



An open, shared database of the
world's knowledge.

jg@metaweb.com

- What is Freebase?
- Freebase and the Semantic Web
- Global perspective
- Examples of applications using Freebase
- Questions

What is Freebase?

- Community built
- Freely available
- Database of knowledge

What is Freebase?

- Community built
- Freely available
- **Database of knowledge**

Topics

- Topics are Concepts
 - All topics are reconciled
 - Stable, long-lived Identifiers
 - Inclusive Policy
- “Consensual Reality”
 - Focus on available data
 - People, Places, Products...



James I of England topic

rename |

Also known as [James VI of Scotland](#) [edit](#)

James VI and I (19 June 1566 – 27 March 1625) was King of Scots as James VI, and King of England and King of Ireland as James I. He ruled in Scotland as James VI from 24 July 1567, when he was only one year old, succeeding his mother Mary, Queen of Scots. Regents governed during his minority, which ended officially in 1578, though he did not gain full control of his government until 1581. On 24 March 1603, as James I, he succeeded the last Tudor monarch of England and Ireland, Elizabeth I, who... [full article at wikipedia](#)

[Write new description for Freebase.com](#)



Created by [Metaweb](#) Oct 22, 2006



Last edited by [jmmcleod14](#) Oct 1, 2008

[View topic history »](#)

Gallery

[add](#) | [edit](#)



Weblinks

[edit](#)

[Wikipedia](#)



Recent Discussions about James I of

[+ Add a Type](#)

Contents: [Person](#), [Deceased Person](#), [Politician](#), [Author](#)

[- People](#)

Person

more options ▾

8 empty fields

edit	Gender	Male	
edit	Date of birth	Jun 19, 1566	
edit	Place of birth	Edinburgh Castle	
edit ▾	Country of nationality	Scotland	detail view »
edit ▾	Ethnicity	Scottish people	detail view »
edit ▾	Parents	Mary I of Scotland, Henry Stuart, Lord Darnley	detail view »
edit ▾	Children	Charles I of England Sophia Stuart Henry Frederick, Prince of Wales Elizabeth of Bohemia Margaret Stuart Robert Stuart, Duke of Kintyre Mary Stuart	detail view »
edit ▾	Spouse (or domestic partner)	spouse Anne of Denmark	detail view »
edit ▾	Places lived	location Edinburgh	detail view »
edit	Date of death	Mar 27, 1625	

Deceased

French Cheese



Mimolette



Brie



Camembert



Banon de Provence



Abbaye de Belloc



Beaufort Alpage



Bleu d'Auvergne



Port-Salut cheese



Roquefort



Tomme de Savoie



Tomme cheese



Morbier



Vacherin



Chèvre cheese



Reblochon



Munster



Neufchâtel



Comté



Cantal



The Laughing Cow



Beaufort



Banon



Abbaye de Belloc



Pont-l'Évêque



Mountains of the Himalayas



Kangchenjunga



K2



Mount Everest



Annapurna



Lhotse



Makalu



Cho Oyu



Dhaulagiri



Manaslu



Nanga Parbat



Shishapangma



Pumori



Nuptse



Ama Dablam



Gauri Sankar



Gyachung Kang



Nanda Devi



Kala Patthar



Characters created by Stan Lee



Abomination



Absorbing Man



Adam Warlock



Air-Walker



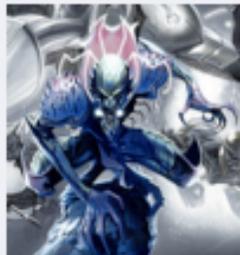
Alicia Masters



Ancient One



Anelle



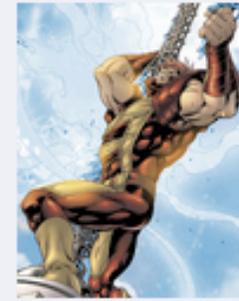
Annihilus



Archangel



Ares



Atlas



Attuma



Aunt May



Awesome Andy



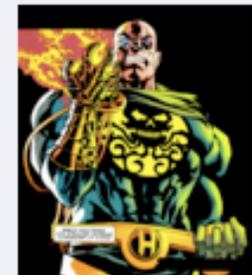
Balder



Banshee



Baron Mordo



Baron Strucker



Graphs of Knowledge

- Since 1960's Knowledge Representation has favored n-tuples
- (subject, predicate, object)



Alfred Hitchcock



Directed



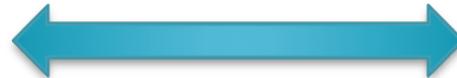
Rebecca (1940)



Starred



Laurence Olivier



Married



Vivien Leigh

Graph of Knowledge

- Semantic Networks, CYC, RDF etc.
- **Directed, labeled, multigraph model is sufficient** for the data, as well as schema representation.
- Cannot be efficiently implemented in RDBMS or column stores
 - Requires “graph” datastores

Karlsruhe triples...

-	/type/object/name	Karlsruhe (/type/text)	/user/mwcl_wikipedia_en	2007-09-25T21:07:25.0031Z
-	/type/object/name	קארלסרוהה (/type/text)	/user/mwcl_wikipedia_en	2007-09-25T23:03:30.0032Z
-	/type/object/name	卡尔斯鲁厄 (/type/text)	/user/mwcl_wikipedia_en	2007-09-25T23:44:58.0028Z
-	/type/object/name	Карлсруе (/type/text)	/user/mwcl_wikipedia_en	2007-09-26T19:51:08.0010Z
-	/type/object/name	Karlsruhe (stad) (/type/text)	/user/mwcl_wikipedia_en	2007-09-28T20:42:33.0029Z
-	/type/object/permission	Global Write Permission	/user/metaweb	2006-10-22T10:52:37.0089Z
-	/type/object/type	Topic	/user/metaweb	2006-10-22T10:52:37.0090Z
-	/common/topic/article	/guid/9202a8c04000641f8000000000b2848	/user/mwcl_wikipedia_en	2006-10-22T10:52:37.0102Z
-	/type/object/type	City/Town	/user/wp_typer	2006-12-07T03:46:52.0000Z
-	/type/object/type	Location	/user/wp_typer	2006-12-07T03:57:20.0006Z
-	/common/topic/image	Karlsruhe-Winter.JPG	/user/vzach	2007-03-16T12:43:10.0000Z
-	/location/location/geolocation	/guid/9202a8c04000641f80000000042b350f	/user/vzach	2007-03-16T12:43:48.0005Z
-	/location/location/contains	Durlach	/user/miguel	2007-05-14T21:31:42.0000Z
-	/common/topic/webpage	/guid/9202a8c04000641f8000000004fd5667	/user/miguel	2007-05-14T21:34:52.0005Z
-	/location/location/contains	Wildparkstadion	/user/vzach	2007-06-29T02:07:14.0000Z
-	/type/object/type	Statistical region	/user/ckuehne	2007-11-12T10:10:23.0002Z
-	/location/location/contains	Knielingen	/user/miguel	2007-11-20T16:29:05.0005Z
-	/type/object/type	Sports Team	/user/ckuehne	2007-12-06T13:54:45.0002Z
-	/type/object/type	Dated location	/user/cheunger	2008-01-31T16:33:11.0273Z
-	/location/location/contains	University of Karlsruhe	/user/mw_template_bot	2008-02-09T17:57:46.0027Z
-	/common/topic/image	Karlsruhe town centre air	/user/mwcl_images	2008-03-13T17:52:49.0004Z
-	/type/object/type	German city	/user/midness	2008-07-13T19:34:46.0001Z
-	/type/object/type	Sports Team Location	/user/cheunger	2008-10-28T03:15:22.0010Z

RDF export

http://rdf.freebase.com/ns/en.tony_scott

type.object.name: トニー・スコット, Тони Скот, Tony Scott, טוני סקוט, Tony Scott (regista), Tony Scott (filmregisseur)

people.person.nationality: <http://rdf.freebase.com/ns/en.england>

people.person.education: <http://rdf.freebase.com/ns/guid.9202a8c04000641f8000000005ba564a>

people.person.spouse_s: <http://rdf.freebase.com/ns/guid.9202a8c04000641f8000000005fe1d74>,
<http://rdf.freebase.com/ns/guid.9202a8c04000641f8000000005fe1d64>,
<http://rdf.freebase.com/ns/guid.9202a8c04000641f8000000005fe1d56>

people.person.gender: <http://rdf.freebase.com/ns/en.male>

people.person.date_of_birth: 1944-07-21

common.topic.article: <http://rdf.freebase.com/ns/guid.9202a8c04000641f80000000002cd029>

people.person.sibling_s: <http://rdf.freebase.com/ns/guid.9202a8c04000641f8000000005fe1d84>

people.person.profession: http://rdf.freebase.com/ns/en.film_producer, http://rdf.freebase.com/ns/en.film_director

people.person.place_of_birth: <http://rdf.freebase.com/ns/en.stockton-on-tees>

type: <http://rdf.freebase.com/ns/film.director>, <http://rdf.freebase.com/ns/film.producer>,
<http://rdf.freebase.com/ns/people.person>,
<http://rdf.freebase.com/ns/common.topic>

film.director.film: http://rdf.freebase.com/ns/en.beverly_hills_cop_ii,
http://rdf.freebase.com/ns/en.the_last_boy_scout,
<http://rdf.freebase.com/ns/authority.netflix.movie.60034560>,
http://rdf.freebase.com/ns/en.spy_game,

...

film.producer.film: http://rdf.freebase.com/ns/en.bmw_films,
http://rdf.freebase.com/ns/en.in_her_shoes,
http://rdf.freebase.com/ns/en.diamond_dead

...

Schema “vs” Ontology

- Schema is Data Too!
- Desirable queries unknown in advance
- A meritocracy of available data
- Ontology is social
- Knowledge is accretive

Food

The Food base has 29,176 facts and about 9,474 topics. 7 facts new this week.

The Food category is still being defined. We expect it to include an index of beverages (beer, wine, liquor), foods (cheeses, ...), and recipes. Food is any substance, usually comprised primarily of carbohydrates, fats, water and/or proteins, that can be... [more](#)

[Edit description](#)



Dish

A List of 784 Dish topics



Cheese

A List of 394 Cheese topics



Beer

A List of 3031 Beer topics



Beer style

A List of 155 Beer style topics



Tea

A List of 66 Tea topics



Ingredient

A List of 479 Ingredient topics

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[News](#)

[Members](#)

[Schema](#)

User Groups



Administrators

[edit](#)



[robert](#)

Information is the currency of democracy. -- Thomas Jefferson



[jon](#)

Those are real words you're using, and you're making whole sentences out of them, but i don't know what you're talking about.



[alecf](#)

Which would you rather be, an orange?



[kurt](#)

Chew all data three times before swallowing.

Experts

[edit](#)

There are no users in this group.

Members



[erikbrown](#)

Viva la ontology



[giannis](#)



[ussballantyne](#)



[rubberfins](#)



[edoderoo](#)



[thadguidry](#)

Save the world, not your money



AMUSEMENT PARKS



PHOTO COURTESY
CARSTEN KESSLER

The Amusement Parks base has 9,577 facts and about 3,368 topics.

There is no user-contributed description yet.

Join Base

News

Members

Schema

Types used from the Commons

Schema types define the data structure of similar topics. When you add existing Freebase topics to this base, their types will be shown here.

Types created for this Base

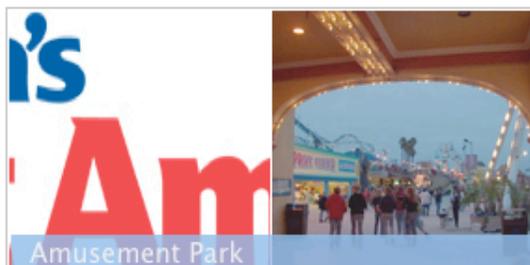
[edit](#)

- Amusement Park (320)
- Amusement Ride (794)
- Amusement Ride Installation (Deprecated) (78)
- Amusement Ride Type (11)
- Amusement Ride Theme (86)
- Amusement Ride Designer (40)
- Amusement Ride Manufacturer (40)
- Roller Coaster (511)
- Roller Coaster Material (4)
- Roller Coaster Train Configuration (6)
- Roller Coaster Propulsion System (3)
- Amusement Ride Accident (20)
- Disney Theme Park (7)
- Disney Theme Land (24)
- Disney Ride (109)
- Disney Ride Ticket (5)
- Disney Ride Ticket Membership (14)

Weblinks

[edit](#)

- Roller Coaster DataBase
- RideAccidents.com



Amusement Park

A List of 275 Amusement Park topics



Amusement Ride

A List of 798 Amusement Ride topics



Amusement Ride Type

A List of 11 Amusement Ride Type topics



Amusement Ride Theme

A List of 86 Amusement Ride Theme topics



Amusement Ride Designer

A List of 40 Amusement Ride Designer topics



Amusement Ride Manufacturer

A List of 41 Amusement Ride Manufacturer topics

User contributed schema

Type: Celebrity

[\[edit schema\]](#)

[\[view instances\]](#)

Key: [/celebrities/celebrity](#)

Domain: [Celebrities](#) ([/celebrities](#))

Instance count: 515 (as of 10/25/2008)

property name	key	master	unique	expected type	rev. property
Romantic relationships (with celebrities)	sexual_relationships	-	-	/celebrities/romantic_relationship	Celebrity
Sexual orientation	sexual_orientation	-	-	/celebrities/sexual_orientation_phase	Celebrity
Celebrity friends	celebrity_friends	-	-	/celebrities/friendship	Friend
Celebrity rivals	celebrity_rivals	-	-	/celebrities/rivalry	Rival
Legal entanglements	legal_entanglements	-	-	/celebrities/legal_entanglement	Celebrity
Substance abuse problems	substance_abuse_problems	-	-	/celebrities/substance_abuse_problem	Celebrity
Rehab history	rehab_history	-	-	/celebrities/rehab	Celebrity
Net worth	net_worth	[m]	-	/measurement_unit/dated_money_value	-

Suggested properties

gallery started by robert for the robert's types domain
There is no user-contributed description yet.

[Add description »](#)

[Edit this view](#)

about 9,689 Artwork topics [Add more](#)

[advanced](#)

Sort: Date Added Show: All topics [Only topics with images](#)

Showing 1 - 60 [prev](#) [next](#)



Mona Lisa

Artist: Leonardo da Vinci
Art Subject:



The Thinker

Artist: Auguste Rodin
Art Subject:



Guernica

Artist: Pablo Picasso
Art Subject: Spanish Civil War , War



The Scream

Artist: Edvard Munch
Art Subject:



The Starry Night

Artist: Vincent van Gogh
Art Subject:



Self-Portraits by Vincent van Gogh

Artist: Vincent van Gogh
Art Subject:



Self-portrait with a friend

Artist: Raphael
Art Subject: Raphael



The Son of Man

Artist: René Magritte
Art Subject:



Untitled (Man and mirror)

Artist: Carrie Mae Weems
Art Subject:



The Persistence of Memory

Artist: Salvador Dali
Art Subject:



Dream Caused by the Flight of a Bee around a Pomegranate a Second Before Awakening

Artist: Salvador Dali
Art Subject:



The Madonna of Port Lligat

Artist: Salvador Dali
Art Subject: Madonna and Child , Child Jesus , Madonna



The Discovery of America by Christopher Columbus

Artist: Salvador Dali
Art Subject:



The Ghost of Vermeer of Delft Which Can Be Used as a Table

Artist: Salvador Dali
Art Subject:



Impression, Sunrise

Artist: Claude Monet
Art Subject: Le Havre



The Luncheon on the Grass

Artist: Édouard Manet
Art Subject:



Luncheon of the Boating Party

Artist: Pierre-Auguste Renoir
Art Subject:



Bal au moulin de la Galette, Montmartre

Artist: Pierre-Auguste Renoir
Art Subject:



Mephistopheles

Artist: Eugène Delacroix
Art Subject:



Liberty Leading the People

Artist: Eugène Delacroix
Art Subject: Marianne , July Revolution



Death of Sardanapal

Artist: Eugène Delacroix
Art Subject: Sardanapalus



Massacre at Chios

Artist: Eugène Delacroix
Art Subject: Chios Massacre



Sultan of Morocco

Artist: Eugène Delacroix
Art Subject:



The Entry of the Crusaders in Constantinople

Artist: Eugène Delacroix
Art Subject:



Clorinda Rescues Olindo und Sophroni

Artist: Eugène Delacroix
Art Subject:



The Descent from the Cross

Artist: Peter Paul Rubens
Art Subject:



Assumption of the Virgin Mary

Artist: Peter Paul Rubens
Art Subject:



The Three Graces

Artist: Peter Paul Rubens
Art Subject:



Massacre of the Innocents

Artist: Peter Paul Rubens
Art Subject:



Samson and Delilah

Artist: Peter Paul Rubens
Art Subject:



Oath of the Horatii

Artist: Jacques-Louis David
Art Subject:



The Death of Socrates

Artist: Jacques-Louis David
Art Subject: Socrates

An open database of “Identity”

“Jaguar”

- 0x4a 0x61 0x67 0x75 0x61 0x72

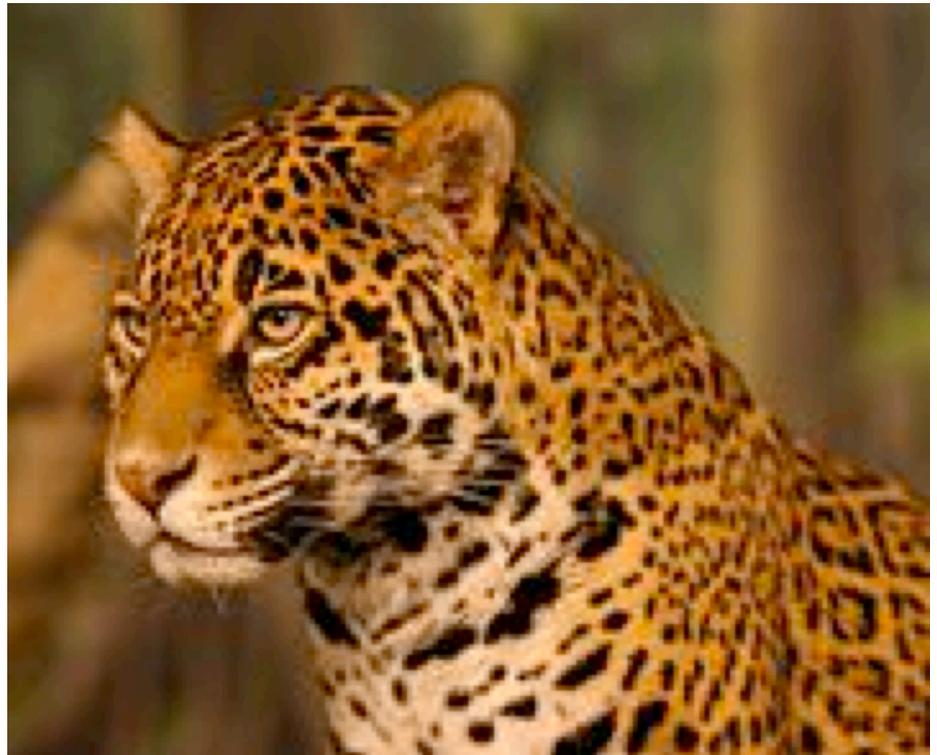
“Jaguar”

- Car Company?



“Jaguar”

- Car Company
- Animal?



“Jaguar”

- Car Company
- Animal
- Fender Guitar?



“Jaguar”

- Car Company
- Animal
- Fender Guitar
- Apple Operating system
- Two **different** military aircraft
- Brazilian cartoonist
- Comic superheroine
- British Rocket
- Atari Game Console
- ... etc.

0x4a 0x61 0x67 0x75 0x61 0x72

Topic disambiguation

ture
irmit

ny in Blackpool in 1922, changing to SS
coming Jaguar Cars Ltd in 1945, followed
ip. The name is "jag-u-ar" (except for in
:gw a r)) with the term "Jag" being used
:tated that on 2008-03-26, Jaguar and
ompany, Tata Motors, the Ford Motor
releases on the same day, that the sale is
rter of 2008. It is understood that Ford
eholding in either the Jaguar or
i where on its sale a small shareholding

Jaguar



Organism Classification

The jaguar (*Panthera onca*, in British English, or in American English) is a New World mammal of the Felidae family and one of four "big cat" in the *Panthera* genus, along with the tiger, lion, and leopard of the Old World. The jaguar is the third-largest feline after the tiger and the lion, and on average...

Jaguar Search

Jaguar ...(**Jaguar Cars**)
Company, Employer

Jaguar
Organism Classification

SEPECAT Jaguar
Aircraft

Jaguar Racing

Jaguar XJ
Automobile model

Atari Jaguar
Computer Game Platform

Jaguar XK
Automobile model

Jaguar
Musical Artist

The Jaguar
Fictional Character

Fender Jaguar
Guitar



JAGUAR

We also need web friendly query languages

Freebase Query Language

- Solve the impedance mismatch between graphs and objects:
 - objects are nodes
 - member variables (properties) are mapped to predicates
 - values are either primitives, or other objects
- Query by example
- Support indexing, schemas and idempotent writing

Art of Michelangelo Caravaggio



Adoration of the Shepherds



Amor Vincit Omnia



Bacchus



Basket of Fruit



Boy Bitten by a Lizard



Boy Peeling Fruit



Boy with a Basket of Fruit



Burial of St. Lucy



Cardsharps



Christ at the Column



Christ on the Mount of Olives



Conversion on the Way to Damascus



Crucifixion of St. Peter



David and Goliath



David with the Head of Goliath



David with the Head of Goliath



```
{
  "type": "/visual_art/artwork",
  "name": null,
  "artist": "caravaggio",
  "sort": "name"
}
```

Airplanes manufactured by Boeing



Harrier II



Lockheed AC-130



B-52
Stratofortress



B-1 Lancer



B-17 Flying
Fortress



Enola Gay



E-8 Joint STARS



KC-135
Stratotanker



OC-135B Open
Skies



RC-135 Rivet
Joint



F/A-18 Hornet



B-29 Superfortress



Air Force One



Boeing YAL-1



E-6 Mercury



B-47 Stratojet



P-26 Peashooter



C-40 Clipper



McDonnell Douglas
MD-80 / MD-90



```
{  
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  "name": null,  
  "manufacturer": "boeing"  
}
```



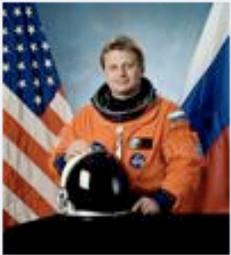
Boeing 247



C-97
Stratofreighter



Russian Cosmonauts



Yuri Onufrienko



Yuri Gidzenko



Yuri Shargin



Viktor M.
Afanasyev



Valentina
Tereshkova



Sergei Treschev



Svetlana Savitskaya



Yelena
Kondakova



Valery Tokarev



Yuri Lonchakov



Boris Morukov



Aleksei Leonov



Vladimir Alekseyevich
Solovyov



Sergei Avdeyev



Yuri



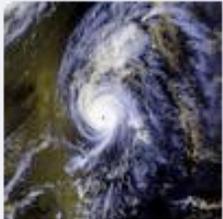
Aleksandr
Lazutkin



```
{  
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  "name": null,  
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}
```



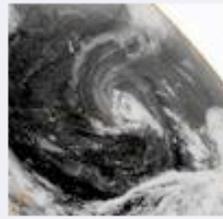
Tropical Storms in the 90's



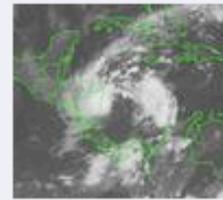
Hurricane Iniki



Hurricane Andrew



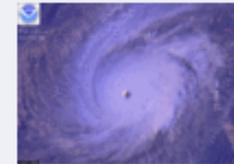
Hurricane Lili



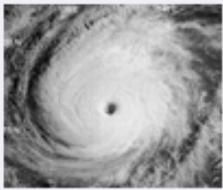
Tropical Storm
Katrina



Tropical Storm
Hermine



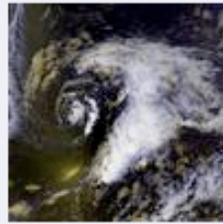
Typhoon Paka



Typhoon Isa



Hurricane John



Subtropical Storm
One



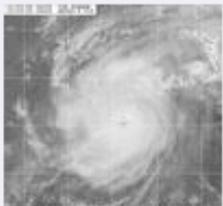
Hurricane Linda



1991 Bangladesh
cyclone



Hurricane Bertha



Cyclone 05B



Tropical Storm
Alberto



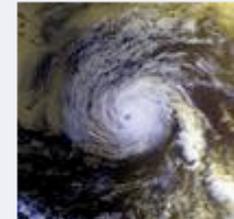
Hurricane Pauline



Hurricane Mitch



Hurricane Floyd



Hurricane Fefa



```
{  
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  "name": null,  
  "formed>=": "1990",  
  "a:formed<=": "2000"  
}
```



Genera of Orchids



Bulbophyllum



Bonnet orchid



Gymnadenia



Dactylorhiza



Eulophia



Cypripedium



Dendrobium



Epipactis



Brassavola



Oncidium



Cattleya



Brassia



Spathoglottis



Grass pink



Cochleanthes



Epidendrum



Govenia



```
{
  "type": "/biology/organism_classification",
  "name": null,
  "higher_classification": "orchidaceae"
}
```



French Actresses born pre WWII



Sarah Bernhardt



Yvette Guilbert



Anna Held



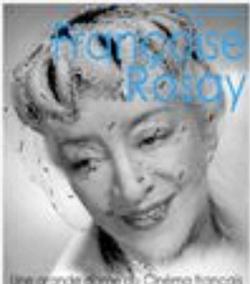
Polaire



Musidora



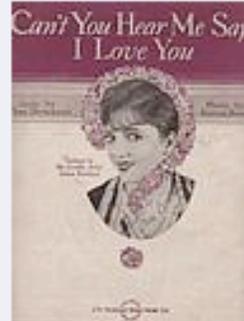
Suzanne Bianchetti



Françoise Rosay



Yvonne Arnaud



Irène Bordoni



Lily Pons



Arletty



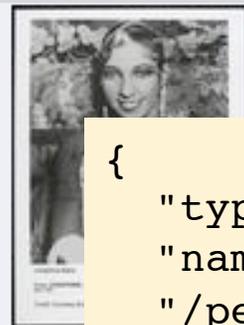
Renée Adorée



Claudette Colbert



Lili Damita



Josephine Baker



```
{
  "type": "/film/actor",
  "name": null,
  "/people/person/gender": "female",
  "/people/person/date_of_birth<=": "1939",
  "/people/person/nationality": "France",
  "sort": "/people/person/date_of_birth"
}
```

Leading Ladies of Paul Newman



Joan Collins
1958
Rally 'Round the
Flag, Boys!



Elizabeth
Taylor
1958-09-20
Cat on a Hot
Tin Roof



Barbara Rush
1959
The Young
Philadelphians



Eva Marie Saint
1960
Exodus



Barbara Eden
1960
From the
Terrace



Piper Laurie
1961-09-25
The Hustler



Geraldine Page
1962
Sweet Bird of Youth



Elke Sommer
1963
The Prize



Patricia Neal
1963-05-28
Hud



Shirley
MacLaine
1964
What a Way to
Go!



Margaret
Dumont
1964
What a Way to
Go!



Teri Garr
1964
What a Way to
Go!



Barbara
Bouchet
1964
What a Way to
Go!



Shelley Winters
1966-02-23
Harper



Julie Harris
1966-02-23
Harper



Janet Leigh
1966-02-23
Harper



Lauren Bacall
1966-02-23
Harper

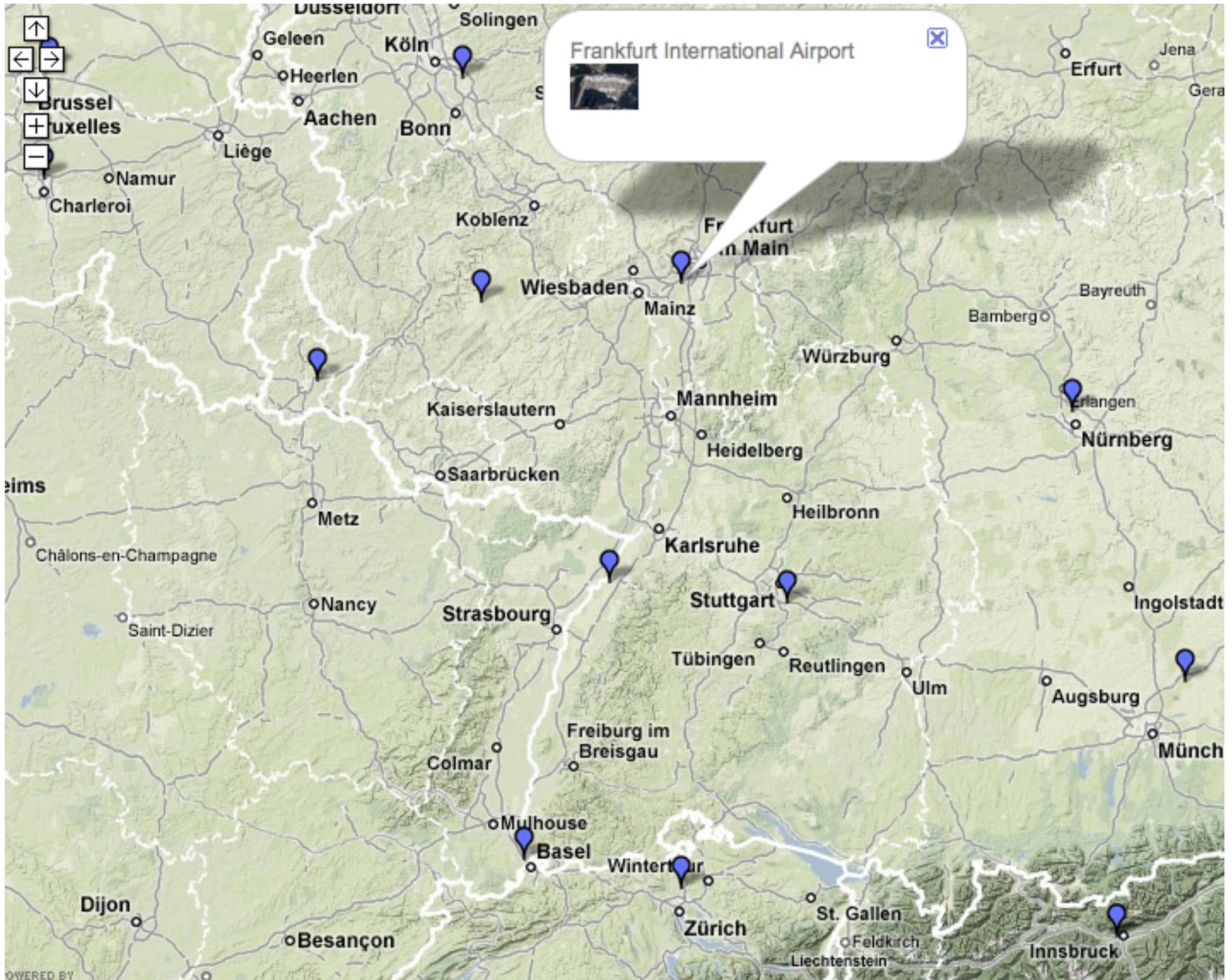


Julie Andrews
1966-07-14
Torn Curtain



Lila Kedrova
1966-07-14
Torn Curtain

```
{
  "type": "/film/actor",
  "/people/person/gender": "female",
  "sort": "film.film.initial_release_date",
  "film": {
    "film": {
      "name": null,
      "initial_release_date": null,
      "starring": {
        "actor": "paul newman"
      }
    }
  }
}
```



What is Freebase?

- **Community built**
- Freely available
- Database of knowledge

Freebase is community built

- Anyone can edit, with attribution
- Edit history is part of the database
- Organized into "domains" of expertise
- Users contribute schema as well as data
- Access control mechanism supports policy evolution

Gallery



Contributions:
63,626 Facts

On Freebase since:
May 19, 2008

Where I Live

My Activity

Today

evening made edits to 42 topics, including [MediaNews Group](#) , [Denver](#) , [Colorado](#) , [The Salt Lake Tribune](#) , [Latter-day Saints](#) , [Salt Lake City](#) , [Utah](#) , [Sami Parliament of Norway](#) , [Norwegian Consumer Ombudsman](#)





Schema “Last”

- Community participation implies schema gets better over time
- Reconciliation is often post-hoc
- Meritocracy of the available data

Who is the audience?

OpenCyc Collection: person

... Most currently known instances of Person are instances of HomoSapiens but there is no reason why all need be (consider Hobbits in the fictional world of LordOfTheRings_Trilogy). They need not even be instances of BiologicalLivingObject (consider the possibility of a person-like AI). Also note that Person excludes non-human "legal persons", who are, however, included in the collection LegalAgent.

Domains

- American football
- Anime/Manga
- Architecture
- Astronomy
- Atom Feeds
- Automotive
- Aviation
- Award
- Baseball
- Basketball
- Biology
- Boats
- Broadcast
- **Business**
- Chemistry
- Comic Books
- Comic Strips
- Common
- Community
- Computer games
- Computers
- Cricket
- Data World
- Digicams
- Dining
- Education
- Fictional Universes
- Film
- Finance
- Food
- Freebase
- Games
- Government
- Hockey
- Influence
- Internet
- Language
- Law
- Library
- **Location**
- Martial Arts
- Measurement Unit
- Media Common
- Medicine
- Metaweb System Types
- Meteorology
- Metropolitan Transit
- Military
- Music
- Opera
- Organization
- **People**
- Physical Geography
- Pipeline
- Protected Places
- Publishing
- Religion
- Science
- Soccer
- Spaceflight
- Sports
- TV
- Telecom
- Tennis
- Theater
- Time
- Transportation
- Venture Capital
- Visual Art
- Wikipedia
- Wine

Lighthouses gallery

rename | delete [Share This](#)

gallery started by [robert](#) for the [Lighthouse](#) domain

There is no user-contributed description yet.

[Add description »](#)

[Edit this view](#)

about 567 [Lighthouse](#) topics

[+ Add more](#) [⚙](#)

Filter view by name

[advanced](#)

Sort: [Date Added](#) ▾ Show: [All topics](#) [Only topics with images](#)

Showing 1 - 60 « [prev](#) [next](#) »

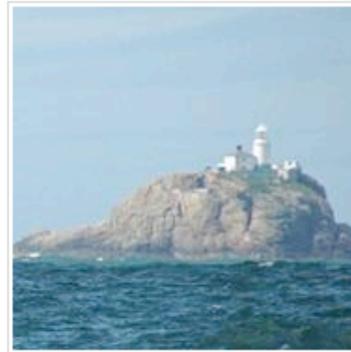


[Williamstown Lighthouse](#)

Also Typed With: [Location](#) , [Structure](#)

Year first lit:

Automated:



[South Bishop Lighthouse](#)

Also Typed With: [Location](#) , [Structure](#)

Year first lit:

Automated:



[Cape Liptrap Lighthouse](#)

Also Typed With: [Location](#) , [Structure](#)

Year first lit:

Automated:



[Bathurst Lighthouse](#)

Also Typed With: [Location](#) , [Structure](#)

Year first lit:

Automated:



[Bass Rock](#)

Also Typed With: [Island](#) , [Location](#) , [Structure](#)

Year first lit:

Automated:



[Tiritiri Matangi Lighthouse](#)

Also Typed With: [Location](#) , [Structure](#)

Year first lit:

Automated:



[Burrewarra Point](#)

Also Typed With: [Location](#) , [Structure](#)

Year first lit:

Automated:



[Point of Ayre](#)

Also Typed With: [Location](#) , [Structure](#)

Year first lit:

Automated:



TALL SHIPS

The Tall ships base has 1,097 facts and about 824 topics.

Ah, the romance of sail! This domain is for all those who love tall ships, modern or historical. We'll be collecting as much information as we can about them, so we can ask questions like "What's the largest tall ship based in Australia?" or ... [more](#)



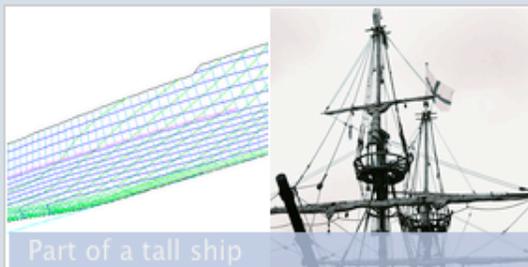
Tall ship

A List of 242 Tall ship topics



Tall ship rig

A List of 19 Tall ship rig topics



Part of a tall ship

A List of 42 Part of a tall ship topics



Museum ship

A List of 9 Museum ship topics



Maritime museum

A List of 47 Maritime museum topics



Sail training vessel

A List of 22 Sail training vessel topics

Join Base

News

Members

Schema

User Groups



Administrators



skud

I wish this showed my contributions dynamically, instead of a quote.

Experts

There are no users in this group.

Members



jonnyboats



artifake



dylanrocks

Build a base!



brianxt

I arise in the morning torn between a desire to improve (or save) the world and a desire to enjoy (or savor) the world. This makes it hard to plan the day. - E.B. White



blackhound

Today is Sunday, Sir.



librarianavenger

Dog worshipper

Weblinks

[edit](#)

There are no weblinks for this base yet.



Aubreyiad (skud)

[Edit Base](#)

The Aubreyiad base has 1,869 facts and about 938 topics. 442 facts new this week.

There is no user-contributed description yet.

[Add description](#)[Join base](#)[Invite Others](#)

Real person

A List of 12 Real person topics



Character

A List of 88 Character topics



Gun type

A List of 3 Gun type topics



Ship

A List of 26 Ship topics



Malady



Treatment

[News](#)[Members](#)[Schema](#)

This is Gary Gnu saying "No Gnu's is good Gnus"

Weblinks

[Edit](#)

- WikiPOBia
- 3Decks Wiki – Naval Warfare History, 1650–1850
- Map of real places mentioned in the books

Help

[Edit](#)

- Real vs fictional

[Explore](#)[Make](#)[Help](#)[Sign in](#) | [Sign up](#)

Keyword search Freebase

Search

exhibitions

Photo credit: Marshall Astor

Exhibitions about people gallery

[Share This](#)

gallery started by superrobert for the Exhibitions Base

There is no user-contributed description yet.

about 50 [Exhibition subject](#) topics[+ Add more](#)

Filter view by name

[Edit view](#)Sort: [Date Added](#) ↓Show: [All topics](#) Only topics with images

Showing 1 - 50 « prev next »

**Isambard Kingdom Brunel**Exhibitions created about this subject:
Isambard Kingdom Brunel: fame and fate**Leonardo da Vinci**Exhibitions created about this subject:
The Art of Invention, Ten Drawings by Leonardo da Vinci from the Royal Collection**Qin Shi Huang**Exhibitions created about this subject:
The First Emperor**Edward Lear**Exhibitions created about this subject:
Beatrix Potter and Edward Lear

What is Freebase?

- Community built
- **Freely available**
- Database of knowledge

Freebase is Free



- Creative commons CC-BY
 - Free for commercial use - with attribution
- Open API
 - MQL Query Language
 - HTTP/REST APIs
- Regular flat file complete data dumps
 - 1.2 GB of compressed data as of Oct 2008

Status Report

- 156,000,000 assertions
- 4,220,000 topics
- 1370 published types
- 75 domains

Semantic Web?

Semantic Web?

Yes!

Semantic Web?

Yes

and

No

Semantic Web?

Yes

Graph Model (RDF)

Identities (URIs)

Web based

Semantic Web?

Yes

and

No

Graph Model (RDF)

No Description Logic

Identities (URIs)

Schema not Ontology

Web based

**A Writable
Database!**

What Freebase is not

- A Formal System
 - Cyc
 - OWL
 - SUMO
 - True Knowledge
 - Halo
- Google base

But wait...

Examples of Adoption



Complexity

Statistical	Markup	Tagging	Keywords	Triples	KR
Google	Wikipedia	Del.icio.us	NYTimes Topics	dbpedia	Cyc, OWL2
650M	263M	<5M			



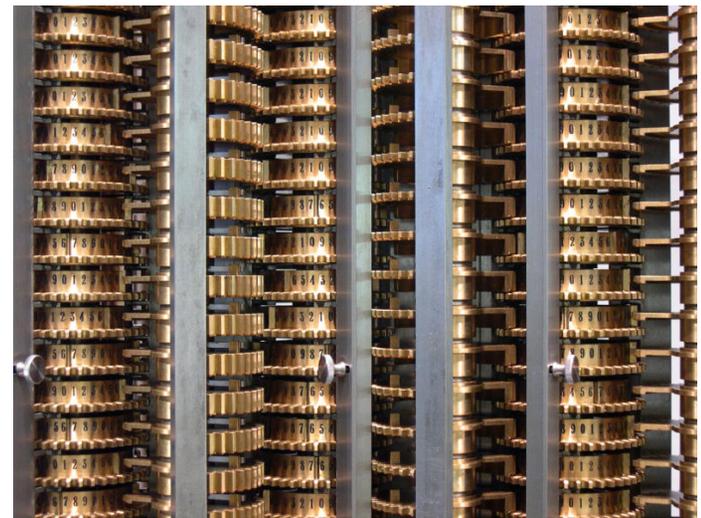
Audience

A little semantics goes a long way...



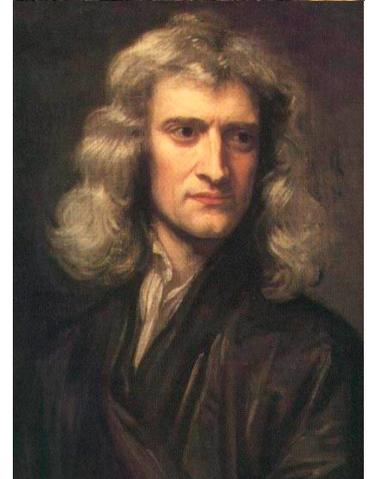
“Errors using inadequate data are much less than those using no data at all.”

Charles Babbage



A two-part problem

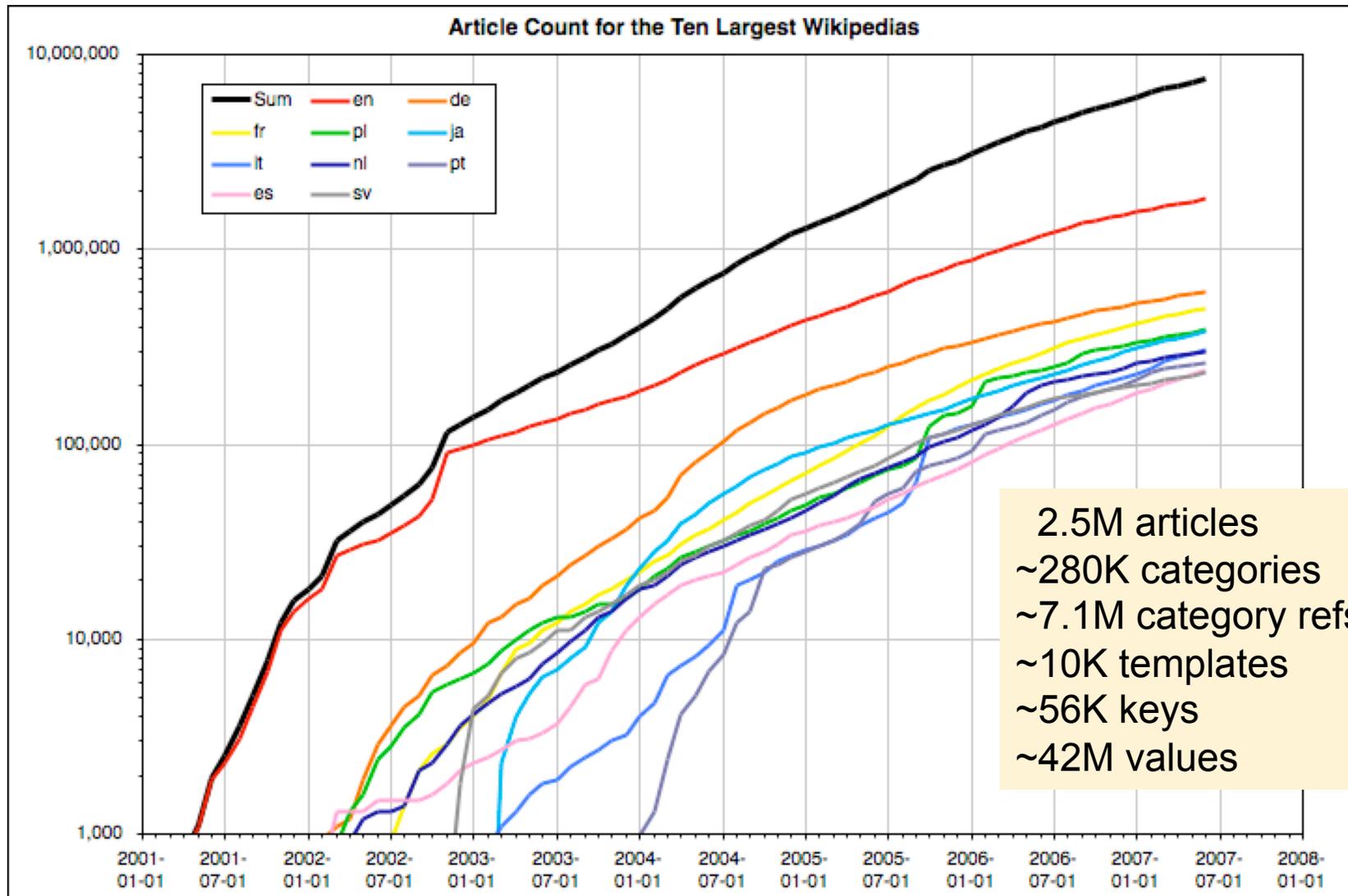
- Characteristica universalis
 - Leibniz's "alphabet of human thought"
- Calculus ratiocinator
 - the general idea of a computing machine is nothing but a mechanization of Leibniz's calculus ratiocinator. (Wiener 1948)



We are awash in un-reconciled data

- Wikipedia
- MusicBrainz
- WordNet
- SEC
- US Census
- OpenCyc
- DBLP
- Geonames
- Uniprot
- CIA Factbook
- ChefMoz
- Library of Congress
- Flickr
- GovTrac
- Eurostat
- NIH
- ITIS
- Etc...

Wikipedia asserts 2M Concepts



**Let's start by engaging the Web to
use strong identifiers for content.**

What's in a name?

Emperor Penguin

Kaiserpinguin

Aptenodytes forsteri

ITIS taxon 174449

NCBI 9233

Wikipedia en 223204

Species 2000 1141950

EOL 16990077

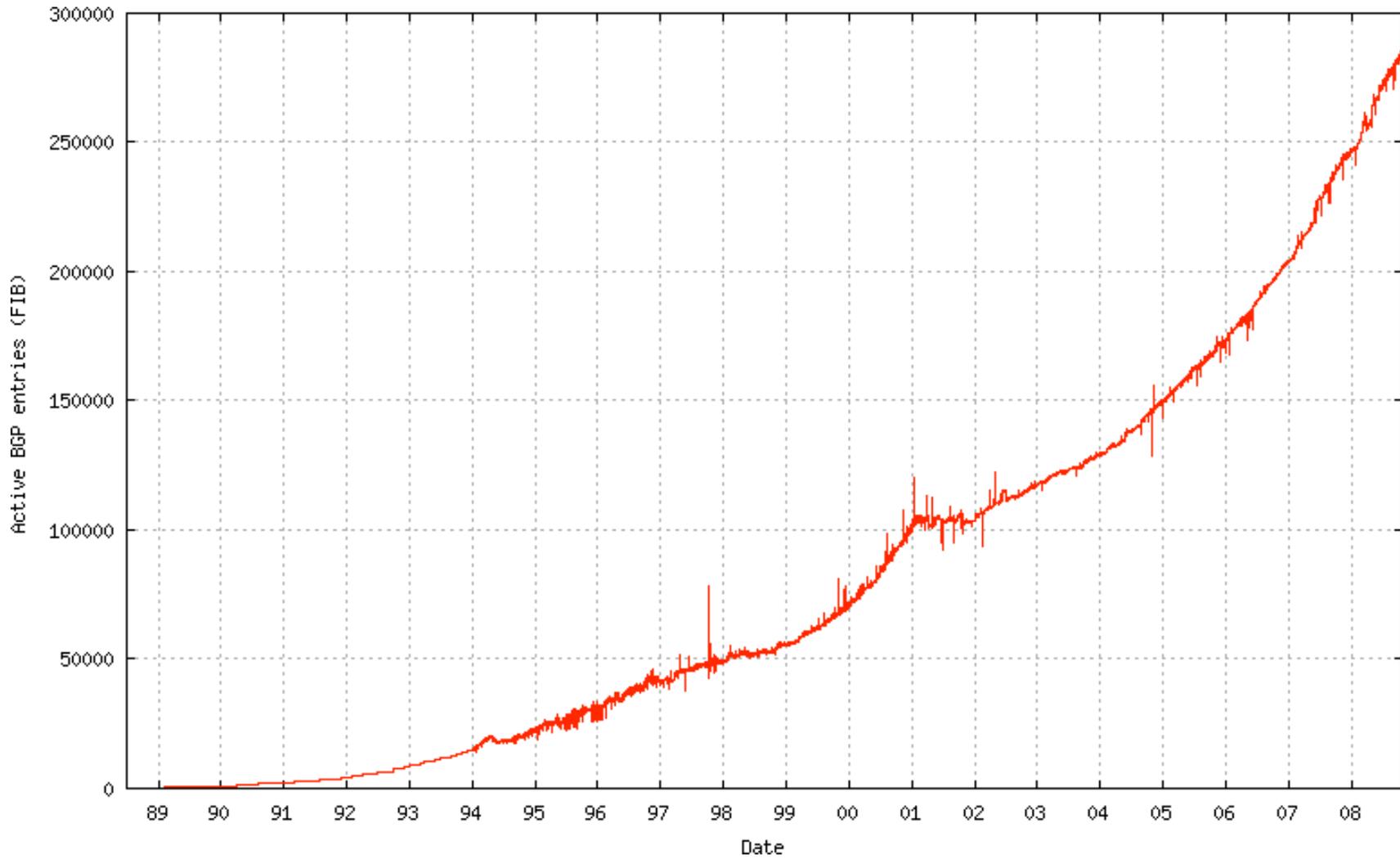
...



Global Perspective

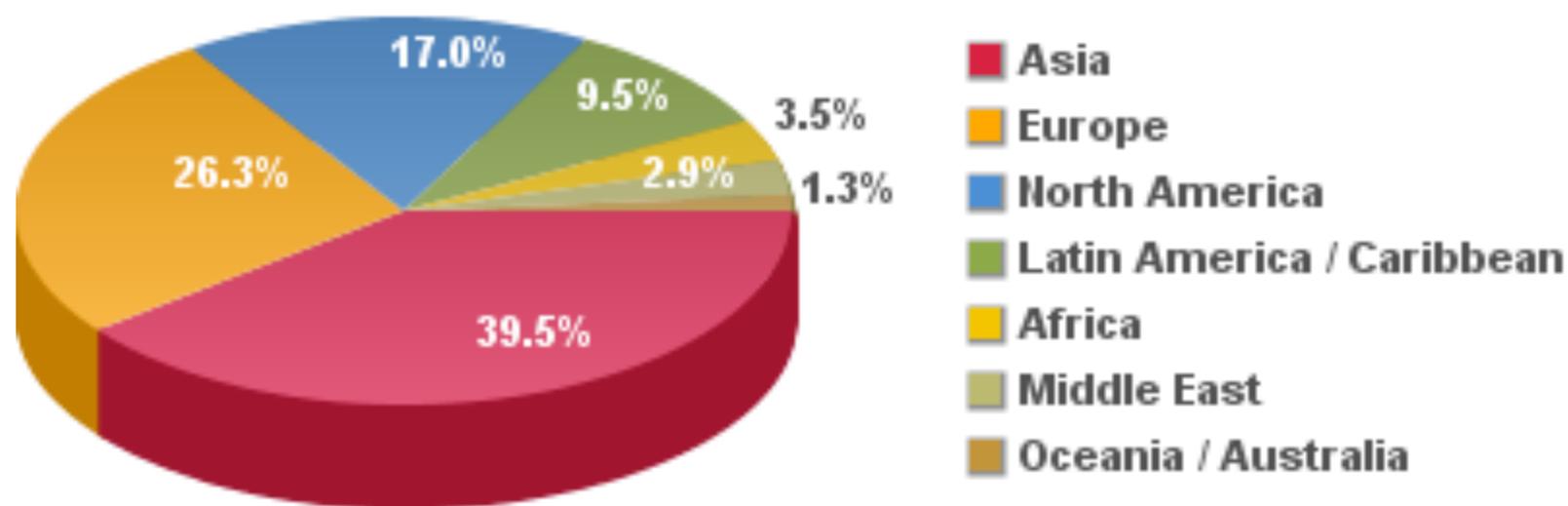


20 years of Internet Growth



<http://bgp.potaroo.net/as2.0/bgp-active.html>

World Internet Users by World Regions

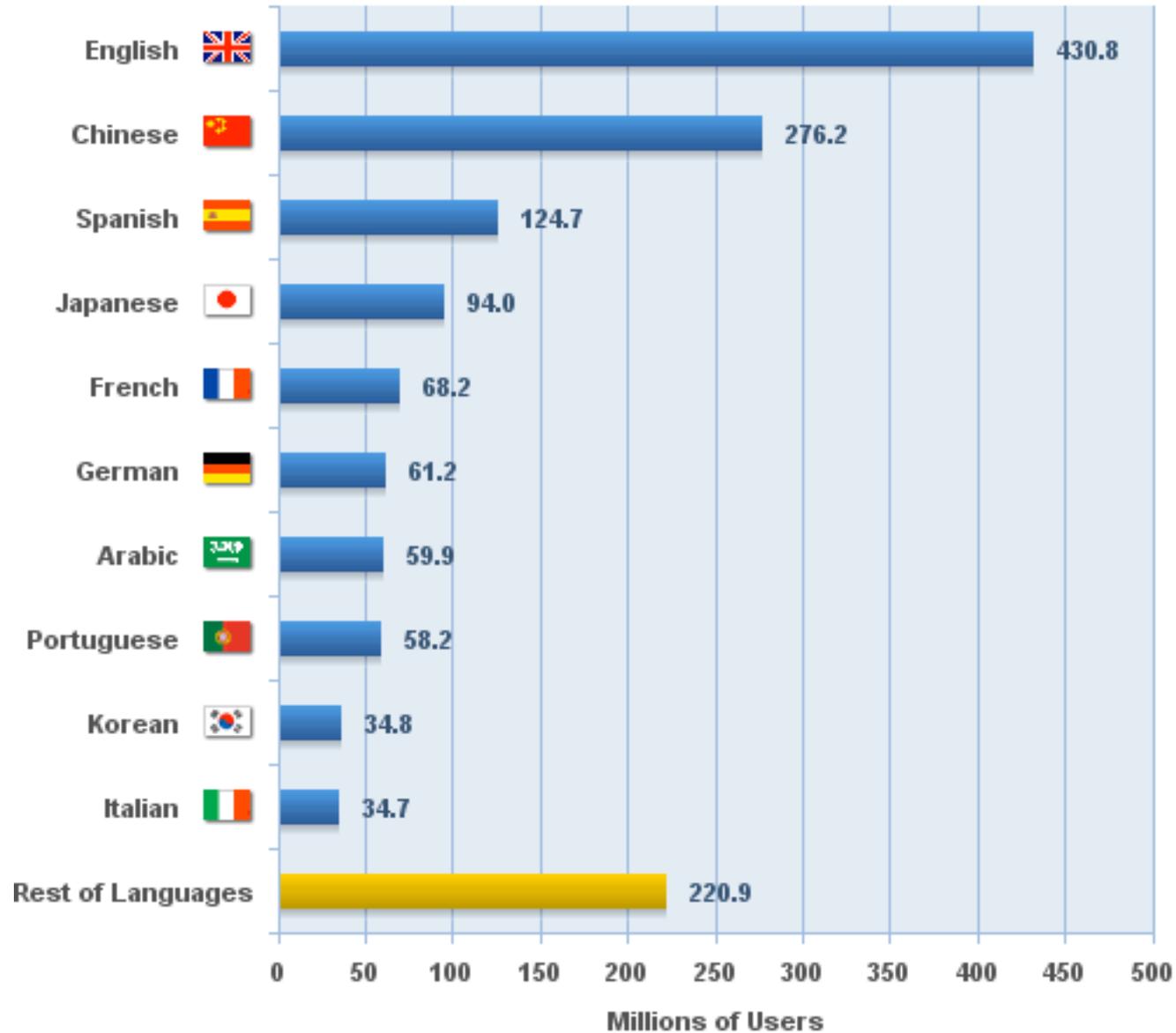


Source: Internet World Stats - www.internetworldstats.com/stats.htm

1,463,632,361 Internet users for June 30, 2008

Copyright © 2008, Miniwatts Marketing Group

Top 10 Languages in the Internet



Source: Internet World Stats - www.internetworldstats.com/stats7.htm

Estimated Internet users 1,463,632,361 for 2Q 2008

Copyright © 2008, Miniwatts Marketing Group

Language independent topics

topic name:

lang id:

greenhouse effect

en:
English may refer to:...

Effet de serre (French)	Greenhouse effect (English)	Treibhauseffekt (German)	Effetto serra (Italian)
温室効果 (Japanese)	Efecto invernadero (Spanish)	Učinek tople grede (Slovenian)	Парников ефект (Bulgarian)
Efekat staklene bašte (Serbian)	Šiltnamio efektas (Lithuanian)	온실 효과 (Korean)	Efect de seră (Romanian)
Efek rumah kaca (Indonesian)	Sera etkisi (Turkish)	Skleníkový efekt (Slovak)	Efecte hivernacle (Catalan)
Üvegházhatás (Hungarian)	Drivhuseffekt (Danish)	Skleníkový efekt (Czech)	התחממות (Hebrew)
Forceja efiko (Esperanto)	温室效应 (Chinese)	Drivhuseffekt (Norwegian)	Kasvihuoneilmiö (Finnish)
Парниковый эффект (Russian)	Växthuseffekten (Swedish)	Efeito estufa (Portuguese)	Efekt cieplarniany (Polish)
Broeikaseffect (Dutch)			

The greenhouse effect is the process in which the emission of infrared radiation by the atmosphere warms a planet's surface. The name comes from an incorrect analogy with the warming of air inside a greenhouse...



2014年冬季奥林匹克运动会
 2010年冬季奥林匹克运动会
 2008年夏季奥林匹克运动会
 2006年冬季奥林匹克运动会
 2004年夏季奥林匹克运动会
 2002年冬季奥林匹克运动会
 2000年夏季奥林匹克运动会
 1998年冬季奥林匹克运动会
 1996年夏季奥林匹克运动会
 1994年冬季奥林匹克运动会
 1992年夏季奥林匹克运动会
 1992年夏季奥林匹克运动会
 1992年冬季奥林匹克运动会
 1988年夏季奥林匹克运动会
 1988年冬季奥林匹克运动会
 1984年夏季奥林匹克运动会
 1984年冬季奥林匹克运动会
 1980年夏季奥林匹克运动会
 1980年冬季奥林匹克运动会
 1976年夏季奥林匹克运动会
 1976年冬季奥林匹克运动会
 1972年夏季奥林匹克运动会
 1972年冬季奥林匹克运动会
 1968年夏季奥林匹克运动会
 1968年冬季奥林匹克运动会
 1964年夏季奥林匹克运动会
 1964年冬季奥林匹克运动会

2004年夏季奥林匹克运动会

Host City: 希臘雅典

Candidate

Cities:

箭術, 藝術體操, 田徑, 羽毛球, 棒球, 籃球, 沙灘排球, 拳擊, Canoe racing, 跳水, 馬場馬術, 三日賽馬術, 擊劍, 足球, 自由式摔跤, 古典式摔跤, 曲棍球, 柔道, 現代五項, 山地自行車賽, 韻律體操, 公路自行車賽, 賽艇, 帆船, 射擊, 馬術障礙賽, Slalom canoeing, 壘球, 游泳, 水上芭蕾, 桌球, 跆拳道, 手球, 網球, 自行車場地賽, 體操(彈簧床), 鐵人三項, 排球, 水球, 舉重

Sports:



[English](#) [Chinese](#) [French](#) [German](#) [Italian](#) [Japanese](#) [Spar](#)

Diving



2004年夏季奥林匹克运动会跳水比赛 - 男子10米高臺

胡佳	中國	金牌
赫爾姆	澳大利亞	銀牌
田亮	中國	銅牌

2004年夏季奥林匹克运动会跳水比赛 - 女子雙人10米高臺

李婷	中國	金牌
----	----	----

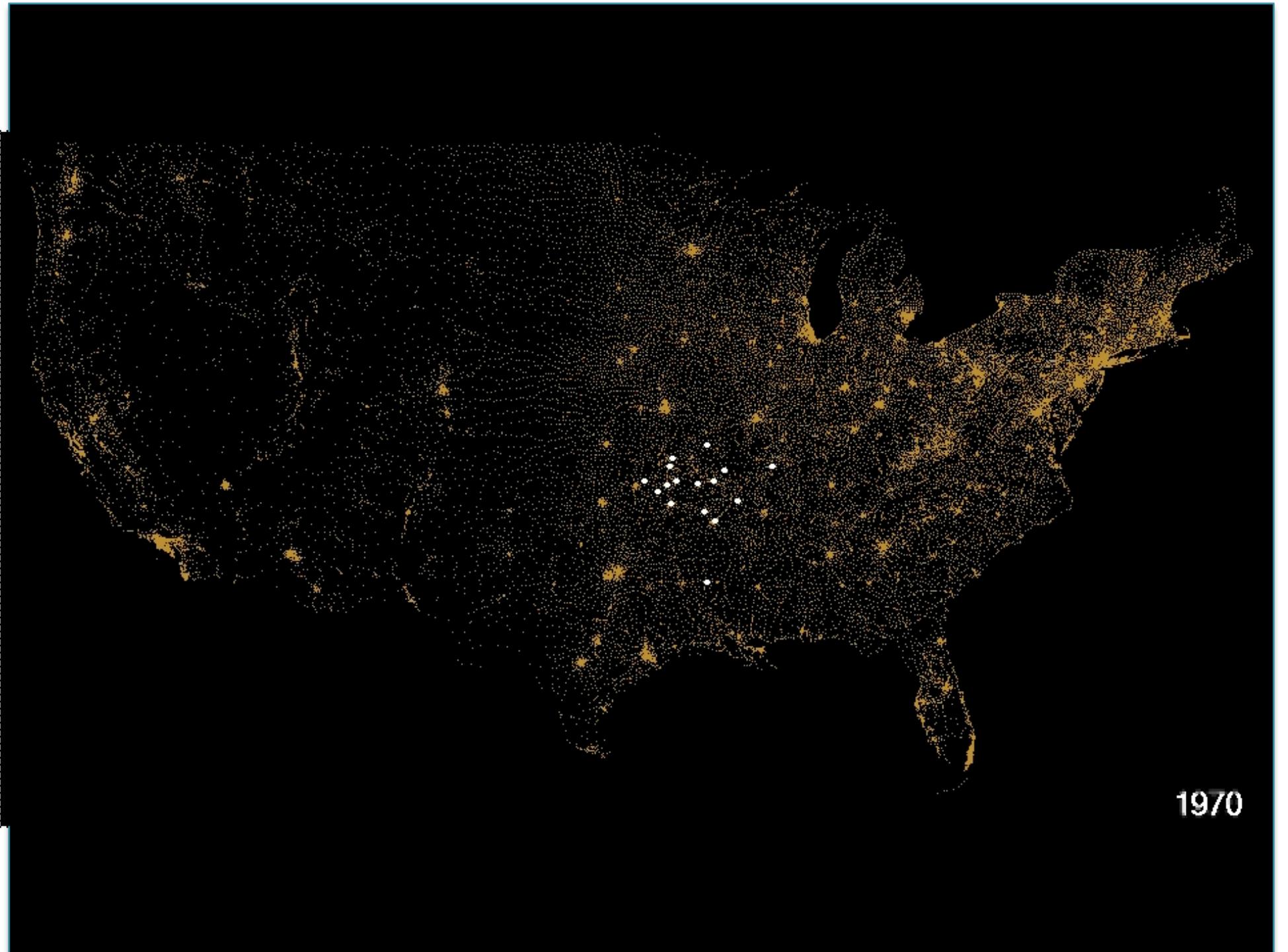
Example Freebase applications

History Of Sciences

Pierre Lindenbaum PhD. Testing [Freebase](#) to display the biographies of famous scientists. See also the [KML file](#) for Google Earth.

		
<p>nd - 1817 Nov 7 at Windsor, Berkshire:Swiss geologist and</p>	<p>Christopher Latham Sholes : 1819 Feb 14 - 1890 Feb 17:American who invented the first practical typewriter and the QWERTY keyboard Known For:QWERTY Typewriter</p>	<p>William Murphy : 189... Anemia</p>
<p>Oct 16:Scottish surgeon regarded geons of his day. Known hereal Disease Lymphatic</p>	<p>Wilhelm Karl Ritter von Haidinger : 1795 Feb 5 at Vienna - 1871 Mar 19 at Mödling:Austrian mineralogist, geologist and physicist Known For:Haidinger fringes Haidinger's brush</p>	<p>Arnold Winkel : 1873 at Paris - 1935 Jul 3 at P... entrepreneur remembered chiefly for the make him, but also for his invention of double heli... For:Gears</p>
<p>Chojnice - 1796 Dec 11 at known for formulating the Titius-Bode law</p>	<p>John Lindley : 1799 Feb 8 at Catton, North Yorkshire - 1865 Nov 1:English botanist Known For:Scientific classification</p>	<p>Oskar Reichenow and Hans Reichenow : 1868 Feb 8 - 1937 Aug... zoologist from the international Rothschild financial dynasty. Kn... Rothschild Zoological Museum</p>
<p>43 Feb 13 at London - 1820 Jun 19 at London:English naturalist, the patron. He took part in Captain James Cook's first great voyage around 80 species bear Banks' name. He is credited with the West of eucalyptus, acacia, mimosa, and the genus named after him. For:First voyage of James Cook HM Bark Endeavour</p>	<p>Rudolf Clausius : 1822 Jan 2 at Koszalin - 1888 Aug 24 at Bonn:German physicist and mathematician and is considered one of the central founders of the science of thermodynamics Known For:Thermodynamics Second law of thermodynamics Entropy</p>	<p>Marcel Minnaert : 18... founders of the Math... National Research I</p>

<p>Gender</p> <p>Man</p> <p>Woman</p>	<p>Profession</p> <p>Geologist</p> <p>Surgeon</p> <p>Botanist</p> <p>Demographer</p> <p>Economist</p>	<p>Country</p> <p>Italy</p> <p>Denmark</p> <p>Germany</p> <p>France</p> <p>United Kingdom</p>	<p>Known for</p> <p>Polyalphabetic cipher</p> <p>Academia Secretorum Natu...</p> <p>Kinematics</p> <p>Solar System</p> <p>Galilean moons</p>	<p>Update</p>
---------------------------------------	---	---	--	---------------



1970



1980



1990



2007

Archiportal by Zachary Stein

Arctic Ocean

Map Satellite Hybrid

200 Greenwich Street

Sir Norman Foster
200 Greenwich St.
New York
40.712095, -74.011002

200 Greenwich Street is the address for a new office building to be erected as part of the World Trade Center reconstruction in New York City. The building has also been referred to as World Trade Center...

Canada

United States

México

North Atlantic Ocean

Norge
Norway

Sverige
Sweden

Itali
Italy

España
Spain

Algeria

Libya

CineSpin

richard burton

Alexander the Great
Film

The Longest Day
Film

The Audience
Film

The V.I.P.
Film

The Staircase
Film

The Circle of Two
Film

The Medusa Touch
Film

1984
Film

Candy
Film

Cleopatra
Film

Exorcist II: The Heretic
Film

The Big Fisherman
Film

The Iguanodon
Film

The Eagles Dare
Film

Who's Afraid of Virginia Woolf?
Film

Freebase Parallax UI

freebase parallax

a novel browsing interface designed for freebase — send comments to [David Huynh](#) • [get source code](#)

*don't just search
for one thing!*

*explore a whole set of
related things together!*

- US President collection (42 topics)
- US Vice President collection (47 topics)
- US Presidential campaign collection (11 topics)
- US Vice Presidential campaign collection (11 topics)
- president collection (31 topics)

[more collections about president](#)

Trying to find more specific topics...

Freebase Parallax: A new way to browse and explore data

from [David Huynh](#)

freebase parallax

a novel way to browse and explore data

August 2008

David Huynh, Research Scientist, david@metaweb.com
Metaweb Technologies, Inc., <http://metaweb.com>



08:25



Questions?

http://freebase.com

Food

The Food base has 29,176 facts and about 9,474 topics. 7 facts new this week.

The Food category is still being defined. We expect it to include an index of beverages (beer, wine, liquor), foods (cheeses, ...), and recipes. Food is any substance, usually comprised primarily of carbohydrates, fats, water and/or proteins, that can be... [more](#)

[Edit description](#)



Dish

A List of 784 Dish topics



Cheese

A List of 394 Cheese topics



Beer

A List of 3031 Beer topics



Beer style

A List of 155 Beer style topics



Join Commons

Invite Others

News

Members

Schema

User Groups



Administrators

[edit](#)



[robert](#)

Information is the currency of democracy. -- Thomas Jefferson



[jon](#)

Those are real words you're using, and you're making whole sentences out of them, but i don't know what you're talking about.



[alecf](#)

Which would you rather be, an orange?



[kurt](#)

Chew all data three times before swallowing.

Experts

[edit](#)

There are no users in this group.

Members



[erikbrown](#)

Viva la ontology



[qiannis](#)