

OntoGather

Information Gathering in a Dynamic World

Thomas Hornung Kai Simon Georg Lausen

Group DBIS
Albert-Ludwigs-Universität Freiburg

June 11, 2006

Classic Web search engine approach:

- 1 Crawl the Web in intervals
- 2 Transform new content to internal representation
- 3 Build up index based on internal representation
- 4 Search via index structure

Classic Web search engine approach:

- 1 Crawl the Web in intervals
- 2 Transform new content to internal representation
- 3 Build up index based on internal representation
- 4 Search via index structure

Possible queries:

- What is the capital of Montenegro?
- What is the price of a Canon Ixus digital camera?
- etc.

Classic Web search engine approach:

- 1 Crawl the Web in intervals
- 2 Transform new content to internal representation
- 3 Build up index based on internal representation
- 4 Search via index structure

Possible queries:

- What is the capital of Montenegro?
- What is the price of a Canon Ixus digital camera?
- etc.

What about:

- What is the cheapest price of a Canon Ixus digital camera *at the moment*?

OntoGather approach:

- 1 Infer appropriate resources based on domain knowledge base
- 2 Access relevant resources
- 3 Transform results to internal representation
- 4 Infer relevant results

OntoGather approach:

- 1 Infer appropriate resources based on domain knowledge base
- 2 Access relevant resources
- 3 Transform results to internal representation
- 4 Infer relevant results

Pro:

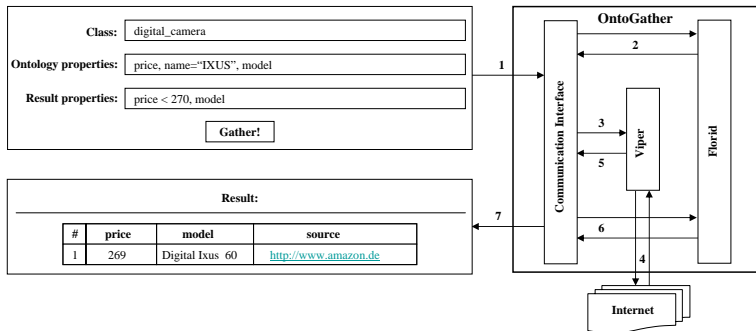
- Up-to-date content
- Domain knowledge can be used to constrain the answer set

Con:

- Speed?
- Need domain knowledge base with mapping to resources

Implementation:

- Inference Engine: Florid
- HTML access & conversion to F-Logic facts: ViPER
- Communication Interface: JSP & Java



OntoGather

Class:

Ontology properties:

Result properties:

OntoGather - Result page

#	MANUFACTURER	DESCRIPTION	SERIES	RESIDENC	PRICE
1	Nikon	Nikon COOLPIX 7.1MP 7600 DIGITAL MOVIE CAMERA+1GB CARD	CoolPix	http://search.ebay.com/search/search.dj	209
2	Nikon	Nikon COOLPIX L-2 6.0 MEGAPIXEL DIGITAL CAMERA 20542	CoolPix	http://search.ubid.com/search/Search.aspx	212
3	Nikon	Nikon COOLPIX 9900 S1 1 MEGAPIXEL DIGITAL(REFURBISHED) 2526	CoolPix	http://search.ubid.com/search/Search.aspx	227
4	Nikon	NEW Nikon CoolPix L1 8.2MP 8X Zoom 2.5 LCD Digital Camera + 1GB Kit	CoolPix	http://search.ubid.com/search/Search.aspx	239
5	Nikon	Nikon COOLPIX P-2 5.0 MEGAPIXEL WI-FI DIGITAL CAMERA 25535	CoolPix	http://search.ubid.com/search/Search.aspx	241
6	Nikon	Nikon COOLPIX L1 6.2 MEGAPIXEL DIGITAL CAMERA 25536	CoolPix	http://search.ubid.com/search/Search.aspx	272
7	Nikon	Nikon COOLPIX 7900 7.1 MEGAPIXEL DIGITAL CAMERA 25527	CoolPix	http://search.ubid.com/search/Search.aspx	284
8	Nikon	Nikon COOLPIX S-2 5.1 MP ALL WEATHER DIGITAL CAMERA 25532	CoolPix	http://search.ubid.com/search/Search.aspx	286
9	Nikon	Nikon COOLPIX S-5 5.0 MEGAPIXEL DIGITAL CAMERA 25541	CoolPix	http://search.ubid.com/search/Search.aspx	287
10	Nikon	Nikon COOLPIX 7900 7.1 MEGAPIXEL DIGITAL (REFURBISHED) 25127	CoolPix	http://search.ubid.com/search/Search.aspx	293
11	Nikon	Nikon COOLPIX S-4 6.0 MEGAPIXEL DIGITAL CAMERA 25533	CoolPix	http://search.ubid.com/search/Search.aspx	328
12	Nikon	Nikon COOLPIX S-6 6.0 MEGAPIXEL DIGITAL CAMERA 25547	CoolPix	http://search.ubid.com/search/Search.aspx	330
13	Nikon	Nikon Coolpix B400 Digital Camera with 1yr USA Warranty	CoolPix	http://search.ebay.com/search/search.dj	365
14	Nikon	3.0x optical zoom, 1.6-inch LCD, 14.5M internal memory, memory included, Secure Digital, USB	CoolPix	http://dealnews.com/digital-camera/search.htm	206.74
15	Nikon	3.0x optical zoom, 1.6-inch LCD, 14.5M internal memory, memory included, Secure Digital, USB, Video-out	CoolPix	http://dealnews.com/digital-camera/search.htm	206.8
16	Nikon	3.5x optical zoom, 2.5-inch LCD, 16MB internal memory, memory included, Secure Digital, USB, Video-out	CoolPix	http://dealnews.com/digital-camera/search.htm	209.2
17	Nikon	Nikon Coolpix 9600 Digital Camera 9MP USA NEW +112MB KIT	CoolPix	http://search.ebay.com/search/search.dj	209.8
18	Nikon	Nikon Coolpix 7800 Digital Camera + 1GB Kit NEW USA	CoolPix	http://search.ebay.com/search/search.dj	248.8
19	Nikon	Nikon Coolpix 8700 Digital Camera 1yr Warranty	CoolPix	http://search.ebay.com/search/search.dj	354.01
20	Nikon	Nikon Coolpix 8700 8.0 MP Digital Camera Sealeak + Wmt	CoolPix	http://search.ebay.com/search/search.dj	399.99