Diversity (in Media)

prof.dr.ir. Arjen P. de Vries

arjen@acm.org

Living Web 2009 (Invited Talk)

The First International Workshop on Living Web: Making Web Diversity a true asset; collocated with the 8th International Semantic Web Conference ISWC-2009

Supported by the FP7 FET European Project: Living Knowledge - Facts, Opinion and Bias in Time

CWI

How it started...

World Wide Web

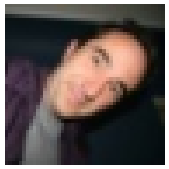
The WorldWideWeb (W3) is a wide-area hypermedia information retrieval initiative aiming to give universal access to a large universe of documents.

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.

CWI

How it looks today...



Peter Bailey Bing ships Bing Twitter aka Social Search - fantastic to see us shaking things up, being agile and shipping product, not press releases. Delighted my team - especially Krishna - could help out.

Bing
Source: www.bing.com

Yesterday at 04:48 · Comment · Unlike · Share

You and 4 others like this.

Arjen P. De Vries I like the document + evidence organisation of the interface! Almost like expert finding at TREC-ENT :-)

Yesterday at 08:26 · Delete

Write a comment...

Diversity

- **Diversity ⟸ Data Creator**

CWI

Jane Winans Maybe I'll become a vegetarian!

Jane just found out her Death's Fortune in **Mobsters 2**.

Date: December 21 of 2029 at 9:30 am.
Cause: Impaled by a meat hook

Yesterday at 15:40 via Mobsters 2: Vendetta · Comment · Like · **[Find out when you'll die!]**

RECENT ACTIVITY

Jane just completed the Provide Muscle for a Loan Shark mission in Mobsters 2! · Comment · Like · [Play Mobsters 2!]

Jane and Michele Purington are now friends. · Comment · Like

Jane and Laurie Cummins are now friends. · Comment · Like

Jane Winans Like the looks of these... hope they help

Jane sent a **Set of Glock 17 Pistols** to **Jane Smith** and **Justin LaRose** using **Mobsters 2: Vendetta Gifts**.

Yesterday at 06:17 via Mobsters 2: Vendetta Gifts · Comment · Like · Send Mobsters 2: Vendetta Gifts to me (Jane)

Jane Winans And miles to go before I sleep...

Yesterday at 04:56 · Comment · Like

View all 4 comments

Ian Carnathan Dec. 21
Yesterday at 20:46

Jane Winans I see. That explains a lot right there. lol
Yesterday at 21:17

Write a comment...

Jane Winans HA... that is cool! Love Calvin!

Jane completed the quiz "**What Calvin alter ego are you?** " with the result **Tracer Bullet**.

The detective created by Calvin's fantasy. With no friend but your gun, you're just way too cool..

Yesterday at 04:25 via Quiz Monster · Comment · Like · Take this quiz!

Green Turquoise likes this.

Write a comment...

CWI

Arjen P. De Vries Nice SIGIR paper from Jun, looking beyond the Probabilistic Ranking Principle.

> **Portfolio Theory of Information Retrieval**
> Source: web4.cs.ucl.ac.uk
> Portfolio effect of Document Ranking. As a general rule of thumb, when we present search results for a query, documents should ...

11 hours ago · Comment · Like · Share

Ingo Frommholz and Mark Sanderson like this.

Jun Wang I am very pleased your guys like the idea! I intend to increase the awareness of using variance and higher moments for IR modelling. hopefully more comes later
11 hours ago · Delete

Fernando Diaz Gordon, Michael D. and Lenk, Peter (1992): When Is the Probability Ranking Principle Suboptimal?. In JASIST - Journal of the American Society for Information Science and Technology, 43 (1) pp. 1-14.
11 hours ago · Delete

Jun Wang the "Suboptimal" paper has a fair argument on PRP and has been the starting point of my paper.
11 hours ago · Delete

Mark Sanderson There was also a keynote talk at SIGIR 1999 by an economist have you seen that? Looking back, one can see that talk was a call for diversity in ranking (most of us ignored that talk).
11 hours ago · Delete

Jun Wang A very good point. In fact, the early attack comes from Cooper himself, although diversity is not implicitly mentioned. see his student Stirling's PhD thesis dated 1977, "The Effect of Document Ranking on Retrieval System Performance: A Search for an Optimal Ranking Rule." http://www.eric.ed.gov/ERICWebPortal/custom/portlets/recordDetails/... Read more
11 hours ago · Delete

Mark Sanderson Also, didn't the Robertson PRP paper explore reasons why it might not hold? I think I've heard Steve say that he discussed such possibilities in the original paper.
11 hours ago · Delete

Jun Wang True, although the PRP was first mentioned and examined critically by Cooper in his unpublished technical report - Robertson did mention this in his PRP paper. Unfortunately, the technical report is not online - I just got a hard copy from Cooper recently. It is always interesting to look at the history of IR.
11 hours ago · Delete

Mark Sanderson Just to digress, it sounds to me as if the Cooper tech report should be added to the SIGIR digital library that Donna Harman is organizing.
11 hours ago · Delete

Jun Wang Let me ask Cooper first to get his content...
11 hours ago · Delete

Fernando Diaz Jun: You may want to cite this Lenk paper in particular (you don't) since large sections of your paper seem to be founded on it.
7 hours ago · Delete

Jun Wang Check the first sentence of related work section :-). it was not the same paper but same idea from the same authors. thanks anyway.
6 hours ago · Delete

CWI

Re: Living Web – CFP

- **Diversity underlying content creation process**

+

- **Success of Social Web applications**

=

- **Difficult to get a balanced view on a given subject using current search technology**

CWI

User-defined relevance criteria

- Many studies (from 1966 on) suggest relevance criteria beyond topicality
- Evaluation of relevance is closely tied to the requester's situation and goals
  - experience, cognitive state and perceptions
- Empirical study: Schamber 1991
  - How do users judge weather information services?
  - 811 mentions of different criteria, clustered into 10 criteria

CWI

Schamber 1991

- Accuracy
- Currency
- Specificity (detail, concreteness)
- Geographic proximity
- Reliability or reputation
- Accessibility
- Verifiability
- Clarity of presentation
- Dynamism (ability to interact)
- Affective response

CWI

Barry 1994

- Finds similar criteria “mentioned by users evaluating the information within documents as it related to the users' information need siuations”
- User factors like experience, background, knowledge level, beliefs, personal preferences
- Evaluations of individual documents take place within the larger context of the information environment

CWI

(continued: Barry 1994)

- The user's ability to judge the reputation of the author depends upon being presented with information about the author
- Explore possible connections among relevance criteria and specific portions of document representations

User-defined relevance criteria *in web search*

- Savolainen and Kari, 2006
  - Predictive judgement (on link)
    - Accepting: specificity, topicality and familiarity
    - Rejecting: insufficient accessibility and lack of specificity
  - Evaluative judgement (on page)
    - Accepting: specificity and topicality
    - Rejecting: lack of specificity, insufficient accessibility

User-defined relevance criteria

in image/video search

- Choi and Rasmussen, 2001
  - Topicality
  - Time frame
  - Accuracy
- Yang and Marchionini, 2004
  - Topicality
  - Genre
  - Duration
  - Cinematography
  - Motion

CWI

Re: Living Web – CFP

- ~ user-defined relevance criteria
- However... taking success into account:
  - Technology that more systematically looks into diversity, helps identifying bias and different viewpoints
- Naïve users could accept only results from their own biased view – may make them happy, but not us!
  - A paternalistic retrieval system?!
  - Is Living Web technology usable?!

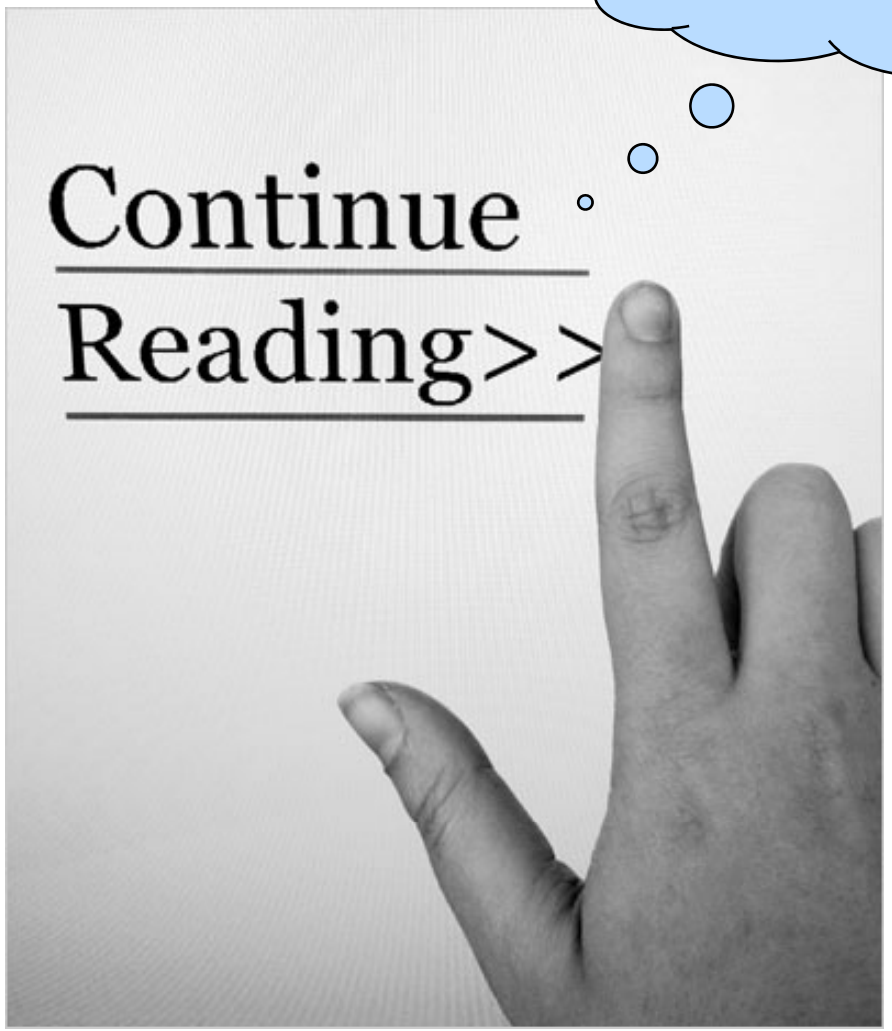
CWI

Diversity

- Diversity ⟸ Data Creator
- Diversity ⟸ Data Consumer

- Social Media:
  - Consumer becomes a co-creator
  - Data 'consumption' traces

CWI



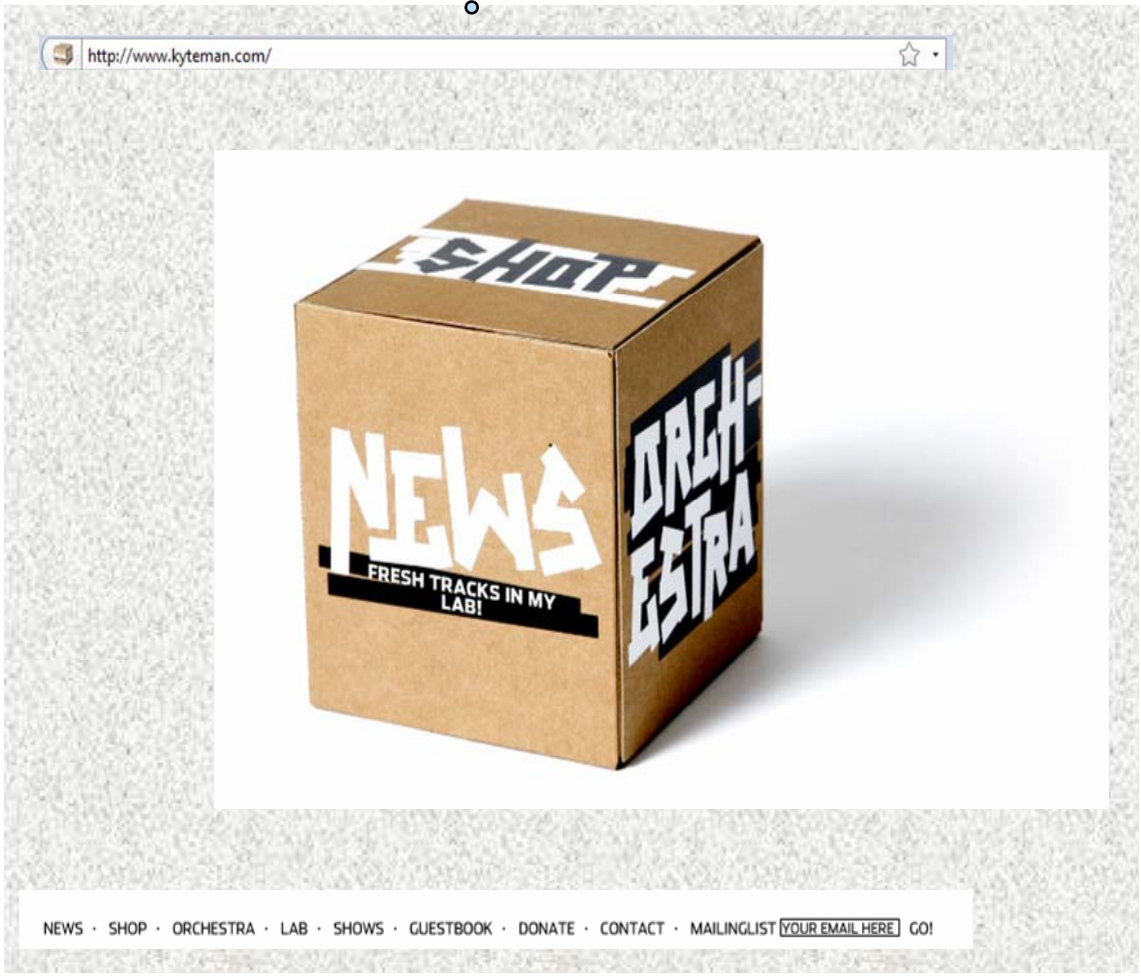
Anchor tekst:
“continue reading”

(C) 2008, The New York Times Company

A fan's hyves page:
Kyteman's HipHop Orchestra:
www.kyteman.com

Not much text to get you here...

Blog Rockin' Beats:
The 21-year-old Kyteman (trumpet player, composer and Producer Colin Benders), has worked for 3 years on his debute:
the Hermit sessions.



Kluun.nl:
De site van Kyteman

Jazzenzo:
... a performance by the popular Kyteman's Hiphop Orkest

Ticket Sales Luxor theatre:
May 22nd - Kyteman's hiphop Orchestra - www.kyteman.com

CWI

CWI

Diversity

- **Social Media:**
  - **Consumer becomes a co-creator**
  - **Data 'consumption' traces**
- **In essence: many new sources to play the role of anchor text!**

CWI

#w2s?

Marc Davis TIm Berners-Lee basically said AOL is to WWW as Facebook is to interoperable social graphs #w2s.

8 hours ago · Comment · Like

4 people like this.

Write a comment...

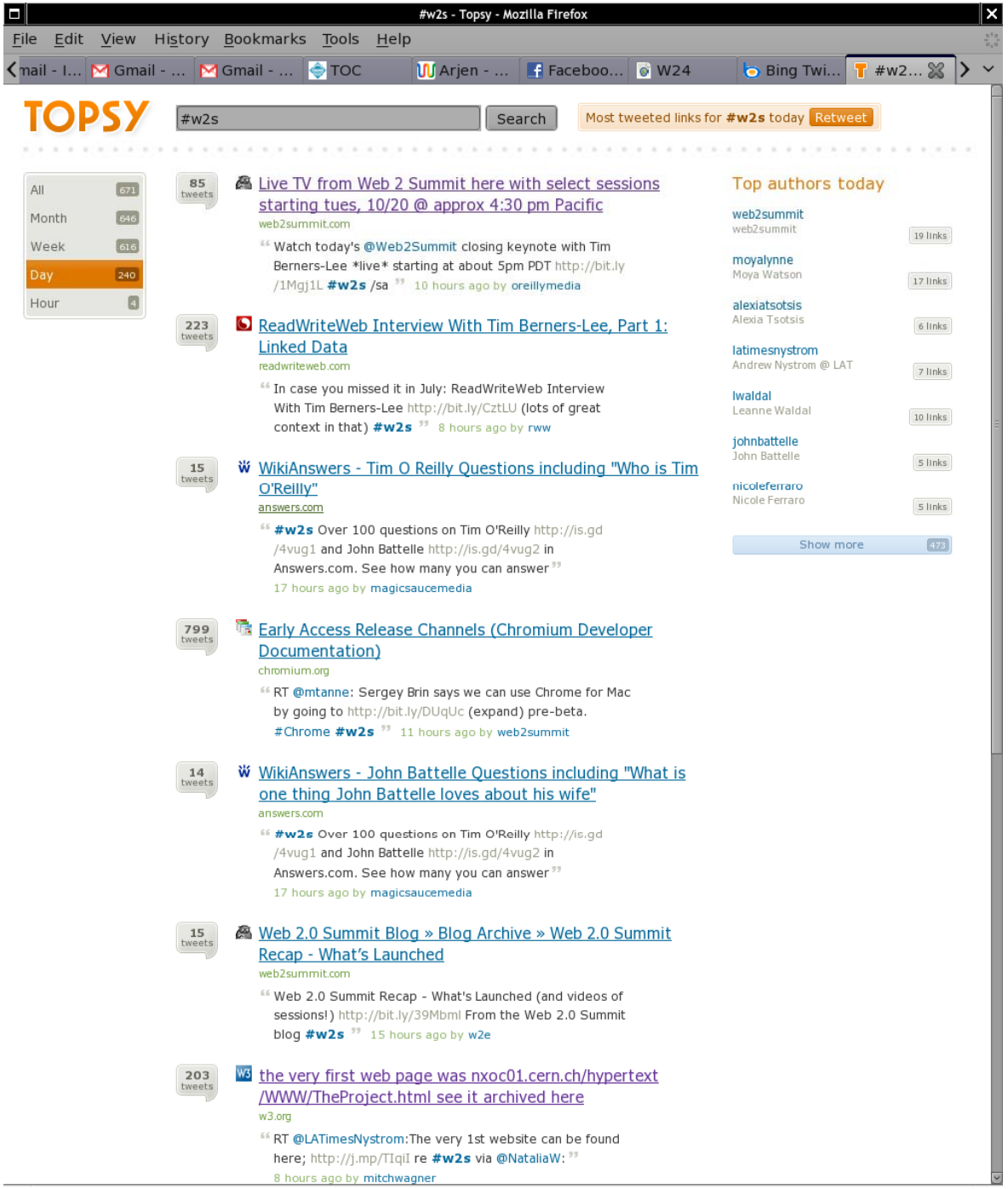
Marc Davis Tim Berners-Lee talking about how the WWW was originally focused on enabling collaboration and shared linking and annotation #w2s.

8 hours ago · Comment · Like

CWI

Bing Twitter - Mozilla Firefox
File Edit View History Bookmarks Tools Help
Gmail - I... Gmail - ... Gmail - ... TOC Arjen - ... Faceboo... W24 Bing... #w2s
Web Images Videos Shopping News Maps More | MSN | Hotmail Sign in | United States | Preferences
bing
#w2s
ALL RESULTS
TWITTER BETA
Most recent Tweets about #w2s »
Pause
yago1: "Only 20-25% of humanity actually uses the Web at all." Tim Berners-Lee #w2s (via RT @rww) · 17 minutes ago
plord: RT @rww: RT @benphoster Time Berners-Lee HTML 5 is something to be excited for... will cause web pages to turn into widgets #w2s · 17 minutes ago
lsdelahoz: RT @austinhill: "Collecting data is less important than connecting people"- Sean Parker #w2s (via @jhagel) · 37 minutes ago
ChristophP: RT @johnbattelle: Loved Danny's breakdown of the journo panel, which was a total highlight of #w2s http://bit.ly/2VcyBR (daggle.com) · 38 minutes ago
See more Tweets about #w2s
Top links shared in Tweets about #w2s
ReadWriteWeb Interview With Tim Berners-Lee, Part 1: Linked Data
readwriteweb.com/archives/interview_with_tim_berners-lee_part_1.php
paulgeraghty: #TimBL "I don't see why SPARQL servers shouldn't provide CSV files" http://is.gd/4x9TX (readwriteweb.com) vi @RWW #lod #localgovweb #opendata · 14 minutes ago
rww: In case you missed it in July: ReadWriteWeb Interview With Tim Berners-Lee http://bit.ly/CztLU (readwriteweb.com) (lots of great context in that) #w2s · 8 hours ago
See more Tweets about readwriteweb.com/archives/interview_with_tim_berners-lee_par...
Brian Ahier - Health IT & Healthcare Reform: Web 2.0 Summit: Marissa Ma...
ahier.blogspot.com/2009/10/web-20-summit-marissa-mayer.html
ehealthgr: RT @laikas Watch Marissa Mayer at the Web 2.0 Summit announce Google/Twitter deal & Google Social Search http://bit.ly/U0rCK (blogspot.com) by @ahier · 1 hour ago
andrewspong: This creeps me out, for some reason RT @ahier : M. Mayer at the Web 2.0 announcing Google/Twitter deal http://bit.ly/U0rCK (blogspot.com) (via @Zorg20) · 1 hour ago
See more Tweets about ahier.blogspot.com/2009/10/web-20-summit-marissa-mayer.html
WikiAnswers - Tim O Reilly Questions including "Who is Tim O'Reilly"
wiki.answers.com/Q/FAQ/7083
Hagoleshet: Which questions on @Answersdotcom can you answer about @timoreilly http://om.ly/QOBo (answers.com) & @johnbattelle http://om.ly/QOBp #w2s · 1 hour ago

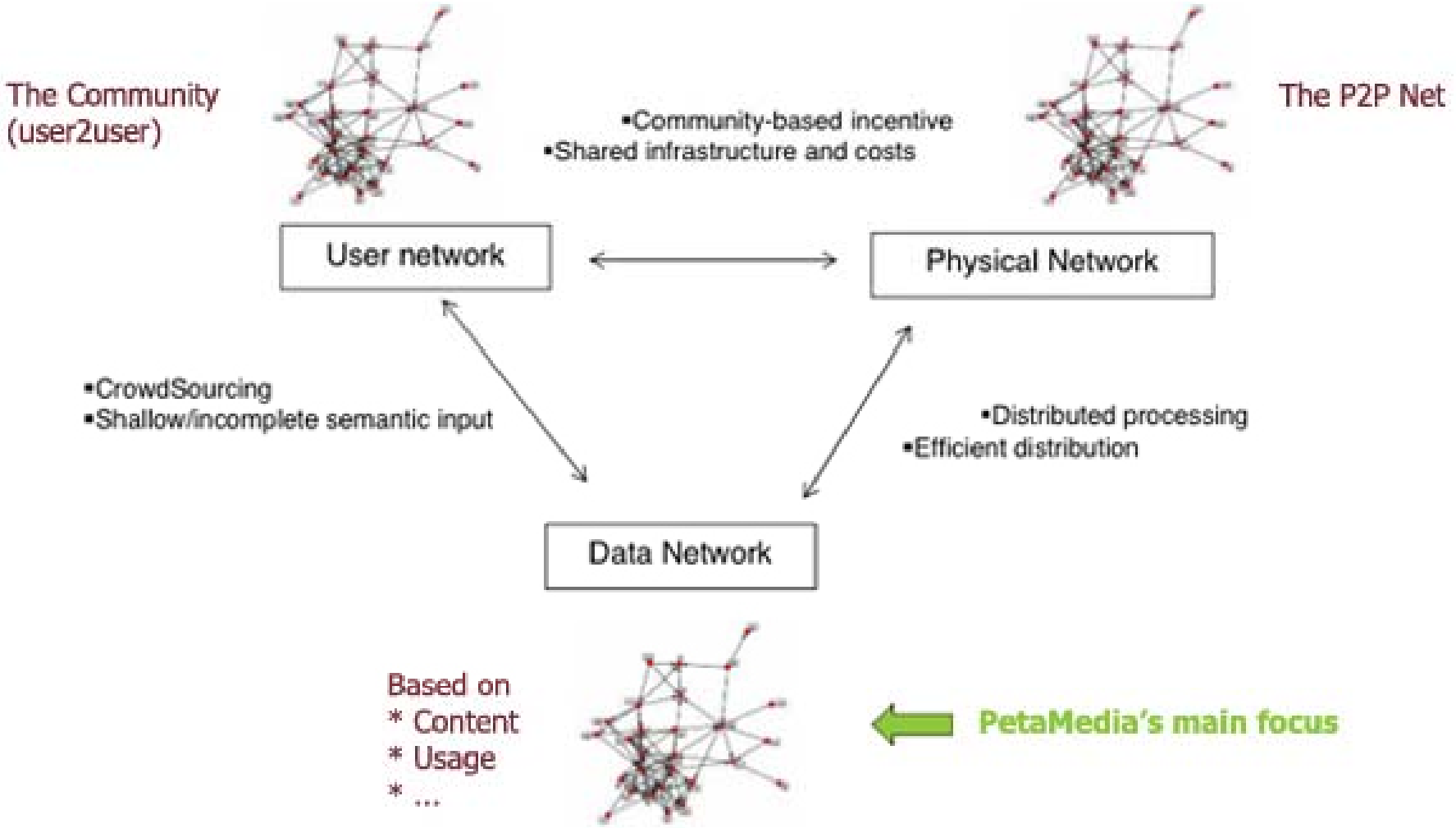
CWI


#w2s - Topsy - Mozilla Firefox
File Edit View History Bookmarks Tools Help
TOPSY
#w2s
Search
Most tweeted links for #w2s today Retweet
All 671
Month 646
Week 616
Day 240
Hour 4
85 tweets
Live TV from Web 2 Summit here with select sessions starting tues, 10/20 @ approx 4:30 pm Pacific
web2summit.com
Watch today's @Web2Summit closing keynote with Tim Berners-Lee *live* starting at about 5pm PDT http://bit.ly/1Mgj1L #w2s /sa 10 hours ago by oreillymedia
223 tweets
ReadWriteWeb Interview With Tim Berners-Lee, Part 1: Linked Data
readwriteweb.com
In case you missed it in July: ReadWriteWeb Interview With Tim Berners-Lee http://bit.ly/CztLU (lots of great context in that) #w2s 8 hours ago by rww
15 tweets
WikiAnswers - Tim O Reilly Questions including "Who is Tim O'Reilly"
answers.com
#w2s Over 100 questions on Tim O'Reilly http://is.gd/4vug1 and John Battelle http://is.gd/4vug2 in Answers.com. See how many you can answer 17 hours ago by magicsaucemedia
799 tweets
Early Access Release Channels (Chromium Developer Documentation)
chromium.org
RT @mtanne: Sergey Brin says we can use Chrome for Mac by going to http://bit.ly/DUqUc (expand) pre-beta. #Chrome #w2s 11 hours ago by web2summit
14 tweets
WikiAnswers - John Battelle Questions including "What is one thing John Battelle loves about his wife"
answers.com
#w2s Over 100 questions on Tim O'Reilly http://is.gd/4vug1 and John Battelle http://is.gd/4vug2 in Answers.com. See how many you can answer 17 hours ago by magicsaucemedia
15 tweets
Web 2.0 Summit Blog » Blog Archive » Web 2.0 Summit Recap - What's Launched
web2summit.com
Web 2.0 Summit Recap - What's Launched (and videos of sessions!) http://bit.ly/39Mbml From the Web 2.0 Summit blog #w2s 15 hours ago by w2e
203 tweets
the very first web page was nxoc01.cern.ch/hypertext /WWW/TheProject.html see it archived here
w3.org
RT @LATimesNystrom:The very 1st website can be found here; http://j.mp/TIqiI re #w2s via @NataliaW: 8 hours ago by mitchwagner
Top authors today
web2summit
web2summit
19 links
moyalynne
Moya Watson
17 links
alexiatsotsis
Alexia Tsotsis
6 links
latimesnystrom
Andrew Nystrom @ LAT
7 links
lwaldal
Leanne Waldal
10 links
johnbattelle
John Battelle
5 links
nicoleferraro
Nicole Ferraro
5 links
Show more 473

CWI

#w2s!

PetaMedia NoE



Social Video Dataset

- **Develop a common data-set that is large enough to allow meaningful research, and contains video content *as well as* explicit information generated by a social network of sufficient density**
- **irp5petamedia.pbworks.com**

Requirements

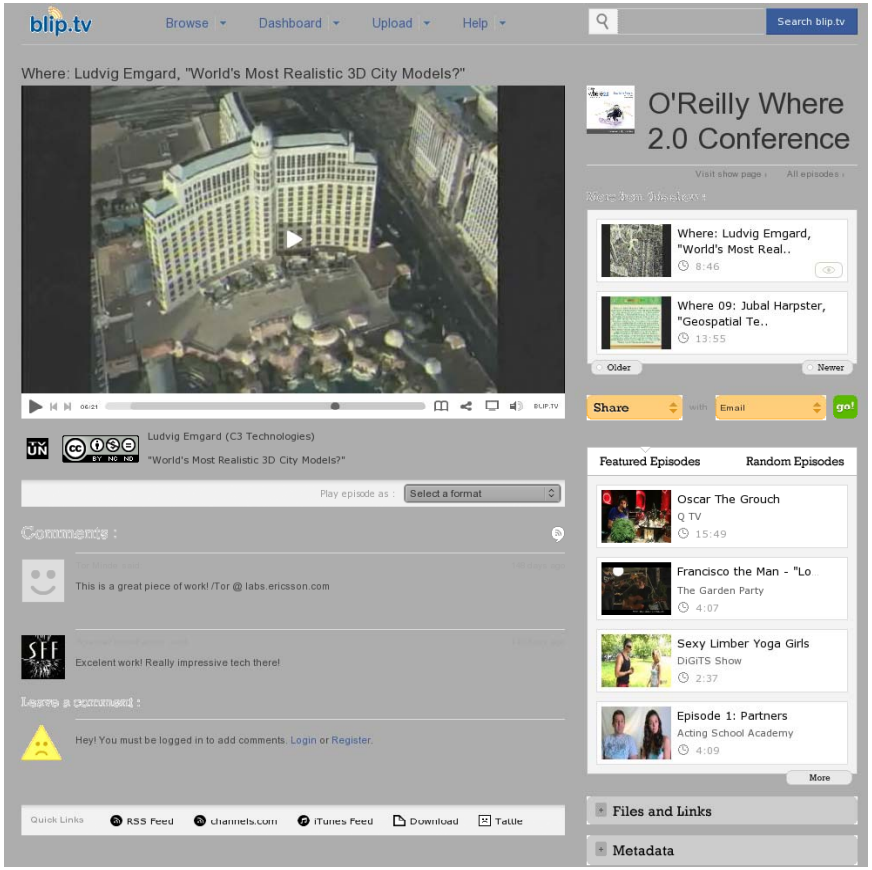
- **Availability of video data**

  Creative Commons (CC) licenced data only

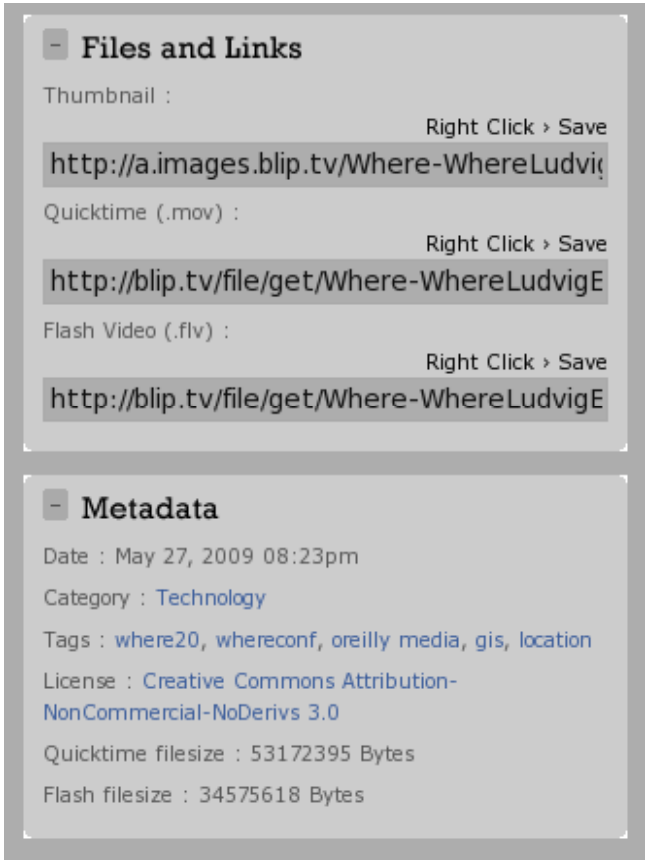
- **Availability of social data**

  Users creating the data should be organized in a social network, and provide feedback about their preferences in relation to the data (comments, ratings, ...)

Blip.tv (25-60% CC)



Metadata / annotations (but... insufficient)



Files and Links

Thumbnail :

Right Click › Save

http://a.images.blip.tv/Where-WhereLudvi(

Quicktime (.mov) :

Right Click › Save

http://blip.tv/file/get/Where-WhereLudvigE

Flash Video (.flv) :

Right Click › Save

http://blip.tv/file/get/Where-WhereLudvigE

Metadata

Date : May 27, 2009 08:23pm

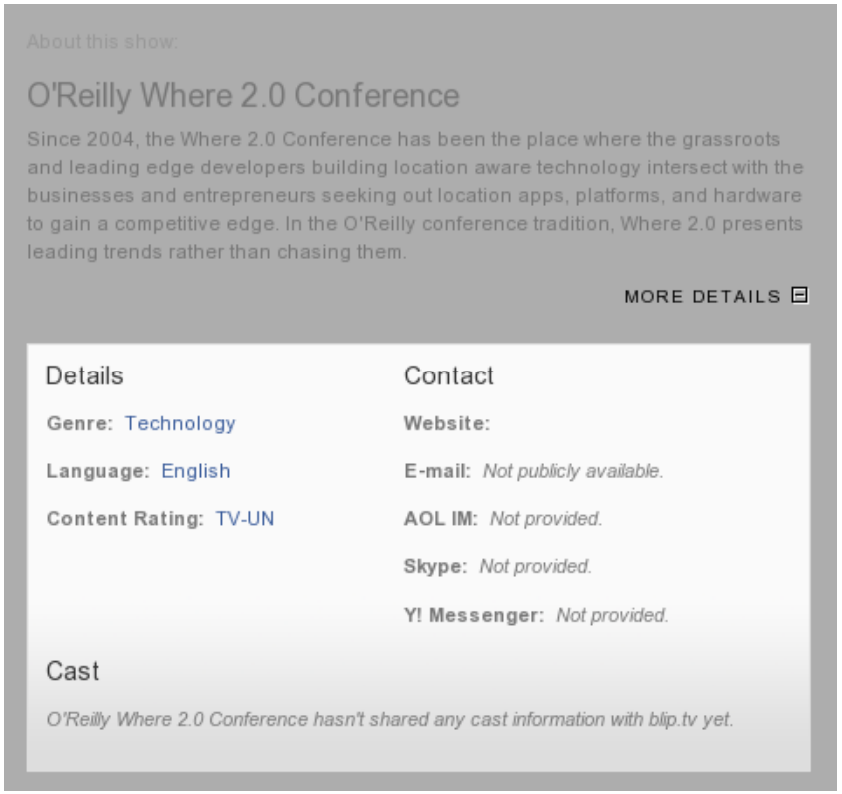
Category : Technology

Tags : where20, whereconf, oreilly media, gis, location

License : Creative Commons Attribution-NonCommercial-NoDerivs 3.0

Quicktime filesize : 53172395 Bytes

Flash filesize : 34575618 Bytes



About this show:

O'Reilly Where 2.0 Conference

Since 2004, the Where 2.0 Conference has been the place where the grassroots and leading edge developers building location aware technology intersect with the businesses and entrepreneurs seeking out location apps, platforms, and hardware to gain a competitive edge. In the O'Reilly conference tradition, Where 2.0 presents leading trends rather than chasing them.

MORE DETAILS

Details

Genre: Technology

Language: English

Content Rating: TV-UN

Contact

Website:

E-mail: *Not publicly available.*

AOL IM: *Not provided.*

Skype: *Not provided.*

Y! Messenger: *Not provided.*

Cast

O'Reilly Where 2.0 Conference hasn't shared any cast information with blip.tv yet.

Extend metadata/annotations

1) Join Blip.tv with Del.icio.us and Twitter
2) Crawl links to videos and social networks of users creating those links

   Up to 4 levels of social network, only 2 levels of metadata (bookmarks/posts/profiles)

Social metadata/annotations

- 14K distinct links to blip.tv (from 22K bookmarks) in TU-Berlin DAI Labor del.icio.us collection (2003-2007)
- 27K links to blip.tv in Topsy

‘Guess the blip!’

Lawrence Lessig, on Palin's inexperience - http://blip.tv/file/1287551 a twelve minute, v
Probably old to most, but it was new to me. Lessig on Palin: http://blip.tv/file/1287551
Lawrence Lessig on Palin's experience: http://blip.tv/file/1287551
retweeting @kplawver: Lessig's take on Palin's Experience: http://blip.tv/file/1287551â€
Wow. Lessig methodically tears it up: http://blip.tv/file/1287551
Retweet @Torrie: This is amazing. Everyone should watch it. http://blip.tv/file/1287551
This is amazing. Everyone should watch it. http://blip.tv/file/1287551
Food for thought: An interesting piece called "Sarah Palin's Experience in Just 12 Minute
Wow, go Lessig. http://blip.tv/file/1287551
Holy cow. Side by side comparison of Palin's experience vs. all VPs. Worth every second
palin's experience in just 12 minutes. http://blip.tv/file/1287551
Link: Palin\'s experience in just 12 minutes http://tinyurl.com/3j3e2w This presentation
12 min history lesson on Vice Presidential experiences: http://blip.tv/file/1287551 very
Is Sarah Palin experienced enough to be Vice President? splendid analysis here: http://
todo mundo fala sobre os keynotes do SJ. Mas pra mim o rei do keynote Ã© o larry less
Palin's [lack of] experience sumarised in 12 mins: http://blip.tv/file/1287551
Sarah Palin's experience in 12 min, incredible presentation by Lessig: http://blip.tv/file/
Excellent video by Lessig http://blip.tv/file/1287551 on the experience of Palin compare
Lessig compares Palin's experience to all other VPs: http://blip.tv/file/1287551 (via @x
Watching Lawrence Lessig's 'Palin's experience in just 12 minutes' http://tinyurl.com/3j
how did this video not make the fp of Digg or Reddit? http://blip.tv/file/1287551
A well made case against Gov. Palin - http://blip.tv/file/1287551

Tweets about blip.tv

- E.g.: http://blip.tv/file/2168377
  - Amazing
  - Watching “World’s most realistic 3D city models?”
  - Google Earth/Maps killer
  - Ludvig Emgard shows how maps/satellite pics on web is done (learn Google and MS!)
    - and ~120 more Tweets

CWI

peta media

Diversity surfaces

- Fermented garlic? Interesting! (via @ChefMark) Chef Mark's Quick Bites: Black Garlic http://blip.tv/file/2313261
- @ChefMark Love learning new stuff from Culinary Media Network. Good stuff from recent show http://blip.tv/file/2297478 yummmm
- why would anyone want to stop you from voting? http://blip.tv/file/1401303
- great video about making your vote count (music by DJ Spooky): http://blip.tv/file/1401303
- Want to see Brussels at Christmas watch this video http://shadowandjames.blip.tv/file/1656052/

CWI

ANTOINE
DE SAINT
EXUPÉRY
The
Works
of
Stevenson
THE
HARVARD

That same metadata proves useful as training data for multimedia content analysis!

Theodora Tsikrika, Christos Diou, Arjen P. de Vries, and Anastasios Delopoulos. **Image annotation using clickthrough data.** CIVR, 2009.

‘Police Sting’
Sting performs with The Police

‘Elton Diana’
Sting attends Versace memorial service

‘Led Zeppelin’
Sting performs at Led Zeppelin concert

CWI

Diversity from User Logs

- Image Search Clickthrough Data
  - Many query variations
  - Reliable (multiple studies, including our own; even over 80% in some cases)
- Method:
  - Present different query variants' clicked images in clustered view
  - Merge different query variants' clicked images in a round robin fashion into one list (CLEF)

ImageCLEF 'Olympics'

Olympic games

Olympic torch

Olympic village

Olympic rings

Olympic flag

Olympic Belgium

Olympic stadium

Other

CWI

VITALAS

Query : olympic Results per page: 25 Search

results 1-25 of 1000

1930479

2071681

7011251

2087556

7011263

1907118

1401626

2081112

2080232

2143034

3878624

2089966

3975533

1900060

2390604

CWI

VITALAS

Query : olympics Query clusters per page: 10 Search

query clusters 1-10 of 299

china

58 of the retrieved images for "olympics" have been previously clicked for "china" View all

7200860

7200769

7200799

7200843

7200732

olympic countdown

30 of the retrieved images for "olympics" have been previously clicked for "olympic countdown" View all

7180331

7180334

7180335

7198475

7198488

china olympics

31 of the retrieved images for "olympics" have been previously clicked for "china olympics" View all

7056838

7193940

7011263

6796121

6796242

CWI

VITALAS

Query : olympic Concept clusters per page: 10 Search

concept clusters 1-10 of 50

78 of the retrieved images for "olympic" are annotated with concept "sky" View all

7200833 7200823 7200834 7200830 7200795

64 of the retrieved images for "olympic" are annotated with concept "boat" View all

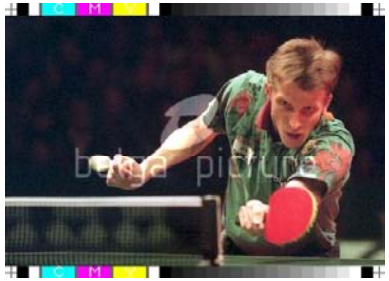
1994248 1994268 1024315 2073245 2118629

39 of the retrieved images for "olympic" are annotated with concept "flag" View all

3975784 2069790 2141592 2080718 1928919

CWI

ImageCLEF 'Tennis'



CWI

VITALAS

Query : tennis Results per page: 25 Search

results 1-25 of 1000

2933355

1273719

3419990

3319913

7296492

7296391

7296380

7295664

7295576

4782345

2940071

7295699

7296396

2940073

158695

CWI

VITALAS

Query : tennis Query clusters per page: 10 Search

query clusters 1-10 of 138

us open

128 of the retrieved images for "tennis" have been previously clicked for "us open" View all

7397052

7396836

7290553

7290556

7295699

clijsters

19 of the retrieved images for "tennis" have been previously clicked for "clijsters" View all

7507806

7507805

7507780

7507625

7507675

henin

29 of the retrieved images for "tennis" have been previously clicked for "henin" View all

7336889

7025191

6991087

7336888

7336891

CWI

VITALAS

Query : tennis Concept clusters per page: 10 Search

concept clusters 1-10 of 28

173 of the retrieved images for "tennis" are annotated with concept "tennis" View all

7351897 7351891 3328059 7347796 1365614

70 of the retrieved images for "tennis" are annotated with concept "sports" View all

7322405 7338040 7322421 7552972 7322403

42 of the retrieved images for "tennis" are annotated with concept "entertainment" View all

1362741 7466683 7413037 7413043 7413035

CWI

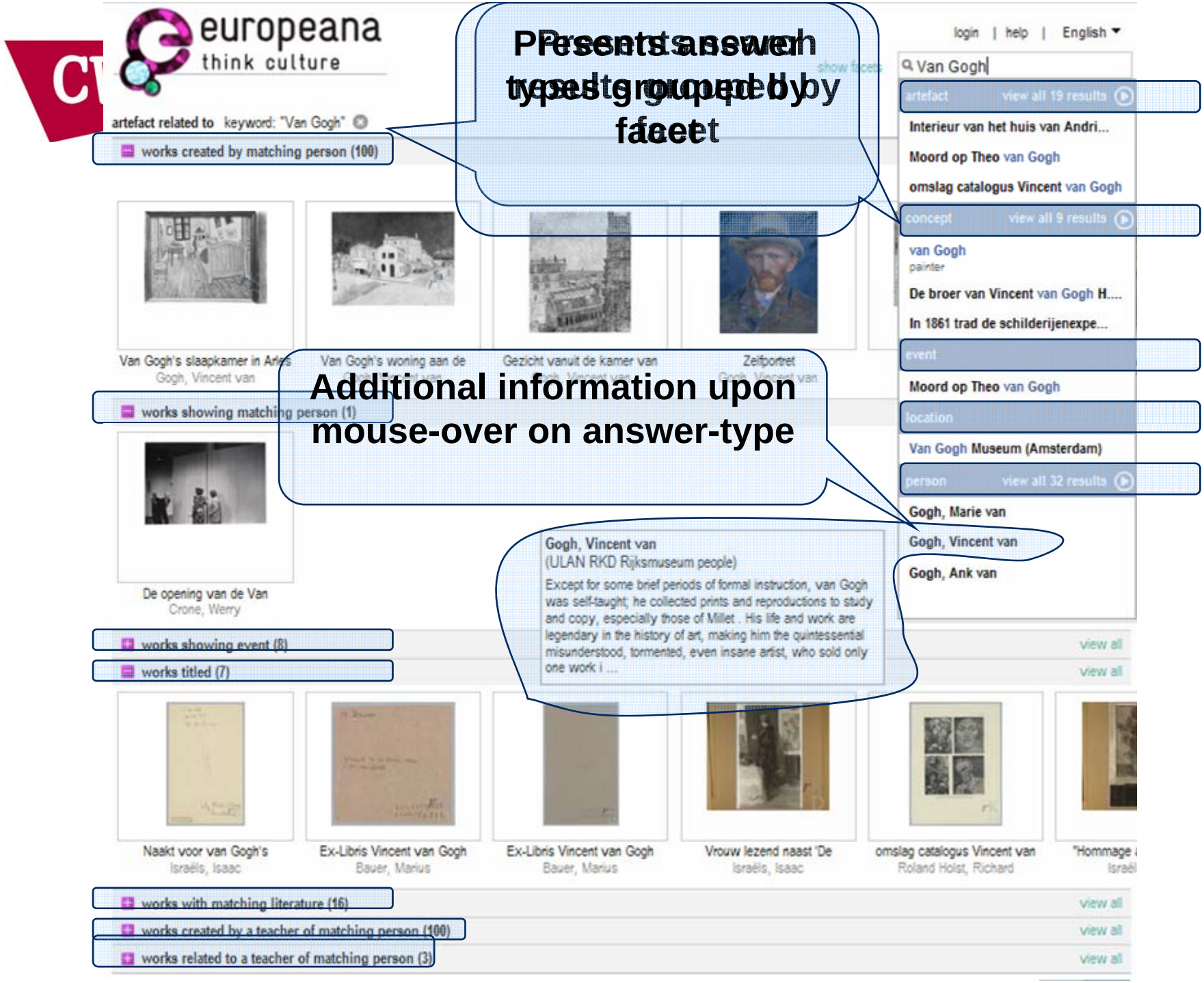
ImageCLEF Findings

- Many queries (>20%) without clicked images
  - Corpus and available logs originated from different time frame
- Best results combine text search in metadata with image click data for topic title and each of the cluster titles
- Using query variants derived from the logs increases recall with 50-100%
  - However, also topic drift; reduced early precision

CWI

More diversity?

- Preliminary results:
  - Map queries into linked data cloud, find 'abstract' patterns, and re-use those for query suggestion, e.g.:
    - A and B play-soccer-in-team X
    - A is-spouse-of B
- Right mix of statistics and semantics?



Presents answer types grouped by facet

Additional information upon mouse-over on answer-type

CWI

Case for Uniformity?

- **Vox Populi**
  - Stefano Bocconi, Frank Nack, and Lynda Hardman. Vox populi: a tool for automatically generating video documentaries, ACM Hypertext and Hypermedia, 2005
- **Vox Populi generates video documentaries based on interviews about controversial topics**
- **User selects topic and a point of view**

CWI

Views on the war in Afghanistan?

I am not a fan of military actions

I cannot think of a more effective solution

War has never solved anything

Two billions dollar bombs on tents

Rhetoric Theory (Toulmin)

Two billions dollar bombs on tents

Claim

contradict

Claim

I cannot think of a more effective solution

weaken

Concession

I am not a fan of military actions

support

Claim

War has never solved anything

Children as Users

- **Leave out extreme views?**
  - **_Especially_ for adolescents?**

Age vs. Reading Level

CWI

Summary

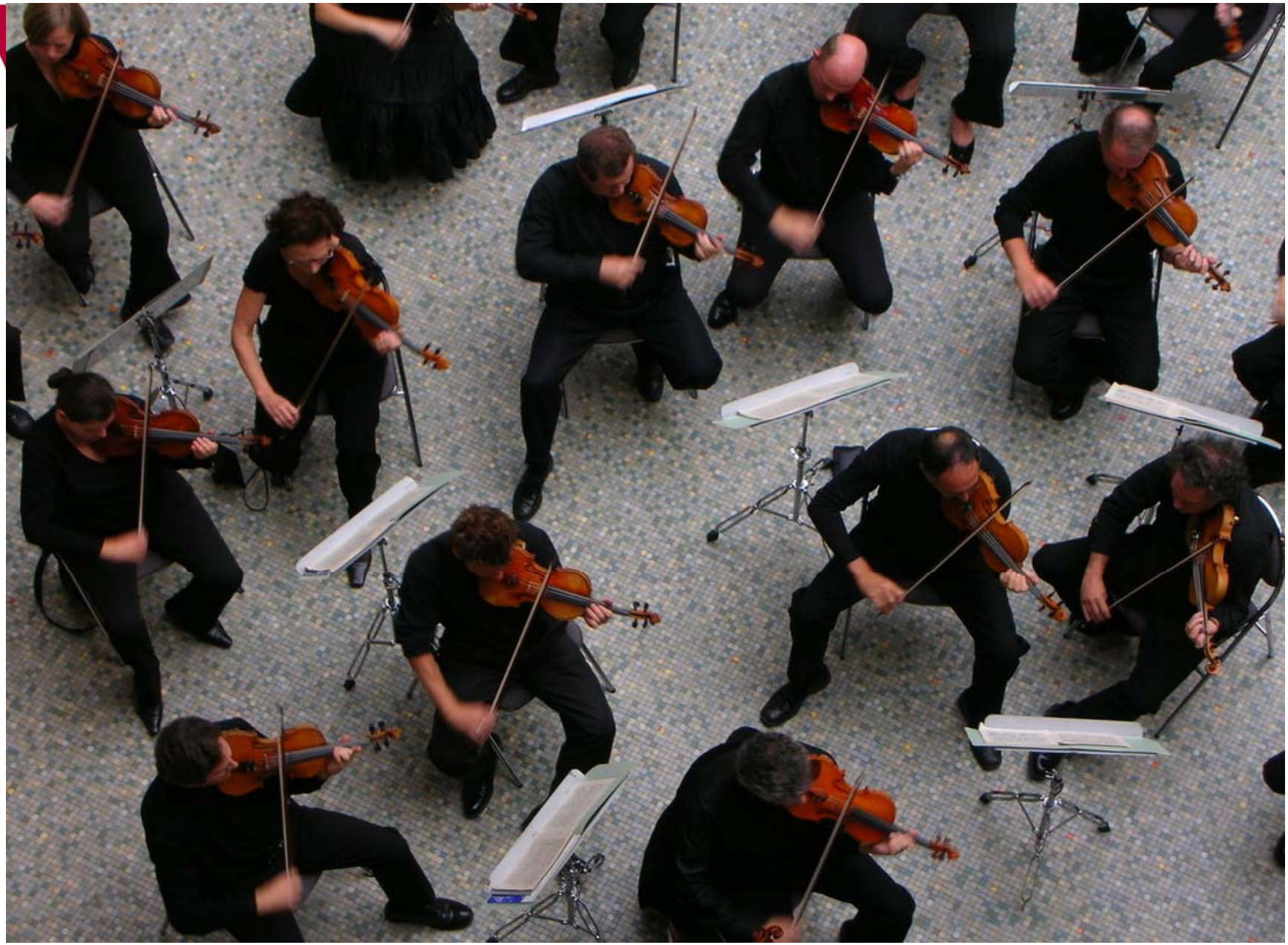
- Topicality is 'just' one of many relevance criteria
  - Others include specificity, currency, verification, affectiveness, ...
- However, as opposed to this workshop, studies into user-based relevance criteria usually have not considered search success as a factor
  - What about the user who is happy with biased results?

CWI

Summary

- Diversity surfaces in information use
  - PetaMedia corpus
  - User log-based image retrieval
- Show information sources together with their use context
  - Opinions will show; group as facets?
- Do not just rank complete objects
  - Media fragments
  - Entities

Vlaams Radio Orkest performing in the rotunda of the Ravenstein Gallery
Simon Blackley, flickr.com/people/sblackley/



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Simon Blackley, flickr.com/people/sblackley/

CWI

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