Search UI/UX

- Usability
- Search process review
- Pieces to a search interface
  - Query
  - Results
- Examples
- Papers

What is usability?

Usability is one dimension along which we may evaluate a system.

Cost Features, capabilities

Reliability “Objective” “performance

Speed Etc.

What is usability?

Learnability

How easy is it for users to learn how to accomplish tasks for the first time?

Efficiency

Once they've learned, how quickly can they accomplish tasks?

Memorability

How easy is it to re-establish proficiency after a period of non-use?

Errors

What kind, number, and severity of errors do users make? How easy is it for them to recover?

Satisfaction

How "pleasant" or "satisfying" is it to use?

Designing a user interface involves tradeoffs:

Learnability

How easy is it for users to learn how to accomplish tasks for the first time?

Efficiency

Once they've learned, how quickly can they accomplish tasks?

A system that novices find very easy to learn...

... might be inefficient for experts!

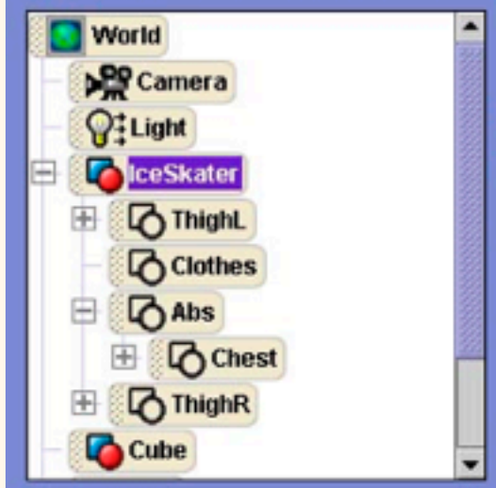

iMovie – Widescreen Wonder
Project Library
Misc
My First Project
Widescreen Wonder
Press the space bar or double-click to Play
8.5s total
Event Library
Last Import
iPhoto Videos
2007
Cancun - Day 2
Cancun - Day 1
Misc Clips
2006
Africa
2005
Walking Safari
Walking Safari
Sunday, November 27, 2005
Show
Favorites and Unmarked
4:35 total


Markers - Demo
Markers - Demo
Name TC Track
0001 Color Correct 01:00:04:08 V1
0002 Sun Set 01:00:01:15 V2
0003 Color Correct 01:00:02:00 V3
0004 Add Transition 01:00:03:11 V3
0005 Water 01:00:00:08 A1
0006 Splash 01:00:02:12 A2
0007 EQ Needed 01:00:06:20 A2
0008 Music Hit 01:00:00:26 A3
0009 Change Music 01:00:04:05 A3
* Demo - For Training
* Demo - For Training
Name Creation Date
Vacation Highlights 10/7/11 4:16:29 PM
Vacation 10/7/11 4:15:43 PM
the spot 10/7/11 3:23:06 PM
Demo 10/7/11 3:19:17 PM
Clouds 10/7/11 3:19:17 PM
Light Music 10/7/11 3:19:17 PM
Wind 10/7/11 3:19:17 PM
Italy 10/7/11 3:19:17 PM
From the Boat 10/7/11 3:19:17 PM
Effect Editor
New Project - test
Effect Editor
Resize
Background
Hue
Sat
Lum
Scaling
X
Y
Fixed Aspect
Position
X
Y
Crop
Top
Bot
Lft
Rgt
Composer
the spot
V1 TC1
Mas
Timeline - Demo
01:00:02:00
01:00:04:00
V3
V2
V1
A1
A2
A3
Clouds
From the Boat
Italy
Italy
Light Music
Light Music
Audio Mixer
Audio Mixer
A1
A2
A3
A4

Alice (2.0 04/05/2005) - E:\studie\purgathofer\Alice2\Alice\Required\exampleWorlds\IceSkater.a2w

File Edit Tools Help

Play | Undo | Redo



Events create new event

World

While Space is pressed
Begin: IceSkater.go wireframe
During: <None>
End: IceSkater.go solid

When the world starts, do World.my first animation

IceSkater's details

properties | methods | functions

skate howManySteps edit
spin edit
blinkEyes edit
setBlink shouldBlink edit
lookAndWink edit
simpleSpin edit
circleAround whichObject edit
skateBackwards howManySteps
jump edit
go wireframe edit
go solid edit
create new method

IceSkater move

World.my first animation

World.my first animation *No parameters* — create new parameter

No variables — create new variable

Wait 1 second
Camera set point of view to <None> point of view of = Camera.PointOfView2 duration = 2 seconds more...
Wait 1 second
Camera set point of view to <None> point of view of = Camera.PointOfView more...
Do together
IceSkater turn left 0.45 revolutions more...
IceSkater set pose IceSkater.pose more...
IceSkater.skate howManySteps = 1
IceSkater.simpleSpin
// backwards and jump
Do together
IceSkater.skateBackwards howManySteps = 2

Do in order | Do together | If/Else | Loop | While | For all in order | For all together | Wait | print | //

odsmsg.cpp (~/src/360/cdr/src) - VIM

File Edit Tools Syntax Buffers Window Help

[2:odsinputmsg.cpp] [3:odsinputmsgimp.cpp] [4:odsmsg.cpp]* [5:odsmsgimp.cpp] [6:odsoutputmsg.cpp] [7:odsoutputmsgimp.cpp] [8:odsserverinterfaces.cpp] [9:odsinputmsg.h] [10:odsinputmsgimp.h] [11:odsmsg.h]* [12:odsmsgimp.h] [13:odsoutputmsg.h] [14:odsoutputmsgimp.h] [15:odsserverinterfaces.h] [16:makefile]

MINI BUFFER EXPLORER WINDOW

```
    RWBoolean
    getNextKeyAndValue(RWCString& key,
                       RWCString& value);

+-- 14 lines: *-------------------------------------------------
    int
    distribute(const int priority = ODSMSG_DEFAULT_PRIORITY);

+-- 17 lines: *-------------------------------------------------
    int
    blockingDistribute(const int priority = ODSMSG_DEFAULT_PRIORITY);

+-- 12 lines: *-------------------------------------------------
    int
    receive(const int interface);

+--  7 lines: *-------------------------------------------------
    void
    complete(ODSMsgImp::resultType res = ODSMsgImp::UNKNOWNRESULT,
             const RWCString& reason = RWCString());

    /**
     * Get Result
     * returns any result information that may have been set by a cal
     * to complete().
     */
    ODSMsgImp::resultType
    getResult();

+--  5 lines: *-------------------------------------------------
    const RWCString&
```

../include/odsmsg.h unix 286,3 75%

```
// Method: ODSMsg::receive()
//-------------------------------------------------------------
int
ODSMsg::receive(const int interface)
+--144 lines: {-------------------------------------------------

//-------------------------------------------------------------
// Method: ODSInputMsg::complete()
//-------------------------------------------------------------
void
ODSMsg::complete(ODSMsgImp::resultType res, const RWCString& rea
+-- 14 lines: {-------------------------------------------------

//-------------------------------------------------------------
// Method: ODSInputMsg::getResult()
//-------------------------------------------------------------
ODSMsgImp::resultType
ODSMsg::getResult()
{
  this_line_should_not_compile
  EC_360CDR_TRACEABLE_MEMBER("ODSMsg_getResult",ODSMsg)

  if (mpMsg)
  {
    return mpMsg->mResult;
  } else {
    return ODSMsgImp::UNKNOWNRESULT;
  }

}
```

odsmsg.cpp unix 666,3 97%

```
|| mkdir -p ../bin
|| mkdir -p ../lib
|| --->Compiling odsmsg.o
|| CC -KPIC -c -g0 -mt  -DVERSION="\"360Server--NoVersionSpecified"\" -D_RWCONFIG_Sol8Dmd    -DEC_FNDSVCS_TRACE_LEVEL=7 -DECFNDSVCS_DB_TRA
odsmsg.cpp|666| Error: this_line_should_not_compile is not defined.
odsmsg.cpp|667| Error: Use ";" to terminate statements.
|| 2 Error(s) detected.
|| make: *** [odsmsg.o] Error 2
```

[Error List][-] unix 5,1 All

How to decide on the right balance?

A *user centered design* process can help!

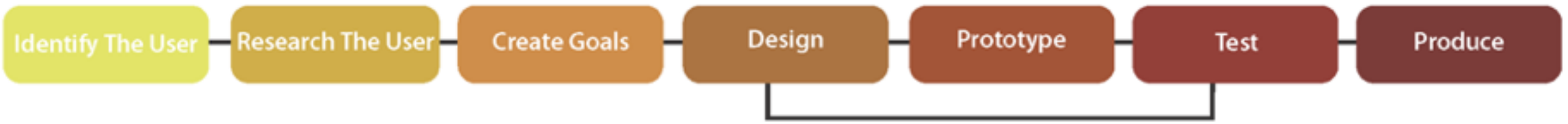
Rather than starting with system capabilities, features, etc....

... UCD starts with the users, and their needs, goals, capabilities, etc.

7 Phases of User-Centered Design

When the user becomes the Co-Designer

Britt Wilcox
Kyun Hur
Mary Elizabeth Miller



Primary User

Secondary User

Tertiary User

Collect Data:
Interviews
Questionnaires
Focus Groups
On site Observations
Video Tape

Evaluate users environment, behavior and experience

Understand what qualities are important to the user

Identify Usability and how it can be measured

Effectiveness, Efficiency, Safety, Utility, Learnability, Memorability

Create mock-ups that the user can evaluate throughout the design process

Be sure that instructions can be intuitively understood. Do this by creating constraints and visual cues.

Evaluate Designs

Have the user test the object in the environment that the product will be used and document.

Give the user minimum instructions on how to use the product

Evaluate user Satisfaction

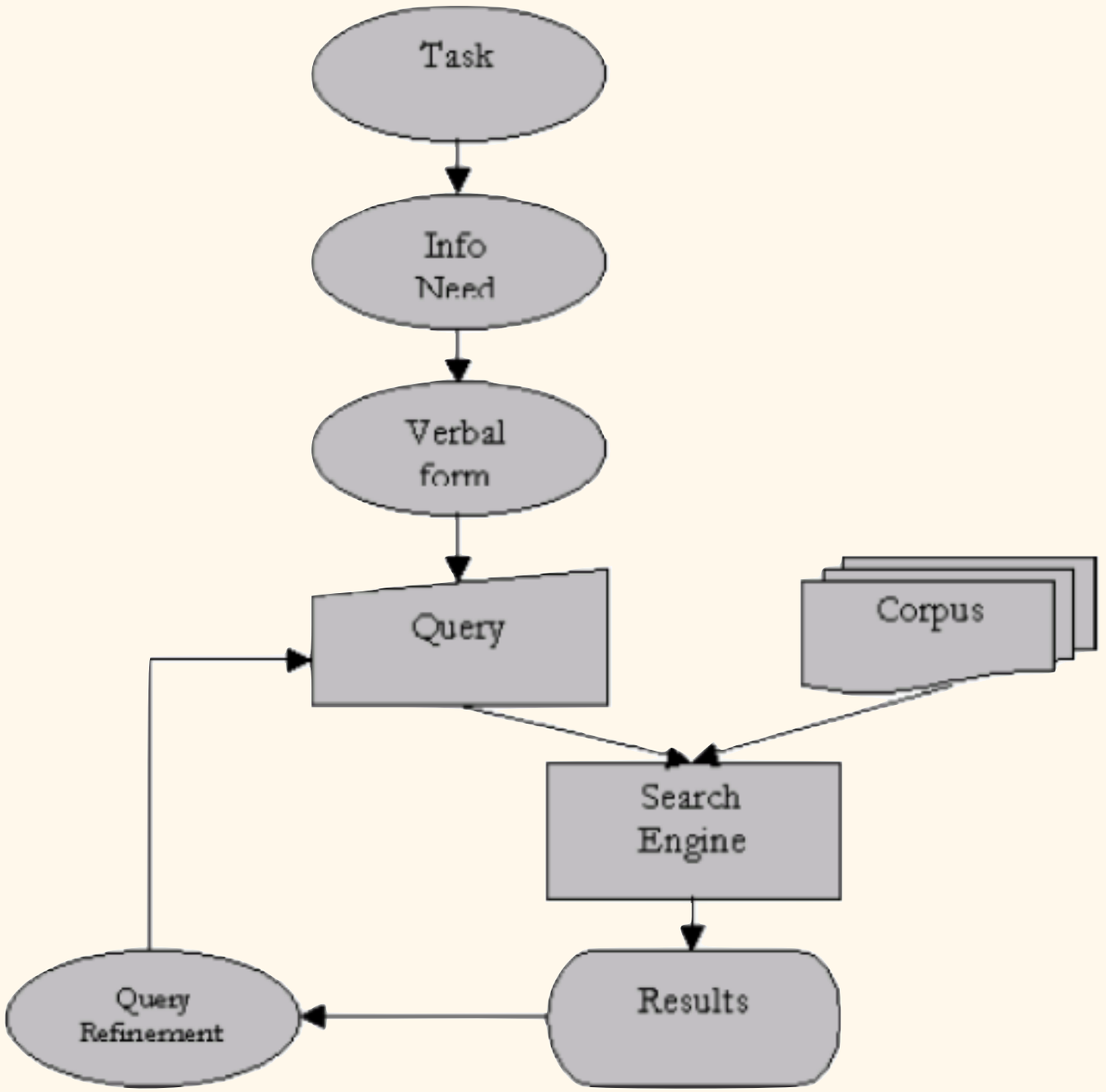
Continue to evaluate the product with user feed back in interviews and surveys.

Works Cited:
Sanders, Elizabeth B. "From User-Centered to Participatory Design Approaches." In Design and the Social Science. Rpt. in Taylor & Francis Limited, 2002
User-Centered Design 1 Abras, C., Maloney-Krichmar, D., Preece, J., (2004) User-Centered Design. In Bainbridge, W. *Encyclopedia of Human- Computer* Interaction. Thousand Oaks: Sage Publications.
"User-Centered Design." , Wikipidia.org, 10 Jan. 2010. Web. 16 Jan. 2010

https://kybritt.files.wordpress.com/2010/01/usercentereddesignmap1.png

What does usability look like in IR?

Key point: Users rarely use a tool for its own sake.

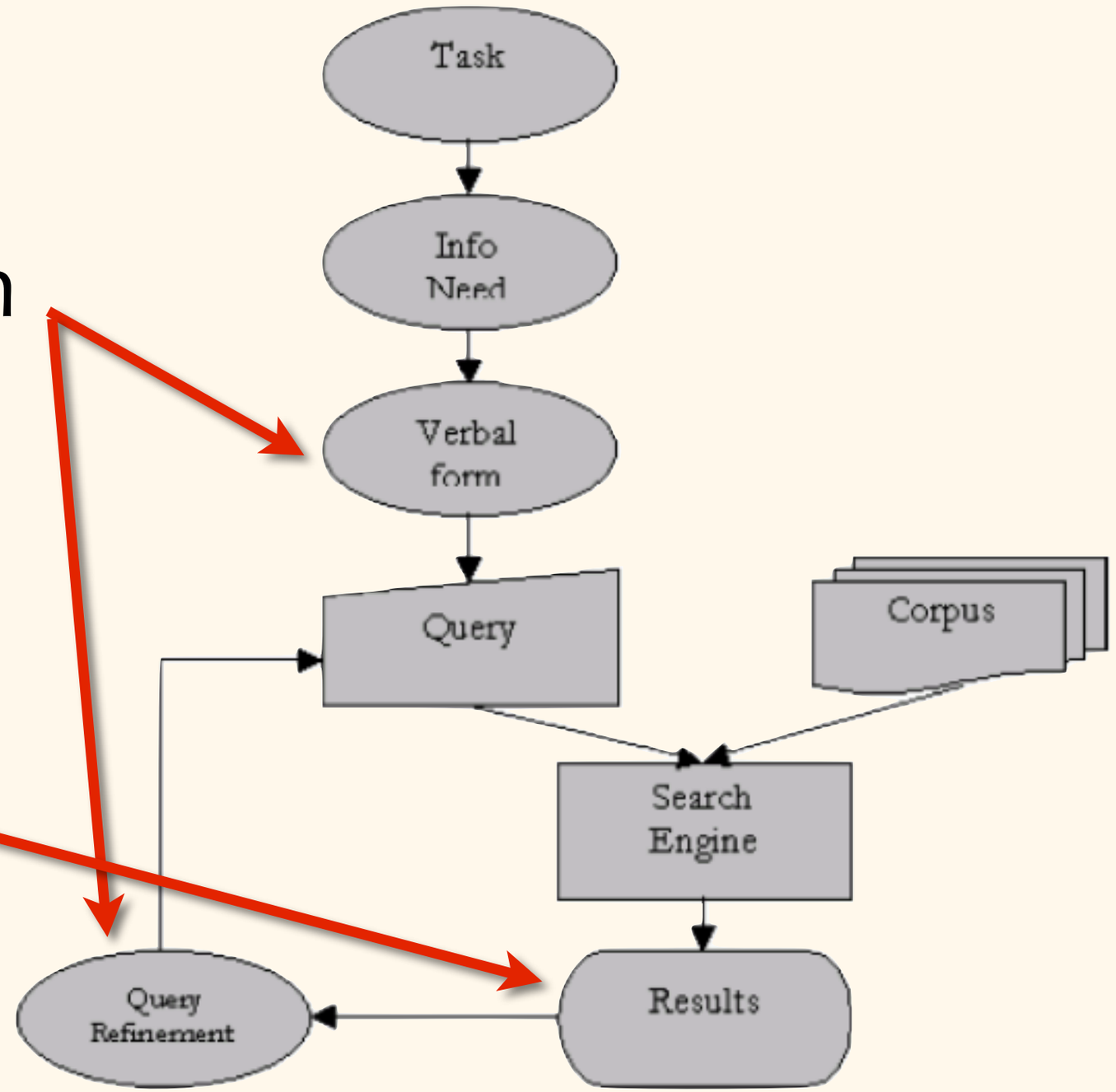


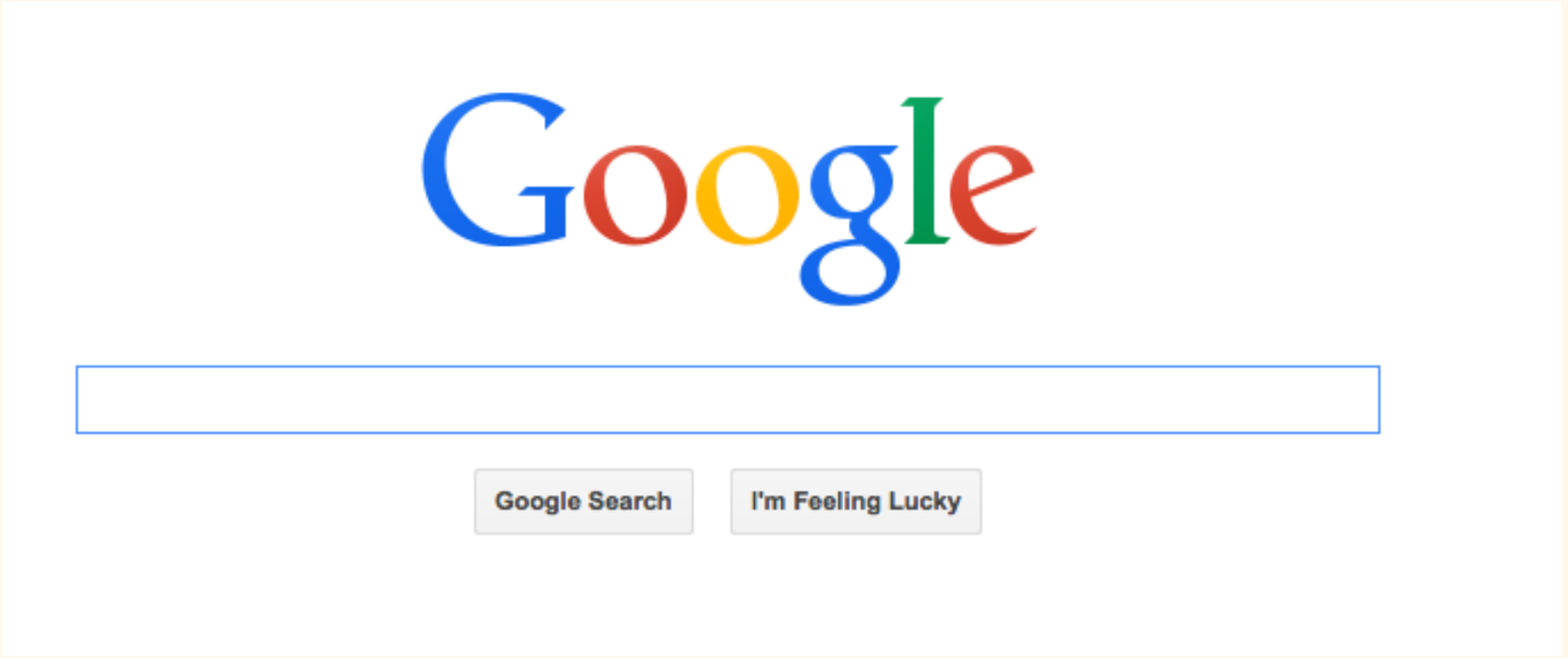
The various pieces of an IR system exist to help in this process.

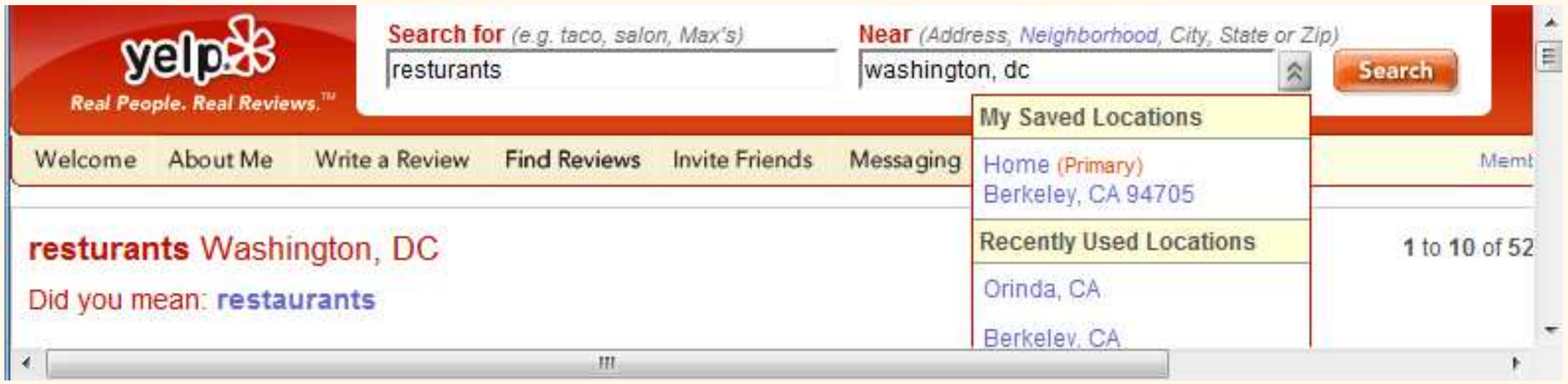
There are two main components to a modern search interface:

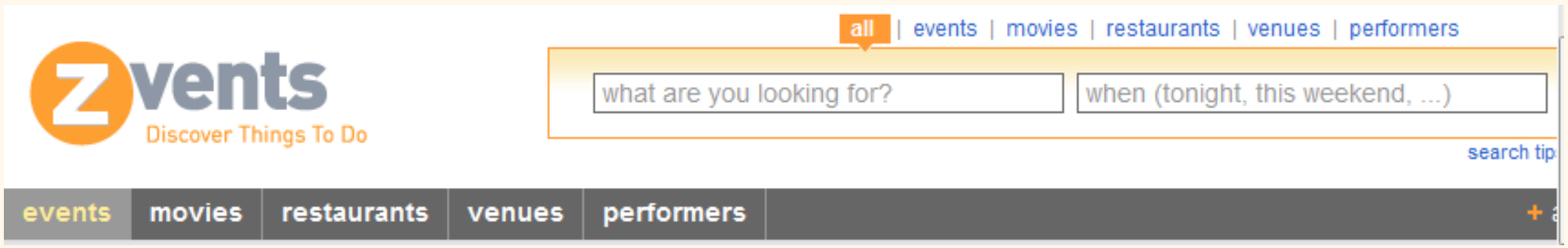
Query specification

Results viewing




Google
Google Search
I'm Feeling Lucky


yelp
Real People. Real Reviews.™
Search for (e.g. taco, salon, Max's)
resturants
Near (Address, Neighborhood, City, State or Zip)
washington, dc
Search
My Saved Locations
Home (Primary)
Berkeley, CA 94705
Recently Used Locations
Orinda, CA
Berkeley, CA
Welcome
About Me
Write a Review
Find Reviews
Invite Friends
Messaging
Memb
resturants Washington, DC
Did you mean: restaurants
1 to 10 of 52


Zvents
Discover Things To Do
all | events | movies | restaurants | venues | performers
what are you looking for?
when (tonight, this weekend, ...)
search tip
events
movies
restaurants
venues
performers

Google

monk

monkey
monkey bread
monkey kingdom
monk
monkey pod
monkfish
monkey go happy
monkey quest
monkey puzzle tree
monkey king

Google Search | I'm Feeling Lucky

NEXTBIO

emb

search

compound› **EMB** (**Emb**)
gene› **EMB** (MGC71745, Gp70, AL022799, MGC21425)
compound› **EMB** (Ethambutol)
compound› **EMB** (Methylurethane)
gene› **Embl1**
gene› **Embl2**
compound› **EMBBA** (**Embba**)
tissue› **Embryo**
compound› **Embarin** (Allopurinol)
compound› **Embutox** (Butoxone)

search › embr

experiments(0)

relevance

QUESTIONS
FOUND IN GOOGLE AUTOCOMPLETE

WHY DO WHALES JUMP
WHY ARE WITCHES GREEN
WHY ARE THERE MIRRORS ABOVE BEDS
WHY DO I SAY UH
WHY IS SEA SALT BETTER
WHY ARE THERE TREES IN THE MIDDLE OF FIELDS
WHY IS THERE NOT A POKEMON MMO
WHY IS THERE LAUGHING IN TV SHOWS
WHY ARE THERE DOORS ON THE FREEWAY
WHY ARE THERE SO MANY SVCHOST.EXE RUNNING
WHY AREN'T THERE ANY COUNTRIES IN ANTARCTICA
WHY ARE THERE SCARY SOUNDS IN MINECRAFT
WHY IS THERE KICKING IN MY STOMACH
WHY ARE THERE TWO SLASHES AFTER HTTP
WHY ARE THERE CELEBRITIES
WHY DO SNAKES EXIST
WHY DO OYSTERS HAVE PEARLS
WHY ARE DUCKS CALLED DUCKS
WHY DO THEY CALL IT THE CLAP
WHY ARE KYLE AND CARTMAN FRIENDS
WHY IS THERE AN ARROW ON AANG'S HEAD
WHY ARE TEXT MESSAGES BLUE
WHY ARE THERE MUSTACHES ON CLOTHES
WHY ARE THERE MUSTACHES ON CARS
WHY ARE THERE MUSTACHES EVERYWHERE
WHY ARE THERE SO MANY BIRDS IN OHIO
WHY IS THERE SO MUCH RAIN IN OHIO
WHY IS OHIO WEATHER SO WEIRD
WHY ARE THERE MALE AND FEMALE BIKES
WHY ARE THERE BRIDESMAIDS
WHY DO DYING PEOPLE REACH UP
WHY AREN'T THERE VARICOSE ARTERIES
WHY ARE OLD KLINGONS DIFFERENT
WHY ARE THERE SQUIRRELS
WHY IS PROGRAMMING SO HARD
WHY IS THERE A 0 OHM RESISTOR
WHY DO AMERICANS HATE SOCCER
WHY DO RHYMES SOUND GOOD
WHY DO TREES DIE
WHY IS THERE NO SOUND ON CNN
WHY AREN'T POKEMON REAL
WHY AREN'T BULLETS SHARP
WHY DO DREAMS SEEM SO REAL

WHY AREN'T DINOSAUR GHOSTS

WHY DO TESTICLES MOVE
WHY ARE THERE PSYCHICS
WHY ARE HATS SO EXPENSIVE
WHY IS THERE CAFFEINE IN MY SHAMPOO
WHY DO YOUR BOOBS HURT
WHY DO IGUANAS DIE

WHY ARE THERE SLAVES IN THE BIBLE
WHY DO TWINS HAVE DIFFERENT FINGERPRINTS
WHY ARE AMERICANS AFRAID OF DRAGONS

WHY IS HTTPS CROSSED OUT IN RED
WHY IS THERE A LINE THROUGH HTTPS
WHY IS THERE A RED LINE THROUGH HTTPS ON FACEBOOK
WHY IS HTTPS IMPORTANT

WHY IS YKK ON ALL ZIPPERS
WHY ARE THERE WEEKS
WHY DO I FEEL DIZZY

WHY AREN'T ECONOMISTS RICH
WHY DO AMERICANS CALL IT SOCCER
WHY ARE MY EARS RINGING
WHY ARE THERE SO MANY AVENGERS
WHY ARE THE AVENGERS FIGHTING THE X MEN
WHY IS WOLVERINE NOT IN THE AVENGERS
WHY ARE THERE SWARMS OF GNATS
WHY IS THERE PHLEGM
WHY ARE THERE SO MANY CROWS IN ROCHESTER, MN
WHY IS PSYCHIC WEAK TO BUG
WHY DO CHILDREN GET CANCER
WHY IS POSEIDON ANGRY WITH ODYSSEUS
WHY IS THERE ICE IN SPACE
WHY IS THERE LAVA

WHY ARE THERE ANTS IN MY LAPTOP

WHY ARE THERE DOGS AFRAID OF FIREWORKS
WHY IS THERE NO KING IN ENGLAND

WHY IS EARTH TILTED
WHY IS SPACE BLACK
WHY IS OUTER SPACE SO COLD
WHY ARE THERE PYRAMIDS ON THE MOON
WHY IS NASA SHUTTING DOWN

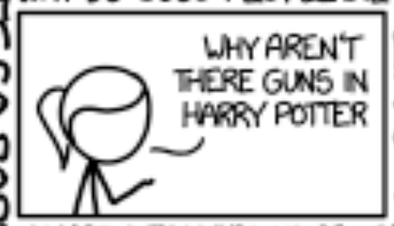
WHY IS THERE AN OWL IN MY BACKYARD
WHY IS THERE AN OWL OUTSIDE MY WINDOW
WHY IS THERE AN OWL ON THE DOLLAR BILL
WHY DO OWLS ATTACK PEOPLE
WHY ARE AK 47s SO EXPENSIVE
WHY ARE THERE HELICOPTERS CIRCLING MY HOUSE
WHY ARE THERE GODS
WHY ARE THERE TWO SPOOKS

WHY ARE THERE FEMALE MR MIMES

WHY IS MT VESUVIUS THERE
WHY DO THEY SAY T MINUS
WHY ARE THERE OBELISKS
WHY ARE WRESTLERS ALWAYS WET
WHY ARE OCEANS BECOMING MORE ACIDIC
WHY IS ARWEN DYING
WHY AREN'T MY QUAIL LAYING EGGS
WHY AREN'T MY QUAIL EGGS HATCHING
WHY AREN'T THERE ANY FOREIGN MILITARY BASES IN AMERICA

WHY IS LIFE SO BORING

WHY ARE MY BOOBS ITCHY
WHY ARE CIGARETTES LEGAL
WHY ARE THERE DUCKS IN MY POOL
WHY IS JESUS WHITE
WHY IS THERE LIQUID IN MY EAR
WHY DO Q TIPS FEEL GOOD
WHY DO GOOD PEOPLE DIE



WHY ARE ULTRASOUNDS IMPORTANT
WHY ARE ULTRASOUND MACHINES EXPENSIVE
WHY IS STEALING WRONG

WHY IS THERE HELL IF GOD FORGIVES

WHY ARE THERE TINY SPIDERS IN MY HOUSE
WHY DO SPIDERS COME INSIDE
WHY ARE THERE HUGE SPIDERS IN MY HOUSE
WHY ARE THERE LOTS OF SPIDERS IN MY HOUSE
WHY ARE THERE SPIDERS IN MY ROOM
WHY ARE THERE SO MANY SPIDERS IN MY ROOM
WHY DO SPIDER BITES ITCH
WHY IS DYING SO SCARY
WHY IS THERE NO GPS IN LAPTOPS
WHY DO KNEES CLICK
WHY AREN'T THERE E GRADES
WHY IS ISOLATION BAD
WHY DO BOYS LIKE ME
WHY DON'T BOYS LIKE ME
WHY IS THERE ALWAYS A JAVA UPDATE
WHY ARE THERE RED DOTS ON MY THIGHS
WHY IS LYING GOOD

WHY IS GPS FREE

https://xkcd.com/1256/

A major consideration for query formulation UI:

User model vs. System model

"how do I think the system works" vs. "how does the system actually work"

"Another study by Muramatsu and Pratt, 2001 with 14 participants found that most people had strong misconceptions about simple Boolean operations. When comparing search engines that automatically applied AND versus OR to query terms, some assumed the ANDing search engine indexed a smaller collection; most had no explanation at all. When receiving empty results for the query **to be or not to be**, two thirds could not explain this phenomenon in a way that remotely resembled stopword removal. For term order variation in queries (for example, **boat fire** vs. **fire boat**), two thirds did not expect the results to differ." (Hearst 2008, Ch. 1)

Zvents
Discover Things To Do

all | events | movies | restaurants | venues | performers

what are you looking for?

when (tonight, this weekend, ...)

search tip

events | movies | restaurants | venues | performers | +

The fastest, easiest way to plan travel

Flights | Hotels | Cars | Packages

Roundtrip | One-Way | Multi-City | Price Graph

Search now to see flights from top airlines and travel sites.

From: City or Airport | To: City or Airport | Apr 24 | Apr 26 | 1 person, coach | Search

April

Su	M	Tu	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

May

Su	M	Tu	W	Th	F	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

Flexible dates? Click and drag to search multiple days (max 3)

Best Selection

Search thousands of travel websites instantly. We show Amtrak schedules & Airbnb accommodations, too.

Compare Prices

Quickly compare prices across flight providers and over 1.2 million hotels and vacation rentals.

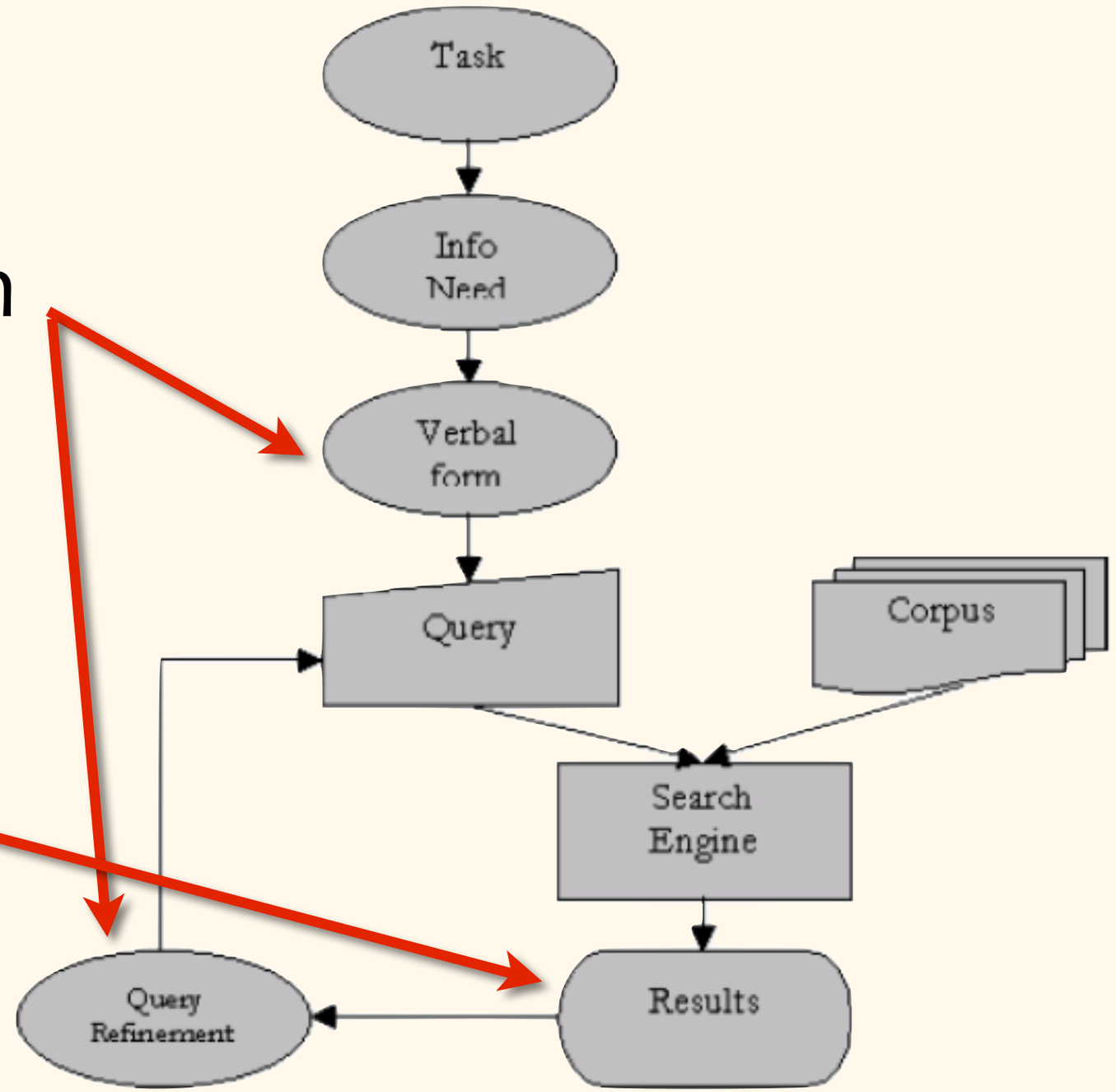
Easy to Use

See flight results including layovers and duration in a visual chart. Try heatmaps to find accommodations close to shopping, nightlife and more.

There are two main components to a modern search interface:

Query specification

Results viewing



Web Images Videos Shopping Books More Search tools

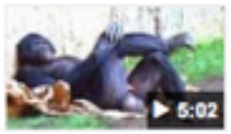
About 103,000,000 results (0.41 seconds)

Monkey - Wikipedia, the free encyclopedia
en.wikipedia.org/wiki/**Monkey** Wikipedia
Monkeys are haplorhine ("dry-nosed") primates, a group generally possessing tails and consisting of approximately 260 known living species. Many **monkey** ...
List of New World monkey ... - Old World monkey - New World monkey - Atelidae

Monkey | San Diego Zoo Animals
animals.sandiegozoo.org/animals/**monkey** San Diego Zoo
Contains **monkey** facts, differences between Old World and New World **monkeys**, and how to help them survive.

Monkeys - Pictures, Interesting Facts and Experiments
www.livescience.com/topics/**monkey**/
Learn about different species of **monkeys**; see pictures of **monkeys** in the wild; and watch intelligent **monkeys** demonstrate their skills and abilities.

Monkey Pictures - Primate Wallpapers - National Geographic
animals.nationalgeographic.com/.../**monkey**... National Geographic Society
See pictures of spider **monkeys**, baboons, macaques, and more in this photo gallery from National Geographic.

Top 10 Funny Monkey Videos Compilation 2014 [NEW ...


www.youtube.com/watch?v=Nqh3LI6l1fk
Jun 10, 2014 - Uploaded by mihaifrancu
Funny **Monkey** | Funny **Monkey** Videos | Funny **Monkeys** | Funny Videos | **Monkey** Funny Video | **Monkey** ...

Top Funniest Monkeys Compilation 2014 - YouTube


www.youtube.com/watch?v=62OL7SC5_A8
Jan 29, 2014 - Uploaded by Star Fail Vids
Top Funniest **Monkeys** Compilation 2014 Rate, Subscribe and Share!!!

In the news

Cookies on the BBC website
BBC News - 22 hours ago
An experimental drug has cured **monkeys** infected with the Ebola virus, US-based scientists ...

Ebola Drug Works Against West African Strain in Study of Monkeys
New York Times - 22 hours ago

Ebola drug saves infected monkeys from death
The Verge - 1 day ago

More news for monkeys

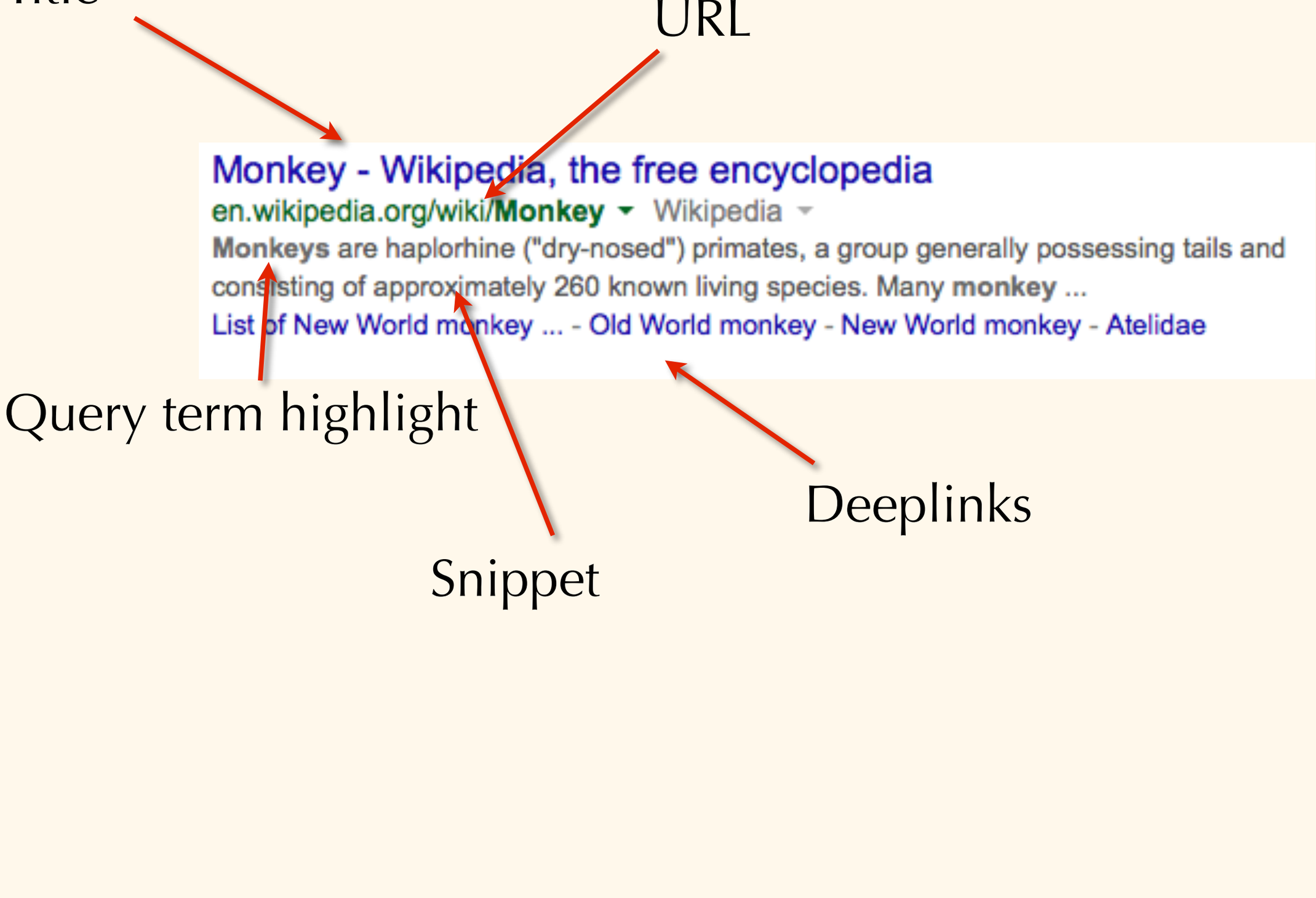
Monkey
Animal

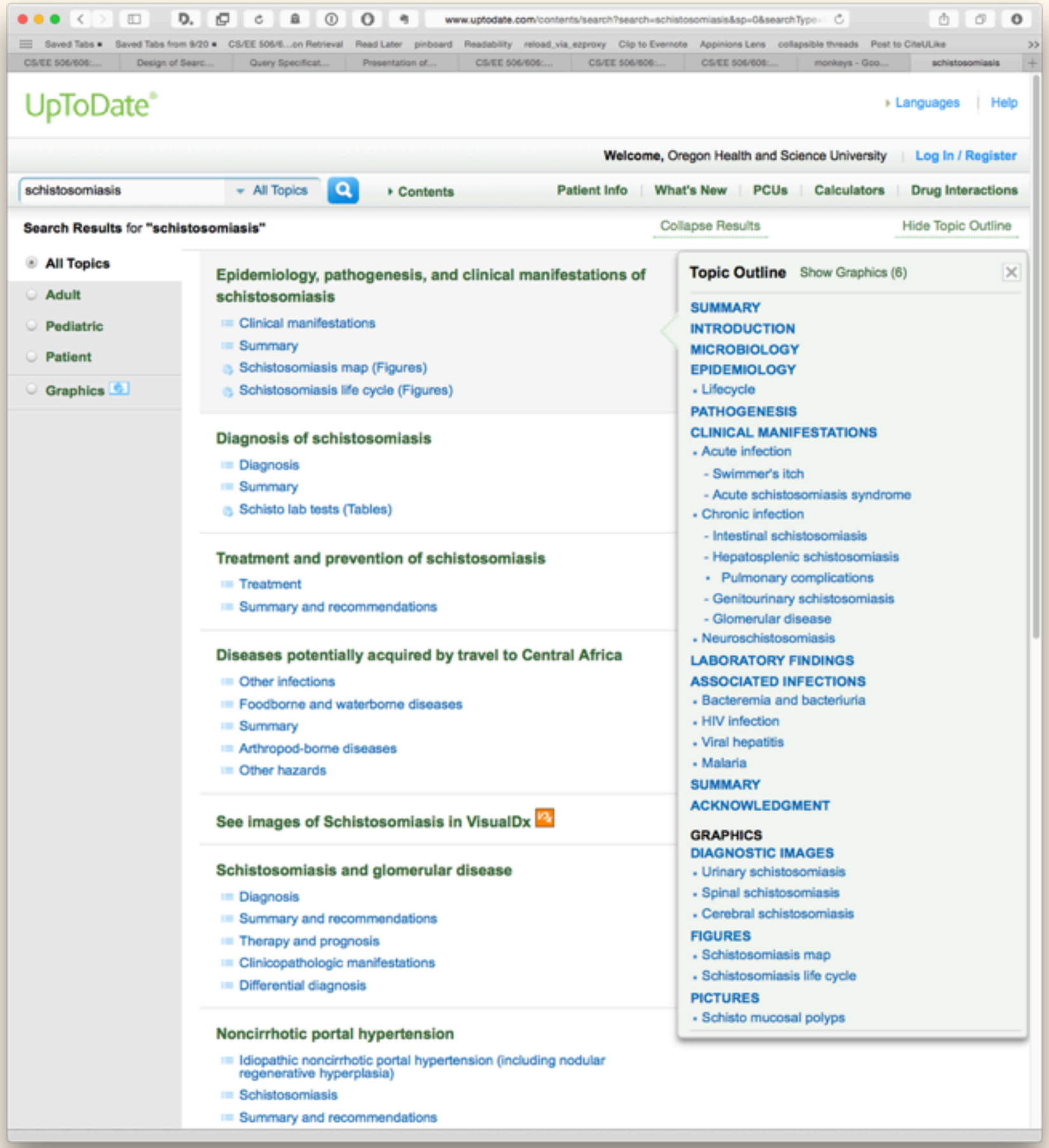
Monkeys are haplorhine primates, a group generally possessing tails and consisting of approximately 260 known living species. Many monkey species are tree-dwelling, although there are species that live primarily on the ground, such as baboons. Wikipedia

Representative species: Old World monkey, Atelidae, Night monkey, Cebidae, Pitheciidae, Callitrichidae

Feedback

SERPs typically include “document surrogates”:




www.uptodate.com/contents/search?search=schistosomiasis&sp=0&searchType=
Saved Tabs • Saved Tabs from 9/20 • CS/EE 506/6...on Retrieval Read Later pinboard Readability reload_via_ezproxy Clip to Evernote Appinions Lens collapsible threads Post to CiteULike
CS/EE 506/606:... Design of Searc:... Query Specificat... Presentation of... CS/EE 506/606:... CS/EE 506/606:... CS/EE 506/606:... monkeys - Goo... schistosomiasis
UpToDate
Languages | Help
Welcome, Oregon Health and Science University | Log In / Register
schistosomiasis
All Topics
Contents
Patient Info | What's New | PCUs | Calculators | Drug Interactions
Search Results for "schistosomiasis"
Collapse Results
Hide Topic Outline
All Topics
Adult
Pediatric
Patient
Graphics
Epidemiology, pathogenesis, and clinical manifestations of schistosomiasis
Clinical manifestations
Summary
Schistosomiasis map (Figures)
Schistosomiasis life cycle (Figures)
Diagnosis of schistosomiasis
Diagnosis
Summary
Schisto lab tests (Tables)
Treatment and prevention of schistosomiasis
Treatment
Summary and recommendations
Diseases potentially acquired by travel to Central Africa
Other infections
Foodborne and waterborne diseases
Summary
Arthropod-borne diseases
Other hazards
See images of Schistosomiasis in VisualDx
Schistosomiasis and glomerular disease
Diagnosis
Summary and recommendations
Therapy and prognosis
Clinicopathologic manifestations
Differential diagnosis
Noncirrhotic portal hypertension
Idiopathic noncirrhotic portal hypertension (including nodular regenerative hyperplasia)
Schistosomiasis
Summary and recommendations
Topic Outline
Show Graphics (6)
SUMMARY
INTRODUCTION
MICROBIOLOGY
EPIDEMIOLOGY
• Lifecycle
PATHOGENESIS
CLINICAL MANIFESTATIONS
• Acute infection
- Swimmer's itch
- Acute schistosomiasis syndrome
• Chronic infection
- Intestinal schistosomiasis
- Hepatosplenic schistosomiasis
• Pulmonary complications
- Genitourinary schistosomiasis
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CXCR4 HIV-1 Search

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ABSTRACTS FULL-TEXT EXCERPTS FIGURES

Down-regulation of cell surface CXCR4 by HIV-1

Choi, B., Gatti, P., Fermin, C., Vigh, S., Haislip, A., Garry, R. (2008) *Virology Journal*.

ABSTRACT

CXC chemokine receptor 4 (**CXCR4**), a member of the G-protein-coupled chemokine receptor family, can serve as a co-receptor along with CD4 for entry into the cell of T-cell tropic X4 human immunodeficiency virus type 1 (**HIV-1**) strains. Productive infection of T-lymphoblastoid cells by X4 **HIV-1** markedly reduces cell-surface expression of CD4, but whether or not the co-receptor **CXCR4** is down-regulated has not been conclusively determined. ... Show Full Abstract

FULL-TEXT EXCERPTS

...family function as coreceptors with the primary receptor CD4 to allow entry of various strains of human immunodeficiency virus type 1 (**HIV-1**) into the cells [5-8]. T-cell-tropic X4 **HIV-1** use CD4 and chemokine receptor **CXCR4** for entry into target cells, whereas macrophage-tropic R5 **HIV-1** use CD4 and chemokine receptor CCR5. Dual-tropic strains can use either CCR5 and **CXCR4** as co-receptors...

...manner [29,30]. Chemokine receptors, including CCR5 and **CXCR4**, can be... Show Full Excerpts

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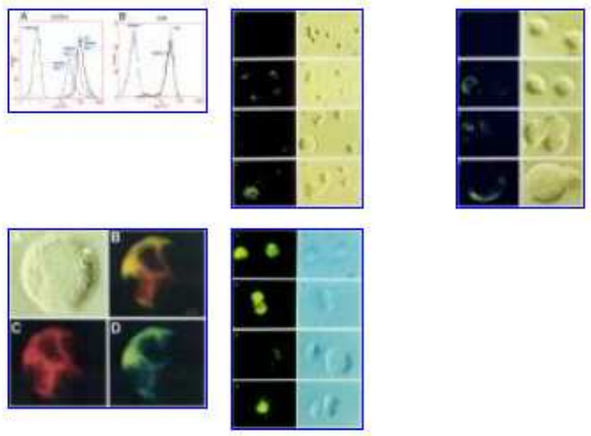
FIGURES FROM ARTICLE:



View all figures (5) and tables from this article.

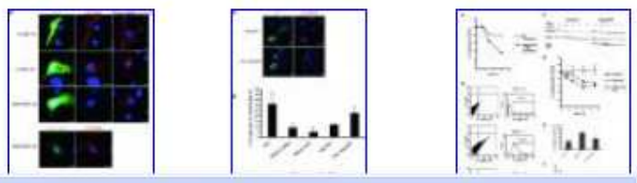
Differential control of CXCR4 and CD4 downregulation by HIV-1 Gag

Valiathan, R., Resh, M. (2008) *Virology Journal*.

ABSTRACT

The ESCRT (endosomal sorting complex required for transport) machinery functions to sort cellular receptors into the lumen of the multivesicular body (MVB) prior to lysosomal

FIGURES FROM ARTICLE:



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Images from the Collections of the Fine Arts Museums of San Francisco;
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search

all items in current results

Refine your search within these categories:

MEDIA: all > Print

- aquatint (4)
- drypoint (10)
- engraving (50)
- etching (77)
- lithograph (21)
- mezzotint (14)
- woodcut (12)

LOCATION: all > Europe (group results)

- Austria (1)
- Belgium / Flanders (5)
- Bohemia (8)
- France (27)
- Germany (19)
- Holland (24)
- Italy (14)
- Scotland (5)
- Spain (1)
- Switzerland (2)
- more...

OBJECTS (group results)

- Clothing (68)
- Containers (21)
- Food and Meals (45)
- Fuel (2)
- Lighting (2)
- Musical Instruments (4)
- Vehicles (56)
- Weapons (27)
- Writing Tools (13)

BUILT_PLACES (group results)

- Bridge (18)
- Building (56)
- Built Open Space (14)
- Dwelling (197)
- Part of Building (44)
- Road (21)

ANIMALS AND PLANTS (group results)

- Birds (19)
- Creatures and Beasts (1)
- Fish and Molluscs (6)
- Flowers (5)
- Mammals, Hoofed (43)
- Mammals, Other (39)
- Parts of Plants (4)
- Trees (33)

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

keyword "castle" ×

LOCATION: Europe ×

MEDIA: Print ×

197 items, grouped by MEDIA (view ungrouped items)

aquatint (4)

Caernavon Castle, ...
18th - 19th century

Duntanborough Castle
1808

Edinburgh Castle N...
1801

Untitled (landscap...
circa 1780

drypoint (10)

Lindesfarne Castle
19th - 20th century

Stirling Castle, N...
19th - 20th century

Castle Moyle
19th - 20th century

[landscape with a ...
19th - 20th century

FITBIR
Federal Interagency Traumatic Brain Injury Research
INFORMATICS SYSTEM

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~~Google AJAX Search API~~
~~Google Analytics~~

Our Vision

The Federal Interagency Traumatic Brain Injury Research (FITBIR) informatics system was developed to share data across the entire TBI research field and to facilitate collaboration between laboratories, as well as interconnectivity with other informatics platforms. Sharing data, methodologies, and associated tools, rather than summaries or interpretations of this information, can accelerate research progress by allowing re-analysis of data, as well as re-aggregation, integration, and rigorous comparison with other data, tools, and methods. This community-wide sharing requires common data definitions and standards, as well as comprehensive and coherent informatics approaches.

Working with FITBIR

Define Data

To achieve its vision, FITBIR implements the interagency Common Data Elements for TBI research and provides tools and resources to extend the data dictionary.

LEARN MORE

Contribute Data

FITBIR has established a two-tiered submission strategy to ensure high quality and to provide maximum benefit to investigators.

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Access Data

Qualified researchers can request access to data stored in FITBIR. To gain access to shared data, an investigator must obtain data access privileges.

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Submitted Data

FITBIR currently contains approximately 100,000 data records from studies funded by the DoD and NIH. This comprehensive data set includes demographics, outcome assessments, imaging and biomarkers.

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Accessing Data

Getting Started

Query and Download Data

Getting Started

Qualified researchers can request access to data stored in FITBIR. To gain access to shared data, an investigator must obtain data access privileges.

Obtaining Access Privileges

In order to obtain Privileges you must do the following:

1. Complete the Data Access Request (includes Data Use Certification). This must be signed by the PI and Authorized Representative.
2. Scan and save the signed Data Access Request (PDF) document.
3. Click the LOG INTO FITBIR button on the FITBIR homepage and click Request a FITBIR account (if you already do not have a FITBIR account) to submit data. FITBIR account requests are reviewed and typically approved within 2 days.
4. Fill in required fields. Be sure to select "Query Tool and Study" permission under Account Privileges.
5. Upload required, signed documents. Select the File Type from the drop: Data Access Request
6. Browse and select the signed, PDF of the Data Use Certification (part of the Data Access Request Document)
7. Click the Upload button
8. Click SUBMIT REQUEST.

Once completed, the request package is then sent for approval to the Data Access and Quality Committee (DAQ) established to oversee access to the FITBIR shared data. When the investigator's request is approved, the investigator is notified by e-mail and explained the conditions under which the approval is granted.

Approvals for access to FITBIR and its tools are granted for one year. In order to apply for account renewal to submit data, users are required to update and submit the data submission request and biographical sketch. Users that would like to renew access to the query tool are required to update and submit the data access agreement and biographical sketch. If the investigator publishes any new results based on analysis using FITBIR data and tools, he/she is required to acknowledge both the original author/submitter of the data and FITBIR. Investigators who access data are also strongly encouraged to collaborate on data analysis and publications with the PIs who collected the data.

Required Documents
- Data Access Request

Policy +
Standard Operating Procedures +
Standards +

NIH NDAR National Database for Autism Research
Serving the autism research community

Quick Navigation

- Query
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NDAR News

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NDAR mentioned in November 2014 Issue of Nature - 11/17/2014

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Data Elements Needed to Define Ont...Concepts Now Required - 04/06/2015

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Learn About NDAR

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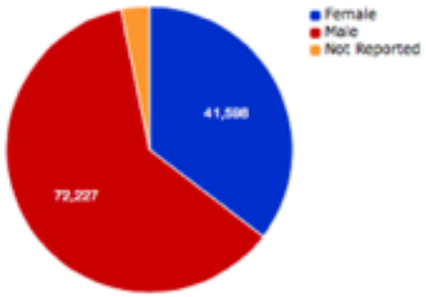
The National Database for Autism Research (NDAR) is an NIH-funded research data repository that aims to accelerate progress in autism spectrum disorders (ASD) research through data sharing, data harmonization, and the reporting of research results. NDAR also serves as a scientific community platform and portal to multiple other research repositories, allowing for aggregation and secondary analysis of data.

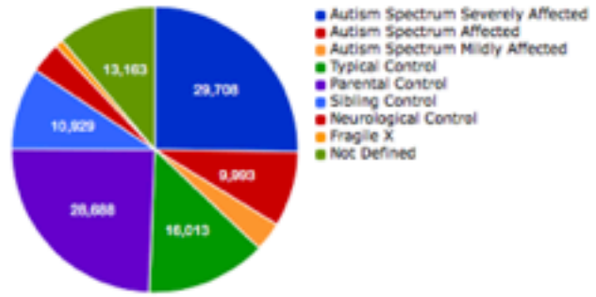
Data Distribution

117,573 subjects by age, 80,578 individuals

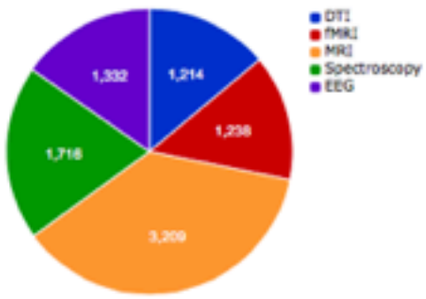
Gender[1]



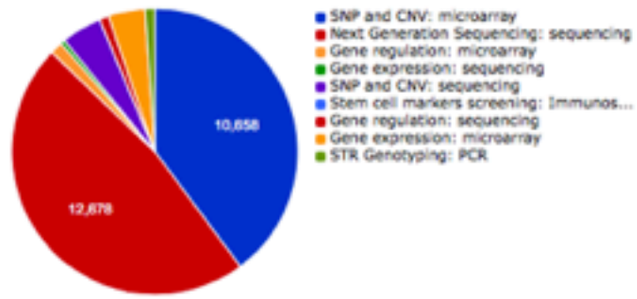
Phenotypic[1]



Neuroimaging



Genomic



[1] Numbers reported are subjects by age

NIH NDAR National Database for Autism Research
Serving the autism research community

Google Analytics

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Query Data | Data from Labs | Data from Papers | **Query by Data Dictionary** | Query by Concept | Query by GUID | Query Instructions

Listed below are the data structures supporting NDAR's autism data definition. To see other definitions in NDAR, select Source. Select Category to see the different types of data structures now available.

Type: All Source: NDAR Category: All

DOWNLOAD	FILTER	TITLE	SHORT NAME	SOURCE	CATEGORY	SUBMISSION
		A Developmental NEuroPSYchological Assessment (NEPSY-II)	nepsy01	NDAR	Cognitive	Allowed
Download	Filter	ACE Family Medical History	ace_fammedhist01	ACE Common Measures V2, NDAR	Med History	Allowed
Download	Filter	ACE Subject Medical History	ace_subjmedhist01	ACE Common Measures V2, NDAR	Med History	Allowed
Download	Filter	ACE Subject Physical Exam	ace_physexam01	ACE Common Measures V2, NDAR	Phys Exam	Allowed
		ADHD Rating Scale	adhdrs01	NDAR	ADHD	Allowed
		AIR Self-Determination Scale	airsds01	NDAR	Questionnaire	Allowed
Download	Filter	Aberrant Behavior Checklist (ABC) - Community	abc_community02	NDAR	Behavior	Allowed
Download	Filter	Abnormal Involuntary Movement Scale	aims01	NDAR, NDCT	Questionnaire	Allowed
Download	Filter	Adapted ADOS Module 1	aados_m101	NDAR	Diagnostic	Allowed
Download	Filter	Adapted ADOS Module 2	aados_m201	NDAR	Diagnostic	Allowed
Download	Filter	Adaptive Behavior Assessment System, Second Edition	abas01	NDAR	Behavior	Allowed
Download	Filter	Adolescent Symptom Inventory	asi01	NDAR	Questionnaire	Allowed
Download	Filter	Adult Behavior Check List	abcl_men_200301	NDAR	Behavior	Allowed
Download	Filter	Adult Impairment Rating Scale	airs01	NDAR	Questionnaire	Allowed
Download	Filter	Advanced Normalization Tools (ANTs) Cortical Thickness	antsvol01	NDAR	Evaluated Data	Not
Download	Filter	Adverse Events	adev01	NDAR, NDCT	Adverse Events	Allowed
		Age Differentiation Test	adt3601	NDAR	Task Based	Allowed
		Ages and Stages Questionnaires. ASQ-3	asq301	NDAR	Questionnaire	Allowed
Download	Filter	Aggression and Conduct Problems Scale	agg01	NDAR	Aggression	Allowed
		Ambiguous Intentions Hostility Questionnaire	aihq01	NDAR	Questionnaire	Allowed
		Anthropometric Information	anthro01	NDAR	Phys Characteristics	Allowed
Download	Filter	Anxiety Disorders Interview Schedule Parent (ADIS IV P)	adis_iv_p01	NDAR	Anxiety	Allowed
		Attention to Child-directed Speech Procedure (AttCDS)	attcds01	NDAR	Cognitive	Allowed
		Autism Behavior Checklist	abc01	NDAR	Questionnaire	Allowed
		Autism Diagnostic Interview - Algorithm	alg_adi01	NDAR	Diagnostic	Not
Download	Filter	Autism Diagnostic Interview - Cumulative	adi_c02	NDAR	Diagnostic	Allowed
Download	Filter	Autism Diagnostic Interview, Rev (ADI-R) Toddler 2004	adir_t_200401	ACE Common Measures, NDAR	Diagnostic	Allowed
Download	Filter	Autism Diagnostic Interview, Rev (ADI-R) Toddler 2006	adir_t_200603	ACE Common Measures, NDAR	Diagnostic	Allowed
Download	Filter	Autism Diagnostic Interview, Revised (ADI-R)	adi_200304	ACE Common Measures, NDAR	Diagnostic	Allowed
Download	Filter	Autism Diagnostic Interview-Questionnaire	adi_q01	NDAR	Diagnostic	Allowed
Download	Filter	Autism Diagnostic Interview-Screener	adi_s01	NDAR	Diagnostic	Allowed
Download	Filter	Autism Diagnostic Observation Schedule (ADOS) - Module 1 (2007)	ados1_200701	NDAR	Diagnostic	Allowed
Download	Filter	Autism Diagnostic Observation Schedule (ADOS) - Module 2 (2007)	ados2_200701	NDAR	Diagnostic	Allowed
		Autism Diagnostic Observation Schedule (ADOS) - Module 3	ados3_200103	NDAR	Diagnostic	Not
Download	Filter	Autism Diagnostic Observation Schedule (ADOS) - Module 4	ados4_200102	ACE Common Measures, NDAR	Diagnostic	Allowed
		Autism Diagnostic Observation Schedule (ADOS) -Change	ados_c01	NDAR	Diagnostic	Allowed
Download	Filter	Autism Diagnostic Observation Schedule (ADOS) Toddler	ados_t02	ACE Common Measures, NDAR	Diagnostic	Allowed

Query Data | Data from Labs | Data from Papers | Query by Data Dictionary | **Query by Concept** | Query by GUID | Query Instructions

Below are defined ontological concepts that can be used to query all NDAR and federated data. Select a concept and apply the filter to see the number of subjects available. Those that have access may then download. NDAR adopted the published ASD phenotype ontology defined in Modeling the Autism Spectrum Disorder Phenotype (McCray et al) as an initial implementation of ontological concepts. For changes or additions to the current model, contact us at NDAR Help Desk.

Available Concepts (1 selected) Clear Selections Collapse All

- ***Personal Traits***
  - Cognitive Ability
  - Executive Function
  - ***Language Ability***
    - Minimally Verbal
    - Development or Regression of Language Skills
    - ***Expressive Language***
      - Expressive Lexicon
      - ***Expressive Morphology***
        - Good Expressive Morphology
        - *Poor Expressive Morphology*
      - Expressive Phonology
      - Expressive Semantics
      - Expressive Syntax
    - Idiosyncratic and Routinized Speech

General Parameters

Age in Months From: 0 To: 120

Gender: Both

Omic Parameters

Omics Molecule: ALL

Application Technology: ALL

Omics Platform: ALL

Apply Filters

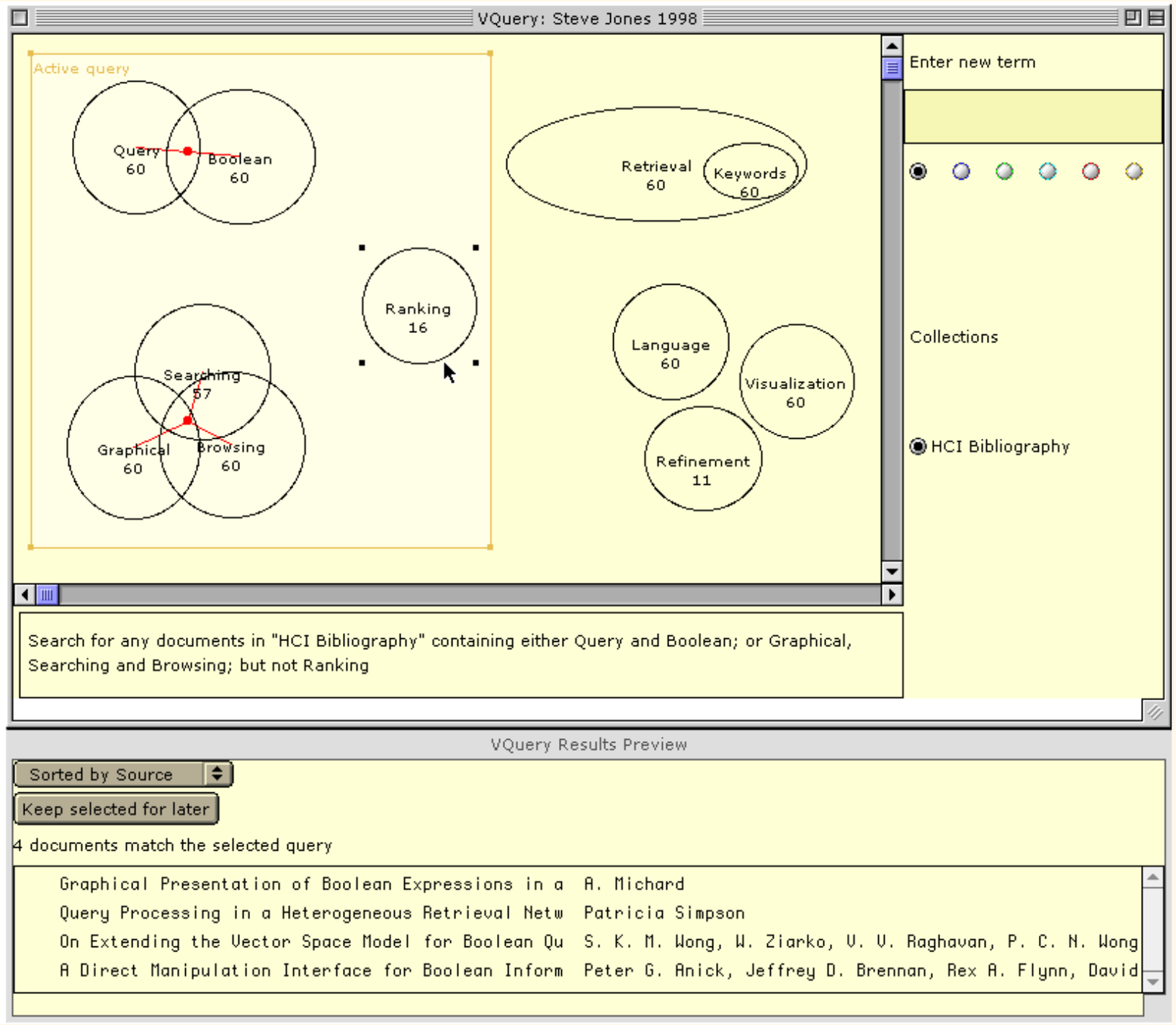


Figure 2.15: The VQuery [851] Venn Diagram interface for Boolean query specification.

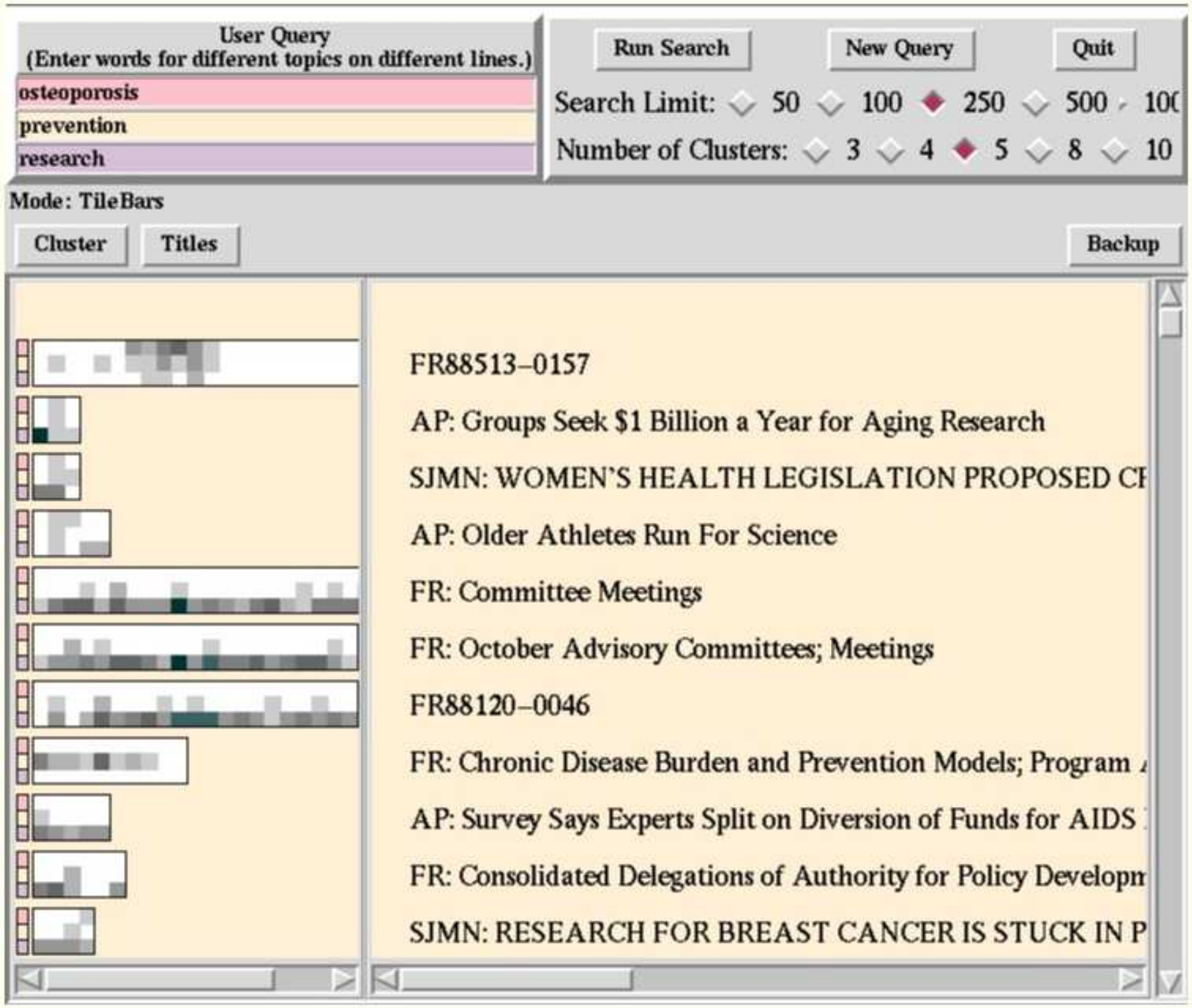
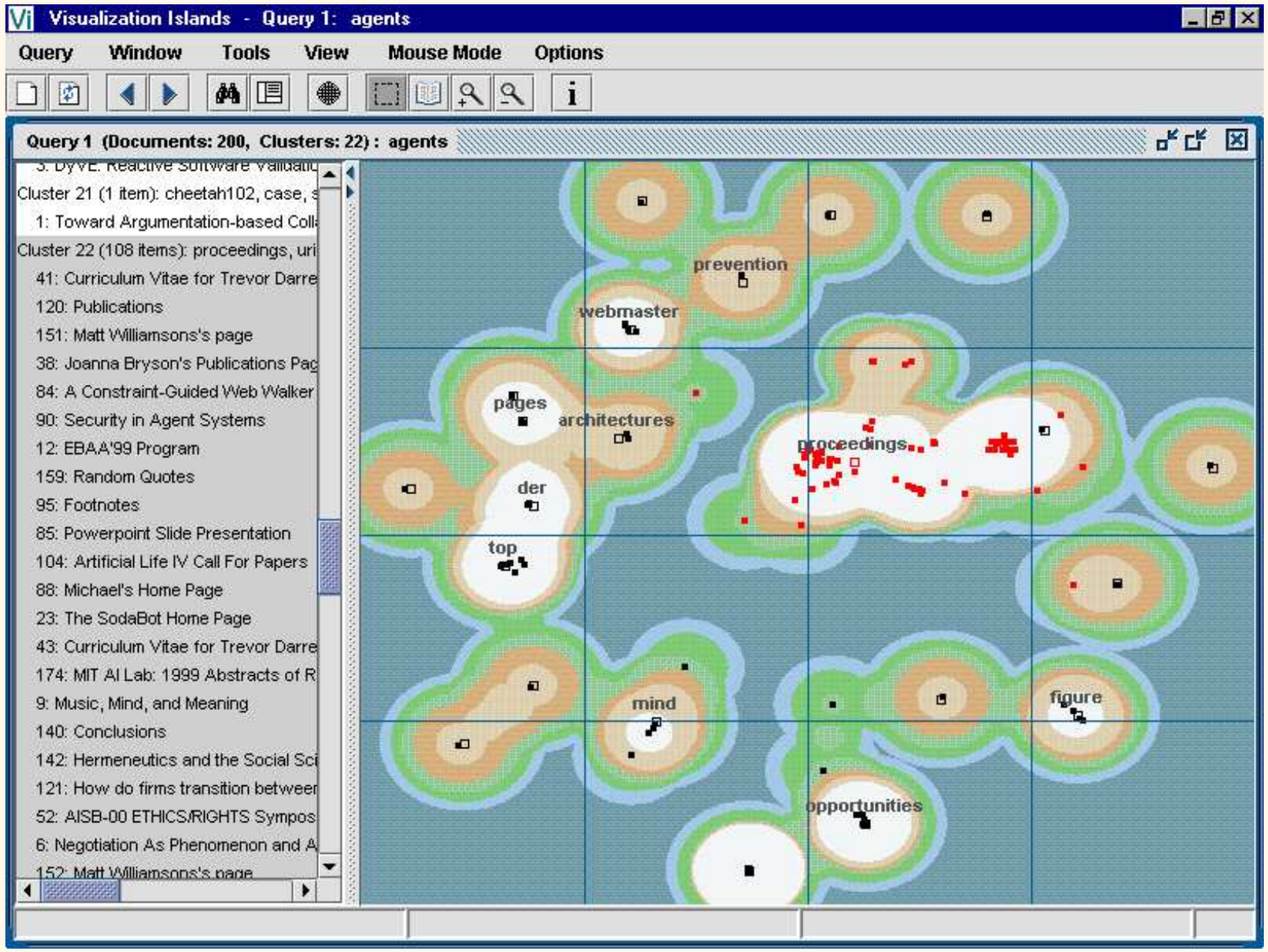


Figure 2.16: The TileBars visualization of query term hits within retrieved documents, from [732].


Visualization Islands - Query 1: agents
Query
Window
Tools
View
Mouse Mode
Options
Query 1 (Documents: 200, Clusters: 22) : agents
Cluster 21 (1 item): cheetah102, case,
1: Toward Argumentation-based Coll
Cluster 22 (108 items): proceedings, uri
41: Curriculum Vitae for Trevor Darre
120: Publications
151: Matt Williamsons's page
38: Joanna Bryson's Publications Pag
84: A Constraint-Guided Web Walker
90: Security in Agent Systems
12: EBAA'99 Program
159: Random Quotes
95: Footnotes
85: Powerpoint Slide Presentation
104: Artificial Life IV Call For Papers
88: Michael's Home Page
23: The SodaBot Home Page
43: Curriculum Vitae for Trevor Darre
174: MIT AI Lab: 1999 Abstracts of R
9: Music, Mind, and Meaning
140: Conclusions
142: Hermeneutics and the Social Sci
121: How do firms transition betwee
52: AISB-00 ETHICS/RIGHTS Sympos
6: Negotiation As Phenomenon and A
prevention
webmaster
pages
architectures
proceedings
der
top
mind
figure
opportunities

User Evaluation of Query Quality

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ABSTRACT

Although a great deal of research has been conducted about automatic techniques for determining query quality, there have been relatively few studies about how people judge query quality. This study investigated this topic through a laboratory experiment with 40 subjects. Subjects were shown eight information problems (five fact-finding and three exploratory) and asked to evaluate queries for these problems according to several quality attributes. Subjects then evaluated search engine results pages (SERPs) for each query, which were manipulated to exhibit different levels of performance. Following this, subjects reevaluated the queries, were interviewed about their evaluation approaches and repeated the rating procedure for two information problems. Results showed that for fact-finding information problems, longer queries received higher ratings (both initial and post-SERP), and that post-SERP query ratings were more affected by the proportion of relevant documents viewed to all documents viewed rather than the ranks of the relevant documents. For exploratory information problems, subjects' ratings were highly correlated with the number of relevant documents in the SERP as well as the proportion of relevant documents viewed. Subjects adopted several approaches when evaluating query quality, which led to different quality ratings. Finally, during the reliability check subjects' initial evaluations were fairly stable, but their post-SERP evaluations significantly increased.

Categories and Subject Descriptors

H.3 [**Information Storage and Retrieval**]: Information Search and Retrieval - query formulation, search process.

General Terms

Experimentation, Human Factors

Keywords

Query quality, query recommendation, query evaluation

1. INTRODUCTION

Query performance prediction (QPP) is the task of estimating the expected quality of search results for a query in the absence of relevance feedback [4, 8]. The basic goal is to predict when a query will perform poorly so that some intervention can occur before results are returned. For example, additional information might be elicited from the user or term expansion might be used to enhance the query. QPP approaches are classified into two types: pre-retrieval and post-retrieval [4, 8]. Pre-retrieval approaches estimate query performance based on features of the query while post-retrieval approaches consider the results retrieved by the query. Pre-retrieval approaches are further subdivided into those that exploit the linguistic structure of the query, including the morphological, syntactical and semantic properties of the query, and those that use term statistics, including specificity, similarity, coherency and relatedness. Post-retrieval approaches include measures such as clarity and robustness, and score analysis.

Although a great deal of research has been conducted about QPP, there have been relatively few studies about the relationship among QPPs and users' evaluations of query difficulty. Hauff et al. [10] note "while most QPP methods have been motivated and developed based on how a user might rate a query, these intuitions have never been empirically validated" (pg. 980). To address this limitation, Hauff et al. [9, 10] compared the query performance ratings made by humans with performance scores estimated by a suite of QPP methods. Results showed that user ratings and QPPs were mostly uncorrelated, suggesting that QPP methods are not representative of how users evaluate query quality. Lioma et al. [12] found that users could not reliably identify pre-determined query difficulty ratings associated with a set of 420 queries, but were able to identify some features that would make a query difficult for a search system.

While these previous studies provide some insight about the relationship among QPPs and users' evaluations of query difficulty, they do not reveal insight about how people actually judge query quality. In one of the studies reported by Hauff et al. [10], assessors were provided with queries and information need descriptions and asked to judge the queries based on what they expected the results to be if they submitted the queries to a Web search engine. Assessors made their judgments using a 5-point scale, where 1=poor quality query and 5=high quality query. The researchers did not report assessors' experiences using this scale to evaluate query quality, although it was noted that their ratings varied considerably. Lioma et al. [12] asked assessors to rate queries using three categories (easy, medium, hard). In both studies, assessors evaluated queries without inspecting results. Neither study probed people about how they judged query quality.

People rate a variety of objects in daily life (e.g., movies, restaurants, books), but it is unlikely that many people have rated queries. How would people approach this task? What factors would they consider when evaluating query quality? How would they make decisions about which numeric ratings to assign to which queries? In this paper we explore these questions. We are not concerned with the relationship between QPPs and people's evaluations of query quality, but instead seek to address more fundamental questions about how people make evaluations of query quality. Specifically, our research questions are (RQ1)

SIGIR'12, August 12–16, 2012, Portland, Oregon, USA.

Clarke CLA, Agichtein E, Dumais S, White RW. The Influence of Caption Features on Clickthrough Patterns in Web Search. Proceedings of SIGIR '07, pp. 135–42.

The Influence of Caption Features on Clickthrough Patterns in Web Search

Charles L. A. Clarke
University of Waterloo

Eugene Agichtein
Emory University

Susan Dumais and Ryen W. White
Microsoft Research

ABSTRACT

Web search engines present lists of *captions*, comprising title, snippet, and URL, to help users decide which search results to visit. Understanding the influence of features of these captions on Web search behavior may help validate algorithms and guidelines for their improved generation. In this paper we develop a methodology to use clickthrough logs from a commercial search engine to study user behavior when interacting with search result captions. The findings of our study suggest that relatively simple caption features such as the presence of all terms query terms, the readability of the snippet, and the length of the URL shown in the caption, can significantly influence users' Web search behavior.

Categories and Subject Descriptors

H.3.3 [**Information Storage and Retrieval**]: Information Search and Retrieval—*search process*

General Terms

Experimentation, Human Factors

Keywords

Web search, summarization, snippets, query logs

1. INTRODUCTION

The major commercial Web search engines all present their results in much the same way. Each search result is described by a brief *caption*, comprising the URL of the associated Web page, a title, and a brief summary (or "snippet") describing the contents of the page. Often the snippet is extracted from the Web page itself, but it may also be taken from external sources, such as the human-generated summaries found in Web directories.

Figure 1 shows a typical Web search, with captions for the top three results. While the three captions share the same basic structure, their content differs in several respects. The snippet of the third caption is nearly twice as long as that of the first, while the snippet is missing entirely from the second caption. The title of the third caption contains all of the query terms in order, while the titles of the first and second captions contain only two of the three terms. One of the query terms is repeated in the first caption. All of the query terms appear in the URL of the third caption, while none appear in the URL of the first caption. The snippet of the first caption consists of a complete sentence that concisely describes the associated page, while the snippet of the third caption consists of two incomplete sentences that are largely unrelated to the overall contents of the associated page and to the apparent intent of the query.

While these differences may seem minor, they may also have a substantial impact on user behavior. A principal motivation for providing a caption is to assist the user in determining the relevance of the associated page without actually having to click through to the result. In the case of a *navigational* query — particularly when the destination is well known — the URL alone may be sufficient to identify the desired page. But in the case of an *informational* query, the title and snippet may be necessary to guide the user in selecting a page for further study, and she may judge the relevance of a page on the basis of the caption alone.

When this judgment is correct, it can speed the search process by allowing the user to avoid unwanted material. When it fails, the user may waste her time clicking through to an inappropriate result and scanning a page containing little or nothing of interest. Even worse, the user may be misled into skipping a page that contains desired information.

All three of the results in figure 1 are relevant, with some limitations. The first result links to the main Yahoo Kids! homepage, but it is then necessary to follow a link in a menu to find the main page for games. Despite appearances, the second result links to a surprisingly large collection of online games, primarily with environmental themes. The third result might be somewhat disappointing to a user, since it leads to only a single game, hosted at the Centers for Disease Control, that could not reasonably be described as "online". Unfortunately, these page characteristics are not entirely reflected in the captions.

In this paper, we examine the influence of caption features on user's Web search behavior, using clickthroughs extracted from search engines logs as our primary investigative tool. Understanding this influence may help to validate algorithms and guidelines for the improved generation of the

SIGIR'07, July 23–27, 2007, Amsterdam, The Netherlands.

Guan Z, Cutrell E. An Eye Tracking Study of the Effect of Target Rank on Web Search. CHI '07. pp. 417–20.

An Eye Tracking Study of the Effect of Target Rank on Web Search

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ABSTRACT
Web search engines present search results in a rank ordered list. This works when what a user wants is near the top, but sometimes the information that the user really wants is located at the bottom of the page. This study examined how users' search behaviors vary when target results were displayed at various positions for informational and navigational tasks. We found that when targets were placed relatively low in the first page of search results, people spent more time searching and were less successful in finding the target, especially for informational tasks. Further analysis of eye movements showed that the decrease in search performance was partially due to the fact that users rarely looked at lower ranking results. The large decrease in performance for informational search is probably because users have high confidence in the search engine's ranking; in contrast to navigational tasks, where the target is more obvious from information presented in the results, in informational tasks, users try out the top ranked results even if these results are perceived as less relevant for the task.

Author Keywords
Web search, eye tracking, target position, trust.

ACM Classification Keywords
H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

INTRODUCTION
With the increase in volume of digital information, search has become one of the most efficient ways to find what users are looking for. Various search engines or search services have been launched to help users find information stored on World Wide Web, inside corporate networks, or on personal computers.

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When a user searches for information with a search engine, its effectiveness is determined by whether it gives back relevant results. Most search engines display results in a rank-ordered list, with the highest ranked result placed on top and others ordered below that.

Although this is efficient when the first few results displayed in the list are the most relevant, such ranking can be problematic when these results are not what users are looking for. Past studies [6] have shown that people often choose the first few results on the top of the list and ignore the rest. It was observed that users often click on the first item even if the second is more relevant. In addition, users may simply change their queries when the first few results are not promising, even though some results further down the list might well satisfy their search goals. This leads us to ask: how does the ranking (as determined by a search engine) of the results affect how people search? Do they blindly follow the search engine's ranking or make their own judgment of results based on information they see? What happens when the user's goal is not included at the top of the search result list?

EXPERIMENT
To investigate how people search for information when the best result is not on top, we designed a study that varied the absolute rank position of the "best" search result for each task. We used eye tracking to record what people looked at during search. Eye tracking technologies have been widely used as a proxy for users' attention. Eye movement data helps us understand where people invest attention, and in what order before they make a selection[5].

Design
The design of the experiment crossed *Task Type (2)* x *Target Position (6)* as two within subject factors. Two types of search tasks (navigational and informational tasks) identified in the literature [1] were used in this study. In *navigational* tasks, users were asked to find a specific website or homepage for the task; the goal was simply to get to their destination. In *informational* tasks the goal was to acquire some kind of information irrespective of where it was located. The target result was displayed at six positions (1, 2, 4, 5, 7, and 8) for each task. The study also systematically varied the length of the descriptive text. For the results related to the snippet length, please see [3].