waterway, AL & MS <i>AL; MS</i>	Energy & Water	\$20,884,000	\$0	\$0	\$0
Buck Warrior and Tombigbee Rivers, AL <i>AL</i>	Energy & Water	\$20,598,000	\$0	\$0	\$0
Alabama River Lakes, AL <i>AL</i>	Energy & Water	\$17,000,000	\$0	\$0	\$0
System Software Engineering Annex, Ph 3 <i>Redstone Arsenal, AL</i>	Military Construction	\$16,500,000	\$0	\$0	\$0
University of Alabama University of Alabama for weather research in the Gulf of Mexico <i>Tuscaloosa, AL</i>	Commerce, Justice & Science	\$10,550,000	\$4,000	\$0	\$360,000
University of Alabama, Tuscaloosa, AL, for construction, renovation and equipment <i>Tuscaloosa, AL</i>	Labor-HHS-Education	\$9,515,000	\$0	\$0	\$0
Extremely Large, Domestic Expendable and Reusable Structures Manufacturing Center (ELDERS) <i>Iuka, MS</i>	Defense	\$8,000,000	\$0	\$0	\$0
Tuscaloosa, AL <i>Tuscaloosa, AL</i>	Energy & Water	\$7,500,000	\$0	\$0	\$0

Linkage of Covered Interests and Covered Actions

Covered Interests

Source: Center for Responsive Politics, downloaded February 23, 2010

Benefits



- Economies of scale in application markets
- More efficient data entry and integration
- More efficient semantic search
- More efficient and effective economic and political markets
 - ❖ More efficient and effective information intermediaries (citizen and professional journalists).
 - ❖ More efficient and effective direct consumers of information.

Critique of Current Linkage Mechanisms



- Highly labor intensive; low degree of automation
- Limited to relatively high value, high profile, and simple cases (such as earmarks)
- Inflexible, poorly integrated data analysis

Sophisticated Example: Budgets



- For a state or large city, 100 million percent gain in efficiency over manual covered-interest/covered-action linking methods.
- Ability to see new types of relationships never before practical to investigate.

More Efficient Semantic Search



- One simple query can substitute for thousands of queries over space and time
- Boolean Search Example

SourceOfAgencyClaim(State of Arkansas) and
AgencyClaim(Arkansas) and
CoveredAction(Budget) and
CoveredActionDates(July 1, 2009 to July 1, 2010) and
CoveredInterest(All) and
CoveredInterestDates(January 1, 2006 to Present)

Example: Budgets (no bias ontology)



Expenditures for the State of Arkansas across all state agencies, fiscal year 2010

Agency	Agency Name	Total	%
HCA	AHCCCS	\$5,816,206,667.46	29.28
EDA	EDUCATION, DEPT OF	\$3,756,599,563.72	18.91
DEA	ECONOMIC SECURITY, DEPT OF	\$2,038,378,027.04	10.26
DTA	TRANSPORTATION, DEPT OF	\$1,708,224,738.85	8.60
HSA	HEALTH SERVICES, DEPT OF	\$1,320,024,718.88	6.64
AAA	GENERAL ACCOUNTING OFFICE	\$875,218,192.09	4.41
DCA	CORRECTIONS, DEPT OF	\$612,474,437.16	3.08
ADA	ADMINISTRATION, DEPT OF	\$568,513,921.11	2.86
ASA	ARIZONA STATE UNIVERSITY	\$497,907,405.00	2.51
UAA	UNIVERSITY OF ARIZONA (U OF A)	\$378,766,073.00	1.91
PSA	PUBLIC SAFETY, DEPT OF	\$320,520,366.61	1.61
SFA	SCHOOL FACILITIES BOARD	\$224,212,829.40	1.13
WFA	WATER INFRASTRUCTURE FINANCE AUTHORITY	\$198,070,956.51	1.00
NAA	NORTHERN ARIZONA UNIVERSITY	\$133,794,731.98	0.67
RTA	RETIREMENT SYSTEM	\$127,201,670.99	0.64
LOA	LOTTERY COMMISSION, ARIZONA STATE	\$126,338,284.19	0.64
SPA	SUPREME COURT	\$121,175,528.99	0.61
EPA	COMMERCE, DEPT OF	\$79,132,402.83	0.40
EVA	ENVIRONMENTAL QUALITY, DEPT OF	\$77,987,175.42	0.39
HDA	HOUSING, ARIZONA DEPARTMENT OF	\$75,271,744.47	0.38
AGA	ATTORNEY GENERALS OFFICE	\$60,141,250.38	0.30
RVA	REVENUE, DEPT OF	\$58,041,690.67	0.29
PRA	PARKS BOARD, ARIZONA STATE	\$54,617,409.72	0.27
GFA	GAME AND FISH, DEPT OF	\$52,293,572.60	0.26
DJA	JUVENILE CORRECTIONS, DEPT OF	\$47,897,650.03	0.24
BRA	REGENTS, BOARD OF	\$46,196,643.89	0.23
CDA	EARLY CHILDHOOD DEVELOP AND HEALTH BOARD	\$37,318,515.86	0.19
WCA	WATER RESOURCES, DEPT OF	\$36,608,340.43	0.18
MAA	EMERGENCY & MILITARY AFFAIRS, DEPT OF	\$35,989,270.17	0.18
SDA	SCHOOLS FOR THE DEAF & BLIND, ARIZONA STATE	\$30,269,416.28	0.15
RCA	RACING, DEPT OF	\$25,831,324.67	0.13
JCA	ARIZONA CRIMINAL JUSTICE COMMISSION	\$24,852,622.83	0.13
CCA	CORPORATION COMMISSION	\$20,805,657.69	0.10
VSA	VETERANS SERVICES, DEPT OF	\$16,289,457.62	0.08
FOA	STATE FORESTER, OFFICE OF THE	\$16,267,499.04	0.08
LDA	LAND DEPARTMENT	\$14,733,169.75	0.07

Example: Budgets (with bias ontology)



Expenditures for the State of Arkansas across all state agencies, fiscal year 2010

Agency	Agency Name	Contributions	Total	%
HCA	AHCCCS		\$5,816,206,667.46	29.28
EDA	EDUCATION, DEPT OF		\$3,756,599,563.72	18.91
DEA	ECONOMIC SECURITY, DEPT OF		\$2,038,378,027.04	10.26
DTA	TRANSPORTATION, DEPT OF	\$87,300	\$1,708,224,738.85	8.60
HSA	HEALTH SERVICES, DEPT OF		\$1,320,024,718.88	6.64
AAA	GENERAL ACCOUNTING OFFICE		\$875,218,192.09	4.41
DCA	CORRECTIONS, DEPT OF		\$612,474,437.16	3.08
ADA	ADMINISTRATION, DEPT OF		\$568,513,921.11	2.86
ASA	ARIZONA STATE UNIVERSITY		\$497,907,405.00	2.51
UAA	UNIVERSITY OF ARIZONA (U OF A)		\$378,766,073.00	1.91
PSA	PUBLIC SAFETY, DEPT OF		\$320,520,366.61	1.61
SFA	SCHOOL FACILITIES BOARD		\$224,212,829.40	1.13
WFA	WATER INFRASTRUCTURE FINANCE AUTHORITY		\$198,070,956.51	1.00
NAA	NORTHERN ARIZONA UNIVERSITY		\$133,794,731.98	0.67
RTA	RETIREMENT SYSTEM		\$127,201,670.99	0.64
LOA	LOTTERY COMMISSION, ARIZONA STATE		\$126,338,284.19	0.64
SPA	SUPREME COURT		\$121,175,528.99	0.61
EPA	COMMERCE, DEPT OF		\$79,132,402.83	0.40
EVA	ENVIRONMENTAL QUALITY, DEPT OF		\$77,987,175.42	0.39
HDA	HOUSING, ARIZONA DEPARTMENT OF	\$131,600	\$75,271,744.47	0.38
AGA	ATTORNEY GENERALS OFFICE		\$60,141,250.38	0.30
RVA	REVENUE, DEPT OF		\$58,041,690.67	0.29
PRA	PARKS BOARD, ARIZONA STATE		\$54,617,409.72	0.27
GFA	GAME AND FISH, DEPT OF		\$52,293,572.60	0.26
DJA	JUVENILE CORRECTIONS, DEPT OF		\$47,897,650.03	0.24
BRA	REGENTS, BOARD OF		\$46,196,643.89	0.23
CDA	EARLY CHILDHOOD DEVELOP AND HEALTH BOARD		\$37,318,515.86	0.19
WCA	WATER RESOURCES, DEPT OF		\$36,608,340.43	0.18
MAA	EMERGENCY & MILITARY AFFAIRS, DEPT OF		\$35,989,270.17	0.18
SDA	SCHOOLS FOR THE DEAF & BLIND, ARIZONA STATE	\$400	\$30,269,416.28	0.15
RCA	RACING, DEPT OF		\$25,831,324.67	0.13
JCA	ARIZONA CRIMINAL JUSTICE COMMISSION		\$24,852,622.83	0.13
CCA	CORPORATION COMMISSION		\$20,805,657.69	0.10
VSA	VETERANS SERVICES, DEPT OF		\$16,289,457.62	0.08
FOA	STATE FORESTER, OFFICE OF THE		\$16,267,499.04	0.08
LDA	LAND DEPARTMENT		\$14,733,169.75	0.07

Drill Down

Covered Interests

Covered Actions

Covered Interests Alert

Example: Budgets (drill down view)



DTA – Transportation, Department of, fiscal year 2010

Object Code	Title	Contributions	Amount	% (Total)
			\$59,379.28	0.00%
6000	Personal Services		\$112,214,260.90	6.57%
6100	Employee Related Expenditures		\$48,263,709.78	2.83%
6200	Professional & Outside Services		\$104,994,833.80	6.15%
6500	Travel In-State		\$704,917.44	0.04%
6600	Travel Out-of-State		\$63,815.11	0.00%
6800	Aid to Organizations & Individuals		\$347,230,199.39	20.33%
7000	Other Operating Expenditures		\$90,730,768.71	5.31%
8100	Capital Outlay	\$87,300	\$656,105,107.24	38.41%
8400	Capital Equipment		\$1,810,631.45	0.11%
8500	Non-Capital Equipment		\$340,810.72	0.02%
8600	Debt Service		\$71,542,816.47	4.19%
9100	Transfers-Out		\$274,163,488.56	16.05%
		Totals:	\$87,300	\$1,708,224,738.85

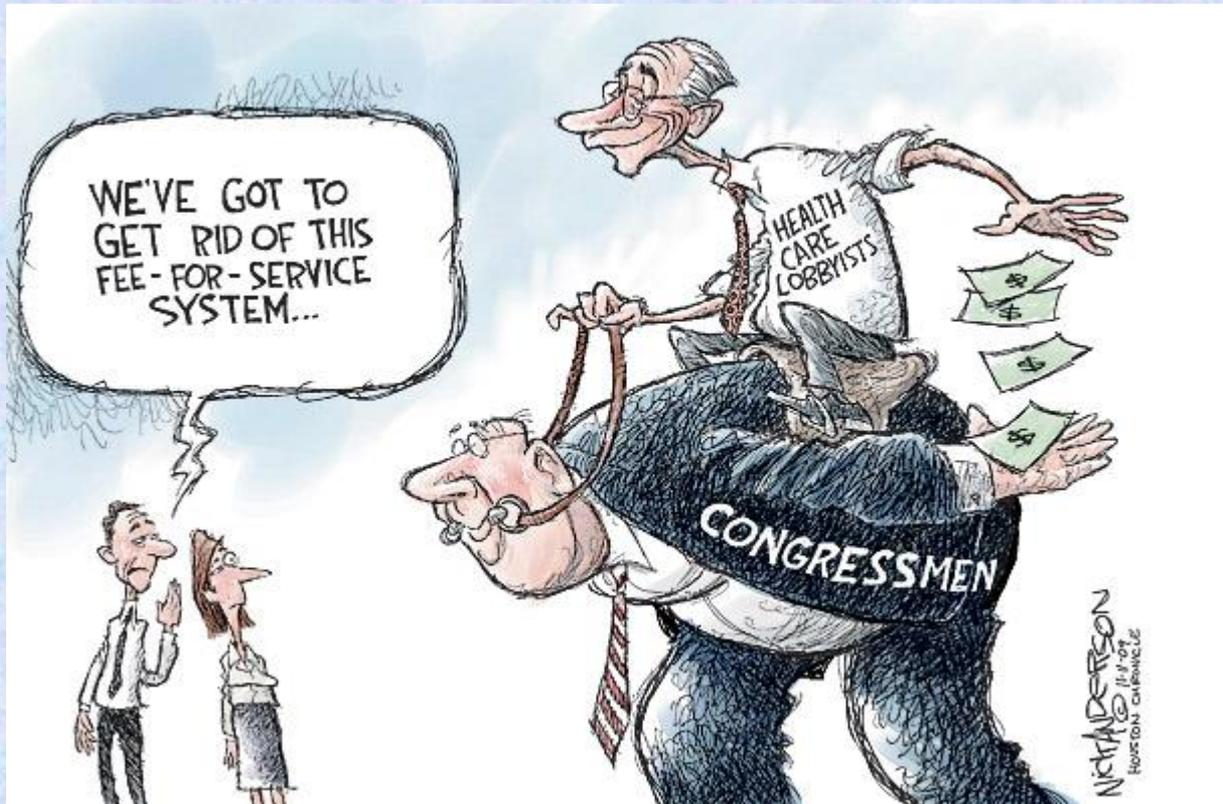
Drill Down

Types of Budget Views



- **Sort by Covered Action**
 - ❖ By Program
 - ❖ By Object
 - ❖ By Location (e.g., on a map of the political district)
- **Sort by Covered Interest**
 - ❖ By Industry
 - ❖ By Individual
 - ❖ By Type of Contribution (e.g., by gift or campaign contribution, income or asset)

Elected Officials and Voters



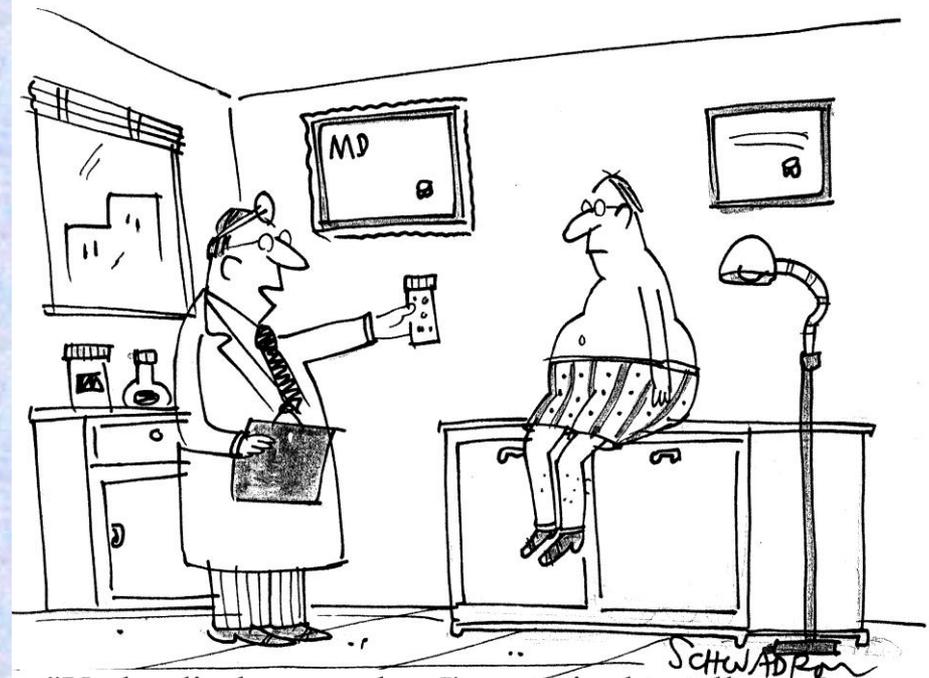
Doctors and Patients



© Cartoonbank.com



"Try this—I just bought a hundred shares."



"Under disclosure rules, I'm required to tell you I own stock in the company whose drug I'm prescribing."

Publishers and Authors



The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812

DECEMBER 4, 2008

VOL. 359 NO. 23

ORIGINAL ARTICLE

[◀ Previous](#)

Volume 359:2417-2428

[December 4, 2008](#)

Number 23

[Next ▶](#)

Benazepril plus Amlodipine or Hydrochlorothiazide for Hypertension in High-Risk Patients

Kenneth Jamerson, M.D., Michael A. Weber, M.D., George L. Bakris, M.D., Björn Dahlöf, M.D., Bertram Pitt, M.D., Victor Shi, M.D., Allen Hester, Ph.D., Jitendra Gupte, M.S., Marjorie Gatlin, M.D., Eric J. Velazquez, M.D., for the ACCOMPLISH Trial Investigators

ABSTRACT

Background The optimal combination drug therapy for hypertension is not established, although current U.S. guidelines recommend inclusion of a diuretic. We hypothesized that treatment with the combination of an angiotensin-converting-enzyme (ACE) inhibitor and a dihydropyridine calcium-channel blocker would be more effective in reducing the rate of cardiovascular events than treatment with an ACE inhibitor plus a thiazide diuretic.

Methods In a randomized, double-blind trial, we assigned 11,506 patients with hypertension who were at high risk for cardiovascular events to receive treatment with either benazepril plus amlodipine or benazepril plus hydrochlorothiazide. The primary end point was the composite of death from cardiovascular causes, nonfatal myocardial infarction, nonfatal stroke, hospitalization for angina, resuscitation after sudden cardiac arrest, and coronary revascularization.

Results The baseline characteristics of the two groups were similar. The trial was terminated early after a mean follow-up of 36 months, when the boundary of the prespecified stopping rule was exceeded. Mean blood pressures after dose adjustment were 131.6/73.3 mm Hg in the benazepril-amlodipine group and 132.5/74.4 mm Hg in the benazepril-hydrochlorothiazide group. There were 552 primary-outcome events in the benazepril-amlodipine group (9.6%) and 679 in the benazepril-hydrochlorothiazide group (11.8%), representing an absolute risk reduction with benazepril-amlodipine therapy of 2.2% and a relative risk reduction of 19.6% (hazard ratio, 0.80, 95% confidence interval [CI], 0.72 to 0.90; $P < 0.001$). For the secondary end point of death from cardiovascular causes, nonfatal myocardial infarction, and nonfatal stroke, the hazard ratio was 0.79 (95% CI, 0.67 to 0.92; $P = 0.002$). Rates of adverse events were consistent with those observed from clinical experience with the study drugs.

Conclusions The benazepril-amlodipine combination was superior to the benazepril-hydrochlorothiazide combination in reducing cardiovascular events in patients with hypertension who were at high risk for such events. (ClinicalTrials.gov number, NCT00170950 [ClinicalTrials.gov].)

NEJM's E-Mail
Table of Contents
[SIGN UP NOW FREE](#)

THIS ARTICLE

- ▶ Full Text
- ▶ PDF
- ▶ PDA Full Text
- ▶ PowerPoint Slide Set
- ▶ CME Exam

COMMENTARY

- ▶ Editorial
by Chobanian, A. V.

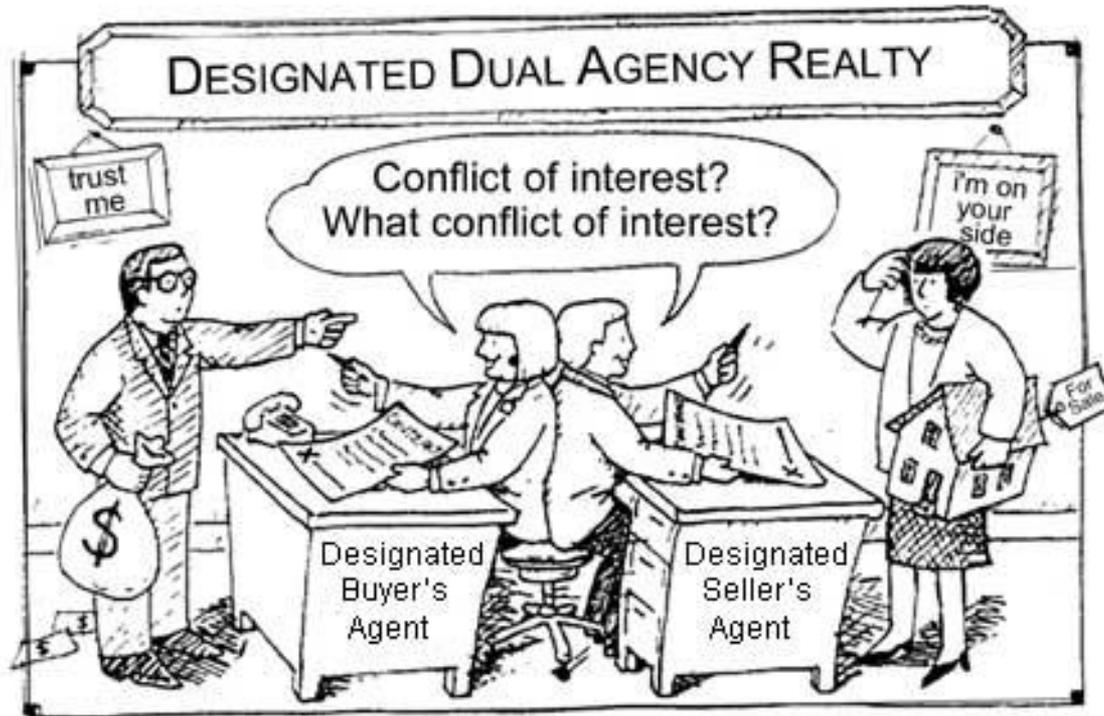
TOOLS & SERVICES

- ▶ Add to Personal Archive
- ▶ Add to Citation Manager
- ▶ Notify a Friend
- ▶ E-mail When Cited
- ▶ E-mail When Letters Appear

MORE INFORMATION

- ▶ PubMed Citation

Brokers and Clients



Opposing Teams. Same Locker Room???

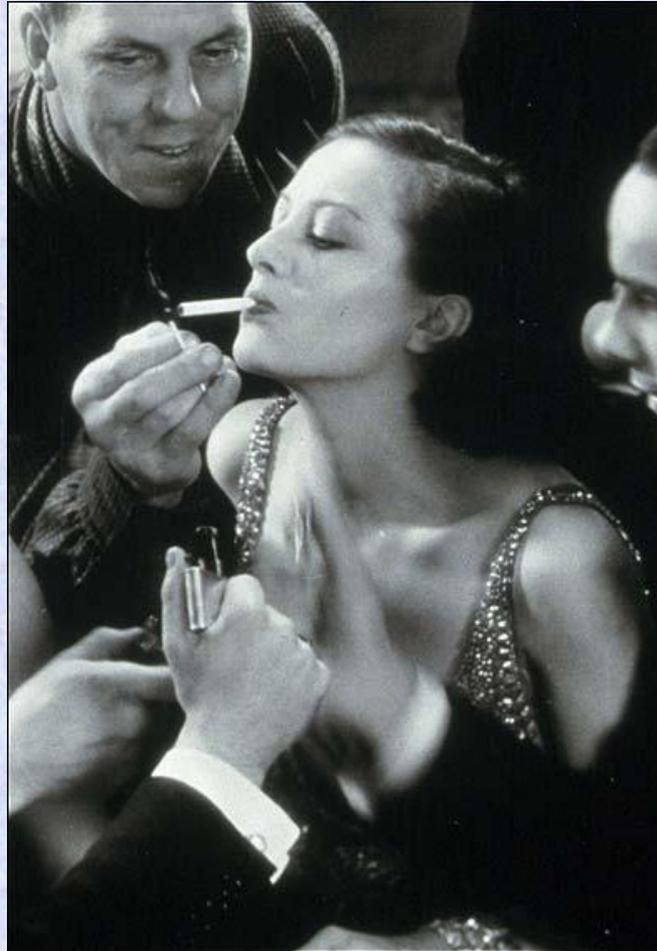
Disc Jockeys and Listeners (payola)



TV News and Viewers (product placement)



Movies and Viewers (product placement)



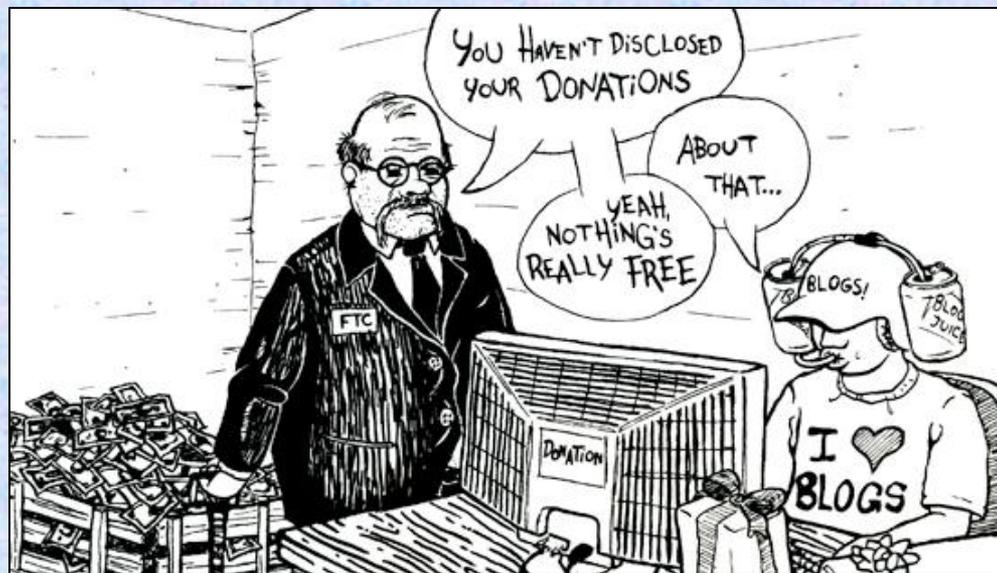
Bloggers and Readers



NOISE TO SIGNAL
socialsignal.com/n2s



FTC rules. I have to wear it whenever I'm blogging.





Highlights

Conflict of interest displayed within the review

Reader chooses how the conflict of interest is displayed, e.g., with a highlight, footnote mark, underline, or box

Reader chooses what is a material conflict of interest for display.

About.com: Baby Products

Home > Parenting & Family > Baby Products

Pampers drugstore+ **New** Wrapped in **Comfort & Security** From the Start **#1 choice** of hospitals

[Baby Products](#) [Newborns](#) [Infants 3-12 Mos.](#) [Toddlers 1-4 Yrs.](#)

BabyPlanet Unity Twin Stroller

About.com Rating **★★★★★** | User Rating **★★★★★** Be the first to [write a review](#)

By Heather Corley, About.com Guide

Free Baby Products Newsletter!

[Discuss](#) in my Forum

See More About: [buying a stroller](#) [stroller reviews](#) [baby travel gear](#)

The Bottom Line

This is one of the lightest double strollers I've seen, and it folds really small, so it's easy to haul around in a vehicle or to pull in and out of a trunk. The **BabyPlanet Unity twin stroller** comes at a decent price, around \$300, while many other full-featured double strollers cost much more. Despite my best efforts to find a situation where I wouldn't like this stroller, the BabyPlanet Unity twin exceeded my expectations at every turn.



BabyPlanet Unity Twin Stroller
BabyPlanet. Used with permission.

Sponsored Links

Britax® Strollers On Sale

Crazy Britax Sale! Low Prices Huge Selection & Free Shipping
AlbeeBaby.com/Britax-Strollers

Tempur-Pedic® Mattresses

Largest Selection. Unbeatable prices
Visit a Local DC, Maryland, VA Store.
www.HealthyBack.com

NEW Britax Frontier 85

Brand New Frontier85 Free Shipping
+ No Sales Tax!
www.HipMonkey.com

Baby Products Ads

- [Buggy Board](#)
- [Duo Strollers](#)

Pros

- Ultra-compact fold is perfect for trunk storage.
- Steers easily, even with one hand.
- Light weight is easy to handle and lift.
- Good weight limit - up to 55 lbs. per side.
- Company offers free stroller recycling program.

Cons

- The frame crosses through the baskets, which may hinder storage of large items.

Description

- Twin/double stroller with side-by-side seats.

Advertisement

[Graco Metrolite Jesse Pink Stroller](#)



\$129.99 at [Target.com](#)

[Classic/Elite Soft Pram - Brown/Tan](#)



\$89.99 at [EliteCarSeats.com](#)



[Bumbleride Queen B LAVA European Pram Baby Stroller](#)

as low as **\$424.99** at [4 stores](#)



[SA54321B Zoom Stroller - Black](#)



\$569.99 at [Strollers.com](#)

Advertisement

Covered Interests Alert

Summary



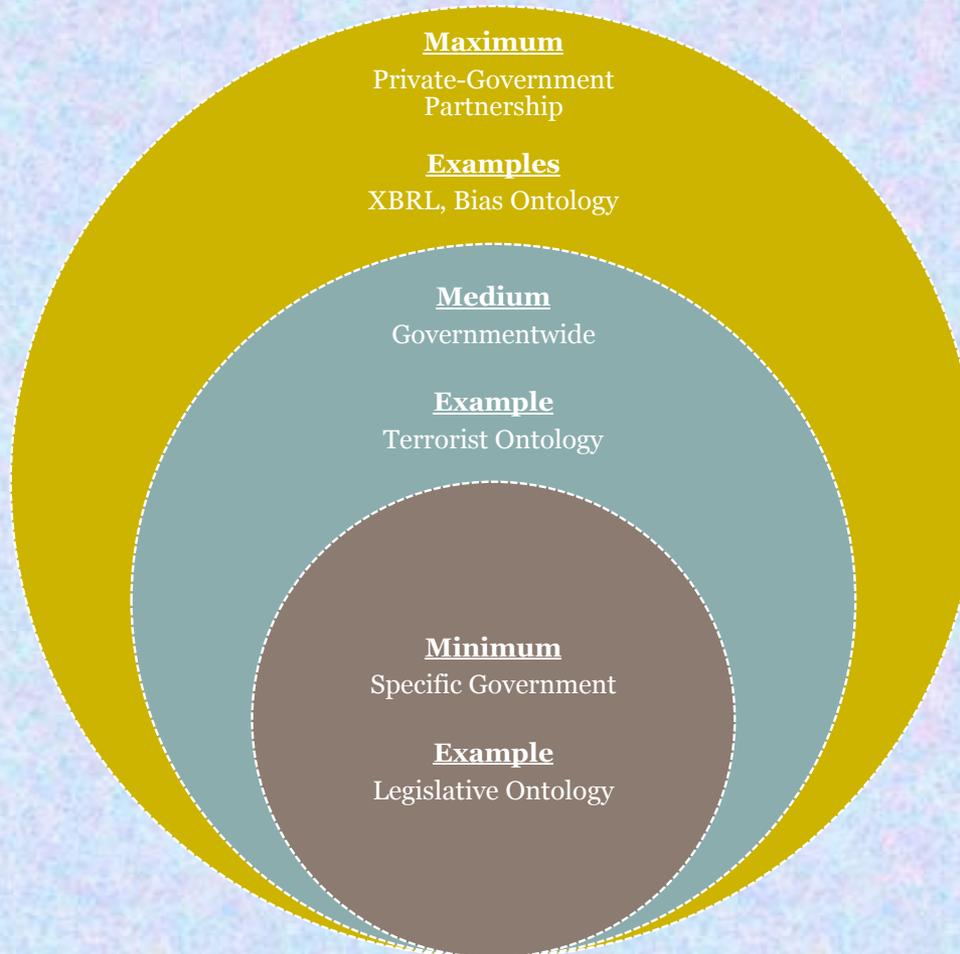
	Product Review Ontology	Financial Ontology	Legislation Ontology	Proposed Bias Ontology
Complexity	Simple	Complex	Medium	Medium
Private vs. Government Standard Setter	Private	Private-Government Partnership	Government	Private-Government Partnership
Government Incentive	N.A.	High	Low	Varies by Application
Private Incentive	High	High	N.A.	Varies by Application
Extensible	No	Yes	N.A.	Yes

Problems with the Market Solution



- **The Public Goods Problem**
 - Standards development is expensive and participants have free riding incentives.
 - Ontology use has significant network effects/positive externalities.
- **The Google Problem**
 - Google cannot develop and endorse every potentially useful ontology.
 - Most industries don't have a single competitor with 70%+ market share.
- **The Conflict of Interest Problem**
 - Private entities may not want to endorse ontologies that reduce their market power.
 - Private entities may lack the means to enforce the use of ontologies.

Major Public Policy Issue: Degree of Ontology Database Integration



Conclusion



- Caveats
- Implementation timeframe
- Implications for open government and media reform



For more information,
go to www.isolon.org

If you are interested in joining a standards group to
develop a bias ontology, please email
contact@isolon.org.





Democracy for the Information Age



Democracy for the Information Age

