

UPDATE



Social Web! ... and now?

The Fifth Summer School on Ontological Engineering and the Semantic Web (SSSW'07)

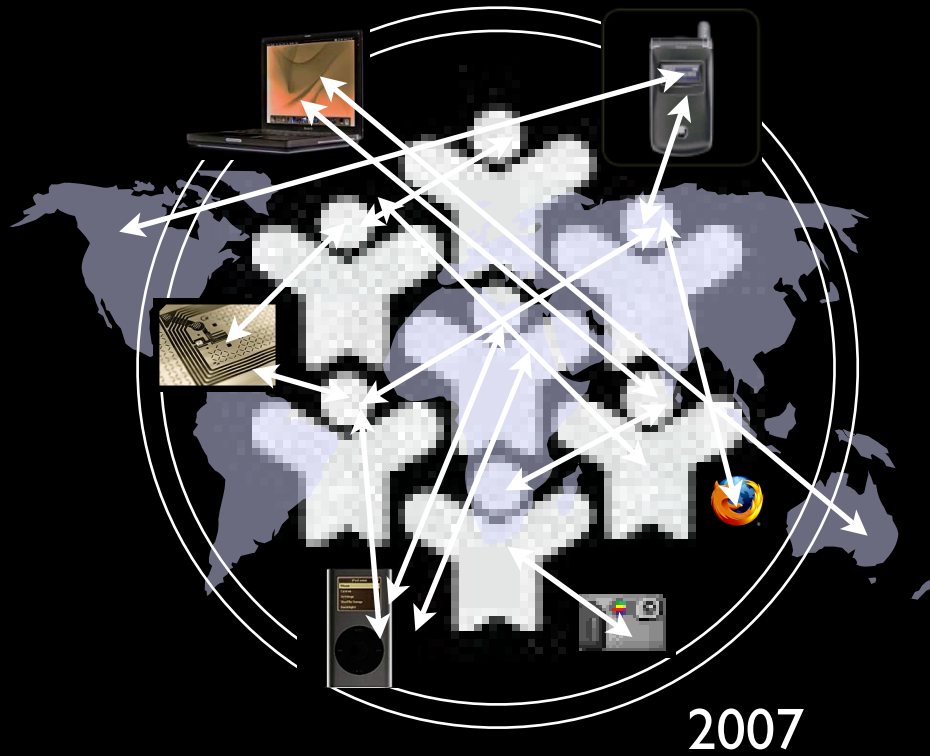
Stephan Baumann
Competence Center Computational Culture
German Research Center for AI

Prologue



Map Satellite Hybrid

1000 mi
1000 km



overwhelming

too many copycats

Semantic Web Ph.Ds MUST help!

Setting the scene (I)

- Devices
 - More computing power
 - More storage capacity
 - Less size
 - Connectivity, always-on, ad-hoc networks
- Software
 - Open Source, freeware, even frameworks
 - I-click-away, even advanced academic stuff

Setting the scene (2)

- People
 - Digital Natives
 - Free-time programmers
 - Coding as hobby
 - Coding as art
 - Powerful communities (sourceforge, processing, generator-x, etc.)
 - APIs of the powerhouses (Google, Ebay, etc.)



Setting the scene (3)

- ... and as a result?!
 - ripping
 - sharing
 - remixing
 - mashing
 - always
 - everywhere
- *transmedia*: from *evil ringtones* to *Web2.0 mash-ups*

MUSIC

MOVIES

PHOTOS

GAMES

BLOGS



<http://metaatem.net/words.php>



$$CQ = \frac{(B \times F) \times \frac{(mHr + hr)(L + D)}{(Cn \times Sp)} \times Co}{T}$$

HOW TO HAVE A SUMMER HIT

THERE'S A SCIENCE TO IT. WE'VE GOT THE FORMULA

For many years, musicians have made records aimed at being summer hits, writes *Dr Rupert Till*. The Beach Boys realised that music which combines talk of summer, the beach and sunshine was a winning formula.

But for the first time, this formula has been scientifically expressed. The 'catchiness quotient' (outlined above) quantifies how likely we are to fall for a summer song, despite the fact they are mostly terrible.

First popularised in the 1970s, when British holiday-makers began travelling abroad on package deals, these hits all follow the same formula. From classics such as 'Una Paloma Blanca' to Kaoma's 'Lambada' – by way of Demis Roussos's

'Happy to Be on an Island in the Sun' – they each comprise a mixture of holiday and foreign-language references, exotic beats and simple sing-along lyrics. The accompanying dance routine (another important factor) is also key, with singers

'The Ketchup Song' scores high (84,240), as it has a well known dance and generous amounts of flesh in the video – a phenomenon in its infancy when 'Y Viva España' (score: 7,083) was released. ■

Dr Rupert Till is a tutor at the University of Huddersfield, specialising in postmodernity in music. He is also a member of electronica group, the Chillage People

Chart topping: Las Ketchup's 'Ketchup Song' and 'Agadoo' were summer hits. Top: our equation will find a song's Catchiness Quotient

SUMMER HITS ALL FOLLOW THE SAME SCIENTIFIC FORMULA

cultural impact

WORKING OUT THE HIT FORMULA

CQ (catchiness quotient) The higher the figure, the more irresistible the summer hit.

B (budget) Amount in sterling the record company has to spend on marketing, record pluggers and PR companies.

F (fleshtone percentage) Amount of flesh flashed in the video, on CD covers, flyposters and other publicity material. The video to Las Ketchup's 'Asereje' (which scores a total of 84240) features different examples of

mHr (musical holiday references) Number of times the song uses elements of musical styles associated by British holidaymakers with holidaying, such as Spanish guitars, castanets and salsa rhythms.

hr (holiday references) Number of holiday-related references to holiday, sun, heat, pool, water, bikini, beach etc.

L (foreign lyrics) Number of words sung in a foreign language.



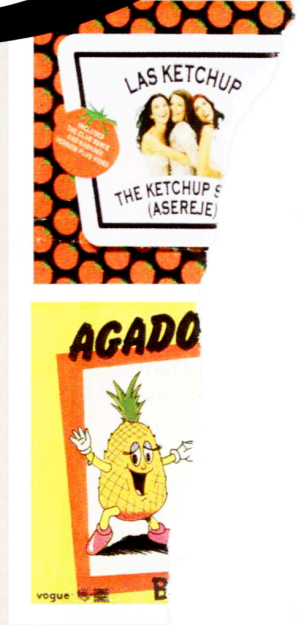
D (dance routine) Number of steps in the routine.

Co (promo copies) Number of free copies of the single given to DJs and holiday reps abroad.

Cn (chords) Holiday songs need only use two chords, usually the tonic and dominant. Any more is usually a distraction.

Sp (chorus span) Distance in semi-tones from the lowest to the highest note. The lesser the range, the more singalongable.

T (average UK temperature in °C) The worse the British summer, the more that people want to remember the glorious weather on holiday, and the better a record sells.



[S. Baumann: Artificial Listening Systems, Ph.D Thesis, University of Kaiserslautern, March 2005.]



social impact

WIRED
MUSIC

Would You Download Music From This Man?

EVERYONE ELSE DOES. MEET THE ONE-STOP SHOP
FOR EVERYTHING FROM MP3S TO *A BEAUTIFUL MIND*
AND EVERY GAME BOY TITLE ON THE MARKET.

BY JEFFREY M. O'BRIEN
PHOTOGRAPH BY MICHELE ASSELIN

so what?!

**Exciting area for
scientific engagement :-)**



He shares my musical taste ... handsome guy

[S. Baumann and J. Halloran:
An ecological approach to multimodal subjective music similarity perception. (CIM2004), Graz, Austria, April 2004.]



UPDATE

- Freeware supporting common mobile phones
- Sources at Sourceforge (join in!)
- Import of Last.fm profiles
 - Last.fm „scrobbles“ 15 mio times daily
 - CBS acquired Last.fm for \$280 million

bluetuna.opendfki.de

**Person, Context,
Artifact, Relation,
Network**

I. People

User models for music

```
<user>
<generalbackground>
  <name>John White </name>
  <education>MS</education>
  <citizenship>US</citizenship>
  <birthdate>9/7/1974</birthdate>
  <sex>male</sex>
  <occupation>student</occupation>
</generalbackground>
</user>
```

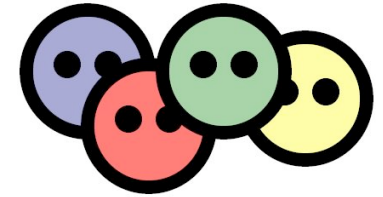
```
<generalpreferences>
  <color>blue</color>
  <animal>dog</animal>
</generalpreferences>
```

```
<musicbackground>
  <education>none</education>
  <instrument>piano</instrument>
  <instrument>vocal</instrument>
</musicbackground>
```

```
<musicpreferences>
  <genre>classical</genre>
  <genre>blues</genre>
  <genre>rock/pop</genre>
  <composer>Mozart</composer>
  <artist>Beatles</artist>
  <sample>
    <title>Yesterday</title>
    <artist>Beatles</artist>
  </sample>
</musicpreferences>
```

```
<habit>
  <context>I'm happy
  <tempo>very fast</tempo>
  <genre>pop</genre>
</context>
  <pfeature>romantic
  <tempo>very slow</tempo>
  <softness>very soft</softness>
  <title>*love*</title>
</pfeature>
  <context>bedtime
  <pfeature>romantic</pfeature>
</context>
</habit>
```

FOAF



- <http://www.foaf-project.org>
 - FOAF documents describe the **characteristics and relationships amongst friends of friends**, and their friends, and **the stories they tell**.
 - „So FOAF is quite pluralistic in its approach to representing relationships between people. FOAF is built on top of a general purpose machine language for representing relationships (ie. RDF), so is quite capable of representing any kinds of relationship we care to add. **The problems are generally social rather than technical**; deciding on appropriate ways of describing these interconnections is a subtle art.“
 - „Perhaps the most important use of **foaf:knows** is, alongside the **rdfs:seeAlso** property, to **connect** FOAF files together. Taken alone, a FOAF file is somewhat dull. But linked in with 1000s of other FOAF files it becomes more interesting, with each FOAF file saying a little more about people, places, documents, things... people they mention, and so on.“

FOAF-related applications

test - Microsoft Internet Explorer

Adresse <http://localhost:8668/foafnaut/index.html>

foafnaut

DETAILS IMAGES SEARCH

LEO SAUERMAN

Leo Sauermann

KNOWS 0 PEOPLE
KNOWN BY 0 PEOPLE
PICTURED WITH 0 PEOPLE

- FOAFme (<http://foafme.opendfki.de>)
- FOAFNaut
- Gnowsis

Enquire2 - [gnowsis://leo.gnowsis.com/outlook/contact](http://leo.gnowsis.com/outlook/contact)

File View Extras Help

0ECD4B99358B9814B9DAFE2255CD6AE9A048F2900

Favourites: Desktop, Ontologies, Data Sources, Recent, SenDestProposal, Paper_SemWeb2004, T-Systems, Poster_ISWC2004, mailtrash, GnowsisTrash, Forensic, Emmanuel, Gnowsis_UI, gnowsisWebseite, AgroXML, GnowsisPraesentation, gnogno, GnowsisPresentation, test, FoafCamp, DimensionOfContext, CeBIT

Browser: Leo Sauermann

- type
- Surname: Sauermann
- firstName: Leo
- has Wiki: [Leo] [knows] [Ingrid]
- has Wiki Word: Leo
- name: Leo Sauermann
- personal mailbox: mailto:leo@gnowsis.com
- short sum of a personal mailbox URI name: eaa363e2b...
- Drank Beer With
- Morten Frederiksen
- Drank Lager With
- deposition
- image
- knows
 - Ingrid Brunner
 - Gerald Reif
 - Mark Giereth
 - Johannes Grenzfurtner
 - Jip de Kort
 - Hannes Lischka
 - Liz Turner
 - Libby Miller
 - Michael Zeltner
 - Sven Schwarz
 - Graham Klyne

It is referenced by

Link: knows

Leo Sauermann Liz Turner

Ok Cancel

FoafMe 1.0

FoafMe

foaf file: < leo_foaf.xml > Config Check Upload Quit

Basics Personal Info Online Accounts People I Know Browser

back Name: Leo Sauermann is also my friend

is also my friend

First Name: Leo

Last Name: Sauermann

Title:

Dipl. Ing.

Nick Name:

Jobard

image source (URL): <http://www.gnowsis.com/img/leo.jpg>

email: leo@gnowsis.com

Homepage: <http://www.jobard.net/>

Phone Number:

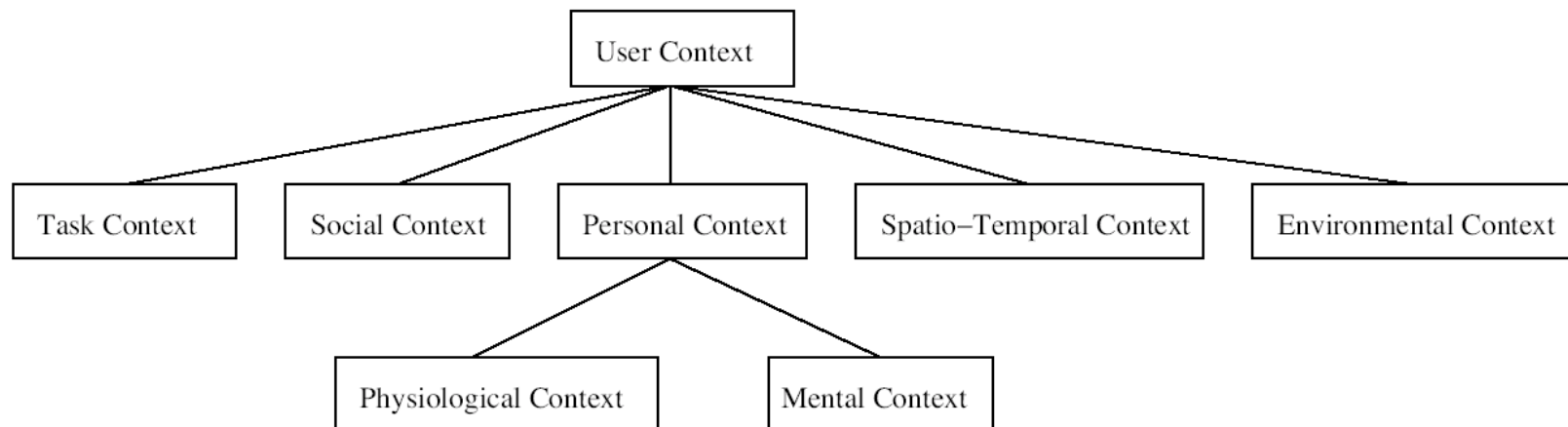
Friends:

- Andreas Dengel
- Bernhard Woschnigg
- Cory Doctorow
- Decker Stefan
- Ebo Rose
- Evelyn Fuerlinger
- Fensel Dieter
- Fronz Abinger
- Gaut Andi
- Gerald Reif
- Graham Klyne
- Harald List
- Heiko Maus
- Ingrid Brunner-Sauerma
- Jip de Kort
- Johannes Grenzfurtne
- Lischka Hannes
- Liz Turner
- Mark Giereth
- Markus Hofbauer
- Michael Sintek

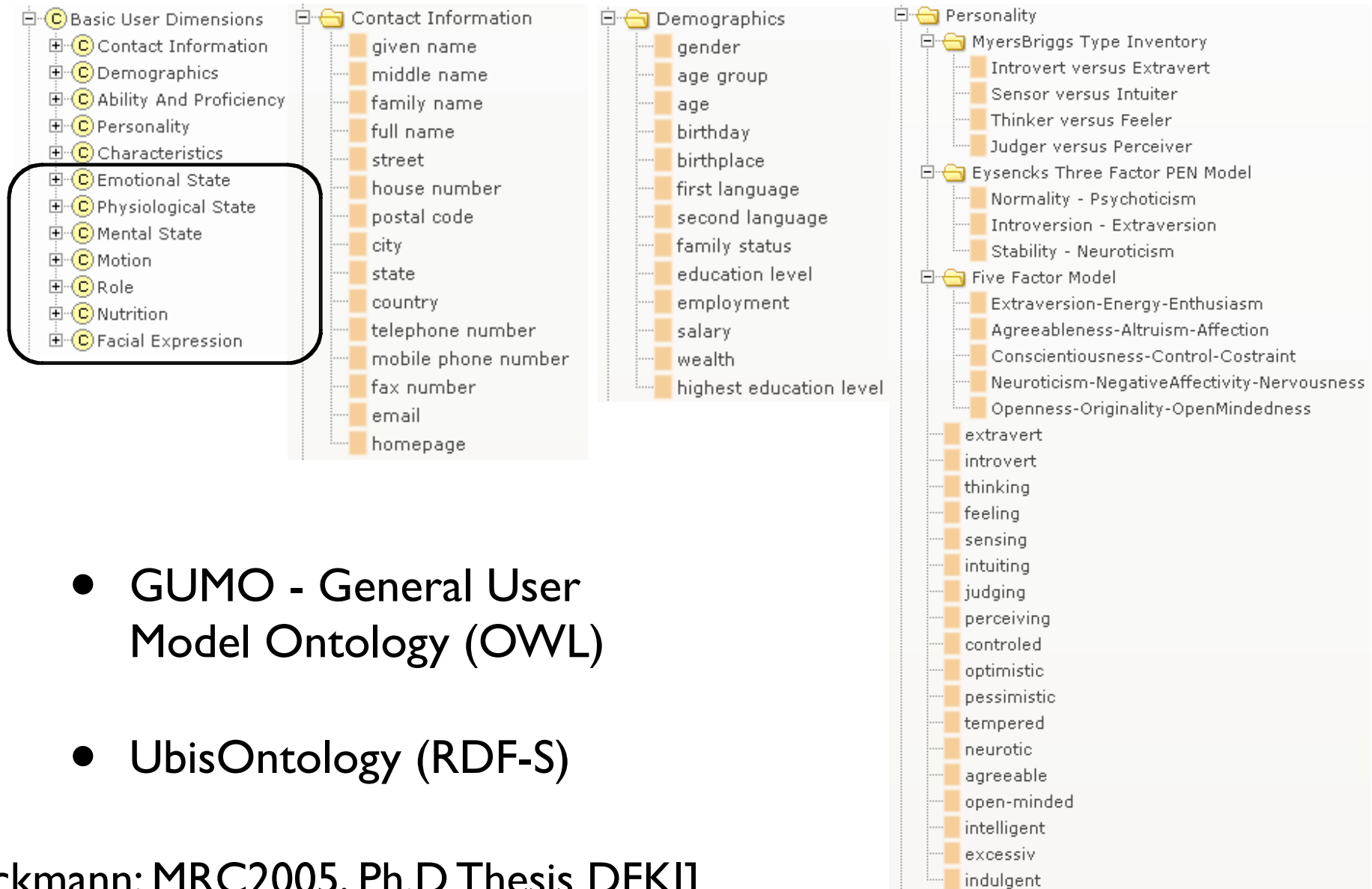
browse

Users & Context

1. **Environmental context:** This part captures the users surroundings, such as things, services, light, people, and information accessed by the user.
2. **Personal context:** This part describes the mental and tuples physical information about the user, such as mood, expertise, disabilities and weight.
3. **Social context:** This describes the social aspects of the user, such as information about friends, relatives and colleagues.
4. **Task context:** the task context describe what the user is doing, it can describe the user's goals, tasks, activities, etc.
5. **Spatio-temporal context:** This type of context is concerned with attributes like: time, location and movement. The different aspects of the contexts are attribute-value tuples that are associated with the appropriate contexts.



www.ubisworld.org

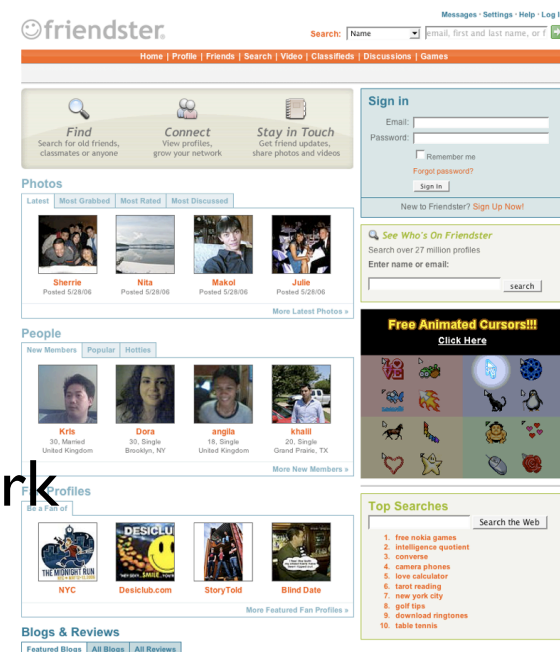


- GUMO - General User Model Ontology (OWL)
- UbisOntology (RDF-S)

II. People–Networks

Friendster and Vizster

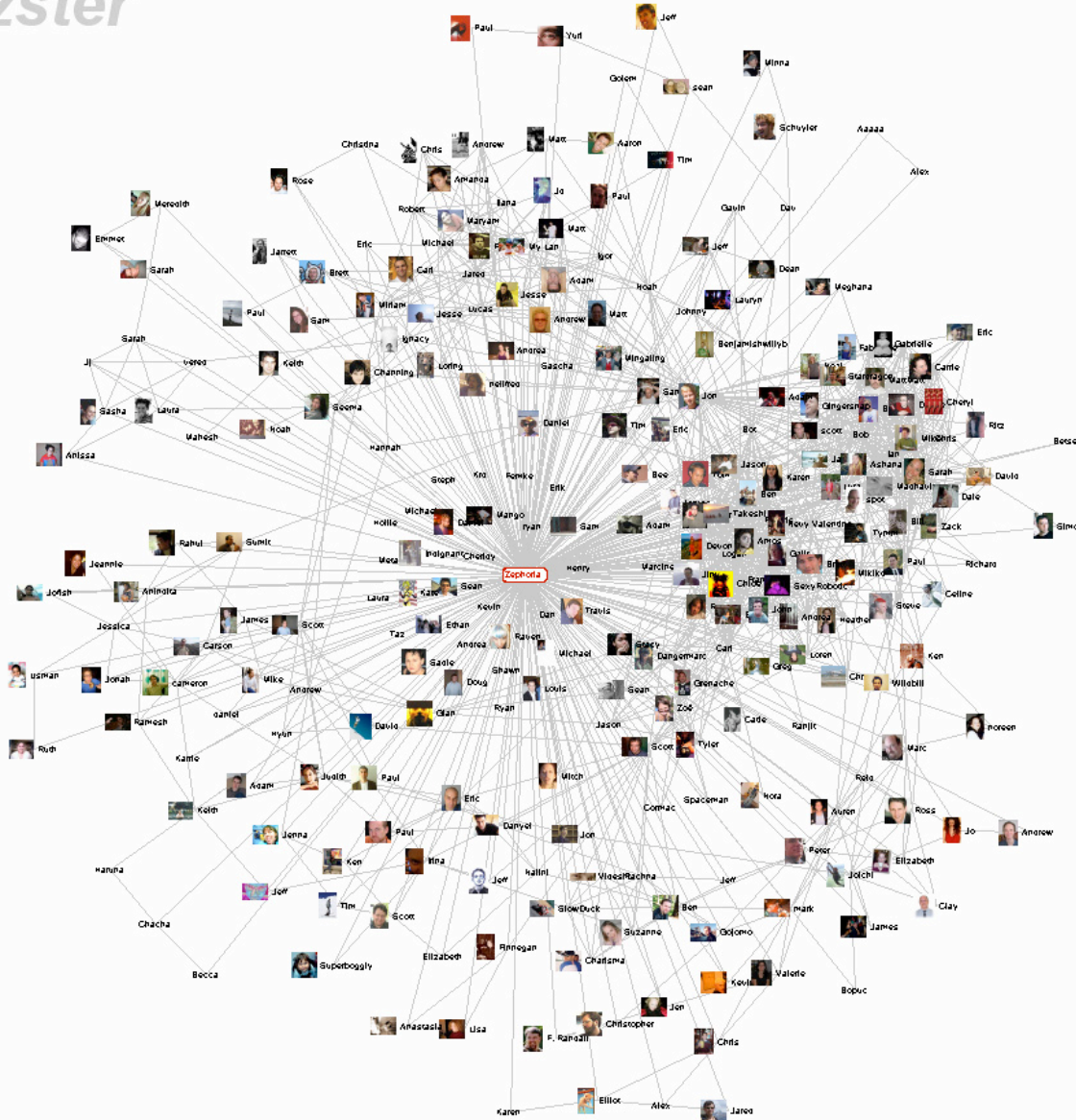
- 2003: Friendster, very popular social software
 - descriptive personal profiles
 - + explicit friendship links
 - attracted millions of users -> massive network
- Hard to navigate user-interface
- Boyd & Heer decided to design a visualization system for online social networks [Heer,Boyd:Vizster, InfoVis2005]
- Danah Boyd: well-known ethnographer, UC Berkeley
- Jeffrey Heer: user-interface design expert, UC Berkeley



Friendster and Vizster

- Data feed
 - crawl of 1.5 million members
 - storage: *mySQL* database
- *Lucene* for keyword search
- [Newman's2004] community identification algorithm
- Custom visualization of diverse network characteristics based on *prefuse* [<http://prefuse.sourceforge.net>]
- Several visual interaction modes based on ethnographic findings

vizster



community >>

Enable

search >>

Zephoria

User ID 21721

Friends 266

Age ??

Gender Female

Status Single

Location San Francisco, CA

Hometown Lancaster, PA

Occupation researcher: social networks, identity, context

Interests apophenia, observing people, culture, questioning power, reading, buddhism, ipseity, computer-mediated communication, social networks, technology, anthropology, stomping

Music psytrance/goa/trance [Infected Mushroom, Son Kite... Iboga/Digital Structures], Ani Difranco, downtempo, Thievery Corporation, Beth Orton, Morcheeba, Ween, White Stripes

Books Authors: Erving Goffman, Stanley Milgram, Jeanette Winterson, Eric Schlosser, Leslie Feinberg, Dorothy Allison, Italo Calvino, Hermann Hesse

TV Shows ??

Movies Koyaanisqatsi, Amelie, Waking Life, Tank Girl, The Matrix, Clockwork Orange, American Beauty, Fight Club, Boys Don't Cry

Member Since ??

Last Login 2003-10-21

Last Updated 2003-10-21

About [Some know me as danah...]

I'm a geek, an activist and an academic, fascinated by people and society. I see life as a very large playground and enjoy exploring its intricacies. I revel in life's chaos, while simultaneously providing my own insane element.

My musings: <http://www.zephoria.org/thoughts/>

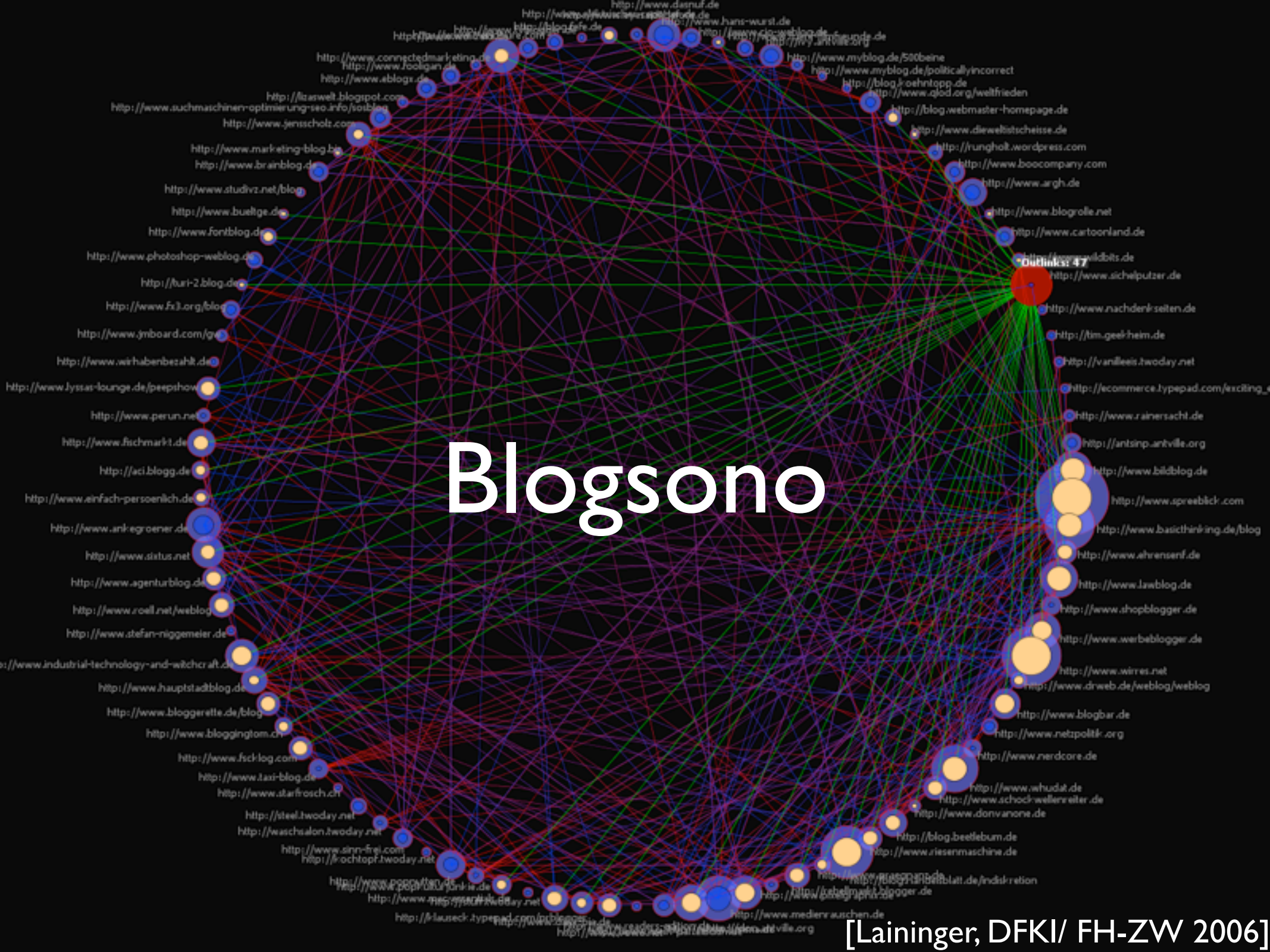
Want to Meet Someone who makes life's complexities seem simply elegant.

UPDATE

Analysis and Visualization of Popular Networks

- Source: Top 100 Blogs in Germany
 - Analysis of blogroll structure
 - Means for trust, quality?
- Blogsono Student Project: Visualization and Sonification

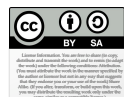
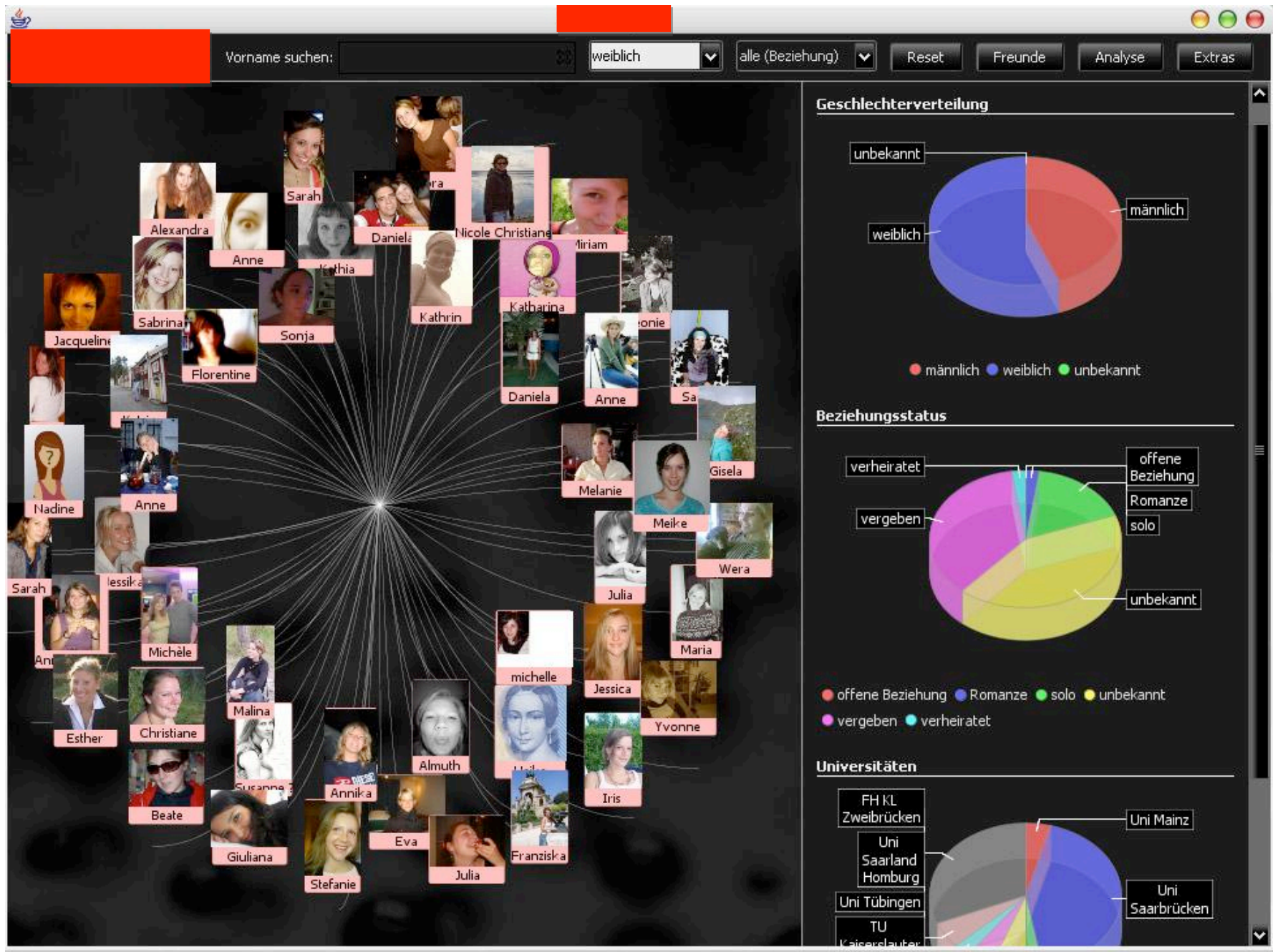
Blogsono



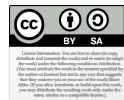
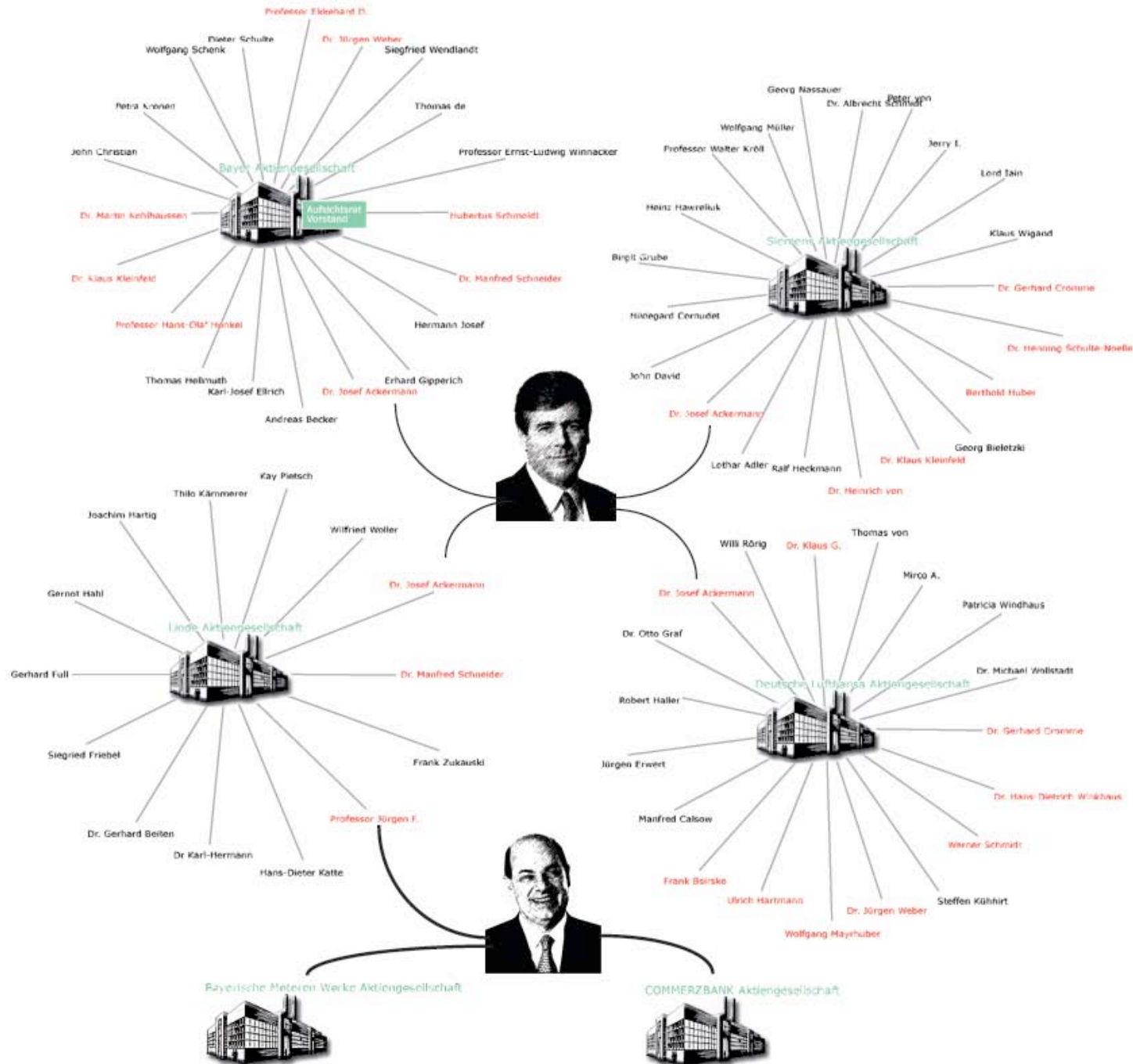
UPDATE

Analysis and Visualization of Popular Networks

- Information Architecture Lab, FH Kaiserslautern, Germany [Prof. Speck et al]
 - Several Student Projects
 - Vinex: Visualization
 - Nepotist Analyzer: Economic Networks Analyzer
 - spamCAN: Spam Analyzer
 - PeerLo: Bittorrent Network Analyzer
 - B.A.S.S: MySpace Music Analysis



[Speck, Hendrik and Frédéric Philipp Thiele. Social Network Analysis. Business models, Explanations, Attributes and Features of Social Networks. CeBIT. WeblogCamp@CeBIT. March 18th, 2007, Hanover (Germany)]



[Speck, Hendrik and Frédéric Philipp Thiele. Social Network Analysis. Business models, Explanations, Attributes and Features of Social Networks. CeBIT. WeblogCamp@CeBIT. March 18th, 2007, Hanover (Germany)]

III. People-Artifacts-Networks

Enronic



- Tuesday, June 7, 2005
- Social network analyzer for Enron's emails
- When Enron was hit with lawsuits, the prosecution required the company to turn over the incriminating emails it had in its database through a legal process called discovery. Usually a company undergoing this kind of discovery carefully combs through its email and publishes only those messages that are relevant to the case, eliminating its employees' private messages and confidential material otherwise not related to the case.
- However, Enron opted to save money by just dumping all of its email online, employee love-letters and all. This was bad for employee privacy, but good for social network researchers.
- Jeffrey Heer at UC Berkeley has produced "enronic," a system for visualizing the relationships between Enron employees based on who emailed whom and how often. It's a Java applet that you can download and mess around with -- you can even take a turn at sleuthing out hidden participants in the scam by trying your own social network analysis.

Enronic

- Mining the social network from the data
 - e.g by using *Applied Natural Language Processing*
- Email is straightforward
 - sender, recipient
 - direct edge in case of email
 - + existing categorization of email body into a given taxonomy (business, strategy, etc.)
 - further aspects of email body could be used for clustering
- Interactive visualization of these properties

Category Legend

- company business, strategy, etc.
- regulations and regulators (includes price caps)
- internal projects -- progress and strategy
- company image -- current
- company image -- changing / influencing
- political influence / contributions / contacts
- california energy crisis / california politics
- internal company policy
- internal company operations
- alliances / partnerships
- legal advice
- talking points
- meeting minutes
- trip reports

Jeff Dasovich <-> Susan Mara

2000-09-15 06:19:00.0 Re: CPUC Request for Confidential Information

2000-09-29 11:06:00.0 Request for Confidential Information by the US GAO

2000-10-11 07:12:00.0 Fwd:

2001-01-03 14:40:00.0 Update Day 1 Second Session FERC CA Settlement

2001-03-22 03:53:00.0 More info from ISO -- May be Providing Confidential Data

2001-04-04 06:13:00.0 Re: Lay/Skilling Talking Points for Bush Admin Meetings

2001-04-20 10:44:00.0 Legislative Status Report Week Ending 4/20

2001-05-11 08:00:00.0 CAISO NOTICE: Freedom of Information Request of conf

2001-05-11 18:00:00.0 CAISO NOTICE: Freedom of Information Request of conf

2001-06-03 18:26:00.0 Amendment of the CPUC subpoena for production on Jur

0 0 1 0 0 0 0 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0

ID: 115333

Subject: Re: CPUC Request for Confidential Information

From: Jeff Dasovich <jeff.dasovich@enron.com>

Date: 2000-09-15 06:19:00.0

To: <mary.hain@enron.com>, <james.steffes@enron.com>, <joe.hartsoe@enron.com>, Susan Mara <susan.mara@enron.com>, <sarah.novosel@enron.com>

I understand that we may have no choice in the matter, but

having witnessed Loretta Lynch's inability to define market power when asked to do so by Joe Barton last Monday, and, having heard Carl Wood declare war on capitalism at FERC's hearing on Tuesday, and, knowing that the likes of Harvey Morse (PUC FERC attorney), who has never come down on the side of "no market power here" in any analysis, is "heading up" the PUC investigation, and seeing Gov Davis' press releases demanding refunds from the faceless, out-of-state suppliers

I'm, well, maybe a little nervous about them getting their paws on our

james.steffes@enron.com

Susan Mara

Jeff Dasovich

Flink: The Who is Who of the Semantic Web

- 1st prize Semantic Web Challenge 2004
- [Peter Mika: Semantic Web Technology for the Extraction and Analysis of Social Networks, Journal of Web Semantics, July 2005]
- Data feeds:
 - Webpages
 - Emails (8185)
 - Publications (5147)
 - FOAF profiles
- Extraction of underlying social network + generation of an ontology + visualization
 - Co-occurrence analysis, inferences, identity reasoning, etc.
 - Social Network Analysis (SNA)

UPDATE

Spam Analyzer

Spam Locator

On the map you see the distribution of Spammails worldwide. You can modify the view by changing the filters on the right and left: Vary the amount of Spammails or change the timeperiod.

Amount of Spammails

Custom Dates
From: 01.01.2005
To: 01.01.2007

Legend - Spammails

- Harvester
- Mailserver

View Analysis

View in Google Earth

Map | Satellite | Hybrid

Controls

- Zoom Out
- Best View
- SpamCan-Server
- Biggest Spammer

Categories | Spammers

- Mail-Server
- Harvester
- Harvester-Spammer
- Spammer
- Connection Lines

POWERED BY Google

Center Point: 0.0000, 0.0000 | Zoom Level: 16

Contact | Impressum

CC BY SA

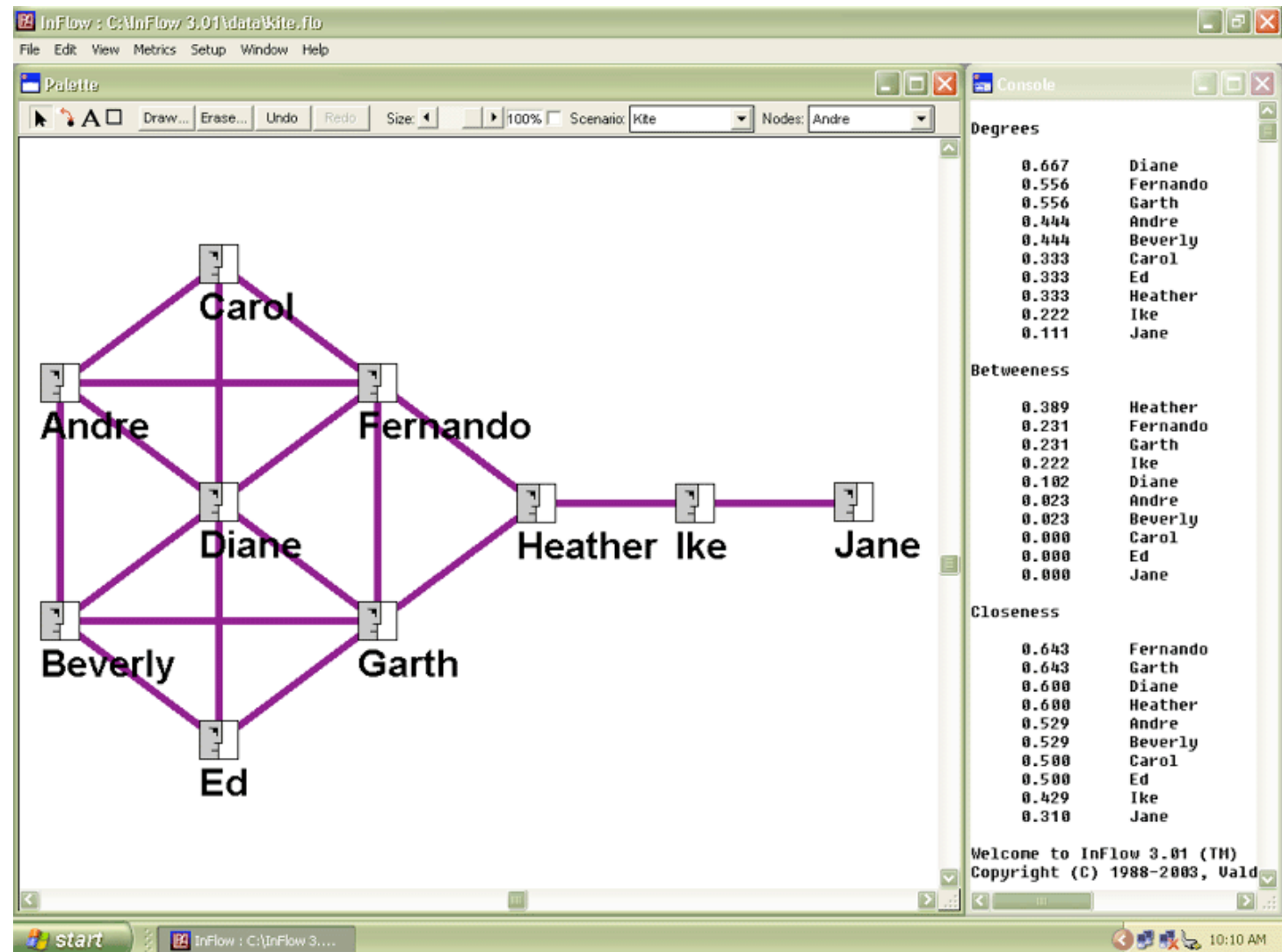
IV. Tools

Social Network Analysis

- Specialization of network analysis
- Well-known field (e.g. sociologists, consultants, etc.)
- **The network**
 - Nodes (here people or groups)
 - Relations (directed or undirected)
 - Properties of relations (name, type, weight, etc.)
- SNA deals with **properties of the network**
 - Performance of subsets
 - Location of actors (implies possibilities and constraints for their actions)

Social Network Analysis

- Most **popular measures**
 - Degrees
 - Betweenness
 - Closeness
- Further properties
 - Boundary Spanners
 - Peripheral Players
 - Network Centralization



Social Network Analysis

- Network analysis packages
 - JUNG [<http://jung.sourceforge.net/>]
 - Pajek [<http://vlado.fmf.uni-lj.si/pub/networks/pajek/>]
 - UCINET [<http://www.analytictech.com>]

JUNG

Java Universal Network/Graph Framework


- Overview
- Download
- Documentation
- Examples
- Wiki
- Image Gallery
- Projects Using JUNG
- FAQ
- Support
- Team
- Presentations
- Bug Tracker
- Sourceforge
- Acknowledgements
- Links

Overview

JUNG — the Java Universal Network/Graph Framework—is a software library that provides a common language for the modeling, analysis, and visualization of data that can be represented as a graph written in Java, which allows JUNG-based applications to make use of the extensive built-in capabilities of the Java API, as well as the capabilities of the underlying hardware.

The JUNG architecture is designed to be a directed and undirected graph, with a mechanism for adding and removing nodes for complex data structures and relationships between entity and relationships.

The current distribution includes a Java library and social network analysis routines for statistical analysis, and calculation of network distances, flows, and importance measures (centrality, etc.).



Networks / Pajek

Program for Large Network Analysis

Pajek runs on Windows and is free for noncommercial use.

Test version of **Pajek 1.14** for Windows 32 (April 16, 2006, installation pack - run **pajek114**).
Data: [test networks](#), [GPHs](#), [GEDs](#), [PDB files](#).

UCINET 6

Social Network Analysis Software

[Download](#)[Upgrades](#)[Versions](#)[Bugs/FAQs](#)[Brochure](#)[Home](#)[INSNA](#)

Description

A comprehensive package for the analysis of social network data as well as other 1-mode and 2-mode data. Can read and write a multitude of differently formatted text files, as well as Excel files. Can handle a maximum of 32,767 nodes (with some exceptions) although practically speaking many procedures get too slow around 5,000 - 10,000 nodes. Social network analysis methods include centrality measures, subgroup identification, role analysis, elementary graph theory, and permutation-based statistical analysis. In addition, the package has strong matrix analysis routines, such as matrix algebra and multivariate statistics.

Integrated with UCINET is the [NetDraw](#) program for drawing diagrams of social networks. In addition, the program can export data to Mage and Pajek.

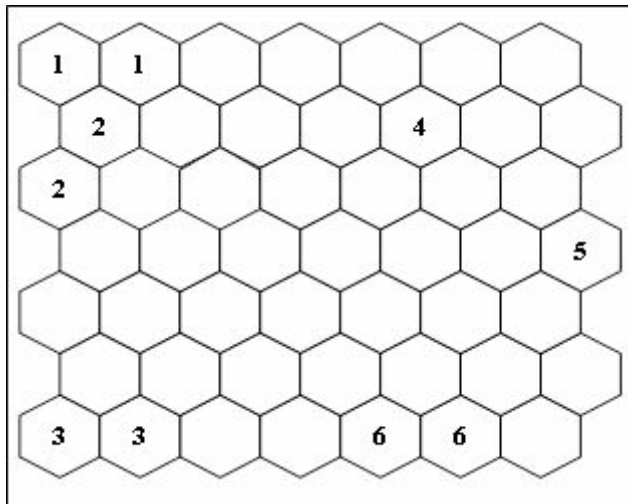
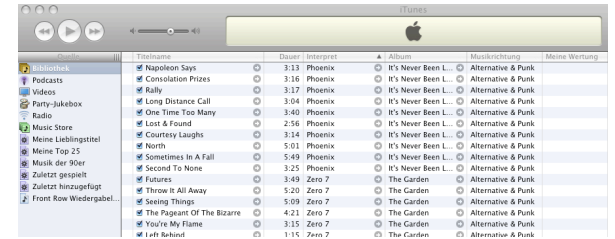
Availability

The full program can be [downloaded](#) and used **free** for 30 days. For longer use, individual students pay \$40, schools & government pay \$150, and corporations pay \$250. In addition, generous volume discounts / site licenses are available. Click [here](#) for ordering information.

Self Organizing Map (SOM)

- Unsupervised, self-organized processing of data inspired by cortical maps in the human brain
- Non-linear projection of high dimensional data to low dimensional grid (usually 2D)
- Preservation of input space topology: data points close in input space are close on the map
- In contrast to
 - MultiDimensionalScaling (MDS)
 - PrincipalComponentAnalysis (PCA)
 - the original data space distances can be shown.
 - entangled clusters can be separated.
 - projection and clustering are provided

SOM ... Folksonomies



- Artists: 398
- Input: $398 * 3313$
- SOM: 49 units ($7*7$)

Map unit	Labels	Artists
1	Rap-Metal, Funk-Metal	Limp Bizkit, Linkin Park
2	Reggae, Rap	Bob Marley, Shaggy, Police, 311
3	Metal, Heavy	Metallica, Nirvana, Smashing Pumpkins
4	Techno, Remix	Alice DeeJay, Prodigy, Moby, Chemical Brothers
5	Spanish, Latin	Ricky Martin, Enrique Iglesias
6	Rock, Roll, Blues	Dire Straits, Queen, Eric Clapton, Bob Dylan

Learning from music-related Networks

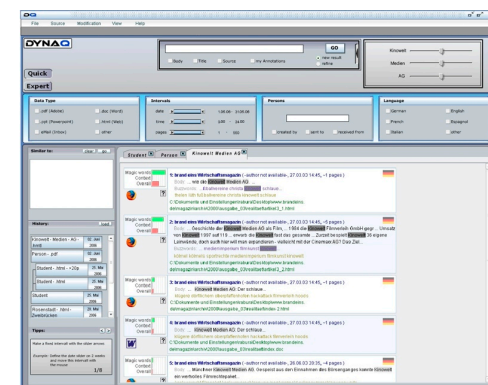
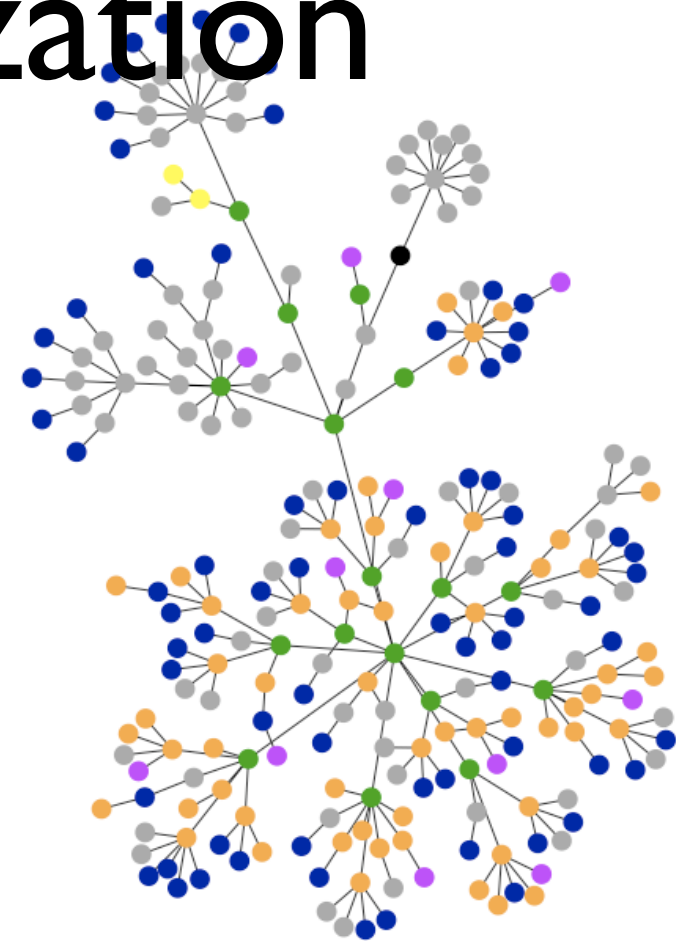
- Large-scale experiment: AMAZON reviews as feeds
 - 33879 artist reviews
 - 33879 x 242 (dim. reduction PCA)
 - SOM: 3000 units (60 x 50) representing genre/style concepts
- Interactive music station for Netaudio: archive.org MP3 + XMLfeeds
 - (optional audio analysis)
 - 1125 artist reviews
 - 1125 x 1139 features
 - SOM: 180 units (15 x 12) representing genre/style concepts



ANLP + Visualization

- „Decoding the (textual) artifacts“
- *JUDGE*
- Just another Java-based Text Retrieval & Machine Learning Framework
 - automatic feature extraction
 - feature preprocessing and attribute selection methods
 - document classification with several classification methods
 - document clustering with several clustering methods
 - full support of almost all WEKA Algorithms
 - easy usage as a webservice with a special interface
 - <http://www3.dfki.uni-kl.de/judge>

- *DYNAQ: interactive, dynamic queries*
- *Visualization: processing.org*

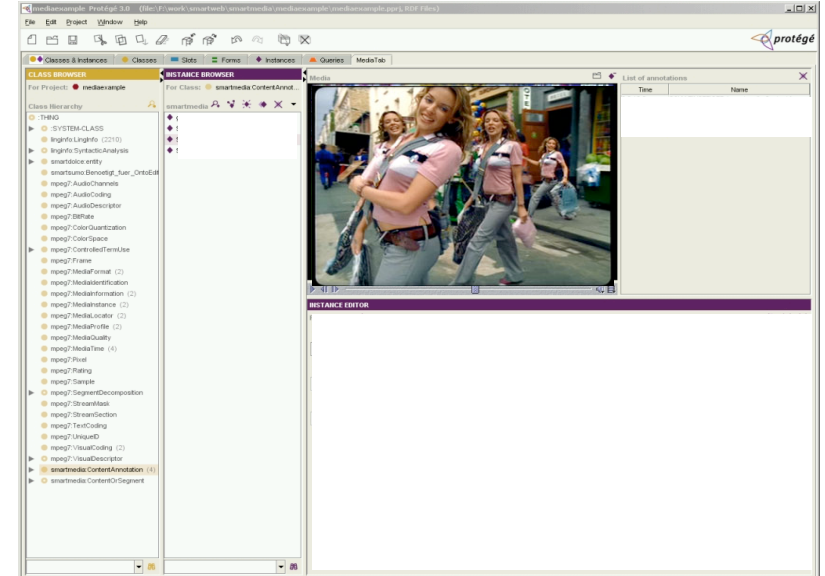


Semantic Media: Tagging

The screenshot displays the Protégé 3.0 interface with several key components:

- CLASS BROWSER:** A tree view on the left showing the ontology hierarchy. A callout points to the **smartmedia:ContentAnnotation** class, labeled "SmartMedia ontology".
- INSTANCE BROWSER:** A list of instances for the selected class, including "Shot(on goal) by BALLACK Michael". A callout points to this list, labeled "Instance browser".
- Media player:** A central video player showing a soccer match. A callout points to the video, labeled "Media player".
- List of annotations:** A panel on the right showing a list of semantic annotations with timestamps, such as "Goalkeeper Jaromir Blazek" at 0:0:2.20 and "Shot(on goal) by BALLACK Michael" at 0:0:16.8. A callout points to this list, labeled "List of annotations".
- INSTANCE EDITOR:** A panel at the bottom for editing the selected instance. It shows properties like "Smartmedia:aboutDomainInstance" (Germany (2004) - Czech Rep (2004)) and "Smartmedia:aboutMediaInstance" (mediaexample_Instance_20021). A callout points to this editor, labeled "Media instance".

Bottom-up meets top-down



[S. Vembu, M. Kiesel, M. Sintek, S. Baumann:
Towards bridging the semantic gap in multimedia annotation and retrieval.
1st Int. Workshop on Semantic Web Annotations for Multimedia, SWAMM 2006 at WWW 2006.]

UPDATE

V. Networks-Interaction („Games, Chats, Tags ...“)

Related work at CHI2007

- S.Ahern, D. Eckles, N. Good, S. King, M. Naaman, R. Nair, Yahoo! Research Berkeley "Over-Exposed? Privacy Patterns and Considerations in Online and Mobile Photo Sharing"
 - flickr upload study: private vs. public photos
 - 81 users, 37k photos
 - privacy determination by location and content (tags)
- demand for privacy policies!
- no privacy concerns by users yet

Related work at CHI2007

- C. Lampe, Michigan State University, E. Johnston, University of Michigan "Follow the Reader: Filtering Comments on Slashdot"
 - slashdot comment rating
 - critical mass vs. information overload
 - analysed 2.4M page hits by 90k users
 - interviewed 8k users
- ratings considered useful!
- filter customization is done rarely
- importance of defaults!

Related work at CHI2007

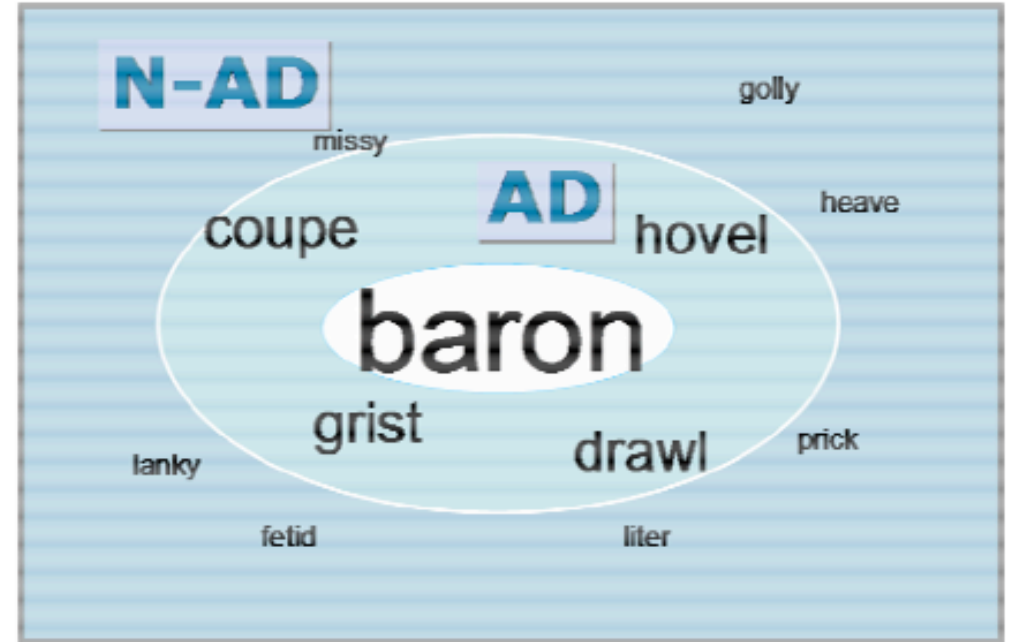
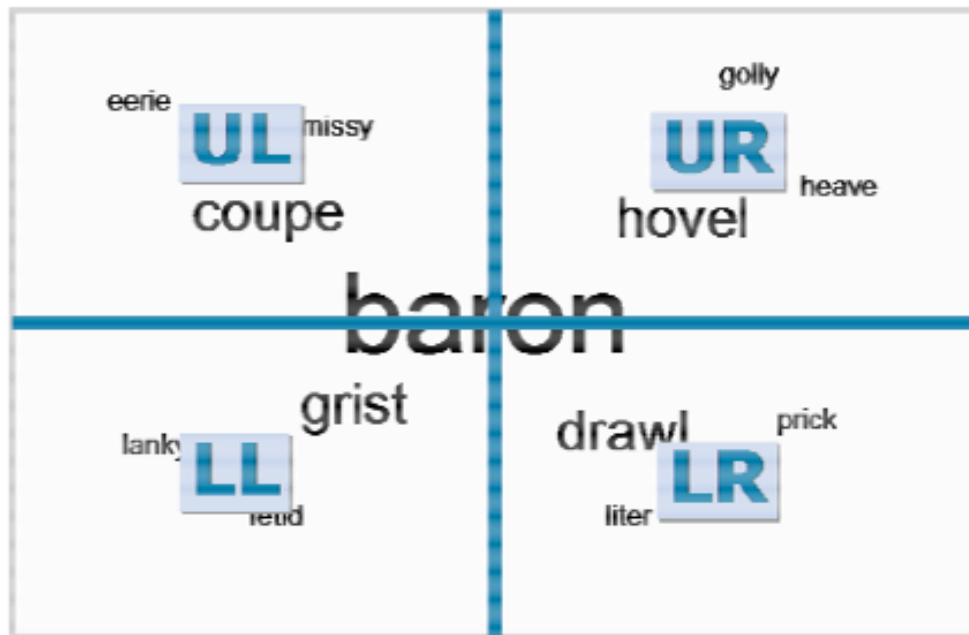
- N. Ducheneaut, E. Nickell, R. Moore, PARC, N.Yee, Stanford University
"The Life and Death of Online Gaming Communities: A Look at Guilds in World of Warcraft"
- max. size for creative & cooperative social groups: 45 (Dunbar number: 150, current WoW guilds: <35)
- social factors for group growth & death
- monitored 5k guilds on 5 WoW servers
- "small is beautiful"
- importance of social group management

Related work at CHI2007

- M.Ames, Stanford University, M. Namaan, Yahoo! Research Berkeley
"Why We Tag: Motivations for Annotation in Mobile and Online Media"
- evaluation with flickr/zonetag (direct upload from cameraphone) with 172 users
- taxonomy of tagging motivations
- tagging for social purposes is more motivating
- tagging at creation time is favoured, won't be done later
- tag suggestions help a lot

Related work at CHI2007

- A.W. Rivadeneira, University of Maryland, D. M. Gruen, M. J. Muller, D. R. Millen, IBM Research "Getting Our Head in the Clouds: Toward Evaluation Studies of Tagclouds"
 - cognitive research
 - spatial algorithms (size)
 - clustering algorithms (similar, occur together)
 - tested: font size, quadrant and proximity-to-largest-word
 - experiment with 13 subjects
- tagcloud designers should focus on layout
- simple lists by frequency are ok!



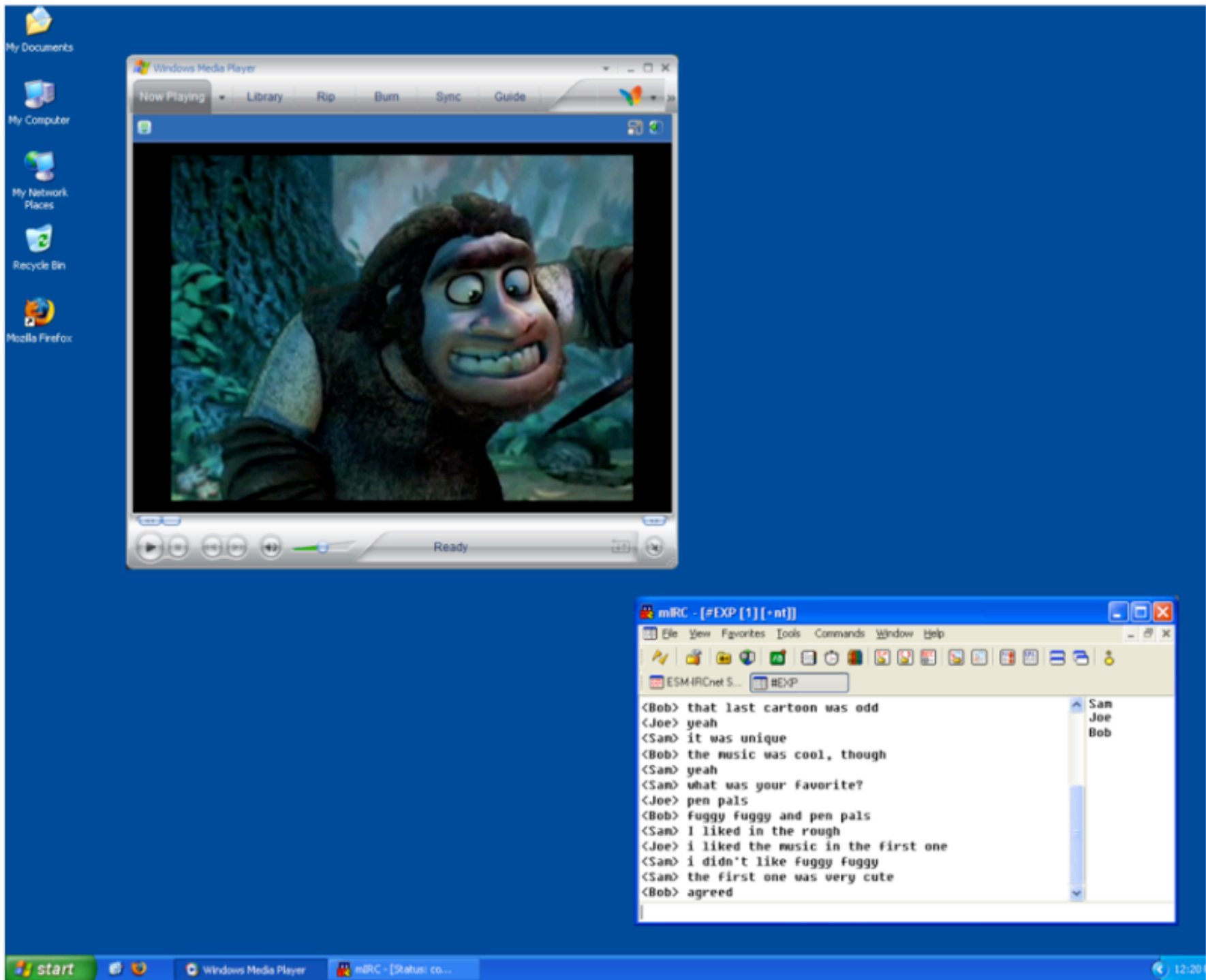
(a)

(b)

Figure 2. (a) Tagcloud depicting Quadrants (UL=Upper-Left, LL=Lower-Left, UR=Upper-Right, LR=Lower-Right). (b) Tagcloud depicting Proximity-to-largest-font (AD=Adjacent, N-AD=Non-Adjacent).

Related work at CHI2007

- J. D. Weisz, S. Kiesler, H. Zhang, Y. Ren, R. E. Kraut, Carnegie Mellon University, J. A. Konstan, University of Minnesota "Watching Together: Integrating Text Chat with Video"
 - interactive, more social television experience
 - experiment: cartoon watching with simultaneous chat (image attached)
 - settings: real-time, chat breaks, chat after cartoon
- is fun, has social benefits, but distracts
- use intermissions for appropriate content
- future work: evaluate different content




[J. D. Weisz, S. Kiesler, H. Zhang, Y. Ren, R. E. Kraut, Carnegie Mellon University, J. A. Konstan, University of Minnesota
"Watching Together: Integrating Text Chat with Video"]

Related work at CHI2007

- K. O'Hara, A. S. Mitchell, A. Vorbau, Hewlett Packard Labs "Consuming Video on Mobile Devices"
 - the "mobile factor" changes video experience, especially in the social context
 - behaviour study with 28 participants
- mobile video is more than passive consumption due to boredom
- social importance of owning content and getting credit for recommending content
- solitary activity has social underpinnings (watch video at a time it won't annoy your family)

The End

Hot topics (2006 talk!)

- SPACE: Locative media 
- TIME: Long-term (lifelong?) changes
 - Development of „taste“ (with respect to objects)
 - Liu, Maes & Davenport [Unraveling the Taste Fabric of Social Networks, IJISWIS2005]
 - Dependencies on the development of social network preferences?

utern (goal: Sliftsplat)

7 - 16:56:07 (00:07:39)

5, 49, 44) 16:58:23

55, 49, 43) 16:58:39

2, 49, 458) 16:58:51 - in play

Bot 2
Team Red

Real Object
Destination

St
Bot 1
Team Red

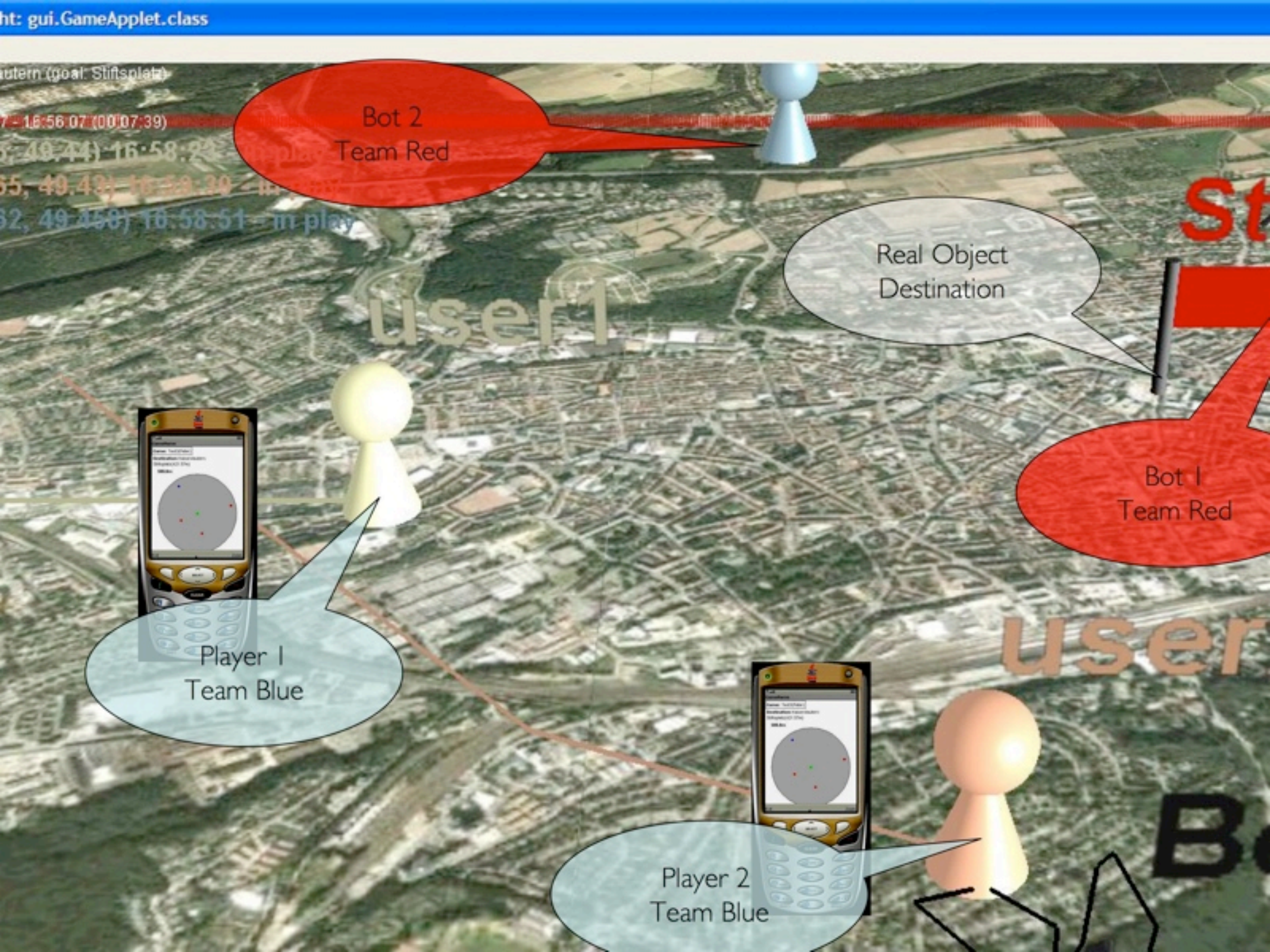
user1

user

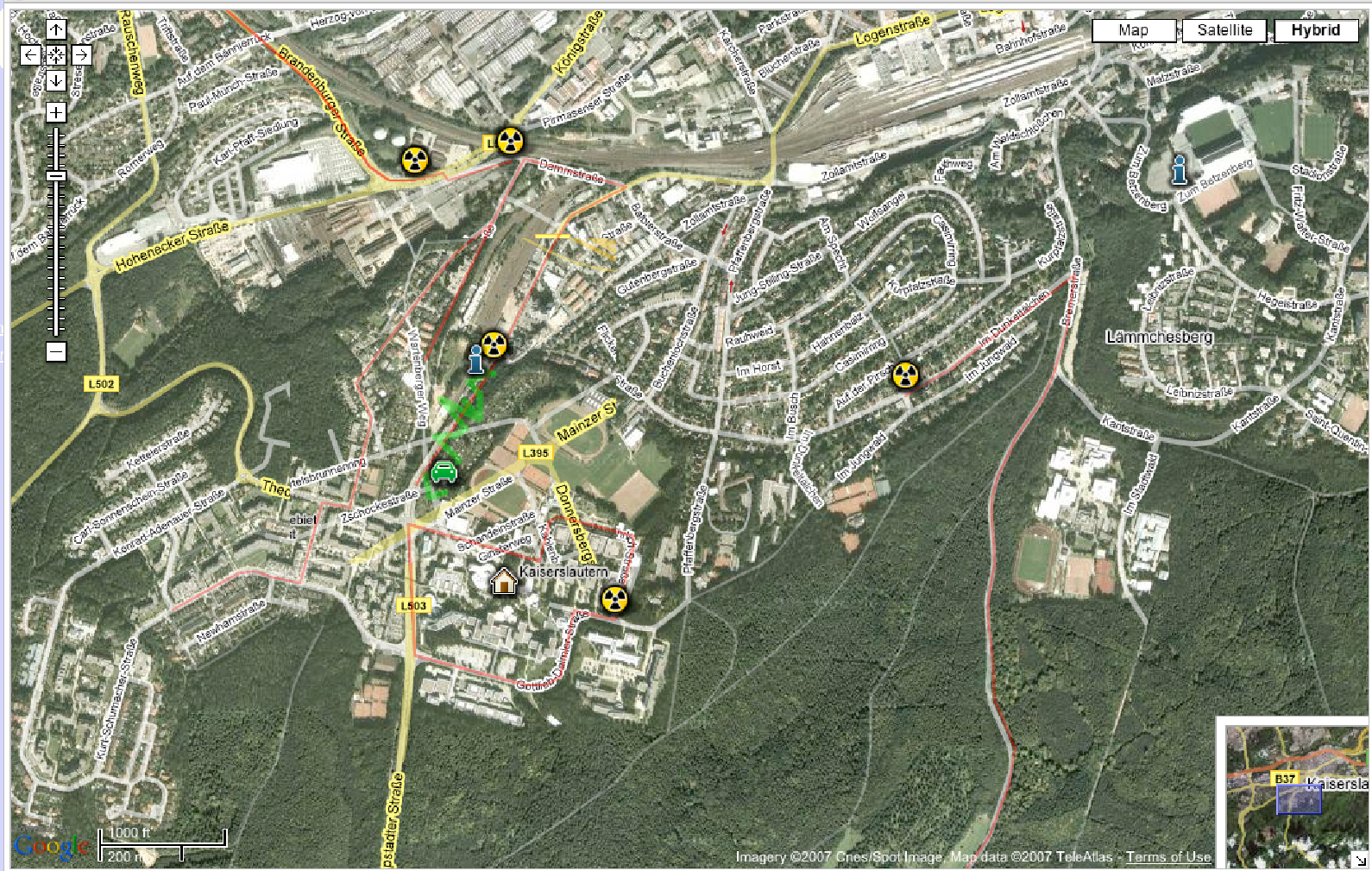
Player 1
Team Blue

Player 2
Team Blue

B



Google Maps



Preferences

Alle Aktuell Einleiten Setup

Allgemeine Informationen:

Name: DFKIGame5
Stadt: Kaiserslautern
Ziel: [Universität](#)
Gestartet: 24.04.2007 16:39:40
Spieler:
[Haloleute](#)
Status: gefangen
Letztes Signal: 16:51:10

Bots:

- [Bot 0](#)
KI: Ziel bewachen
Ziel: Rundweg um Ziel erreicht
Distanz: Rundweg besteht aus 12 Knoten.
- [Bot 1](#)
KI: Spieler Verfolgen
Ziel: Kein Spieler gefunden.
Distanz: 1232 Meter
- [Bot 2](#)
KI: Weg abschneiden
Ziel: Keinen Spieler gefunden.
Distanz: 506 Meter
- [Bot 3](#)
KI: Spieler Verfolgen
Ziel: Kein Spieler gefunden.
Distanz: 3835 Meter
- [Bot 4](#)
KI: Weg abschneiden
Ziel: Keinen Spieler gefunden.
Distanz: 1515 Meter
- [Bot 5](#)
KI: Spieler Verfolgen
Ziel: Kein Spieler gefunden.
Distanz: 3601 Meter

Reload in 3 Sekunden...

Hot topics (2006 talk!)

- DIGITAL IDENTITY
 - Sherry Turkle [The Second Self, 2005] [Life on the Screen, 1995]
 - Danah Boyd [Identity Production in a Networked Culture, AAAS2006]
 - Liberty Alliance [projectliberty.org]
 - ID 2.0 [Dick Hardt: OSCON 2005 Keynote]

UPDATE

Identity matters!

- Privacy vs. Impression Management (=Exhibitionism?)
- OpenID as a supporting open standard!?
- Research issues
 - Aggregation of „FACETED IDENTITY“
 - Measures for TRUST
- Political implications
 - e.g „Vorratsdatenspeicherung“ in Germany
 - Projects with CCTV and RFID technology



Welcome Tobi - who are you?

Add: | [logout](#)

Your Accounts (5):

view as: [map](#) [timeline](#) [iC](#)

Your collected Items: 262 - 262 are valid

14.09.2006

22.06.2007

All Unknowns [gelterswoog](#) [erlebnistag](#) [src](#) [läd](#) [align](#) [img](#) [badesse](#) [see](#) [width](#) [preisen](#) [fahrrad](#) [sommer](#) [fahrradbörse](#) [bikes](#) [vogelwoogstr](#) [strong](#) [städt](#) [gelände](#) [schnupperworkshops](#) [sportverein](#) [href](#) [mal](#) [sport](#) [association](#) [bowling](#) [players](#) [pokertunier](#) [planet](#) [mathefete](#) [männerbalett](#) [highlight](#) [waschmühle](#) [sommertag](#) [juhu](#) [beckengröße](#) [studis](#) [issn](#) [wesch](#) [fundstück](#) [sehr](#) [dank](#) [nacht](#) [target](#) [left](#) [title](#) [länge](#) [bericht](#) [mittwoch](#) [abend](#) [cuballbre](#) [bild](#) [tanzveranstaltung](#) [quellen](#) [kultur](#) [kurzfilmprogramm](#) [wochenmarkt](#) [museum](#) [tour](#) [dugi](#) [otok](#) [asta](#) [sommerfest](#) [asta](#) [juni](#) [indierock](#) [drugs](#) [sexy](#) [boogie](#) [beatclub](#) [ragga-jungle-night](#) [freeze](#) [sommerfete](#) [thirsty](#)

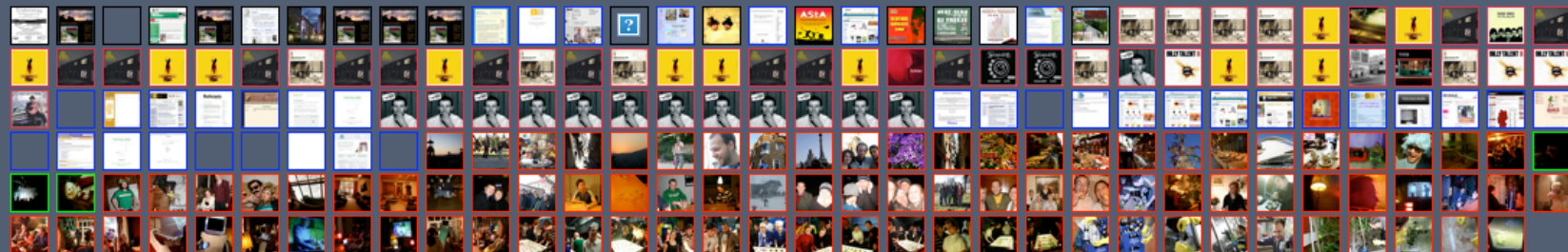
All Vagues [samstag](#) [uhr](#) [stadt](#) [tag](#) [info](#) [poker](#) [sonntag](#) [kramladen](#) [donnerstag](#) [eintritt](#) [eur](#) [beginn](#) [uni](#) [mashup](#) [rss](#) [design](#) [arzt](#) [kammgarn](#) [freitag](#) [ajax](#) [whoami](#) [campus](#) [amazon](#) [underground](#) [da](#) [blog](#) [id](#) [identity2.0](#) [openid](#) [weitere](#) [interesse](#) [zimmer](#) [uni-kl](#) [esa](#) [api](#) [wohnhelm](#) [datenschutz](#) [rails](#) [screencast](#) [verein](#) [nlp](#) [handy](#) [homezone](#) [o2](#) [profile](#) [apotheke](#) [schule](#) [books](#) [information](#) [magazin](#) [linklist](#) [private](#) [spiele](#) [lrb](#) [biergarten](#) [kneipe](#) [restaurant](#) [art](#) [light](#) [musik](#) [geotagging](#) [viamartin](#) [al](#) [ruby](#) [aggregator](#) [madrid](#) [barcelona](#) [jumping](#) [fallas](#) [coffe](#) [spain](#) [valencia](#) [fastnacht](#) [roböxica](#) [cocktail](#) [cotton](#) [club](#) [welle](#) [erdball](#) [singing](#) [snowman](#) [room2](#) [munich](#) [mainstation](#) [newyarseve2006](#) [traunstein](#) [aussiereunion](#) [saltmine](#) [christmas2006](#) [roböxotica](#) [cocktails](#) [kicker](#) [tunier](#) [vandalism](#)

All Locations [wertstoffhof](#) [babarossahalle](#) [sportgemeinde](#) [barbarossahalle](#) [fruchthalle](#) [jugendzentrum](#) [musikschule](#) [innenstadt](#)




All Languages [german](#)

All Artists [the john butler trio](#) [peeping tom](#) [bloc party](#) [arctic monkeys](#) [kaiser chiefs](#) [the subways](#) [blink-182](#) [billy talent](#) [joo kraus](#) [the streets](#) [john lee hooker](#)

All Geos [kaiserslautern](#) [ludwig](#) [europa](#) [freibad](#) [kuba](#) [japanische](#) [sants-montjuic](#) [aschbacherhof](#) [neuhausen](#)

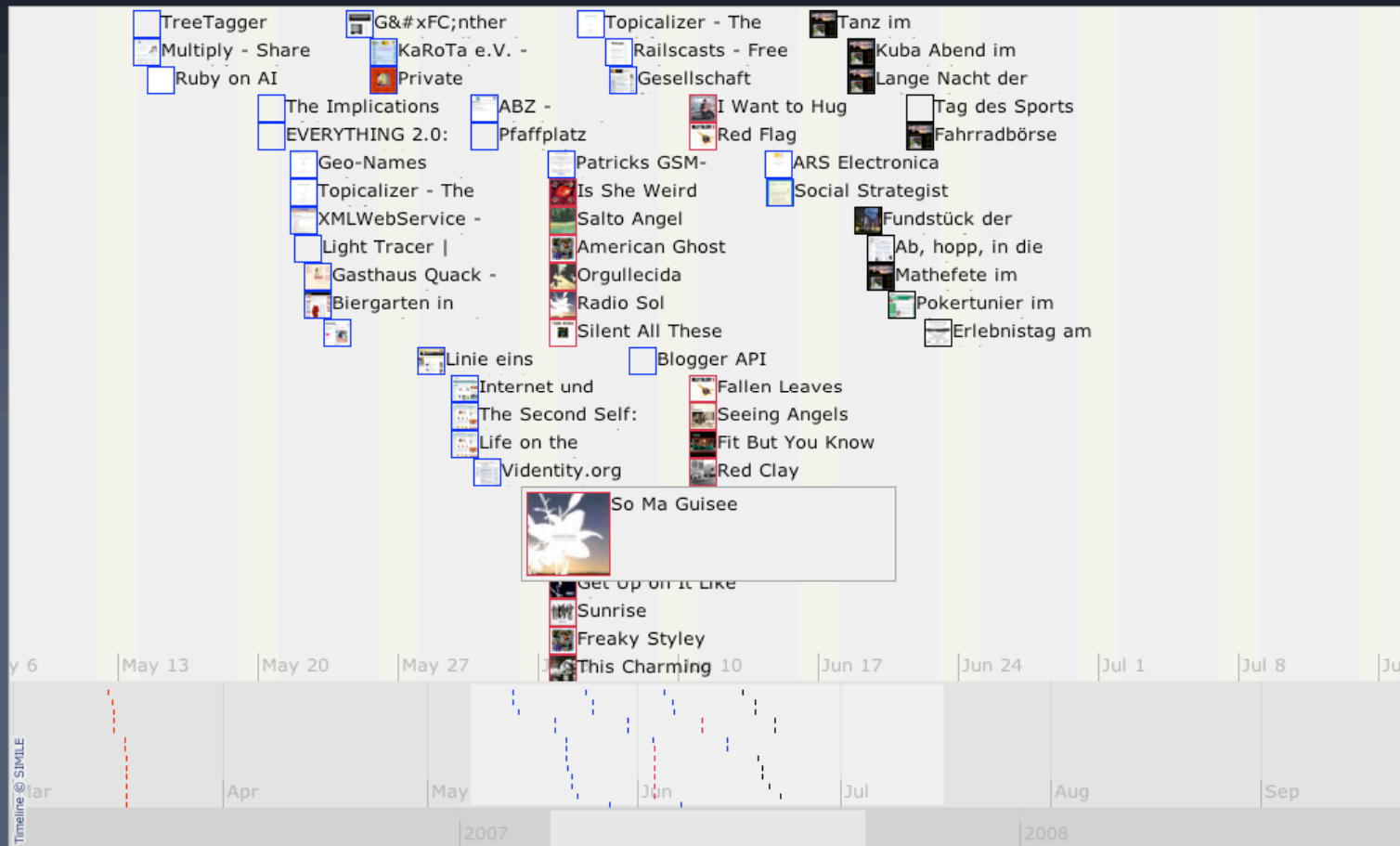


Welcome Tobi - who are you?



Your Accounts (5):     

Add:        | [logout](#)

view as: [map](#) [timeline](#) [iCal](#)



Hot topics (2006 talk!)

-  microformats ?!
 - Bridging the gap between Web2.0 and SemanticWeb?
 - GRDDL (Gleaning Resource Descriptions from Dialects of Languages)
- 2007: From a commercial / startup perspective 
 - Semantic social networks are „hot“, some rely on microformats
 - yowhassup.com



Think...Post...Get in touch. Characters available: 65

professional all co-worker colleague back

http://www.solution-media.de/blog Thomas Huhn on semantics and Identity 2.0


This is my...» origin education career work goal belief appearance nutrition spare time property lifestyle sexuality **blog/website** RSS-feed follower colleague co-worker co-resident neighbor friend acquaintance contact child parent sibling spouse kin sweetheart date crush muse self back

Submit post to "professional all" tagged as "my blog/website"

attach file: Durchsuchen...

Maximum size for all uploaded files is 5.0 MB. Images will automatically be reduced to thumbnail and 800x600 size.


Thomas Huhn

 is **male**, is born **1963-11-06**, is located in **67657 DE** (timezone Europe/Berlin), speaks **German**, OpenID is **thomas.huhn.yowhassup.com**

about

Entrepreneur, Business-Angel and OpenID Evangelist.

Your own words

all 

upcoming cinema

thomas.huhn Wednesday at 11:24pm edit delete

Local weather

thomas.huhn Wednesday at 11:08pm edit delete

[The OpenID Directory] Mijn OpenID: OID provider from the netherlands

thomas.huhn Wednesday at 2:52pm edit delete

Hello Stephan, this is your welcome-message :)

thomas.huhn Wednesday at 2:26pm edit delete

Just found a giant beetle in our garden! Look at the photo!

thomas.huhn Wednesday at 11:54am edit delete

@stephan.baumann can look into our garden from his living room window


thomas.huhn Tuesday at 3:28pm edit delete

@stephan.baumann is brilliant in artificial intelligence

thomas.huhn Tuesday at 3:28pm edit delete

@leslie.huhn is my older daughter

Livefeed from all

 search feeds select date latest each social net

Stephan Baumann  [stephan.baumann.yowhassup.com](#)

is **M**, is born (date of birth n.a.), is located in **67331 DE** (timezone Europe/Berlin), speaks **DE**

Bio
Von Beruf: Informatiker Ansonsten: Musiker

Networks
public > everybody > met
professional > all > met
public > everybody > met

Tags
my > colleague delete
doing > following delete
my > neighbor delete

edit message comment

first contact:
Nov 30, 1999 at 3:00am

Stefanie Huhn  [stefanie.huhn.yowhassup.com](#)

is **F**, is born **1966-01-09**, is located in **67731 DE** (timezone Europe/Berlin), speaks **DE**

Bio
Me and my dog Max! :)

Networks
public > everybody > met
professional > all > not met

Tags
my > spouse delete
doing > following delete

edit message comment

first contact:
Nov 30, 1999 at 3:00am

UPDATE

Problems

- 100 onliners =
 - 1 creator +
 - 10 interactions +
 - 89 viewers
- Slots of attention decrease
- Cultural differences

UPDATE

Future trends?

- „Precision over Recall!“
- StumbleUpon.com



- 
People Powered Search
- „Semi-closed and closed“ networks
- **Quality, trust matters!**



Future trends?

- „Generation Mobile“ (e.g. Twitter)
- „Generation Game“
- I still wait for efficient reasoning :)
 - large-scale RDF stores
 - full-fledged „semantified“ media

Mind the gap(s)!

- Try to work on an application you are missing personally! (intrinsic motivation)

UPDATE

- I will start to work on Music Information Retrieval again!
- Work on real-world data!
- Show it to your friends!
- Talk about it!

hard
bloggin'
scientist



thanks for listening to my few bits ...

send emails(!) to:

stephan.baumann@dfki.de

read our blog

www.computationalculture.org

