

这些杀手级应用不太冷 ——从语义网到知识图谱的回顾

鲍捷 文因互联

baojie@memect.co

微信 [baojie_memect](#)



个人简介



2001-2007
Iowa State University, 博士

描述逻辑, 推理, 语义网



2008-2010
Rensselaer Polytechnic Institute (RPI), 博士后 知识工程, 本体语言
W3C OWL Working Group



2010-2011
MIT and BBN, 访问

语义信息论, 金融本体



2011-2013
Samsung Research USA

问答系统, 自然语言处理



2013-now,
Memect (San Jose, CA)
文因互联(Beijing)

知识图谱, 金融数据

文因互联

- 文因 = Meme 或者 Memory
- 文因互联 = Meme(ory) Connected
- 文因互联致力于增强智能（Augmented Intelligence），即用人工智能的技术帮助人更好地记忆、分析和通讯。
- 文因互联的长期目标是建设社会机器（Social Machine，“人类的神经系统”）

文因互联

近期愿景：打造金融世界的神经系统

智能搜索引擎

文因语义搜索引擎覆盖新三板、主板、美股的数据，提供跨板块对标匹配及业务分析功能。

三板有多少家VR企业？



直达搜索首页



文因互联

近期愿景：打造金融世界的神经系统

FinGo投研

FinGo投研是辅助投资者进行研究分析的工具。旨在使投资者从繁琐的数据收集整理工作中解放出来，让投资者专注于更能创造价值的工作。

查看更多



对杀手级应用的追求



Semantic Web: In Quest for the Next Generation Killer Apps

Jie Bao
Tetherless World Constellation
Rensselaer Polytechnic Institute
baojie@cs.rpi.edu
<http://www.cs.rpi.edu/~baojie>



Oct 22nd, 2010 @ UMass Lowell

1

什么是杀手级应用

- ...Any computer program that is so necessary or desirable that it **proves the core value of some larger technology**, [...]. A killer app can substantially **increase sales of the platform** on which it runs.

-- Wikipedia

http://en.wikipedia.org/wiki/Killer_application

ATM

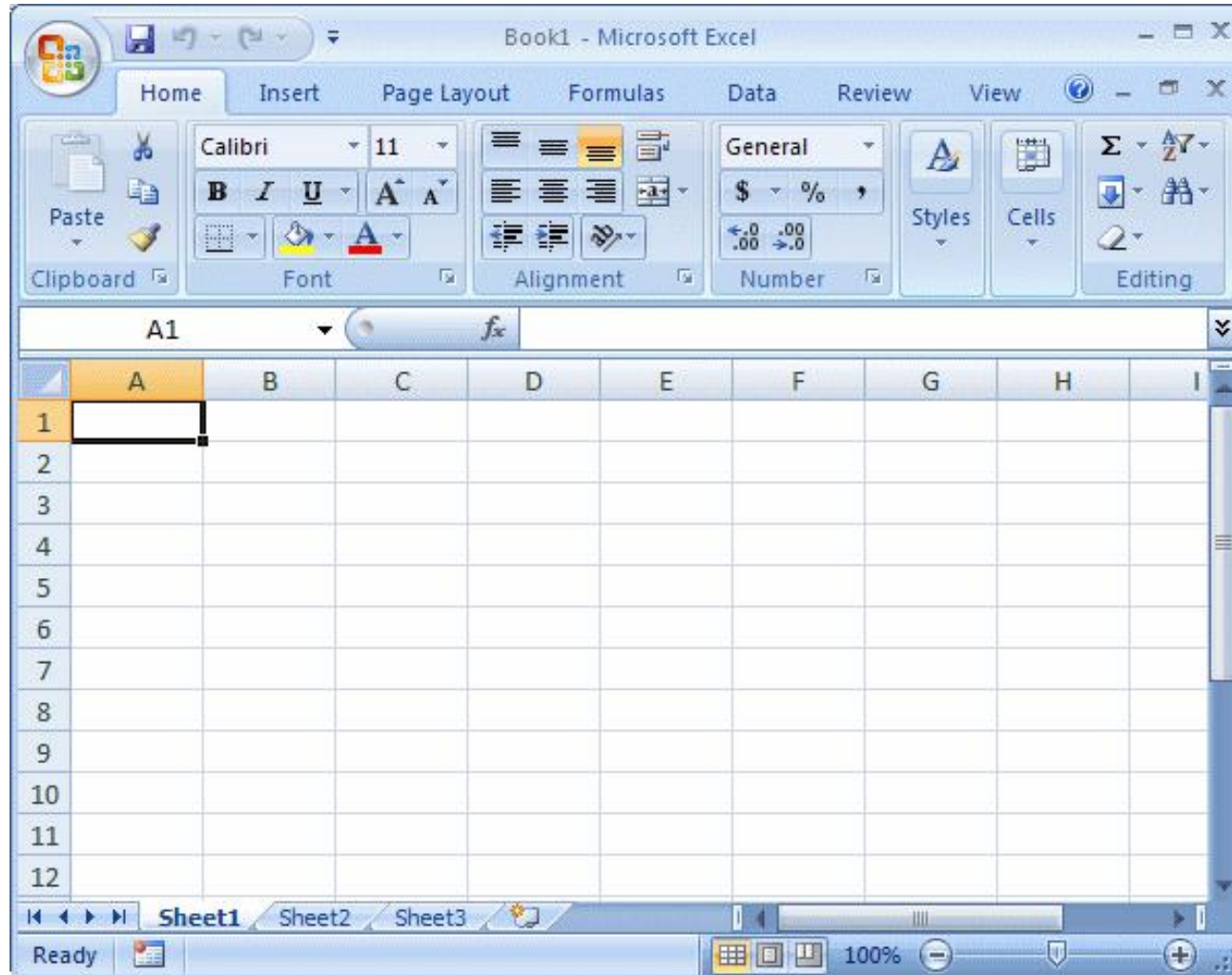


A killer app of database and network technologies

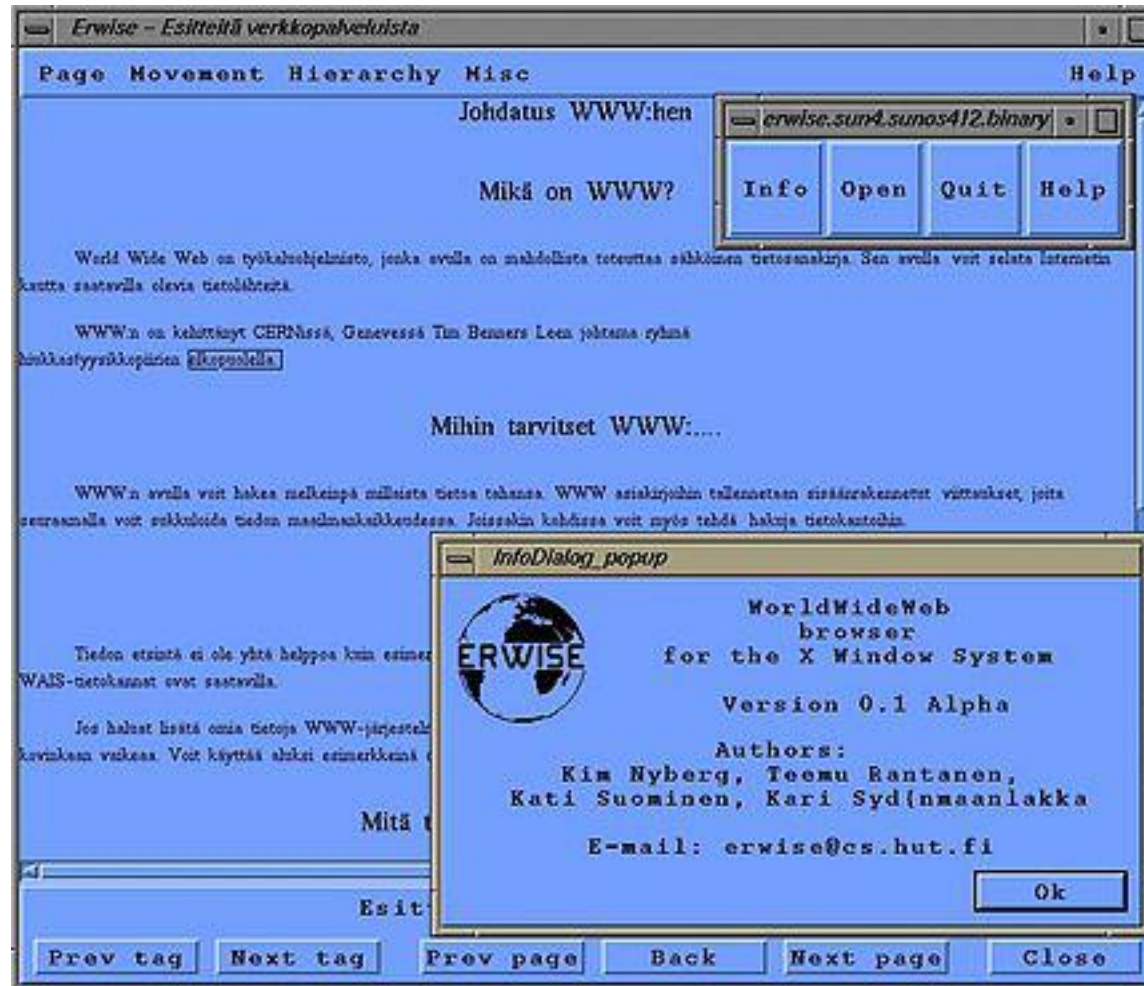
Visicalc

C11 (L) TOTAL					C1
					25
	A	B	C	D	
1	ITEM	NO.	UNIT	COST	
2	----	----	----	----	
1	MUCK RAKE	43	12.95	556.85	
2	BUZZ CUT	15	6.75	101.25	
3	TOE TONER	250	49.95	12487.50	
4	EYE SNUFF	2	4.95	9.90	
5					
6			SUBTOTAL	13155.50	
7			9.75% TAX	1282.66	
8					
9			TOTAL	14438.16	
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14					
15					
16					
17					
18					
19					
20					

Excel



Erwise

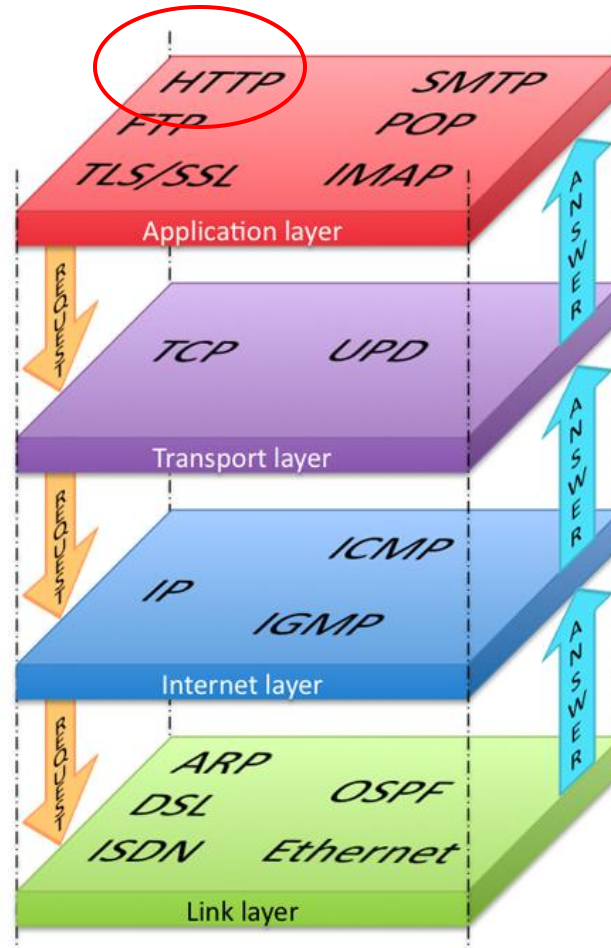


Netscape



Web 本身

As an app of the Internet



Sir Tim Berners-Lee

Web 本身

World Wide Web

The WorldWideWeb (W3) is a wide-area [hypermedia](#) information retrieval initiative aiming to give universal access to a large universe of documents.

Everything there is online about W3 is linked directly or indirectly to this document, including an [executive summary](#) of the project, [Mailing lists](#) , [Policy](#) , November's [W3 news](#) , [Frequently Asked Questions](#) .

[What's out there?](#)

Pointers to the world's online information, [subjects](#) , [W3 servers](#), etc.

[Help](#)

on the browser you are using

[Software Products](#)

A list of W3 project components and their current state. (e.g. [Line Mode](#) ,X11 [Viola](#) , [NeXTStep](#) , [Servers](#) , [Tools](#) , [Mail robot](#) , [Library](#))

[Technical](#)

Details of protocols, formats, program internals etc

[Bibliography](#)

Paper documentation on W3 and references.

[People](#)

A list of some people involved in the project.

[History](#)

A summary of the history of the project.

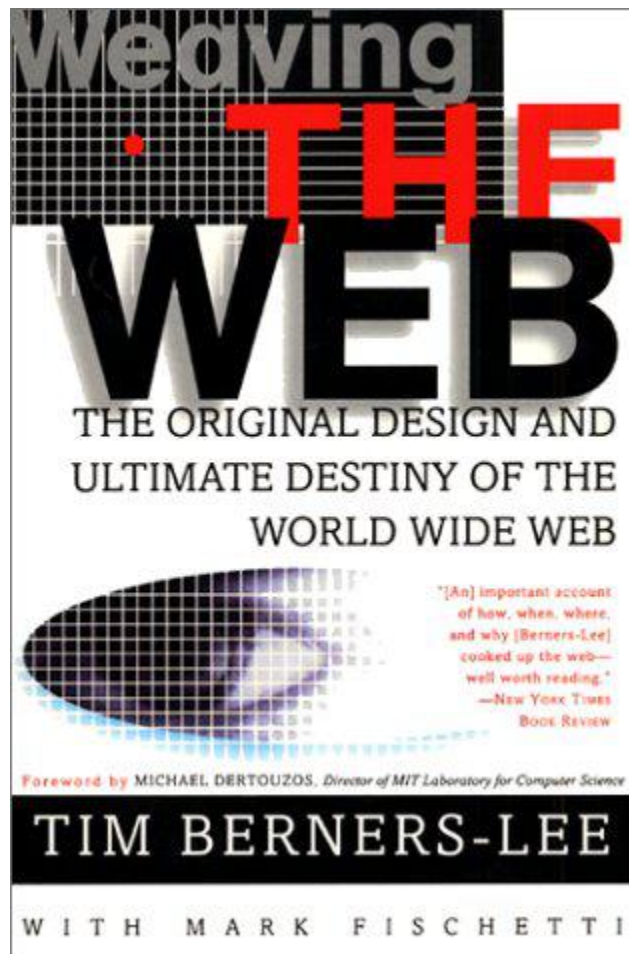
[How can I help ?](#)

If you would like to support the web..

[Getting code](#)

Getting the code by [anonymous FTP](#) , etc.

一个宏伟规划



淘宝版 🤔

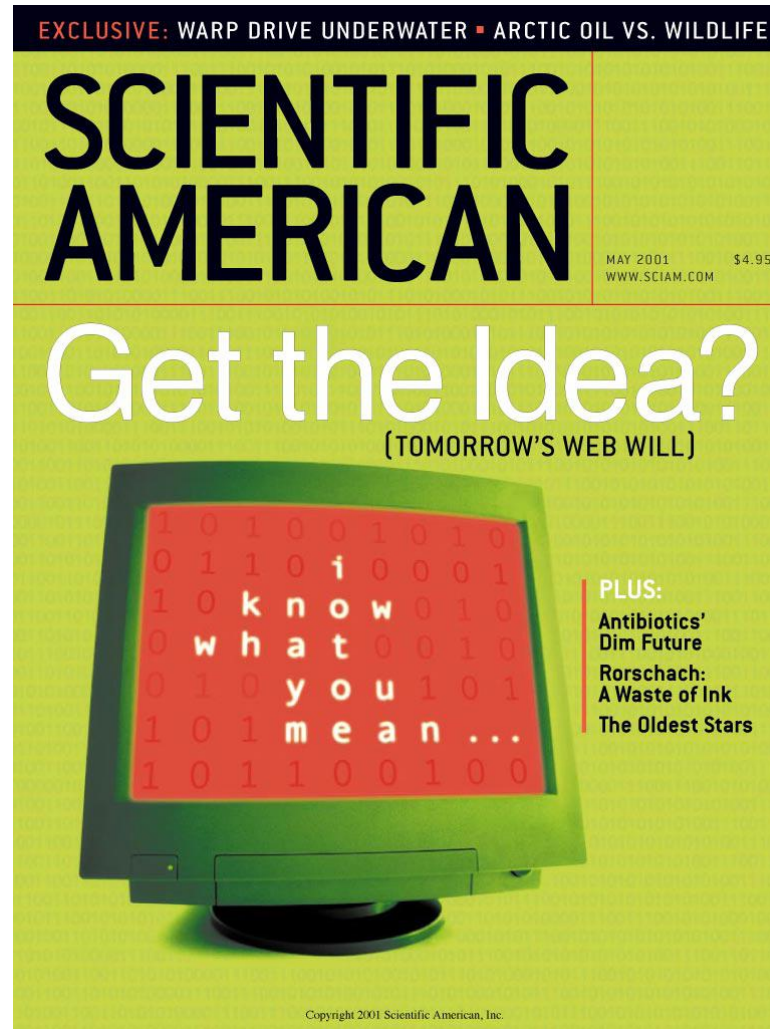


一个宏伟规划

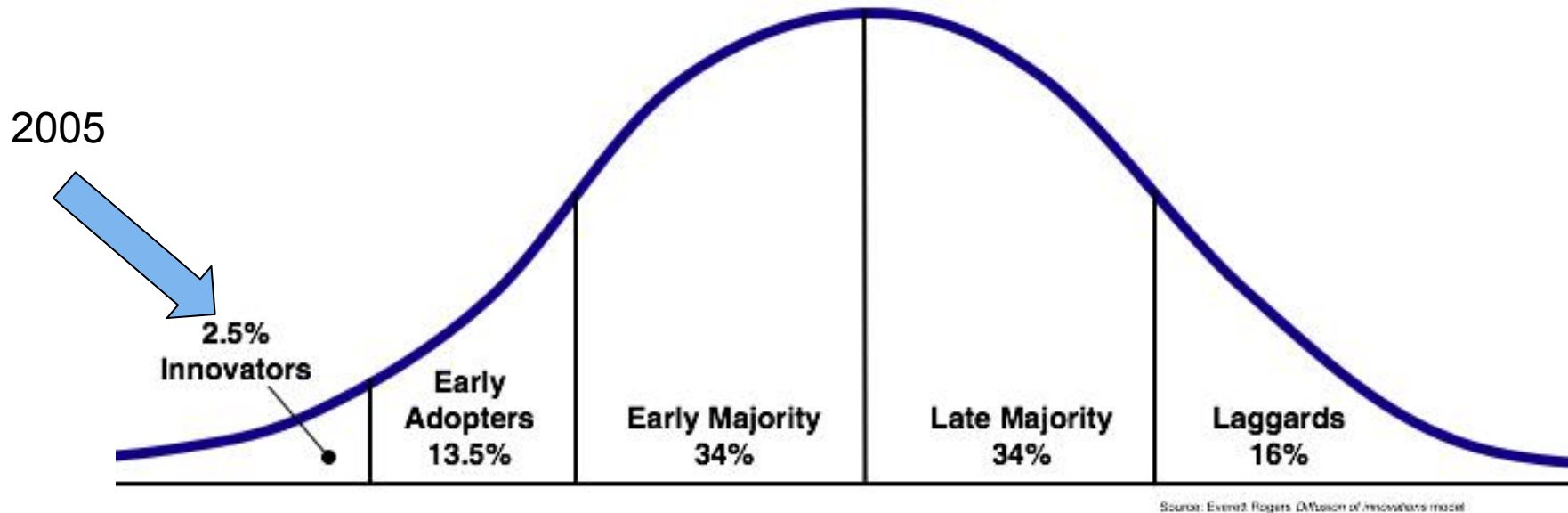
Tim Berners-Lee在Web最初的规划中（1991），试图实现递进的三个网络

- **文档的互联**，也就是今天我们熟知的Web
- **知识的互联**，也就是后来的Semantic Web，把文档变成机器可读的知识结构（元数据）。
- **人和知识的互联**，也就是Semantic Wiki，一个可读可写的大规模协作网络。

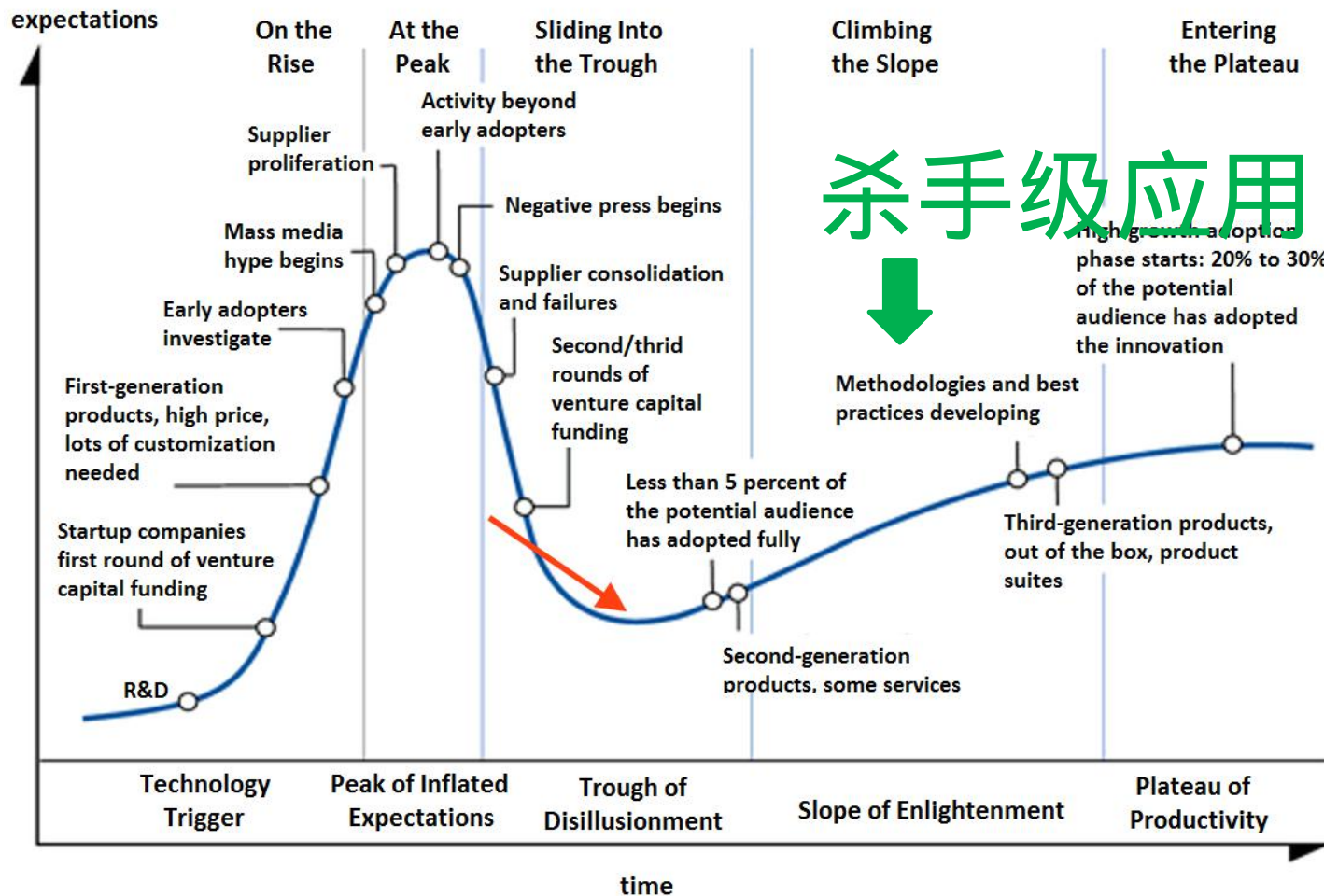
2001年的展望



“正常”技术应用周期

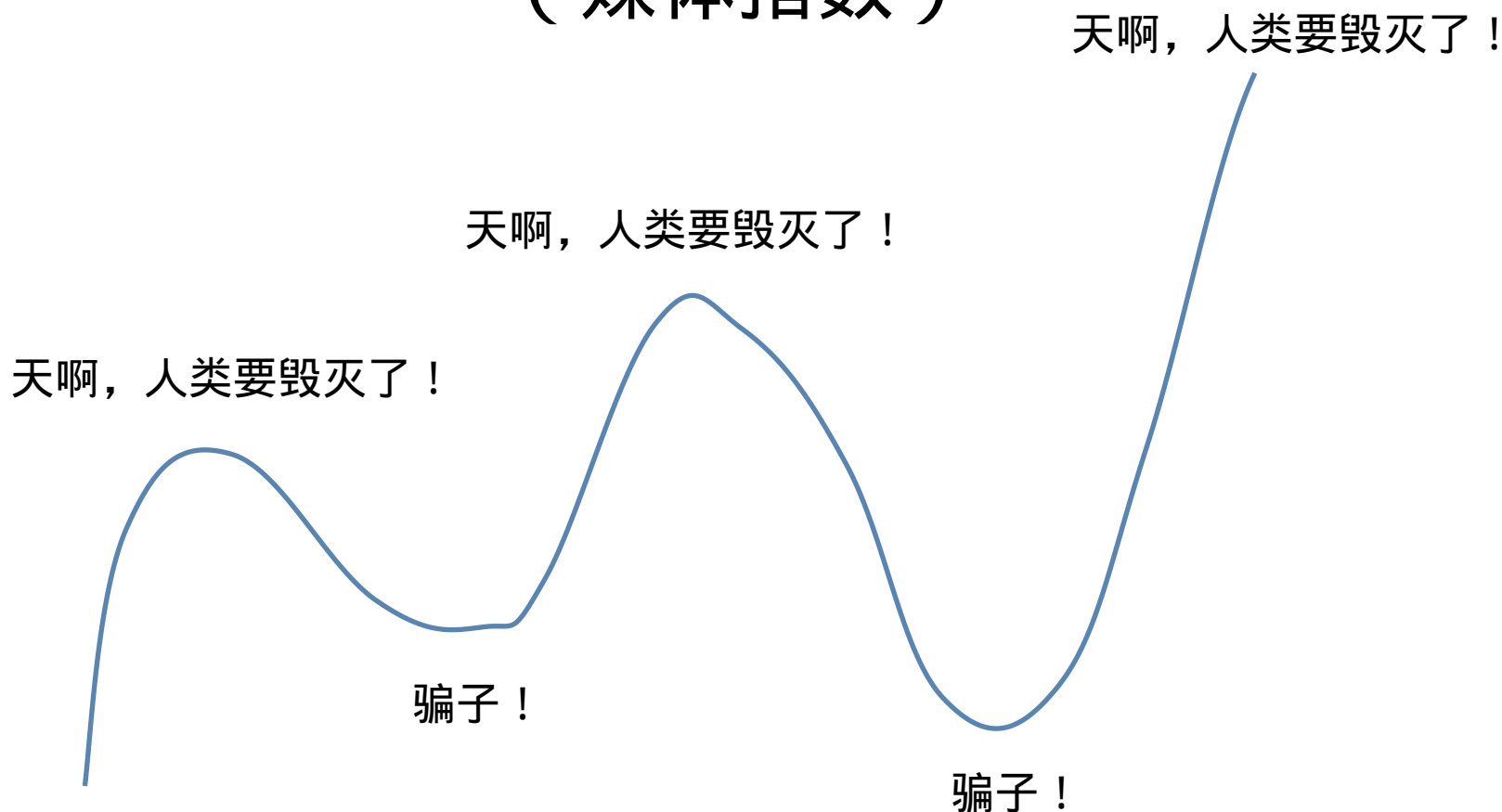


“正常”产业成熟曲线

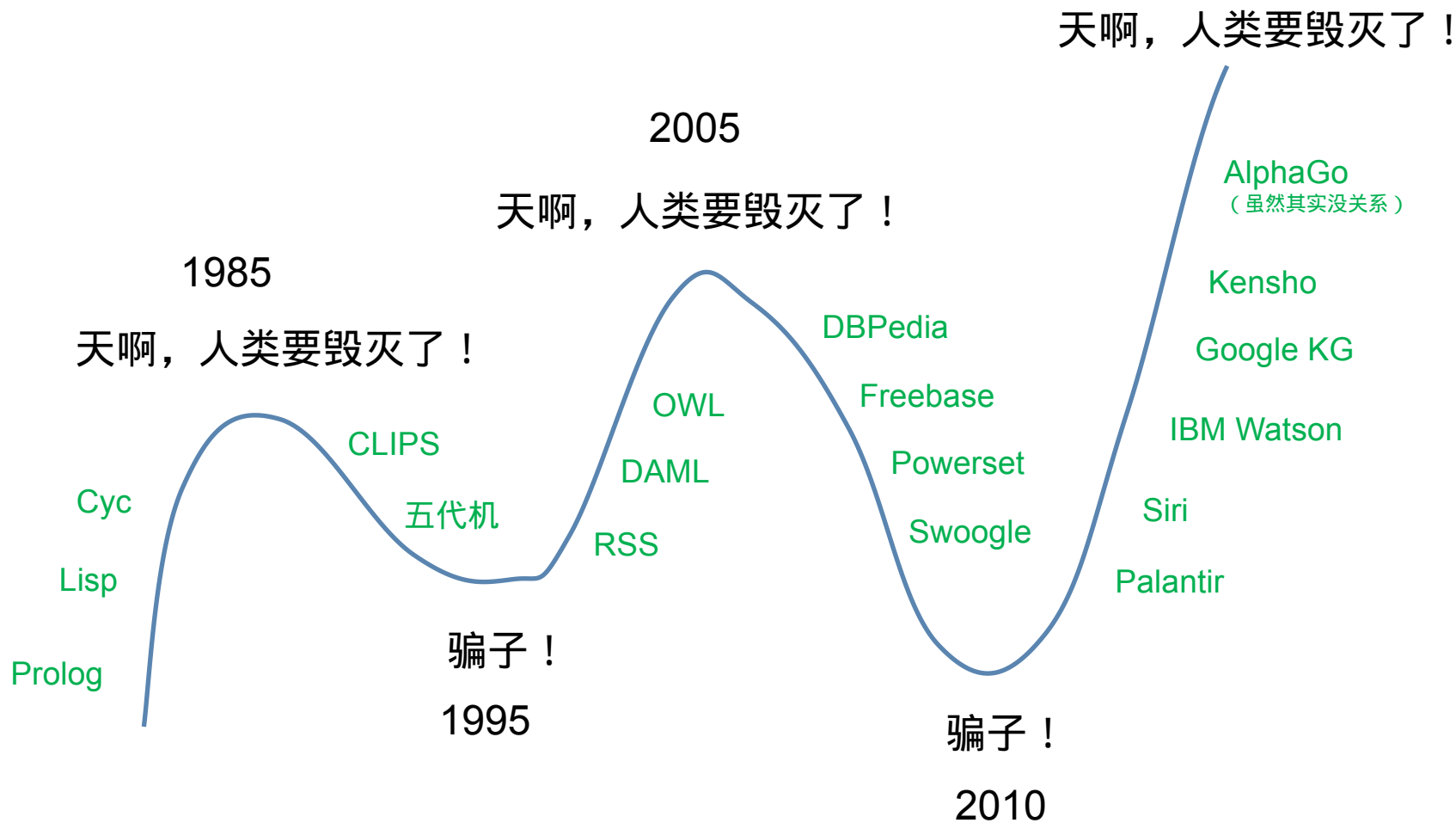


人工智能的产业成熟曲线

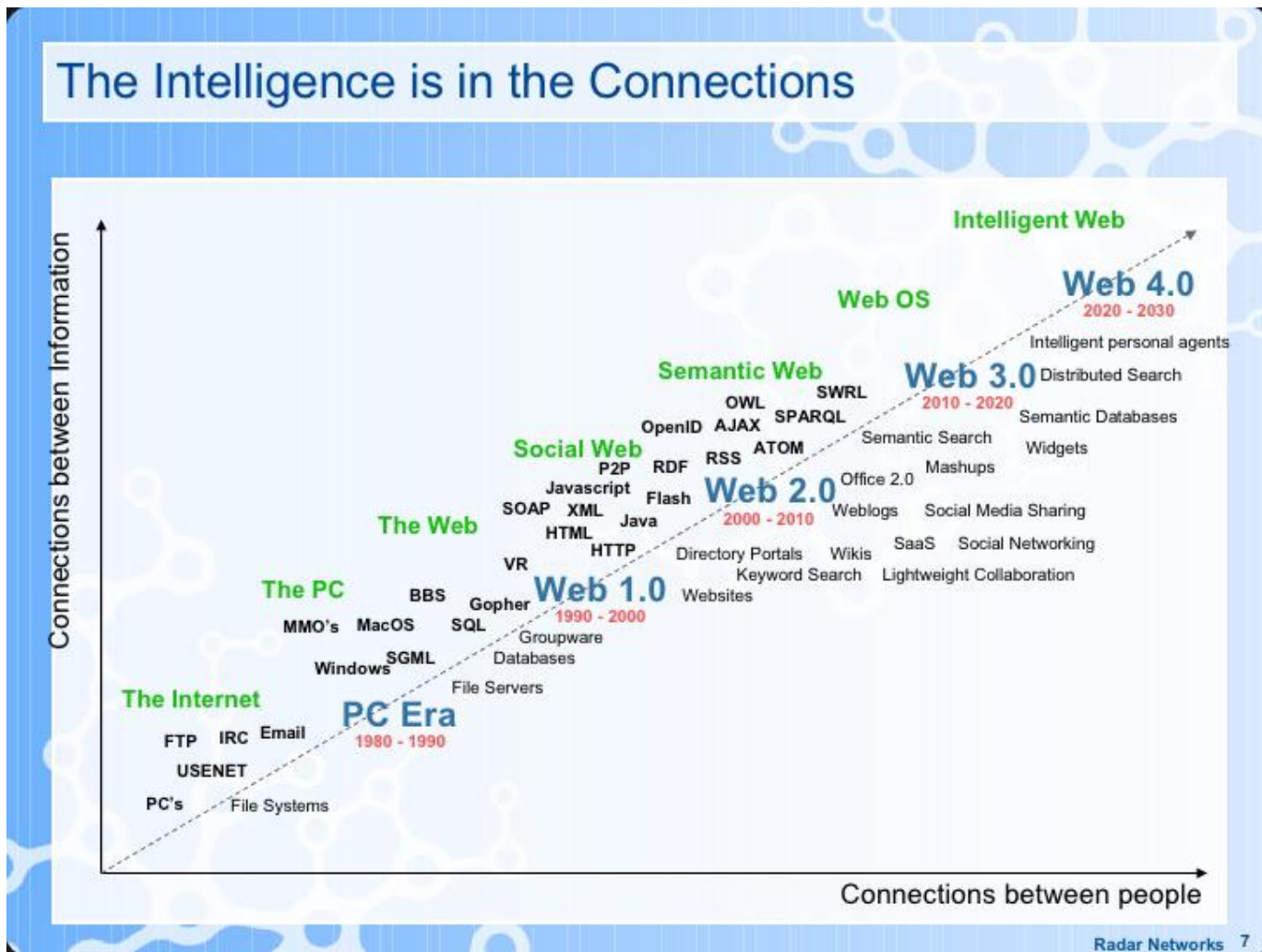
(媒体指数)



知识图谱的产业成熟曲线



2008年Nova的展望



Nova Spivack, 2008 <http://www.slideshare.net/BlogTalk2008/spivack-blogtalk-2008>

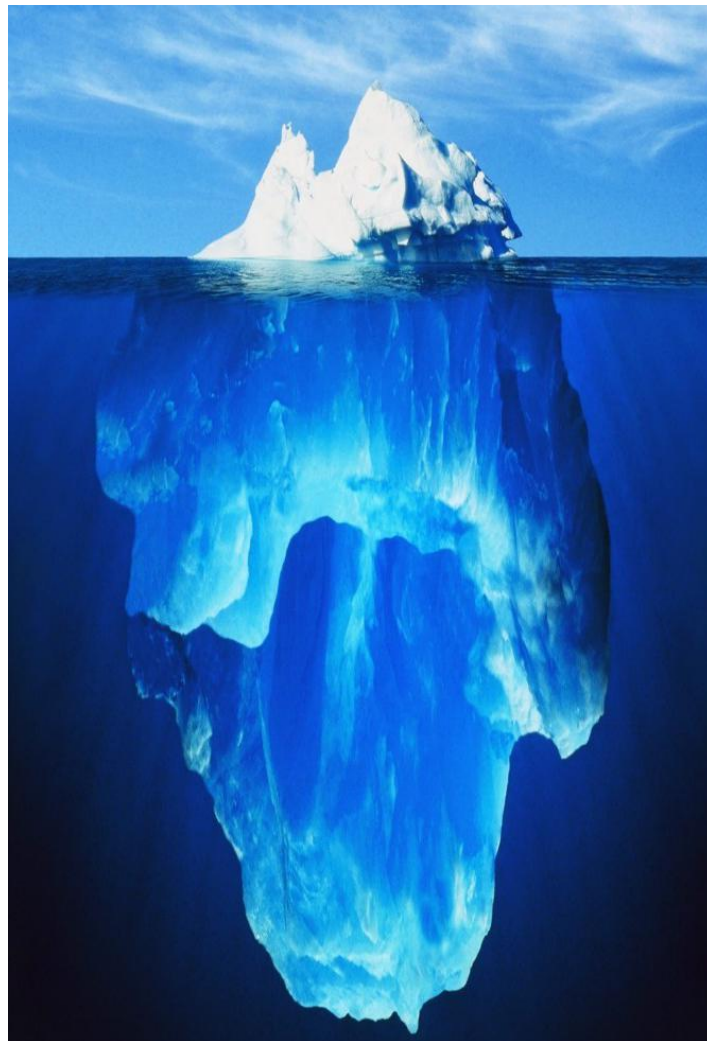
2006-2012的低潮

- 2006，发现让人来写RDF元数据这种设想行不通
- 2009，Google Rich Snippets 等都没有太大市场反响
- 2009，各种Social Semantic Web努力不太成功
- 2010，OWL2和RIF都不成功
- 2010，Twine关门
- 2006-2012，大部分的博士生毕业就转行
- 各种被鄙视

反弹

- 2010 Neo4j发布
- 2010 IBM Watson
- 2011 Siri
- 2011 Palantir收入2.5亿美元
- 2012 Google Knowledge Graph
- 2012 Microsoft Trinity
- 2012 大量的对Google KG的模仿
- 2013 Kensho
- 2015 知识图谱这个词开始时髦了
- 2016 中国市场的对话机器人热

冰冻三尺，非一夜之寒



BestBuy

The Matrix - Widescreen AC3 Dolby Special - DVD - Mozilla Firefox

File Edit View History Delicious Bookmarks Tools Help 5 Now: Clear, 9 °C Fri: 11 °C Sat: 14 °C

http://www.bestbuy.com/site/The+Matrix+-+DVD/9316073.p?id=29857&skuId=9316073&st=matrix&lp=8&cp=1 bestbuy inception

http://products.se...73/semanticweb.rdf The Matrix - Widescreen AC3 Dol...

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The Matrix- DVD

SKU: 9316073 5/12/2009
Rating: R for Violence, Profanity, Sci-Fi Violence
Customer Reviews:  Be the first to write a review.

Shipping: Not available
Store Pickup: Check Stores

Financing:
✓ Great Financing Offer

List Price: \$12.98
Our Price: \$9.99

ADD TO CART

 Add to Wish Lists

 Printer Friendly

Find: RSS   Highlight all Match case

Done  143

BestBuy (GoodRelations)

Mozilla Firefox

File Edit View History Delicious Bookmarks Tools Help 5 Now: Clear, 9 °C Fri: 11 °C Sat: 14 °C

http://products.semweb.bestbuy.com/products/9316073/semanticweb.rdf

bestbuy inception

http://products....semanticweb.rdf The Matrix - Widescreen AC3 Dolby Sp...

This XML file does not appear to have any style information associated with it. The document tree is shown below.

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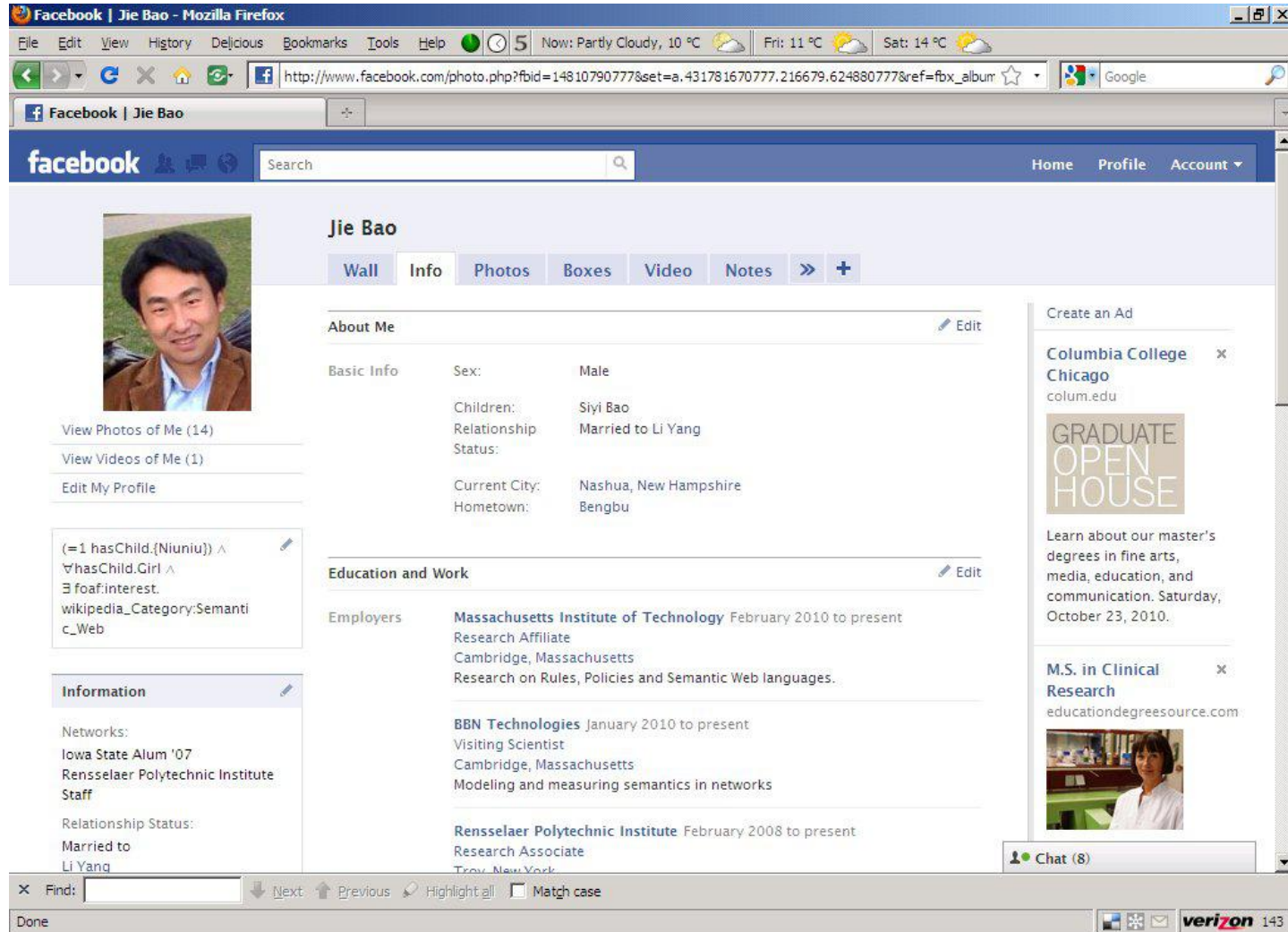
```

Find: RSS Next Previous Highlight all Match case

Done

verizon 143

Facebook



The screenshot shows a Mozilla Firefox browser window displaying a Facebook profile for Jie Bao. The browser's address bar shows the URL: `http://www.facebook.com/photo.php?fbid=14810790777&set=a.431781670777.216679.624880777&ref=fbx_album`. The Facebook interface includes a search bar, navigation links (Home, Profile, Account), and a profile picture of Jie Bao. The profile tabs (Wall, Info, Photos, Boxes, Video, Notes) are visible, with 'Info' selected. The 'About Me' section displays basic information: Sex: Male, Children: Siyi Bao, Relationship: Married to Li Yang, Current City: Nashua, New Hampshire, and Hometown: Bengbu. The 'Education and Work' section lists employers: Massachusetts Institute of Technology (February 2010 to present), BBN Technologies (January 2010 to present), and Rensselaer Polytechnic Institute (February 2008 to present). The right sidebar features advertisements for Columbia College Chicago and M.S. in Clinical Research. The bottom of the browser window shows a search bar and navigation controls.

Facebook | Jie Bao - Mozilla Firefox

File Edit View History Delicious Bookmarks Tools Help 5 Now: Partly Cloudy, 10 °C Fri: 11 °C Sat: 14 °C

`http://www.facebook.com/photo.php?fbid=14810790777&set=a.431781670777.216679.624880777&ref=fbx_album` Google

Facebook | Jie Bao

facebook Search Home Profile Account

Jie Bao

Wall Info Photos Boxes Video Notes > +

About Me Edit

Basic Info

Sex:	Male
Children:	Siyi Bao
Relationship:	Married to Li Yang
Status:	
Current City:	Nashua, New Hampshire
Hometown:	Bengbu

Education and Work Edit

Employers

Massachusetts Institute of Technology	February 2010 to present
Research Affiliate	
Cambridge, Massachusetts	
Research on Rules, Policies and Semantic Web languages.	
BBN Technologies	January 2010 to present
Visiting Scientist	
Cambridge, Massachusetts	
Modeling and measuring semantics in networks	
Rensselaer Polytechnic Institute	February 2008 to present
Research Associate	
Troy, New York	

Information

Networks:

- Iowa State Alum '07
- Rensselaer Polytechnic Institute Staff

Relationship Status:

Married to Li Yang

Create an Ad

Columbia College Chicago colum.edu

GRADUATE OPEN HOUSE

Learn about our master's degrees in fine arts, media, education, and communication. Saturday, October 23, 2010.

M.S. in Clinical Research educationdegreesource.com

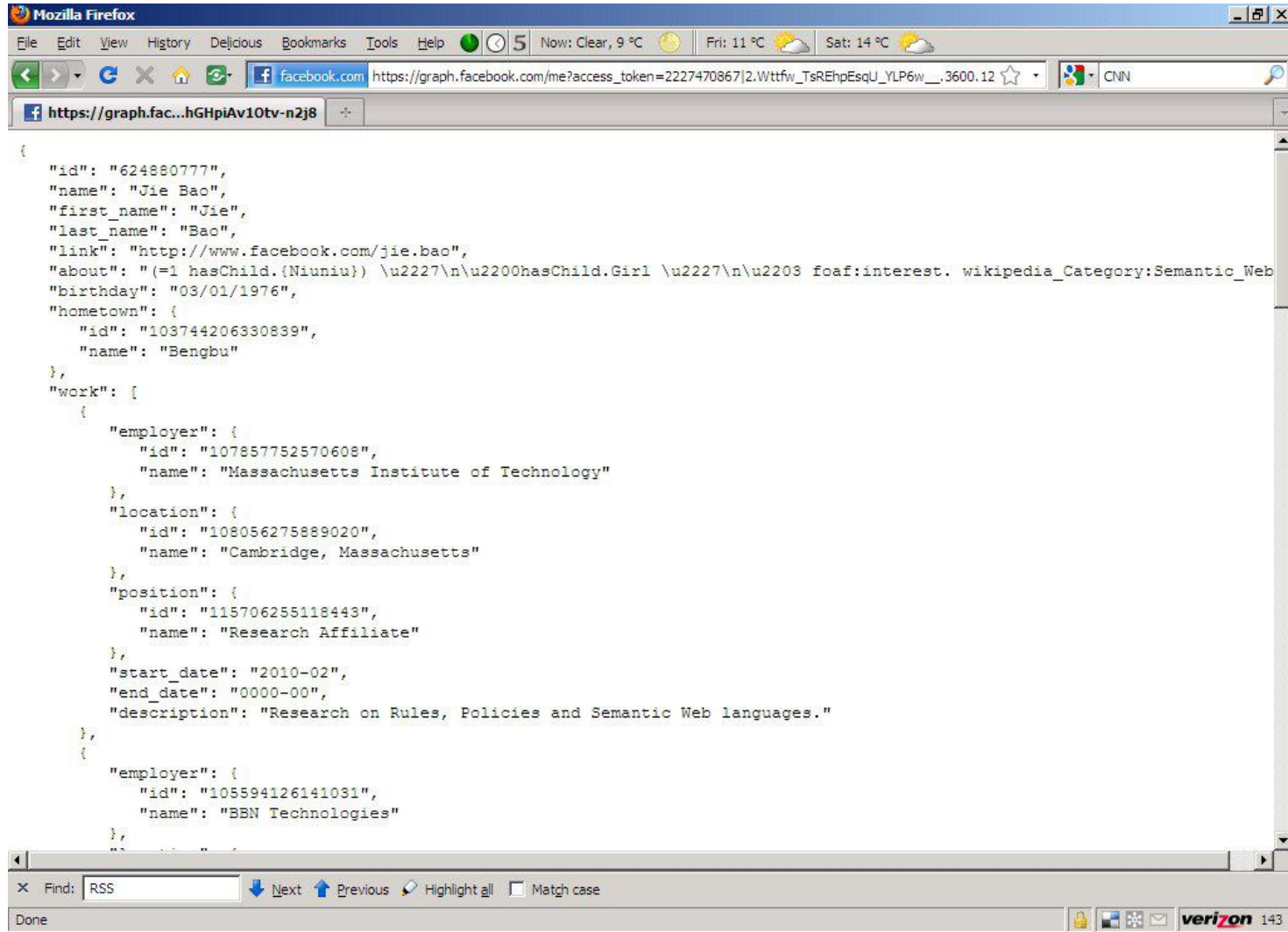
Chat (8)

Find: Next Previous Highlight all Match case

Done

verizon 143

Facebook (Open Graph)



```

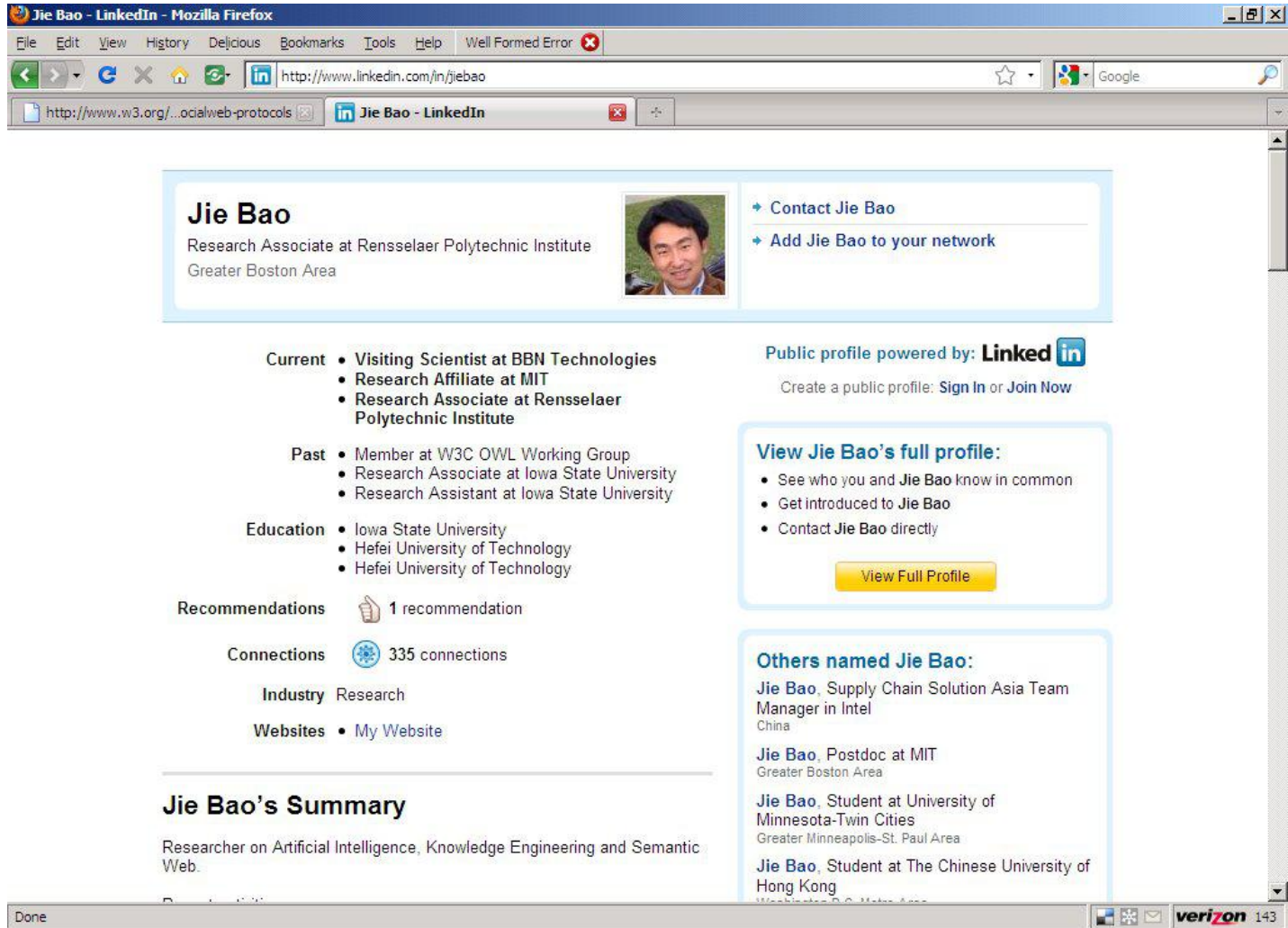
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    }
  ]
}

```

Find: RSS Next Previous Highlight all Match case

Done verizon 143

LinkedIn



Jie Bao
Research Associate at Rensselaer Polytechnic Institute
Greater Boston Area

[Contact Jie Bao](#)
[Add Jie Bao to your network](#)

Current

- Visiting Scientist at BBN Technologies
- Research Affiliate at MIT
- Research Associate at Rensselaer Polytechnic Institute

Past

- Member at W3C OWL Working Group
- Research Associate at Iowa State University
- Research Assistant at Iowa State University

Education

- Iowa State University
- Hefei University of Technology
- Hefei University of Technology

Recommendations 1 recommendation

Connections 335 connections

Industry Research

Websites [My Website](#)

Jie Bao's Summary

Researcher on Artificial Intelligence, Knowledge Engineering and Semantic Web.

Public profile powered by: LinkedIn
Create a public profile: [Sign In](#) or [Join Now](#)

View Jie Bao's full profile:

- See who you and Jie Bao know in common
- Get introduced to Jie Bao
- Contact Jie Bao directly

[View Full Profile](#)

Others named Jie Bao:

Jie Bao, Supply Chain Solution Asia Team Manager in Intel China

Jie Bao, Postdoc at MIT Greater Boston Area

Jie Bao, Student at University of Minnesota-Twin Cities Greater Minneapolis-St. Paul Area

Jie Bao, Student at The Chinese University of Hong Kong



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TetherlessWorld Rensselaer

Semantic History: Towards Modeling and Publishing Changes of Online Semantic Data

Jie Bao, Li Ding, and Deborah L. McGuinness
Tetherless World Constellation
Rensselaer Polytechnic Institute
Troy, NY, 12180-3590, USA
{baojie,dingl,dlm}@cs.rpi.edu
pdf & slides: <http://tw.rpi.edu/wiki/TW-2009-17>

Jie Bao
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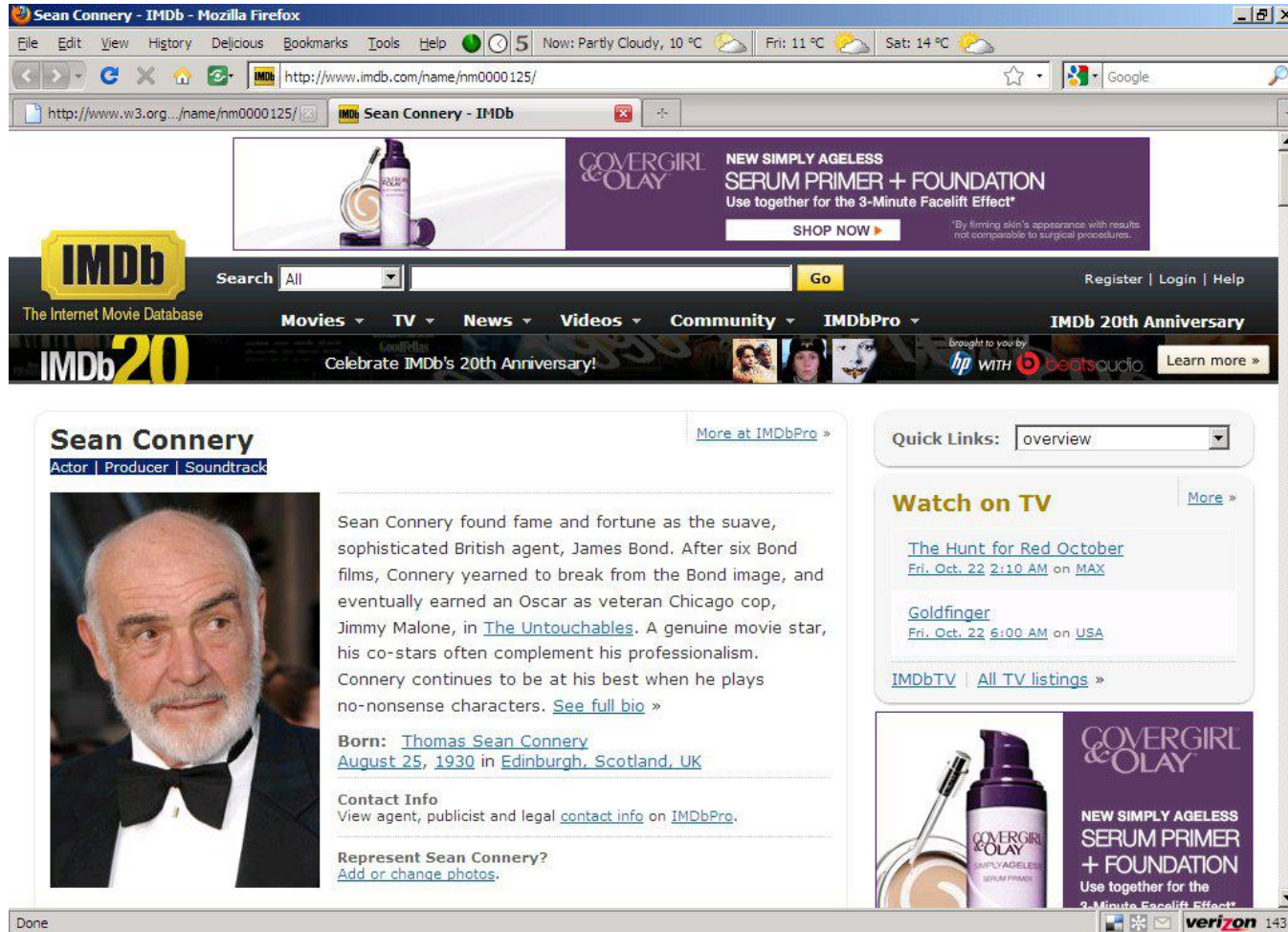
1 tweet
1 share
f Share
WordPress
Blogger
More options
Analytics

SlideShare (RDFa)

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  <xhv:alternate rdf:resource="http://www.slideshare.net/rss/latest"/>
- <og:url xml:lang="en">
  http://www.slideshare.net/baojie_iowa/semantic-history-towards-modeling-and-publishing-changes-of-online-semantic-data
</og:url>
```

IMDB



The screenshot shows a Mozilla Firefox browser window displaying the IMDb page for Sean Connery. The browser's address bar shows the URL <http://www.imdb.com/name/nm0000125/>. The page features a banner for CoverGirl & Olay New Simply Ageless Serum Primer + Foundation. Below the banner is the IMDb logo and a search bar. The main content area displays Sean Connery's profile, including a photo, a brief biography, and a list of TV shows he has appeared in. The right sidebar contains a 'Quick Links' section and a 'Watch on TV' section. The bottom of the browser window shows the Verizon logo and the number 143.

Sean Connery
Actor | Producer | Soundtrack

Sean Connery found fame and fortune as the suave, sophisticated British agent, James Bond. After six Bond films, Connery yearned to break from the Bond image, and eventually earned an Oscar as veteran Chicago cop, Jimmy Malone, in *The Untouchables*. A genuine movie star, his co-stars often complement his professionalism. Connery continues to be at his best when he plays no-nonsense characters. [See full bio](#) »

Born: [Thomas Sean Connery](#)
August 25, 1930 in Edinburgh, Scotland, UK

Contact Info
View agent, publicist and legal [contact info](#) on [IMDbPro](#).

Represent Sean Connery?
[Add or change photos](#).

Quick Links: [overview](#)

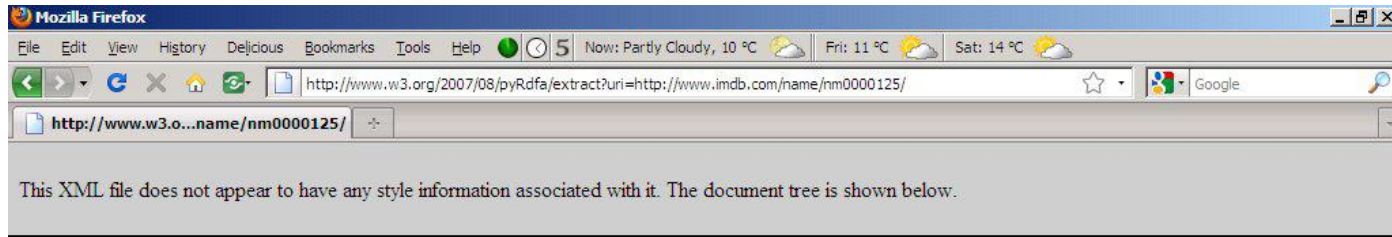
Watch on TV

[The Hunt for Red October](#)
Fri, Oct. 22 2:10 AM on [MAX](#)

[Goldfinger](#)
Fri, Oct. 22 6:00 AM on [USA](#)

[IMDbTV](#) | [All TV listings](#) »

IMDB (OG+Microformat)



```

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  <xhv:icon rdf:resource="http://i.media-imdb.com/images/SFff39adb4d259f3c3fd166853a6714a32/favicon.ico"/>
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  <og:title>Sean Connery</og:title>
  <xhv:stylesheet rdf:resource="http://i.media-imdb.com/images/SF847ac6f0c2dc0b72895a0d919126cdb9/css/min/redesign/2010/name.css"/>
  <xhv:stylesheet rdf:resource="http://i.media-imdb.com/images/SF558ae863f476a6a474e9c249aef04109/css2/app/feedback/page_feedback.css"/>
  <xhv:stylesheet rdf:resource="http://i.media-imdb.com/images/SF06b4f576614f0566b887b20145f9ed56/css2/site/consumer-navbar.css"/>
  </rdf:Description>
</rdf:RDF>

```



Sig.ma (Data Aggregation)



Sig.ma - Semantic Information Mashup - Mozilla Firefox

File Edit View History Delicious Bookmarks Tools Help 5 Now: Partly Cloudy, 10 °C Fri: 11 °C Sat: 14 °C

http://sig.ma/search?q=Jie Bao

Sig.ma - Semantic Information Mashup

SIG.MA
SEMANTIC INFORMATION MASHUP

Jie Bao

Jie Bao

picture:   [3] [15]

given name: Jie [3, 10, 15]

family name: Bao [3, 10, 15]

is creator of: [Semantic History: Towards Modeling and Publishing Changes of Online Semantic Data](#) [10]
[Towards Social Webtops Using Semantic Wiki](#) [10]
[On the Semantics of Linking and Importing in Modular Ontologies](#) [10]
[Privacy-Preserving Reasoning with Hidden Knowledge on the Semantic Web](#) [10]
[?] [11]

is attribut 3aautor4 of: [Inproceedings3050](#) [17]

is attribut 3aautor2 of: [Inproceedings1473](#) [17]

Sources (20) Approved (0) Rejected (0)

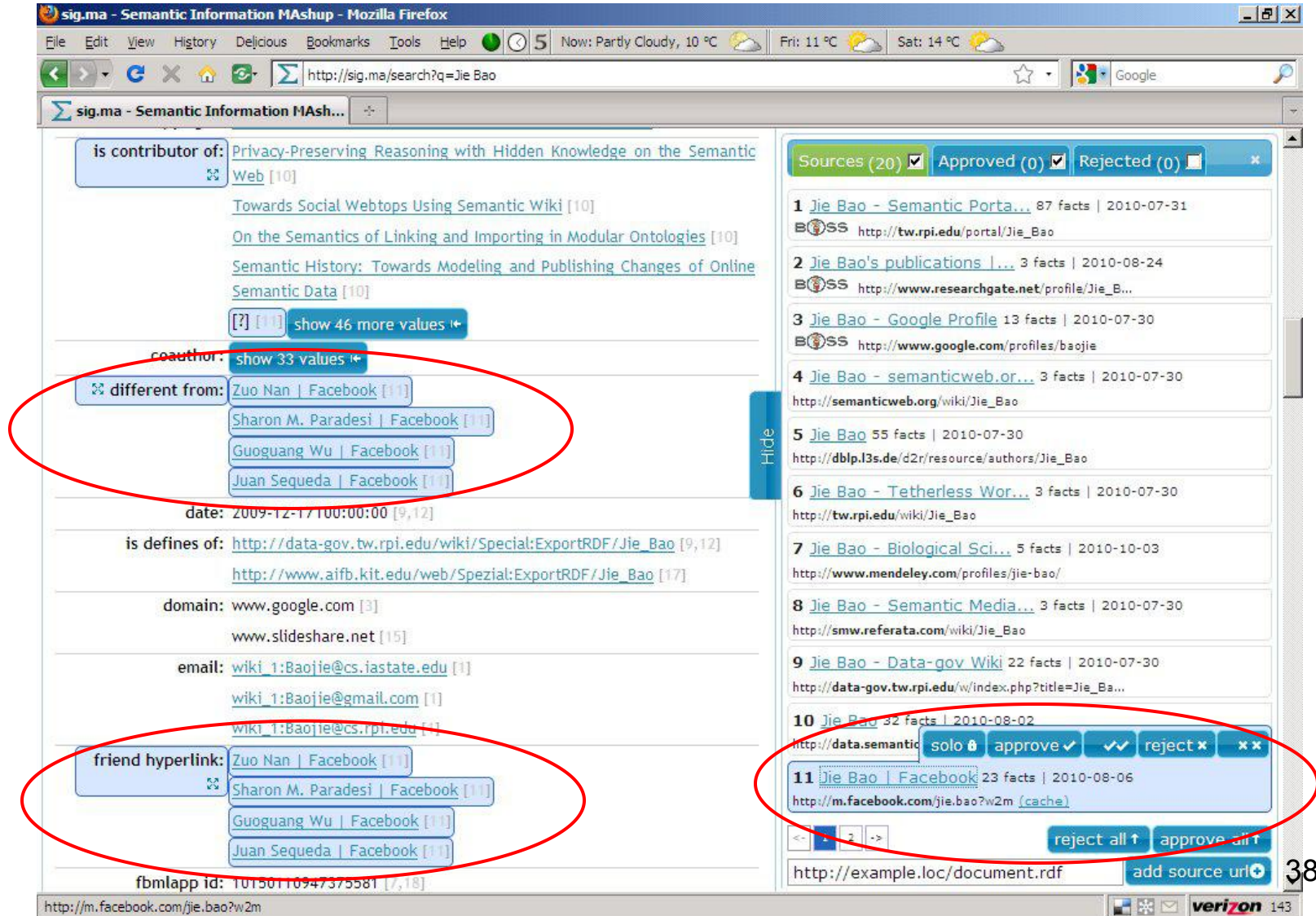
- 1 [Jie Bao - Semantic Porta...](#) 87 facts | 2010-07-31
BOSS http://tw.rpi.edu/portal/Jie_Bao
- 2 [Jie Bao's publications | ...](#) 3 facts | 2010-08-24
BOSS <http://www.solo>
- 3 [Jie Bao - Google Profile](#) 13 facts | 2010-07-30
BOSS <http://www.google.com/profiles/baojie> (cache)
- 4 [Jie Bao - semanticweb.or...](#) 3 facts | 2010-07-30
http://semanticweb.org/wiki/Jie_Bao
- 5 [Jie Bao](#) 55 facts | 2010-07-30
http://dblp.l3s.de/d2r/resource/authors/Jie_Bao
- 6 [Jie Bao - Tetherless Wor...](#) 3 facts | 2010-07-30
http://tw.rpi.edu/wiki/Jie_Bao
- 7 [Jie Bao - Biological Sci...](#) 5 facts | 2010-10-03
<http://www.mendeley.com/profiles/jie-bao/>
- 8 [Jie Bao - Semantic Media...](#) 3 facts | 2010-07-30
http://smw.referata.com/wiki/Jie_Bao
- 9 [Jie Bao - Data-gov Wiki](#) 22 facts | 2010-07-30
http://data-gov.tw.rpi.edu/w/index.php?title=Jie_Ba...
- 10 [Jie Bao](#) 32 facts | 2010-08-02
<http://data.semanticweb.org/person/jie-bao>
- 11 [Jie Bao | Facebook](#) 23 facts | 2010-08-06
<http://m.facebook.com/jie.bao?w2m>

< 2 >

http://www.google.com/profiles/baojie

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Sig.ma



sig.ma - Semantic Information Mashup - Mozilla Firefox

File Edit View History Delicious Bookmarks Tools Help Now: Partly Cloudy, 10 °C Fri: 11 °C Sat: 14 °C

http://sig.ma/search?q=Jie Bao

is contributor of: Privacy-Preserving Reasoning with Hidden Knowledge on the Semantic Web [10]
Towards Social Webtops Using Semantic Wiki [10]
On the Semantics of Linking and Importing in Modular Ontologies [10]
Semantic History: Towards Modeling and Publishing Changes of Online Semantic Data [10]
[?] [11] show 46 more values

coauthor: show 33 values

different from: Zuo Nan | Facebook [11]
Sharon M. Paradesi | Facebook [11]
Guoguang Wu | Facebook [11]
Juan Sequeda | Facebook [11]

date: 2009-12-17 100:00:00 [9,12]

is defines of: http://data.gov.tw.rpi.edu/wiki/Special:ExportRDF/Jie_Bao [9,12]
http://www.aifb.kit.edu/web/Spezial:ExportRDF/Jie_Bao [17]

domain: www.google.com [3]
www.slideshare.net [15]

email: wiki_1:Baojie@cs.iastate.edu [1]
wiki_1:Baojie@gmail.com [1]
wiki_1:Baojie@cs.rpi.edu [1]

friend hyperlink: Zuo Nan | Facebook [11]
Sharon M. Paradesi | Facebook [11]
Guoguang Wu | Facebook [11]
Juan Sequeda | Facebook [11]

fbmlapp id: 10150110947375581 [7,18]
http://m.facebook.com/jie.bao?w2m

Sources (20) Approved (0) Rejected (0)

- 1 Jie Bao - Semantic Porta... 87 facts | 2010-07-31
BOSS http://tw.rpi.edu/portal/Jie_Bao
- 2 Jie Bao's publications | ... 3 facts | 2010-08-24
BOSS http://www.researchgate.net/profile/Jie_B...
- 3 Jie Bao - Google Profile 13 facts | 2010-07-30
BOSS http://www.google.com/profiles/baojie
- 4 Jie Bao - semanticweb.or... 3 facts | 2010-07-30
http://semanticweb.org/wiki/Jie_Bao
- 5 Jie Bao 55 facts | 2010-07-30
http://dblp.l3s.de/d2r/resource/authors/Jie_Bao
- 6 Jie Bao - Tetherless Wor... 3 facts | 2010-07-30
http://tw.rpi.edu/wiki/Jie_Bao
- 7 Jie Bao - Biological Sci... 5 facts | 2010-10-03
http://www.mendeley.com/profiles/jie-bao/
- 8 Jie Bao - Semantic Media... 3 facts | 2010-07-30
http://smw.referata.com/wiki/Jie_Bao
- 9 Jie Bao - Data-gov Wiki 22 facts | 2010-07-30
http://data.gov.tw.rpi.edu/w/index.php?title=Jie_Ba...
- 10 Jie Bao 32 facts | 2010-08-02
http://data.semantic solo 8 approve ✓✓ reject ✕✕
- 11 Jie Bao | Facebook 23 facts | 2010-08-06
http://m.facebook.com/jie.bao?w2m (cache)

reject all ↑ approve all ↑
http://example.loc/document.rdf add source url

verizon 143

Data From Spreadsheet





navigation

- Main Page
- People
- Demos
- Videos
- Tutorials
- Pubs/Presentations
- Labs
- RSS Feeds
- Contact us

linked data catalog

- Data.gov catalog(all)
- Data.gov catalog(ogd)
- Non-Data.gov catalog

maintenance

- Vocabulary
- Recent changes
- Random Page

internal pages

- Internal
- Internal meetings

search

page

discussion

view form

view source

history

Log in

Dataset 10025

Metadata

- Title: White House visitor records
- Publisher: [White House](#)
- Description: As part of President Obama's commitment to government transparency, we are providing records of White House visitors on an ongoing basis online. In December 2009, we will begin posting all White House visitor records for the period from September 15th onwards under the terms of our new voluntary disclosure policy.
- Keywords:
- Homepage: <http://www.whitehouse.gov/briefing-room/disclosures/visitor-records>
- Source: <http://www.whitehouse.gov/files/disclosures/visitors/WhiteHouse-WAVES-Released-0310.csv>
- Parent Dataset:

RDF data

- number of triples: 6,121,294
- number of entries: 278,062
- RDF Raw Data: <http://data-gov.tw.rpi.edu/raw2/10025/data-10025.nt.gz>
- Linked Data Starting Point: http://data-gov.tw.rpi.edu/vocab/Dataset_10025
- SPARQL Endpoint:

Links

- Demos: [Demo: White House Visitation Patterns](#), [Demo: White House Visitor Search](#)

NOTES:

Dataset 10025 queries

Data From Spreadsheet

An Official Web Site of the United States Government Friday, October 22, 2010 Text: A+ A- A Share



DATA.GOV

EMPOWERING PEOPLE

HOME DATA TOOLS COMMUNITY METRICS DIALOGUE GALLERY WHAT'S NEW UPDATED


MEAT, POULTRY, AND EGG PRODUCT INSPECTION DIRECTORY

The Meat, Poultry and Egg Product Inspection Directory is a listing of establishments that produce meat, poultry, and/or egg products regulated by USDA's Food Safety and Inspection Service (FSIS) pursuant to the Federal Meat Inspection Act, the Poultry Products Inspection Act, and the Egg Products Inspection Act. The directory is updated monthly, and the current edition replaces all previous editions.

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Most Popular Datasets

1. Worldwide M1+ Earthquakes, Past 7 Days
2. U.S. Overseas Loans and Grants (Greenbook)
3. Food and Drug Administration--Recalls
4. Climate Reference Network Hourly o2 Product
5. RSS Feed for SW Atlantic and Caribbean Sea...

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APPS


COMMUNITY

Data.gov is leading the way in democratizing public sector data and driving innovation. The data is being surfaced from many locations making the Government data stores available to researchers to perform their own analysis. Developers are finding good uses for the

SEMANTIC WEB

As the Web of linked documents evolves to include the Web of linked data, we're working to maximize the potential of Semantic



6.46 billion RDF triples now.

Data From Relational DB

About: Alfreds Futterkiste - Mozilla Firefox

File Edit View History Delicious Bookmarks Tools Help 5 Now: Clear, 8 °C Fri: 11 °C Sat: 14 °C

http://demo.openlinksw.com/about/html/http/demo.openlinksw.com/Northwind/Customer/ALFKI

About: Alfreds Futterkiste

About: Alfreds Futterkiste

An Entity of Type : [Organization](#), from Data Source : <http://demo.openlinksw.com/Northwind/Customer/ALFKI>, within Data Space : demo.openlinksw.com

 **OPENLINK** SOFTWARE
Making Technology Work For You

Forward Links Backward Links

northwind:PostalCode	12209
northwind:address	Obere Str. 57
northwind:city	dbpedia:Berlin
northwind:companyName	Alfreds Futterkiste
northwind:contactName	Maria Anders
northwind:contactTitle	Sales Representative
northwind:country	http://demo.openlinksw.com/Northwind/Country/Germany#this
northwind:fax	fax:030-0076545
northwind:has_contact	http://demo.openlinksw.com/Northwind/CustomerContact/ALFKI#this
northwind:has_order	http://demo.openlinksw.com/Northwind/Order/10643#this http://demo.openlinksw.com/Northwind/Order/10692#this http://demo.openlinksw.com/Northwind/Order/10702#this http://demo.openlinksw.com/Northwind/Order/10835#this http://demo.openlinksw.com/Northwind/Order/10952#this »More»
northwind:phone	tel:030-0074321 
isDescribedUsing	http://demo.openlinksw.com/schemas/northwind#
type	foaf:Organization
	northwind:Customer
name	Alfreds Futterkiste
phone	tel:030-0074321 

Done

verizon 144

What Is This ?

知乎

知乎 搜索你感兴趣的内容... 首页 话题 发现 消息¹³

人工智能 围棋 AlphaGo 围棋软件 修改

如何看待在弈城围棋网和腾讯野狐围棋上出现的两大神秘 AI 高手

Master (P) 和 刑天 (P) ? 修改

悬赏令！首胜Master者，将获十万奖金！-腾讯围棋

《体坛周报》：神秘高手疯狂连胜 放倒柯洁陈耀烨等众高手

神秘高手就是阿法狗升级版，31连胜无人可敌，腾讯悬赏10万

神秘高手"Master"59连胜后自揭身份：我就是AlphaGo_国际新闻_南方网

Master(P)在弈城、野狐平台连胜中韩一线棋手三十多盘，未尝败绩。

刑天同样战胜多名一流高手，但也曾被古力、柯洁等人击败。

Master自称是代替AlphaGo落子的黄士杰博士。

已经出公告了，大师就是阿法狗！

... 显示全部

61 条评论 分享 邀请回答

举报

391 个回答

默认排序

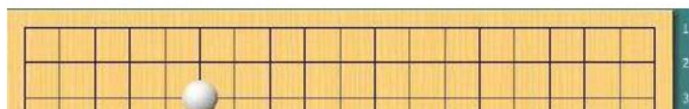
崔扬也, @罗明明 的仰慕者

7202

Naiyan Wang 等 7202 人赞同

说句题外话，今天再一次被某些媒体人不要脸的吃相恶心到了。

已经51胜的Master同陈耀烨九段（感谢@半目之殇的指正）的对局中，行至第7手后，由于陈耀烨掉线30秒内未落子，系统判定和棋。



知乎

```
460 </div>
461 </div>
462 </div>
463
464 <div tabindex="-1" class="zm-item-answer zm-item-expanded"
465
466 itemscope itemtype="http://schema.org/Answer"
467 data-aid="51093511"
468 data-atoken="138918900"
469 data-collapsed="0"
470 data-created="1483422120"
471 data-deleted="0"
472 data-helpful="1"
473 data-isowner="0"
474 data-copyable="1"
475
476 >
477 <link itemprop="url" href="/question/54258291/answer/138918900">
478 <meta itemprop="answer-id" content="51093511">
479 <meta itemprop="answer-url-token" content="138918900">
480 <a class="zg-anchor-hidden" name="answer-51093511"></a>
481
482
483 <div class="zm-votebar">
484 <button class="up ">
485 <i class="icon vote-arrow"></i>
486 <span class="count">587</span>
487 <span class="label sr-only">赞同</span>
488 </button>
489 <button class="down ">
```

Locu



MIT COMPUTER SCIENCE AND ARTIFICIAL INTELLIGENCE LABORATORY

SEARCH

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Home

FROM AN MIT CLASSROOM TO A MULTIMILLION DOLLAR ACQUISITION



NEWS + EVENTS

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- CSAIL Spotlights
- Events Calendar
- News In Exhibit
- Awards

<http://www.csail.mit.edu/node/2110>

从MIT课堂到被成功并购



Linked Data Product Development Lab > IAP 2010

Wow! What a week! And the winner is...

Thanks to all - instructors, coaches, organizers, and especially students - for an awesome first Linked Data Product Development Lab!

The winner is LocalFocus - Zach (UT), Gladis (MIT), and Francis (Phanal Media Group):



<http://dig.csail.mit.edu/2010/LinkedData/Overview.html>

Course Information

411

Registration

Calendar

Resources

People

Instructors

Coaches

Judges

Presenters

Students

Many Many More



2007 Gartner 预测

- By **2012**, **80%** of public Web sites will use **some level** of semantic hypertext to create SW documents [...] **15%** of public Web sites will use more **extensive** Semantic Web-based ontologies to create semantic databases
- By **2017**, we expect the vision of the Semantic Web [...] to coalesce [...] and the **majority of Web pages** are decorated with some form of semantic hypertext.

貌似已经做到了

我们学到了什么？

1. 设计，还是总结？

2. 面向Semantic，还是面向Web？

3. 面向方法，还是面向问题（并综合多种方法解决）？

4. 面向大问题，还是小问题？

5. 如何赢得人心和钱？

(All business is show business)

Web 50年展望

Web 1.0, by 2000, **Doc Web**

基本的书面文档的互联

Web 2.0, by 2010, **Social Web**

解决普通人产生在线文档的障碍，把人的现实生活映射到网上去，变成所谓的社交网络。其实本质并不是社交，而是社会。

Web 3.0, by 2020, **Data Web**

内容多到了人力不能处理的极限，必须用智能机器来辅助人力来实现文档的过滤(新闻推荐、社区管理)，查找(语义搜索)，动作代理和形成(个人助理)。

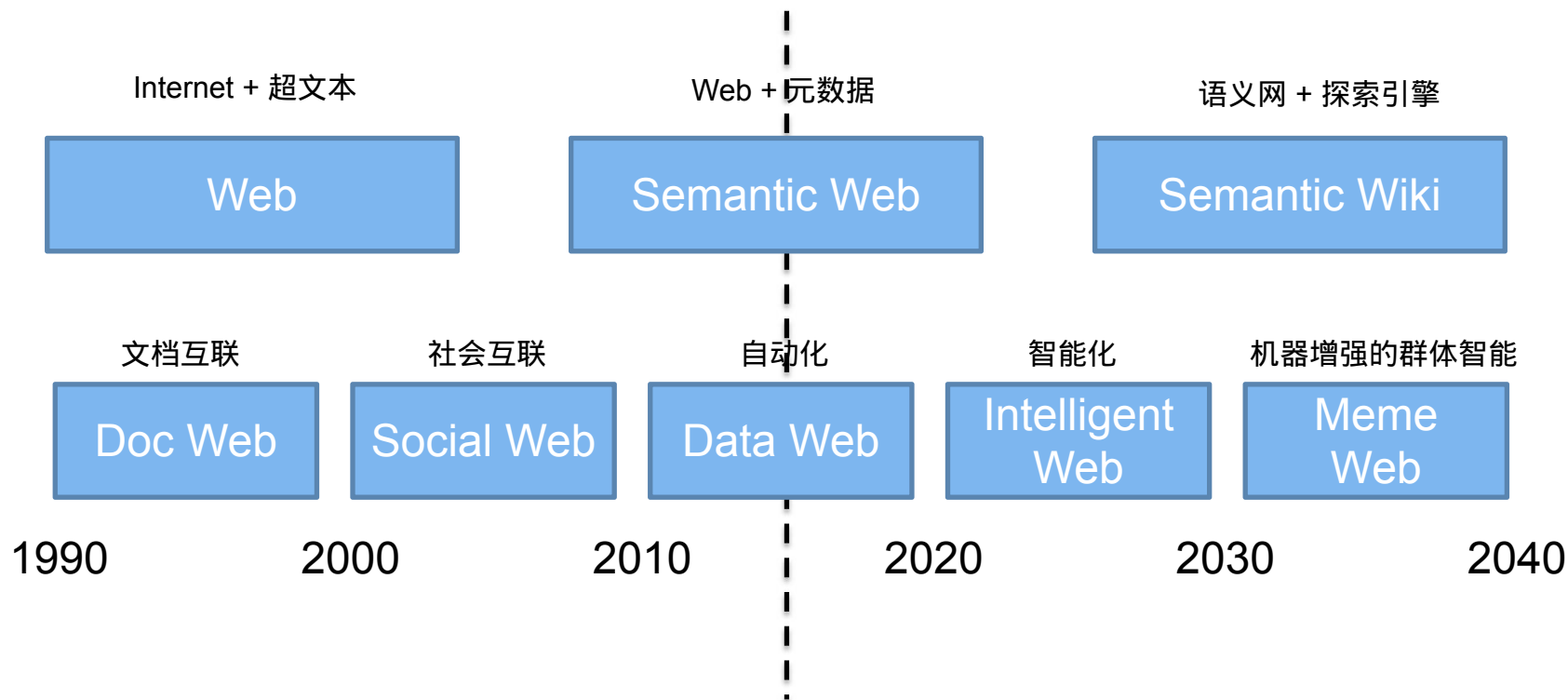
Web 4.0, by 2030, **Intelligent Web**

由自动化而达智能化，产生大量可重用的规则、策略、查询。

Web 5.0, by 2040, **Social Machine** (Meme Web)

互联世界每一个人的大脑，由机器增强的群体智能。或者说是web of minds。持久的记忆、互联人所承载的文化的碎片。

Web的上半场和下半场





个人微信 baojie_memect

文因互联
— 互联世界的记忆 —



联系邮箱 contact@memect.co

你是想下半辈子写广告程序，
还是加入我们，创造人类的神经系统？