Mission and Origins

- **Vivisimo Inc. is an Enterprise Software Company**
  - Creates innovative software to access and cluster the world’s information, for better search and discovery
  - Profitable for 2+ years, organic growth, no venture capitalists
  - 100+ clients: Thomson, IOP, HighWire, Rand, JAMA, PNAS, AAAS, BMJ, Discovery, etc.

- **Clusty.com, Acclaimed Web Search Engine**
  - Launched on Sept 30 of last year

- **Carnegie Mellon Computer Science Dept Spinoff – June 2000**
  - Like Fore Systems (Marconi), Transarc (IBM), Lycos etc.
  - Three technical founders are CEO, chief scientist, and CTO
  - $1M from National Science Foundation SBIR
Individual Products & Velocity Suite

- **Clustering Engine**
  - Easily best quality in the world
  - Recognized as market leader
  - European, Japanese, Korean, Arabic, etc.

- **Search Engine**
  - Designed with clustering in mind
  - Works well on millions of documents
  - Crawls file systems, databases, websites
  - Indexes meta-data which need not be physically attached to documents
  - Well engineered for custom applications

- **Content Integrator (Meta-Search)**
  - Up to many dozens of sources
  - Handles Logins/passwd, Session IDs etc.

- **Just Released Velocity Suite 4.2**
  - Modules: reporting, alerts, export, etc.
  - Network Computing Review
What is Clusty.com?

- **Web-Oriented Configuration of Enterprise Products**
  - Debugging platform

- **Statement of What Search Portals Should Look Like**
  - Organized search results
  - Meta-search richly, integrate smartly
  - Customizable, domain-specific vertical searches

- **Marketing Vehicle**

- **Profit Center**

- **Full-Fledged Destination Site**
  - Claim: most productive search experience
  - How to Test?
Bookstores versus Electronic World

- **Bookstores and Libraries**
  - Stack of books on the floor?
  - No. Books are categorized on shelves
  - Categories are better for bookseller & book buyers

- **Taxonomy Building**
  - Create a controlled vocabulary (taxonomy) of categories
  - Index new documents into the taxonomy
  - Update the taxonomy over time
  - At search time, group results into most frequent categories

- **Why Not the Same in Electronic World?**
  - Print-world model too costly & complicated
    - Based on Dewey Decimal System ideas & taxonomy building
  - Electronic world still in the “stack of books on the floor” mode
  - Clustering is an emerging technology that will fix this
Did you mean bonobo

1. Bonobo Sex & Society
   Scholarly paper investigates the sexual and social behavior of these great apes, detailing their likeness and differences to humans and chimps.
   songweaver.com/info/bonobos.html - GigaBlast, MSN, Wisenut, Lycos, Ask Jeeves, Looksmart, Open Directory

2. Bonobos: The Left-Bank Chimpanzees
   Presents facts and pictures of bonobos. Find zoo exhibits of these primates and browse through links to articles and organizations.
   www.williamcalv.in.com/teaching/bonobo.htm - Lycos, Ask Jeeves, GigaBlast, MSN, Wisenut, Looksmart, Open Directory

3. The Bonobo Initiative: Entrance Page
   Bonobos, humankind's closest great ape relatives, are nearing extinction in the central Congo. Presented by The Bonobo Initiative, this site is a...
   www.bonobo.org - Lycos, MSN, Ask Jeeves, Wisenut, GigaBlast

4. Bonobo
   The Bonobo (Pan paniscus), sometimes called the Pygmy Chimpanzee, is one of the two species comprising the genus Pan; both members of that genus are technically "chimpanzees", though the term is frequently used to refer only to the other member of the genus, Pan troglodytes, the Common Chimpanzee. To avoid confusion, this article will use "chimpanzee" only to refer to both members of the genus.

5. Bonobo
   Bonobo can refer to:
   - Bonobo, the species of ape also known as the Pygmy Chimpanzee
   - Bonobo (computing), the component model used in the GNOME desktop environment
   - Bonobo (music), the composer and DJ

6. De Waal, Frans - 2think.org
   Offers a detailed look at the key arguments of "Bonobo - The Forgotten Ape," along with an excerpt and quotes from other reviews.
   www.2think.org/bonobo.shtml - Open Directory, Lycos, Ask Jeeves, Wisenut, MSN, Looksmart
The Bonobo (**Pan paniscus**), sometimes called the Pygmy Chimpanzee, is one of the two species comprising the **genus Pan**; both members of that genus are technically "chimpanzees", though the term is frequently used to refer only to the other member of the genus, *Pan troglodytes*, the Common Chimpanzee. To avoid confusion, this article will use "chimpanzee" only to refer to both members of the genus.

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**Bonobo**

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De Waal, Frans - 2think.org

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www.2think.org/bonobo.shtml - Open Directory, Lycos, Ask Jeeves, Wisenut, MSN, Looksmart
Cluster Language » Language Research Center contains 3 documents.

1. **Kanzi - The Language Research Center**
   - Describes language research with a bonobo who demonstrated an understanding of English and learned how to use and manufacture tools.
   - www.gsu.edu/~wwwlrc/biographies/kanzi.html - Lycos, Ask Jeeves, Wisenut, Looksmart

2. **Language Research Center**
   - Primate research center studying language acquisition through work with bonobos and chimpanzees. Features a list of publications and ape biographies.
   - www.gsu.edu/~wwwlrc - Open Directory

3. **Michelle Merrill's Professional Interest Links**
   - Links to information on animal behavior research in the tropics, primates, chimpanzees, bonobos, orangutans, Indonesia and Congo (Zaire), plus links for evolutionary biology and biological anthropology. ... In Congo if we hope to save the bonobos. Language Research Center where work has ... done using artificial language instruction and computers with bonobos, chimpanzees and orangutans ...
   - www.duke.edu/~myrm1/prof.html - MSN
**User Benefits**

**#1 See what's available**
At a glance, the folders show you an information landscape.

**#2 See much further**
Following our interests, we navigate to low-ranked but interesting search results, which we're unlikely ever to see otherwise.

**#3 See similar information together**
We don't have to be satisfied with the first reference we come across. We can compare several and pick the best one.

**Key Advantages**

**#1 Works on the fly**
No need for pre-processing

**#2 Spontaneous categories**
no need to pre-define them
**Difference From Query Refinement (QR)**

- QR uses search logs, not search results
  - Often get few or irrelevant refinements
- E.g., search on John Roberts nominee
  - Ask Jeeves gives zero refinements
  - ATT.net (powered by Google) gives these:
Federated Search – What Is It?

- Forward Search Query to Many Search Engines
- Combine the Search Results
  - Remove or consolidate duplicates
  - Re-rank
  - Then display: can be simple or fancy
- Also Known As Meta-Search
How Federated Search?

- Install Federated Search Software on a Server
- Point it at Multiple Search Engines
  - Remember to convert query syntax as needed
  - XML preferred, otherwise may need to screen-scrape
  - Logins, Passwords, Session IDs may need to be handled
- Design User Interface
  - Let users pick the sources to search
  - Detect and report duplicate search results
- Off to the Races ...
Why Federated Search?

- Not All Content Is, or Should Be, Indexed Centrally
  - Proprietary, specialists, custom treatment, crawler-unfriendly, etc.

- Users Are Relieved of ...
  - Need to be aware of the available search engines
  - Need to learn multiple search syntaxes
  - Tedium of searching many engines + combining the results

- Employees Improve Decision-Making (CIO Update)
  - Bring into view 10-50x more information & save time

- Libraries Optimize Their Publications Budget
  - Get precise statistics on usage of licensed sources

- IT Dept Gets the Above with Non-Invasive Overlay
Online Systems To Be Impacted By Clustering and Metasearch

- Large Documents
- Libraries (Public, Corporate, Legal)
- Corporate Information Systems
- Publisher Websites
- Web Search
- National Intelligence
Bin Ladin shares Qutb’s stark view, permitting him and his followers to rationalize even unprovoked mass murder as righteous defense of an embattled faith. Many Americans have wondered, “Why do they hate us?” Some also ask, “What can we do to stop these attacks?” Bin Ladin and al Qaeda have given answers to both these questions. To the first, they say that America had attacked Islam; America is responsible for all conflicts involving Muslims. Thus Americans are blamed when Israel’s fight with Palestinians, when Russians fight with Chechens, when Indians fight with Kashmiri Muslims, and when the Philippine government fights ethnic Muslims in its southern islands. America is also held responsible for the governments of Muslim countries, defied by al Qaeda as “your agents.” Bin Ladin has stated flatly, “Our fight against these governments is not separate from our fight against you.” These charges found a ready audience among millions of Arabs and Muslims angry at the United States because of issues ranging from Iraq to Palestine to America’s support for their countries’ repressive rulers.

Paragraph #286 (on page 52)

After gaining independence from Western powers following World War II, the Arab Middle East followed an arc from initial pride and optimism to today’s mix of indifference, cynicism, and despair. In several countries, a dynastic state already existed or was quickly established under a paramount tribal family. Monarchies in countries such as Saudi Arabia, Morocco, and Jordan still survive today. Those in Egypt, Libya, Iraq, and Yemen were eventually overthrown by secular nationalist revolutionaries.

Paragraph #287 (on page 57)

The secular regimes promised a glowing future, often tied to sweeping ideologies (such as those promoted by Egyptian President Gamal Abdel Nasser’s Arab Socialism or the Ba’ath Party of Syria and Iraq), that called for a single, secular Arab state. However, what emerged were almost invariably autocratic regimes that were usually unwilling to tolerate any opposition—even in countries, such as Egypt, that had a parliamentary tradition. Over time, their policies—repression, rewards, emigration, and the displacement of popular anger onto scapegoats (generally foreign)—were shaped by the desire to cling to power.

Paragraph #313 (on page 57)
1. **Polio and Rotary.** [new window] [close preview] [clusters]


Citation: AN 16773545
EBSCO MasterFile Premier 1

2. **Polio eradication: the OPV paradox** [new window] [preview] [clusters]

... In the year 2000 alone, an estimated 10 million people, mostly volunteers, many from Rotary Clubs, immunised 550 million children in 85 countries....

Authors: WR Dowdle, E De Gourville, OM Kew, MA Pallansch, ...
Date: 2003
Ref: Reviews in Medical Virology
Google Scholar 12

3. **Rotary vs. polio.** [new window] [preview] [clusters]

By: Loomis, Carol J. Fortune (Europe), 5/12/2003, Vol. 147 Issue 9, p16, 2/3p, 1c; Abstract: Discusses Rotary Clubs and the remarkable job they have done to help eliminate polio in the countries where it still exists. Seven countries where polio is still in existence, Decision for individual Rotary Clubs to unite and fight for a common goal, Amount of money the Rotary has put into PolioPlus, Other organizations that it has gathered money from. [-]

Citation: AN 11124343
EBSCO MasterFile Premier 20

4. **Rotary vs. polio.** [new window] [preview] [clusters]

By: Loomis, Carol J. Fortune, 5/12/2003, Vol. 147 Issue 9, p36, 2/3p, 1c; Abstract: Discusses Rotary Clubs and the...
1. **Virus update** fails at 25% after upgrading to **Backup Exec for Windows NT v7.3 build 2575 or v6.x from an older version of Backup Exec**.

   Unable to locate the specified **virus update** directory. **Virus Update** aborted. Details: The **virus update** for **Backup Exec for Windows NT** or Windows 2000 may fail with the error as per Figure 1. Figure 1 The reason for the failure is because the FTP directory for VERITAS Software has changed to ...

   **Backup Exec for Windows Servers**
   Also Try: **backup update**, **virus update**

2. **How to completely disable AntiVirus support in VERITAS Backup Exec for Windows NT and Windows 2000**

   Details: **Backup Exec Anti Virus** support can be defined on a per job or Global basis using the **Backup Exec** user interface. On a per job basis, the option is enabled or disabled in a Job Definition (Figure 1). Figure 1 The Global option is selected or deselected in the Tools/Options/Backup tab ...

   **Backup Exec for Windows Servers**
   Also Try: **Antivirus**, **virus definition update**, **disable backup scan**

3. **On attempting to update the Virus Definition files the job log report the error message "Unable to open an Internet FTP connection. Virus update cancelled" and the job fails**.

   Unable to open an Internet FTP connection. **Virus update cancelled** Details: In order to update the **Virus Definition** files within **Backup Exec** navigate to the menu bar. Go to **Tools > Update Virus Protection Files** (Figure 1) Figure 1 Or just click the **Update Virus Protection Files** button on the Toolbar ...

   **Backup Exec for Windows Servers**
   Also Try: **virus definition files**, **virus**, **virus update**

4. **How to manually update the virus protection files in VERITAS Backup Exec (tm) 7.3 build 2575 and 8.x for Windows NT**

   Details: Note: Versions of Backup Exec for Windows NT lower than 7.3/2575 use the McAfee/NAI 3x **virus** protection files. **VIRUS SCAN** 3x and the associated **virus** protection files (DAT files) are no longer supported by McAfee/NAI. It is strongly suggested that you upgrade to Backup Exec 7.3 for Windows ...

   **Backup Exec for Windows Servers**
   Also Try: **virus definition files**, **virus**, **virus update**
1. **Publishing Program Specialist Secretary (CA)**
   - **Company:** Publishing Program Specialist
   - **Salary Range:** 74,782.00 - 97,213.00 USD per year
   - Responsibilities: Directs the Publishing Program Specialist. Involves managing projects in all aspects of Internal Revenue Service.
   - **Location:** Washington, DC
   - **Posted:** 3 days ago on TrueCareers

2. **Electronic Publishing Specialist**
   - **Company:** The Professional Community
   - **Work Schedule:** Publishing Specialist Work Schedule
   - Responsibilities: Provides publishing specialist support to web site development, support, and copyediting.
   - **Location:** Internal Revenue Agency (CA), Washington, DC
   - **Posted:** Aug 26, 2005 on New York Times

3. **Desktop Publishing Specialist**
   - **Company:** Desktop Publishing Specialist
   - **Responsibilities:** International services firm in Montgomery Village, MD has an immediate need for entry and mid-level Desktop Publishers.
   - **Location:** Washington, DC
   - **Posted:** Aug 27, 2005 on craigslist

4. **Patrick Clendenen Chair in Early American and Gender History**
   - **Department:** History
   - **Responsibilities:** Chair in Early American and Gender History, conducting and publishing research, and Application deadline: 8/19/2005
   - **Location:** American University
   - **Posted:** Aug 27, 2005 on Chronicle of Higher Education

5. **Assistant Professor, U.S. Foreign Relations**
   - **Department:** History
   - **Responsibilities:** Teaching and mentoring students, conducting and publishing research in U.S. Foreign Relations.
   - **Location:** American University
   - **Posted:** Aug 27, 2005 on Chronicle of Higher Education

6. **Sr. Web Publishing Developer**
   - **Company:** Sr. Web Publishing Developer
   - **Responsibilities:** Responsibilities include web publishing including use of tools such as FrameMaker, Job Description.
   - **Location:** Raytheon Careers
   - **Posted:** Aug 28, 2005 on Computerwork.com

7. **Publishing Program Specialist**
   - **Company:** Publishing Program Specialist
   - **Responsibilities:** Projects relating to publishing concerns in support of the goals, management.
   - **Location:** Treasury/Internal Revenue Service (IRS)
   - **Posted:** Aug 15, 2005 on USAJOBS.com
BIOCHEMISTRY:
Chih-chin Huang, Miro Venturi, Shahzad Majeed, Michael J. Moore, Sanjay Phogat, Mel-Yun Zhang, Dimitar S. Dimitrov, Wayne A. Hendrickson, James Robinson, Joseph Sodoroski, Richard Wyatt, Hyeryn Choe, Michael Farzan, and Peter D. Kwong
Structural basis of tyrosine sulfation and V_{H}-gene usage in antibodies that recognize the HIV type 1 coreceptor-binding site on gp120
PNAS 2004 101: 2706-2711; published online before print as 10.1073/pnas.0308527100

G. S. Hayward, N. Frenkel, and B. Roizman
Anatomy of Herpes Simplex Virus DNA: Strain Differences and Heterogeneity in the Locations of Restriction Endonuclease Cleavage Sites
PNAS 1975; 72: 1768-1772.

Michael M. Sveda and Ruy Soeiro
Host Restriction of Friend Leukemia Virus: Synthesis and Integration of the Provirus

Klaus Von Der Helm and Peter H. Duesberg
Translation of Rous Sarcoma Virus RNA in a Cell-Free System from Ascites Krebs II Cells

Fred H. Reynolds, Thomas L. Sacks, Dilip N. Deobagkar, and John R. Stephenson
Cells Nonproductively Transformed by Abelson Murine Leukemia Virus Express a High Molecular Weight Polyprotein Containing Structural and Nonstructural Components
Putting Pieces Together: Vortals Are Back!

- Popular in Late 90’s, But Faltered. What’s Changed?

- **Old:** Web Crawlers Costly or Shaky  
  **New:** Good Crawlers Are Convenient and Affordable

- **Old:** Expensive Bandwidth and Hosting  
  **New:** Cheap

- **Old:** Bring The Content In-House and Index It  
  **New:** Combine Meta-Search with Own-Indexing

- **Old:** Build Directories Manually  
  **New:** Clustering of Search Results

- **Old:** Shaky Business Models  
  **New:** Convenient + Lucrative Ads from Google, Overture, etc.
Example of SMB Application: Jewish Topics Portal
- Machers librarian identified 8,000 relevant website or pages
- Yahoo-style directory approach

Vivisimo Provided Velocity Suite to ...
- Crawl those 8,000 websites plus their own content
- Meta-search other sources, including general web
- Cluster results

Value to 121 Communications (Parent Company)
- Easy/fast setup (under 2 months)
- Removes/lessens need to maintain directories
- Have become reseller to build other specialized vortals
**Now You Can Search Like A Macher.**

Use MacherSearch™ to search thousands of Jewish and Israeli sites worldwide.

- **wedding gifts**

  Top 663 results of at least 4,155 retrieved for the query **wedding gifts**

1. **Machers Jewish Directory** [cache] [new window] [full window] [preview]
   Events Family/Life Cycle Bar/Bat Mitzvah Planning, **Weddings ... Gifts** Hebrew Dictionaries, Fonts, Modern Hebrew ... History Biography, Holocaust ...

2. **Jewish Wedding Gift Ideas from Jewish Celebration!** [cache] [new window] [full window] [preview]
   Jewish View Of Death & Mourning · SHOPPING · Jewish BookStore · **Wedding Gifts** · Bar/Bat Mitzvah Gifts · Gifts for New Baby · ... BY DESIGN Amazing New Kosher Cookbook. BUY Jewish **Wedding Gift Shop**
   Click Here for Jewish **Weddings** Related Books ...
   URL: www.mazomet.com/jewishcl/weddinggifts.htm - show in clusters

3. **Machers: Jewish: Gifts** [cache] [new window] [full window] [preview]
   ... include challah boards, kiddush cups, bar/bat mitzvah, **wedding gifts**, photo frames, Jewish scrapbooking and much more. Jewish Greeting ... to-go **Gifts** for Shabbat, Havdalah, Bar and Bat Mitzvah, **weddings** and holidays of unique and handmade items. ... include jewelry, prayer shawls, micography and more. Small Judaica ... 

4. **Shabbat-to-go Shabbat Bags, Boxes and Jewish Wedding Gifts** [cache] [new window] [full window] [preview]
   URL: www.shabbatogo.com/weddings.html - show in clusters

5. **Weddings** [cache] [new window] [full window] [preview]
   ... **Weddings** (22) 22 TOP SITES (Sorted Alphabetically) Ahuva ... Products include **wedding** items and **gifts**. Chuppah Worldwide Custom-made or individual designer chuppot ... **Wedding Store** Features **wedding** books and guides, products and supplies, **gifts** and information on the Jewish **wedding** ceremony. Includes online **gift** registry. Kosher Mezuzahs Parchment ...
Molecular Biology & Genetics

Bioinformatics Tools

- Genome Analysis
- Laboratory Work
- Literature Retrieval
- Nucleic Acid Analysis
- Protein Analysis
- Miscellaneous

Library Resources

- Current Protocols
- Problems BioKnowledge Library

Help and Feedback

- Contact the Molecular Biology and Genetics Information Specialist
- User's Guide for the HSLS Molecular Biology and Genetics Portal (PowerPoint)

Acknowledgment

Specialized resources for this program are supported in part through the generous gift of Dr. Richard Raizman and Mrs. Dorothy Raizman.
Search for Bioinformatics Tools

Top 417 results retrieved for the query nucleic acid analysis

1. GenePublisher -- automated analysis of DNA microarray data [new window] [preview] [show in clusters]
   Perform automated data analysis from gene expression experiments on a number of different platforms. ...more info

2. REDUCE -- an online tool for inferring cis-regulatory elements and transcriptional module activities from microarray data [new window] [preview] [show in clusters]
   Use motif-based regression method to analyze microarray data. ...more info

3. AAindex -- Amino Acid index database [new window] [preview] [show in clusters]
   Search for information on property and similarity of amino acids expressed as numerical values. ...more info

4. Current Protocols in Nucleic Acid Chemistry [new window] [preview] [show in clusters]
   Find current protocols from CP in Nucleic Acid Chemistry ...more info
Vortals Will Re-Emerge as Counterbalance to Google, etc.

- Clustering, Metasearch, and Selective Re-Crawling Make Portal Building Easy
  - License commercial indexes from MSN, Teoma, etc.
  - License sponsored listings from same

- Publishers Will Want to Leverage Their Brands
  - Not just commoditize user access via Google, etc.
  - Expand market to unsophisticated searchers

- Real End-User Benefits
  - Users can consider lots more info with the same effort
  - Makes people smarter!

- Transform online world of information
  - Less like 1-person used bookstore with piles of books
  - Look more like Barnes & Noble or Borders