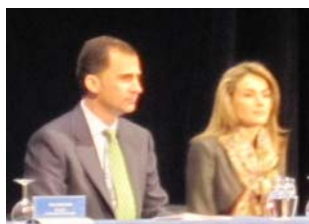


Top Conference Survey  
18th International World Wide Web  
Conference (WWW2009)

豊田正史  
東京大学生産技術研究所

WWW2009 (4/20-4/24, Madrid)

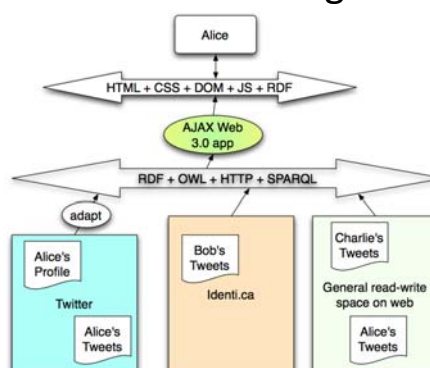
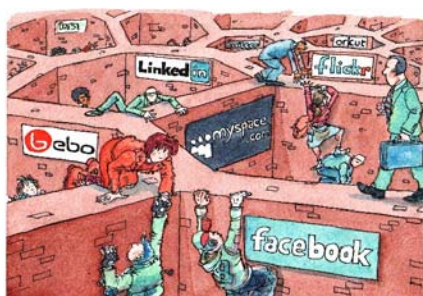
- Web関連の研究分野で世界最大の国際会議
  - 13リサーチトラック: 888件投稿, 104件採録(12%)
  - 14チュートリアル
  - 10ワークショップ: WICOW(田中先生), AIRWebなど
- 論文とプレゼンテーションはオンライン公開済
  - [www2009.eprints.org](http://www2009.eprints.org)



## Keynote: Sir Tim Berners-Lee Twenty Years (1/2)

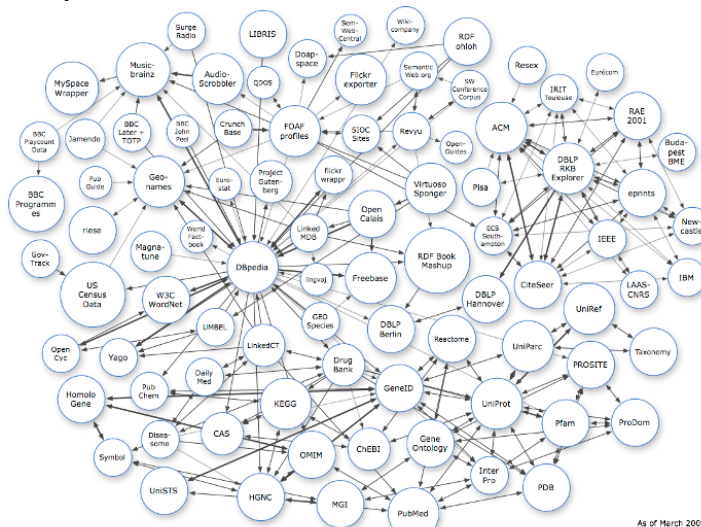


- Social Silo Problem → Open Social Networking



## Keynote: Sir Tim Berners-Lee Twenty Years (2/2)

- Linked Open Data movement



Keynote: Alfred Z. Spetcor (Google)  
The Continuing Metamorphosis  
of the Web (1/2)

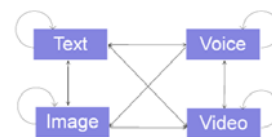


- **Totally Transparent Processing**
- Ideal Distributed Computing
- Hybrid, Not Artificial, Intelligence

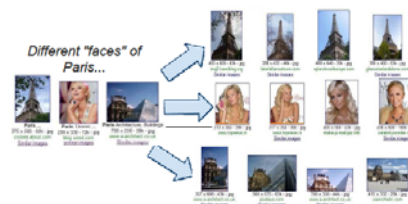
Keynote: Alfred Z. Spetcor (Google)  
The Continuing Metamorphosis of the Web (2/2)

- **Totally Transparent Processing**
  - Set of all **Devices, Languages, Modalities, Corpora**
  - Google Voice
    - query log, voice logによる大規模学習
  - Google Translate
    - 41ヶ国語
  - Cross-language search
  - YouTube Caption Translation
  - Similar Images in Image Search

Fluidity Among the Modalities

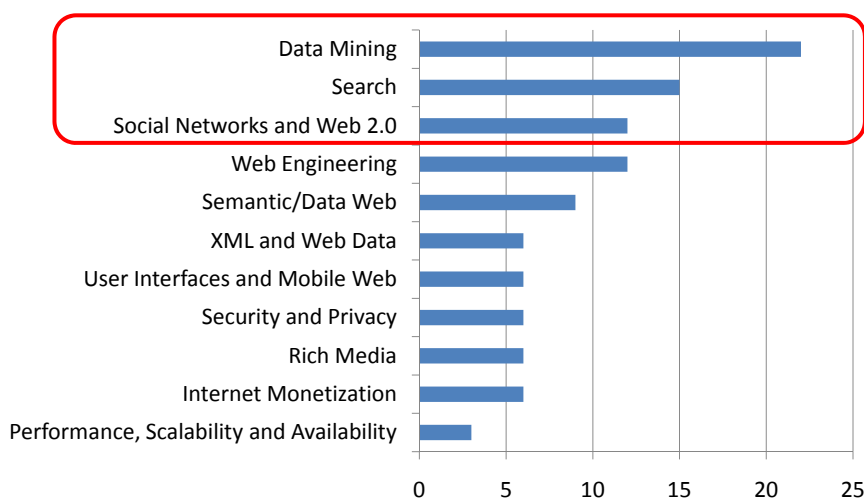


Refine by the content of a specific image.



## Research Tracks

- Data Miningの論文数が他を圧倒



## Data Mining Track (22 papers)



タイトル、アブストラクトより抽出

TagCrowd  
BETA

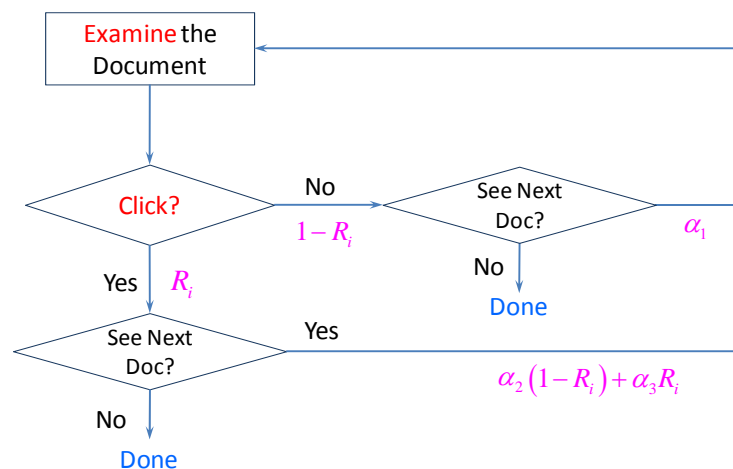
## Data Mining: 検索ログ関連論文

- **MSR** Guo, Fan and Liu, Chao and Kannan, Anitha and Minka, Tom and Taylor, Michael and Wang, Yi-Min and Faloutsos, Christos  
[Click Chain Model in Web Search.](#)
- **Yahoo! Lab** Chapelle, Olivier and Zhang, Ya  
[A Dynamic Bayesian Network Click Model for Web Search Ranking.](#)
- **MSR** Korolova, Aleksandra and Kenthapadi, Krishnaram and Mishra, Nina and Ntoulas, Alexandros  
[Releasing Search Queries and Clicks Privately. \(Best paper cand.\)](#)
- **Yahoo! Lab** Agarwal, Deepak and Chen, Bee-Chung and Elango, Pradheep  
[Spatio-Temporal Models for Estimating Click-through Rate.](#)
- **MSRA** Cao, Huanhuan and Jiang, Daxin and Pei, Jian and Chen, Enhong and Li, Hang  
[Towards Context-Aware Search by Learning a Very Large Variable Length Hidden Markov Model from Search Logs.](#)

**MSR** Guo, Fan and Liu, Chao and Kannan, Anitha et. al

### [Click Chain Model in Web Search.](#)

- 検索結果を見る際のユーザの挙動をモデル化し  
文書の user-perceived relevance を検索ログから推測



## Search Track (15 papers)

abstract accuracy ad advertising algorithms approach  
 caching city compression contextual cost data database  
 diversification document effectiveness efficient engines  
 evaluation geo indexes information intent keywords knowledge  
 method model number objectives pages paper performance  
 person problem processing propose  
 query quicklink relevant results ruralcafe  
 search several similar study system  
 techniques user web wikipedia

TagCrowd  
BETA

## Search Track: パフォーマンス系

- **Yahoo!** Chierichetti, Flavio and Kumar, Ravi and Raghavan, Prabhakar  
[Compressed Web Indexes.](#)
- **Yahoo!, NYU** Gan, Qingqing and Suel, Torsten  
[Improved Techniques for Result Caching in Web Search Engines.](#)
- **Yahoo!, NYU** Yan, Hao and Ding, Shuai and Suel, Torsten  
[Inverted Index Compression and Query Processing with Optimized Document Ordering.](#)
- **Yahoo!** Pandey, Sandeep and Broder, Andrei and Chierichetti, Flavio and Josifovski, Vanja and Kumar, Ravi and Vassilvitskii, Sergei  
[Nearest-Neighbor Caching for Content-Match Applications.](#)
- **Yahoo!, NYU** Ding, Shuai and He, Jinru and Yan, Hao and Suel, Torsten  
[Using Graphics Processors for High Performance IR Query Processing.](#)

Broder, Andrei and Ciccolo, Peter et. al  
**Online Expansion of Rare Queries for Sponsored Search.**

- 広告の出せないtail queryをhead queryにマップ



The screenshot shows a Yahoo! search interface. The search query is 'cabbage soup'. The results are divided into 'SPONSOR RESULTS' and organic search results. The sponsored results include 'Cabbage Soup Diet' from DietPillInstitute.com and 'Cabbage Diet' from Lose 20 Pounds in 30 Days. The organic results include 'Cabbage Soup Diet' from www.losinglovehandless.com, 'Cabbage Soup Diet' from www.elisasdietreview.com, '25 Pounds in 2 Week Weight Loss Shock!' from www.MemmysWeightLoss.com, 'The Cabbage Soup' from www.webmd.com/diet/tea, 'Cabbage Soup Diet' from www.cabbage-soup-diet.com, 'Smoked-Sausage, Cabbage, and Potato Soup Recipe | Food & Wine', 'Cabbage-and-White-Bean Soup with Prosciutto Recipe | Food & Wine', 'Savory Soup Recipes for Homecooks', 'Soup Recipes like Chicken Soup, Potato Soup or Cabbage Soup Recipes', and 'Cabbage & Dumpling Soup Recipe - YumYum.com'.

## Social Networks and Web 2.0 Track (12 papers)

abstract algorithms analysis approach based  
 chain characteristics collected communities  
 content data effects email evaluate experiments  
 features flickr folksonomy friends information items ida  
 learning measures methods mining models  
 network number online paper personalized  
 photos popular predict preferences profiles provide ratings  
 recommender relations reply significant site  
 social structure systems tags trust users

TagCrowd  
BETA

## Social Network: Frickr系

- **USC** Plangprasopchok, Anon and Lerman, Kristina  
[Constructing Folksonomies from User-Specified Relations on Flickr.](#)
- **Cornell** Crandall, David and Backstrom, Lars and Huttenlocher, Daniel and Kleinberg, Jon  
[Mapping the World's Photos. \(Best paper cand.\)](#)
- **MPI-SWS** Cha, Meeyoung and Mislove, Alan and Gummadi, Krishna P.  
[A Measurement-driven Analysis of Information Propagation in the Flickr Social Network.](#)
- **U. Sheffield** San Pedro, Jose and Siersdorfer, Stefan  
[Ranking and Classifying Attractiveness of Photos in Folksonomies.](#)

**Cornell** Crandall, David and Backstrom, Lars and Huttenlocher, Daniel and Kleinberg, Jon  
[Mapping the World's Photos. \(Best paper cand.\)](#)





