



# ECAR'08 Industry Day

## Guided Summarization

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Chief Scientist, Endeca

# overview

- Who is Endeca?
- What is guided summarization?
- Why should you care?

# Who is Endeca?

- Software to help people explore, analyze, and understand complex information, guiding them to unexpected insights and better decisions.
- 500+ customers
  - ABN AMRO, Boeing, Cox, Defense Intelligence Agency, Dell, Ford, Hyatt, IBM, John Deere, Library of Congress, Texas Instruments, Wal-Mart
- \$108M revenue in 2007.

# some of our customers

SallieMae®

Standard  
Chartered

OLD  
MUTUAL

Tech Data

GM

WebMD®

COX  
ENTERPRISES

Fidelity Investments

DOW CORNING

ABN-AMRO

Premier Farnell plc

BORDERS.

COSTCO  
.COM

bhpbilliton

CREDIT SUISSE

HYATT®

CDW™

JOHN DEERE

emap

SAKS  
INCORPORATED

IBM

Nike

RS

Marriott

Reed Elsevier

Walmart.com™

TEXAS  
INSTRUMENTS

HARRIS

Wyeth

AMERICAN  
EXPRESS

Boots

LG

TESCO

CBS  
CORPORATION

otto group

city

BARNES & NOBLE  
.com

John Hancock

INTERNATIONAL PAPER

TimeWarner

Agilent Technologies

WACHOVIA

HENRY SCHEIN®

THE  
HOME  
DEPOT

Newell Rubbermaid

Office DEPOT

Walgreens

AutoZone.com®

HCR·ManorCare

BT

lastminute.com

Schlumberger

THOMSON

TOSHIBA

DELHAIZE

BOEING

GMMB  
GUARDIAN MEDIA GROUP

Corporate  
Express  
A Balfour Beatty Company

SIGMA-ALDRICH

communications

FASTENAL  
FASTENAL & CONSTRUCTION SUPPLIES

Whirlpool  
CORPORATION

Weatherford

REALOGY

ENDECA

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EC R'08



# some European customers

Wehkamp

lastminute.com

ABN-AMRO

emap

REDCATS  
N°1 mondial de la Vente à Distance

TESCO

COMET  
comet.co.uk

Guardian  
Unlimited

KAISER + KRAFT

PPR

otto group

dabs@com

Tech Data

AutoTelegraf

H.SAMUEL

Freemans  
OF LONDON

bol.com

Schlumberger

Premier Farnell plc

SIGNET

Littlewoods

J.P. Williams

Trader  
Media Group

BT

Boots

Fidelity.co.uk

DATAMONITOR

WILLIAM REED

ENDECA

EC R'08

# What is guided summarization?

- Set retrieval that responds to queries with
  - an overview of the user's current context.
  - an organized set of options for incremental exploration.
- Contextual summaries of document sets optimize system's communication with user.
- Query refinement options optimize user's communication with system.

Why should you care?

# why you should care

- Search has hit a wall.
- Guided summarization succeeds where search fails.
- Guided summarization is more than faceted search.



Search has hit a wall.

# search hits a wall in ecommerce

Results 1 - 10 of about 1,230 from [homedepot.com](http://homedepot.com) for **steamer**.

## [60% OFF Stanley Steamers](#)

[www.NJSteamers.com](http://www.NJSteamers.com) Free Estimates. 30 Minutes Arrival Residential Commercial CC Accepted

Sponsored Links

## [Tobi Steamer: Seen on TV](#)

[thetobi.com](http://thetobi.com) Upright & Portable Steam Machine removes wrinkles. Order direct.

Sponsored L

## [Steam Irons & Pres](#)

Irons & Presses from B & Steam-X. Low price g [SewingMachinesPlus.C](http://SewingMachinesPlus.C)



Tip: Save time by hitting the return key instead of clicking on "search"

## [HoMedics Perfect Steam™ Professional Garment Steamer - PS-200 at ...](#)

This garment **steamer** has a 45 second quick heat-up time, 5' hose, and a .35 gallon tank. It removes wrinkles 5 times faster. Proprietary hose cover and ...

[www.homedepot.com/webapp/wcs/stores/servlet/ProductDisplay?storeId=10051&langId=-1&catalogId=1005...](http://www.homedepot.com/webapp/wcs/stores/servlet/ProductDisplay?storeId=10051&langId=-1&catalogId=1005...) - 111k - [Cached](#) - [Similar pages](#)

## [Steamers](#)

**Steamers** Online.  
Shop Target.com.  
[www.Target.com](http://www.Target.com)

## [Conair Compact Fabric Steamer - GS4 at The Home Depot](#)

The compact **steamer** offers 1200 watts of professional power to smooth out wrinkles in clothing and household fabrics, from silks and linens to stiff ...

[www.homedepot.com/webapp/wcs/stores/servlet/thdsitemap\\_product\\_100324464\\_10053\\_10051](http://www.homedepot.com/webapp/wcs/stores/servlet/thdsitemap_product_100324464_10053_10051) - 111k - [Cached](#) - [Similar pages](#)

## [Steamer](#)

Shop Miele Rowenta & **Steamers** at William  
[www.Williams-Sonoma](http://www.Williams-Sonoma)

## [Microwaves & Steamers - Small Appliances - Appliances at The Home ...](#)

Microwaves & **Steamers** - Small Appliances - Appliances at The Home Depot.

[www.homedepot.com/.../Navigation?N=10000003+90401+502491&langId=-1&storeId=10051&catalogId=10053](http://www.homedepot.com/.../Navigation?N=10000003+90401+502491&langId=-1&storeId=10051&catalogId=10053) - 146k - [Cached](#) - [Similar pages](#)

## [Handheld 450 Watt](#)

with On/Off Switch  
Great Gift Only \$29.99  
[www.auctionaticstore.c](http://www.auctionaticstore.c)

## [Clothes Steamer](#)

Satisfaction Guarantee



# search hits a wall in KM

## Current Search: it outsourcing

[Hide Summaries](#)

[Print Results](#)

Showing Results: 1-25

[1](#) | [next page](#)

Sort by Relevancy

[Sort by Date](#) ▼

### [Report Highlight for User Survey Analysis: IT Outsourcing Becomes Mainstream in Western Europe](#)

9 January 2008

Pages: 3

Markets

[Gianluca Tramacere](#)

Data collected in 2007 from 356 Western European respondents can help you to better understand users' practices, opinions, drivers, inhibitors, competency levels and satisfaction with IT outsourcing.

Click to Browse:

[Applications Outsourcing](#); [Data Center Services](#); [Desktop Services](#); [Help Desk Services](#); [IT Outsourcing](#); [IT Services Marketplace](#); [Network Services](#)

### [Report Highlight for Dataquest SWOT: EDS, IT Outsourcing Services, Worldwide](#)

25 April 2007

Pages: 3

Vendors

[Dane S. Anderson](#) | [Kurt Potter](#) | [Gianluca Tramacere](#) | [Allie Young](#) | [Minjoo Chon](#)

Gartner examines EDS's worldwide IT outsourcing services through an analysis of strengths, weaknesses, opportunities and threats.

Click to Browse:

[IT Outsourcing](#); [IT Services Marketplace](#)



# search even hits a wall on the web

Results **1-10** out of about **344,000,000** for **ir**

Tip: Save time by hitting the return key instead of clicking on "search"

**IR** (INGERSOLL RAND LTD A)

[Google Finance](#) [Yahoo Finance](#) [MSN Money](#) [MarketWatch](#) [CNN Money](#) [Reuters](#)



**43.15** **-1.13** (-2.55%) Mar 14 4:01pm ET

Open: 44.51

Volume: 5,137,478

High: 44.73

Avg Vol: 5,584,000

Low: 42.35

Mkt Cap: 11.76B

NYSE data delayed by 20 minutes - [Disclaimer](#)

After Hours: **43.00** **-0.15** (-0.35%) Mar 14 4:38pm ET

**[International Rectifier - The Power Management Leader](#)**

Manufacturer of power semiconductors (MOSFET, IGBT, Diodes and Thyristors).

[+ Stock quote for IRF](#)

[www.irf.com/](http://www.irf.com/) - 27k - [Cached](#) - [Similar pages](#)


**[Infrared spectroscopy - Wikipedia, the free encyclopedia](#)**

Infrared spectroscopy (IR spectroscopy) is the subset of spectroscopy that deals with the infrared region of the electromagnetic spectrum. ...

[en.wikipedia.org/wiki/Infrared\\_spectroscopy](http://en.wikipedia.org/wiki/Infrared_spectroscopy) - 54k - [Cached](#) - [Similar pages](#)







Guided summarization succeeds  
where search fails.

# guided summarization for ecommerce

Your store: Brooklyn, NY - Brooklyn, NY (Change)


Category

- ▶ Appliances (31)
- ▶ Bath (19)

Search Results

You Searched for "steamer"

53 Results: 51 Products , 2 Articles



## Matching Categories include:

Appliances > Small Appliances > Irons & Steamers

Appliances > Small Appliances > Microwaves & Steamers

Bath > Sauna & Spas > Steamers

Kitchen > Bakeware & Cookware > Cookware >  
Open Stock Pots > Double Boilers & Steamers

Kitchen > Small Appliances > Steamers

▶ Jordon (2)  
▶ KOHLER (9)

HomeDepot  
Perfect Steam™ Professional  
Garment Steamer

Wave  
Garment Steamer

Home Depot  
4 Pc., 12 Qt. Multi Cooker S/S,  
Encapsulated Bottom. Stockpot.

Deer  
Stainless Steel Food Steamer



# guided summarization for KM

## AMR Research

### Research Topics

Customer Management  
ERP  
HCM  
IT Development  
IT Operations  
Outsourcing Services  
PLM  
Sourcing and Procurement  
Supply Chain Execution  
Supply Chain Planning  
More...

Value Chain Transformation  
Enterprise Architecture and SOA  
Enterprise Performance Management  
IT Management  
Next-Generation Sourcing and Procurement  
Maximizing Value from

### Themes

Vendor Application Strategies  
Value Chain Transformation  
Enterprise Architecture and SOA  
Enterprise Performance Management  
IT Management  
Next-Generation Sourcing and Procurement  
Maximizing Value from New Product Development  
Next Generation S&OP  
Demand-Driven Manufacturing  
Global Logistics and Demand Fulfillment  
More...

### Industries

High-Tech  
Industrial  
Retail  
Consumer Products  
Chemical and Process  
Automotive  
Aerospace and Defense  
Life Sciences  
Industrial and Heavy Equipment

### Companies

SAP AG  
Oracle  
Accenture  
Microsoft  
i2 Technologies  
Ariba  
Agile  
PTC  
MatrixOne  
UGS  
More...

ment, and IT always becomes an issue during them. We've recently seen more companies than building their own in-house facilities.

services  
[Informational Outsourcing Chasm](#)

the limits of the outsourced application services market. They will need integrated business consulting, application services, and infrastructure se

Guided summarization is more  
than faceted search.

# facets 101

## Flamenco UC Berkeley Architecture Slides

A snapshot of Images from the UC Berkeley Architecture Visual Resources Library

[Save Search](#) [History and Settings](#) [Return to](#)

"gehry" appears in these category names:

- Source > [Arnell, Peter and Bickford, Ted, eds - Frank Gehry, buildings and projects](#)
- People > [Gehry, Frank](#)

☒ all items ☐ in current results

These terms define your current search. Click the  to remove a term.

keyword "gehry"

Refine your search within these categories:

PEOPLE [\(group results\)](#)

[architect](#) (94)

PERIODS [\(group results\)](#)

[20th Century](#) (93)

[Modern](#) (1)

LOCATIONS [\(group results\)](#)

[North America](#) (35)

[Western Europe](#) (58)

STRUCTURE TYPES [\(group results\)](#)

[architectural elements](#) (6)

[buildings \(by function\)](#) (84)

[buildings \(by massing or](#)

[shape\)](#) (1)

[details](#) (6)

[multi-building complexes](#) (14)

[parts of buildings](#) (9)

[transportation elements](#) (3)

Items 1 to 40 of 94 results

[1](#) [41](#) [81](#)



[Gehry House](#)



[Gehry House](#)



[Gehry House](#)



[Frank Gehry Offices](#)



[Frank Gehry Offices](#)



[Frank Gehry Offices](#)



# showing the right facets: microwaves

Microwaves			Print Page
190 Products			Sort By: Top Sellers
			Results per page: 12
Category	Microwave Capacity	Wattage	VS.
<ul style="list-style-type: none"><li>▶ Built-In Microwaves (6)</li><li>▶ Countertop Microwaves (75)</li><li>▶ Over-the-Range Microwaves (111)</li></ul>	<ul style="list-style-type: none"><li>▶ .9 Cu. Ft. (3)</li><li>▶ 1.0 Cu. Ft. (5)</li><li>▶ 1.1 Cu. Ft. (9)</li><li>▶ 1.2 Cu. Ft. (11)</li><li>▶ 1.3 Cu. Ft. (4)</li><li>▶ 1.5 Cu. Ft. (27)</li><li>▶ 1.6 Cu. Ft. (17)</li><li>▶ 1.7 Cu. Ft. (15)</li><li>▶ 1.8 Cu. Ft. (17)</li><li>▶ 2.0 Cu. Ft. (23)</li><li>▶ More...</li></ul>	<ul style="list-style-type: none"><li>▶ 700 Watt (4)</li><li>▶ 800 Watt (9)</li><li>▶ 850 Watt (4)</li><li>▶ 900 Watt (10)</li><li>▶ 950 Watt (21)</li><li>▶ 1000 Watt (49)</li><li>▶ 1100 Watt (64)</li><li>▶ 1150 Watt (7)</li><li>▶ 1200 Watt (14)</li><li>▶ 1250 Watt (3)</li><li>▶ More...</li></ul>	
Color/Finish			
<ul style="list-style-type: none"><li>▶ Biscuit (1)</li><li>▶ Bisque (22)</li><li>▶ Black (55)</li><li>▶ Graphite Metallic (1)</li><li>▶ Silver Metallic (1)</li><li>▶ Stainless (59)</li><li>▶ White (51)</li></ul>			

# showing the right facets: ceiling fans

## Ceiling Fans

Print Page

255 Products

Sort By: Top Sellers

Results per page: 12

### Indoor or Outdoor

- ▶ Indoor (227)
- ▶ Indoor/Outdoor (20)
- ▶ Outdoor (8)

### Fan Width

- ▶ 32 In. (1)
- ▶ 36 In. (2)
- ▶ 42 In. (13)
- ▶ 44 In. (8)
- ▶ 48 In. (6)
- ▶ 52 In. (169)
- ▶ 54 In. (39)
- ▶ 56 In. (7)
- ▶ 60 In. (7)
- ▶ 68 In. (1)

### Lighting & Fan Style

- ▶ Casual (16)
- ▶ Contemporary (44)
- ▶ Rustic (3)
- ▶ Traditional (70)
- ▶ Transitional (119)

### Lighting Included

- ▶ No (50)
- ▶ Yes (204)

### Remote Control

- ▶ No (153)
- ▶ Yes (89)

### Color/Finish

- ▶ Brass (33)
- ▶ Bronze (46)
- ▶ Brushed Nickel (12)
- ▶ Copper (5)
- ▶ Metallic (3)
- ▶ Nickel (28)
- ▶ Specialty (31)
- ▶ Specialty Finishes (15)
- ▶ White (39)
- ▶ Wrought Iron (15)
- ▶ More...

\$99.97

Shipping



# traditional topic taxonomy

Search results for 'distributed computing'

## Topic

[Computer Science](#) (1702)

[Government Documents](#) (453)

[Engineering & Technology](#) (248)

[Education](#) (158)

[Library Science, Generalities & Reference](#) (129)

[Show more ...](#)

out 7,683 (.50 seconds)

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## Topic

[Special Topics in](#)

[Computer Science](#) (811)

[Computer Science -](#)

[General](#) (237)

[Computers, General](#) (229)

[Computer Programming & Programming Languages](#) (154)

[Computer Software](#) (116)

[Computer Networks](#) (96)

[Special Computers & Systems](#) (39)

[Cybernetics](#) (18)

[Office Automation](#) (11)

[Online Data Processing](#) (10)

[Optical Data Processing](#) (6)

[Machine Theory, Abstract Automata](#) (2)

[Modeling & Simulation](#) (1)

[Management Information Systems](#) (1)

[distributed computing.](#)

English Type:  Serials / Magazines / Newspapers : Periodical : Quarterly (every 3 months)  Internet Resource

Full Text Available : New York : Springer International, 1998





# dynamic topic facet

## Subject

Artificial intelligence (227)	High performance computing (244)
Automatic theorem proving (9)	History (11)
Client/server computing (185)	Information technology (145)
Computer algorithms (110)	Java (77)
Computer architecture (162)	Law and legislation (70)
Computer networks (552)	Logic, Symbolic and mathematical (16)
Computer programs (139)	Mathematics (70)
Computer security (151)	Mobile communication systems (54)
Computer software (253)	Operating systems (87)
Computers (124)	Parallel processing (619)
Database management (277)	Research (83)
Distributed processing (937)	Software engineering (197)
Electronic data processing (1002)	Supercomputers (139)
Electronic digital computers (148)	Web databases (54)
Fault-tolerant computing (365)	Wireless communication systems (97)

# cutting through facets to show the big picture

Might we suggest that you refine by...

## V Toys: Chests & Storage



Disney Princess Toy Organizer



Disney Princess Toy Box



Little Tikes Mission Design Toy Box

## V Category: Computers



EDGE 128 MB DiskGO! USB Flash Drive




Comstar External DVD+R/RW Drive With USB 2.0 CSDVRW02E



SanDisk 256 MB Memory Stick Pro

# summarization: more than search and browse



Within current results

Guided Navigation

Materials

- Stainless (1343)
- Aluminum (302)
- Copper (117)
- More...

Preferred Suppliers

- Arnault (844)
- Klein (405)
- Ylan (180)
- More...

Mean Time To Failure

- 10 (1217)
- 15 (823)
- 20 (492)
- More...

Max Torque (Nm)

0 125 250 375 500 625 750

Screw (ISO 4782/12.9)

Mounting length (mm)

Angular Misalignment

Hub length (mm)

More ▲▲ ▼▼

Your Results:

Part Family: Couplings > Threaded


Geo: Lat 53.83 Long 1.54 + radius 168 Km

Inner Diameter: 96 mm

Showing Parts 1-20 of 5,688

PART #	DESCRIPTION	ACTIVE
021H7575	Aluminium camlock coupling type E	NO
022R0313	Rollor Chain Couplings	NO
024L1586	Trans Fluid Coupling	YES
08J59765	TSCHAN S-Coupling	YES
02637680	MagnaDrive industrial coupling ...	NO
044H7837	Haldex Coupling	NO
097H7520	Manifold Coupling	YES
089H9939	CentriFlex Coupling	YES
02N85527	Sella Transmission Coupling	NO
022R0774	Type 40 Assy Coupling	NO
026P0864	Standard Duty Coupling	YES
08G48950	Helical shaft couplings	YES
077P1122	Single joint gear couplings	NO
042E2636	Ductilic Grooved Coupling	NO

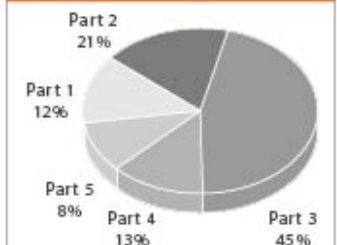
Inventory Location



Research Notes

angular force extreme  
conditions ISO torque strike  
field testing rustproof  
drilling new composites  
stress testing DARPA

AVG Fulfillment Time



Part	Percentage
Part 1	12%
Part 2	21%
Part 3	45%
Part 4	13%
Part 5	8%

## **guided summarization – a summary**

Guided summarization enables a dialog  
between the user and the data,  
enabling exploration and discovery.

**thank you**

Questions?