



# Information Infrastructures for Brain Gain

or: DKNs as OSCs...

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UNESCO/LIMSI Workshop on Diaspora Knowledge Networks, Paris, 4 Oct 2006

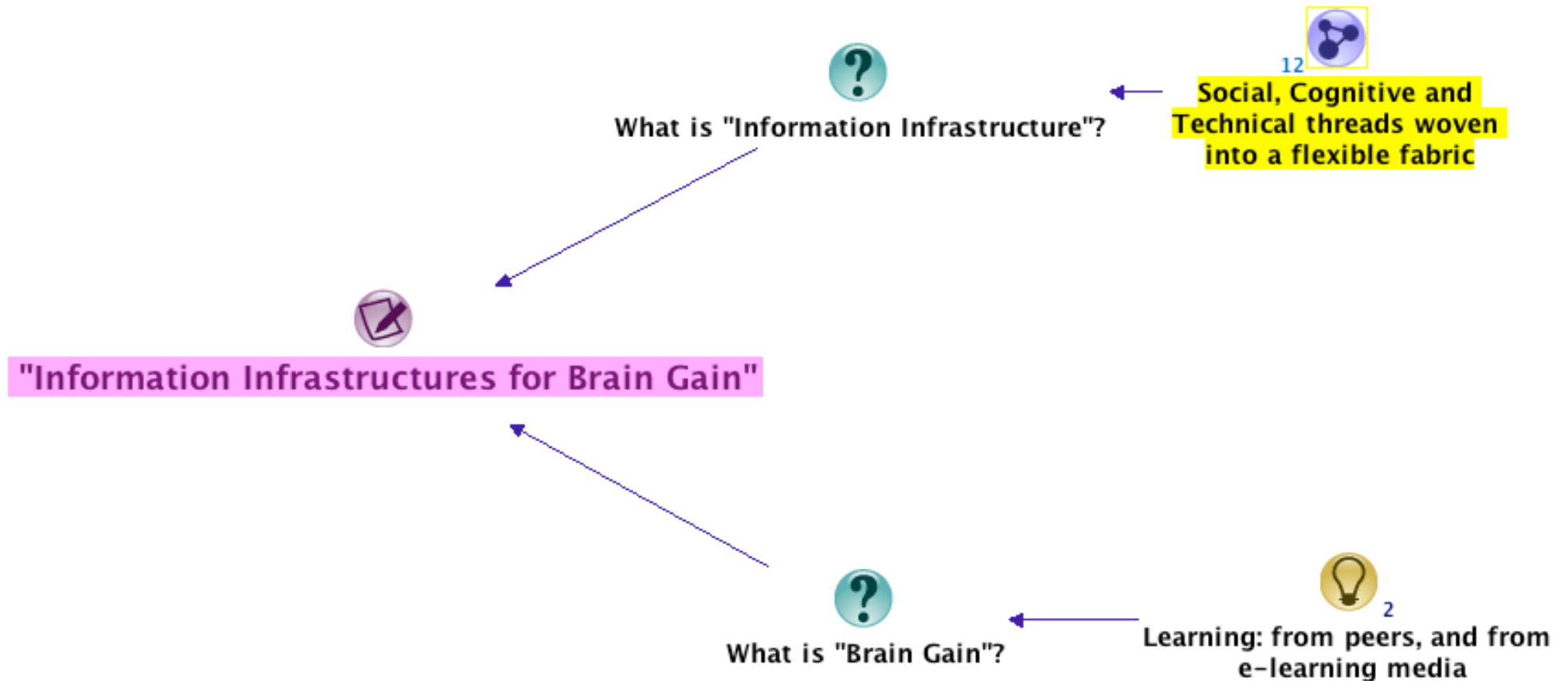


## Objective

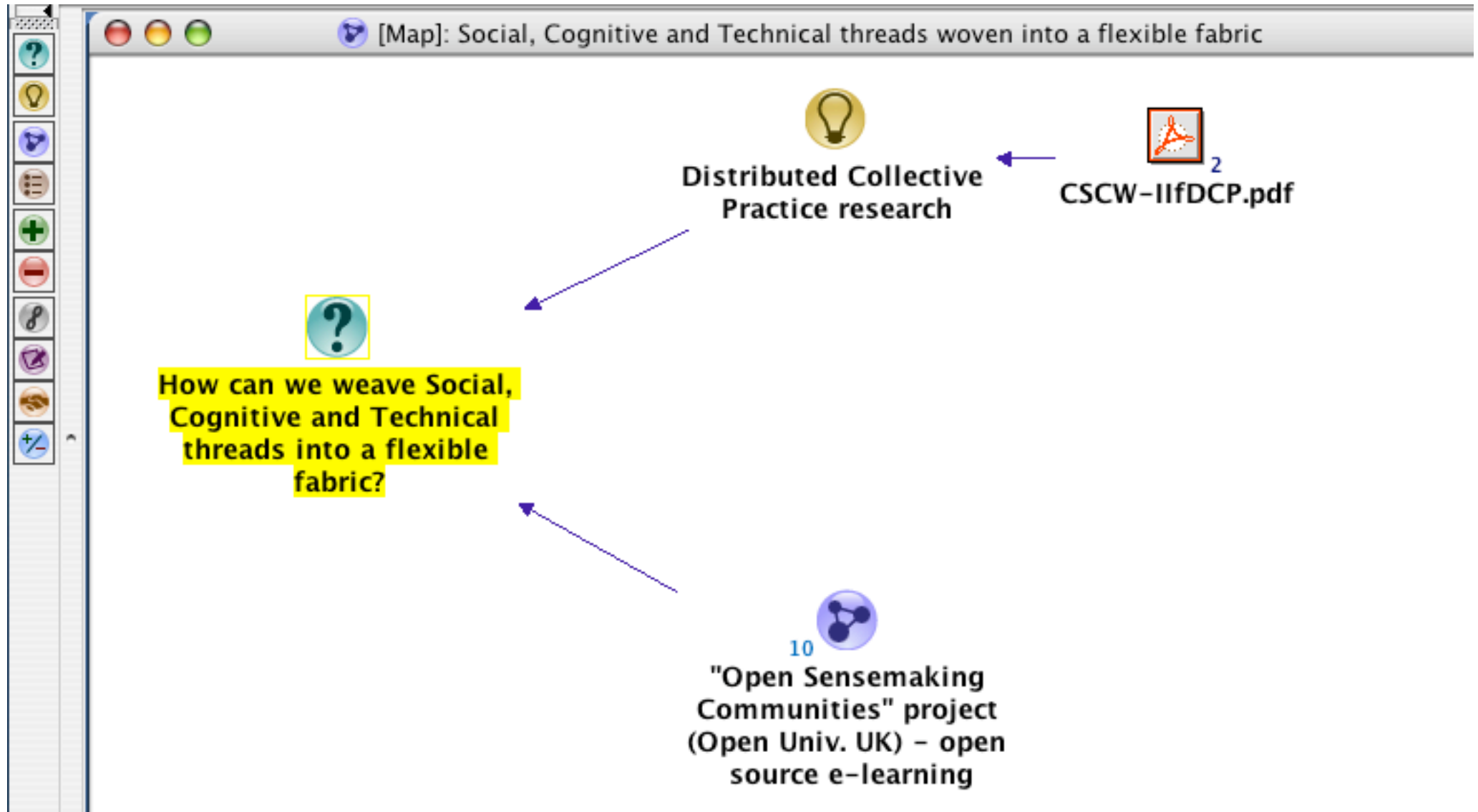
...to treat *Diaspora Knowledge Networks*  
as a special case of  
*OSCs: Open Sensemaking Communities*

...and to introduce a suite of OSC tools  
for your consideration

# Compendium map of this talk



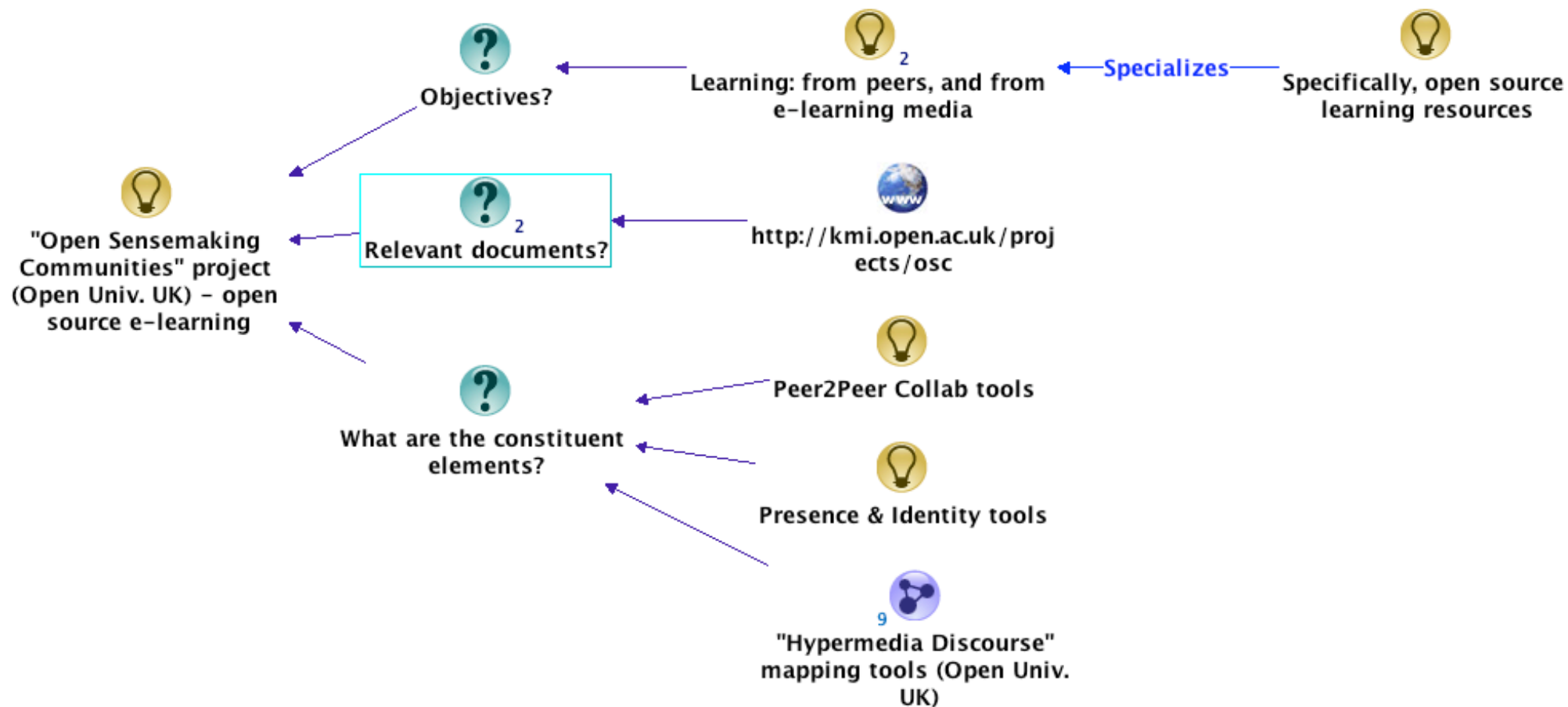
# Compendium map of this talk







# Compendium map of this talk





# The Open University's *LabSpace*

[labspace.open.ac.uk](http://labspace.open.ac.uk) [LabSpace launches 25 Oct 2006]

[kmi.open.ac.uk/projects/osc](http://kmi.open.ac.uk/projects/osc) [Open Sensemaking Communities project]

- OpenLearn initiative:  
[www.open.ac.uk/openlearn](http://www.open.ac.uk/openlearn)
  - Open source licensed learning resources, delivered in an environment to explore self-organising communities of learners and educators
    - Peer2Peer Collaboration
    - Presence
    - Sync+Async communication
    - Concept and Argument Mapping

# “Open Sensemaking Communities” (OSC’s)



- Open...
  - (working from open source content with open source tools)
  - Open to anyone
  - Self-organising
  - Open to different perspectives (hopefully)
- Sensemaking...
  - (cf. Weick, situated cognition and constructivist perspectives)
  - Expressing, and contesting, interpretations - negotiating meaning and language
- Communities...
  - Online groups with emergent social structure, facilitated by social software that fosters connection and identity



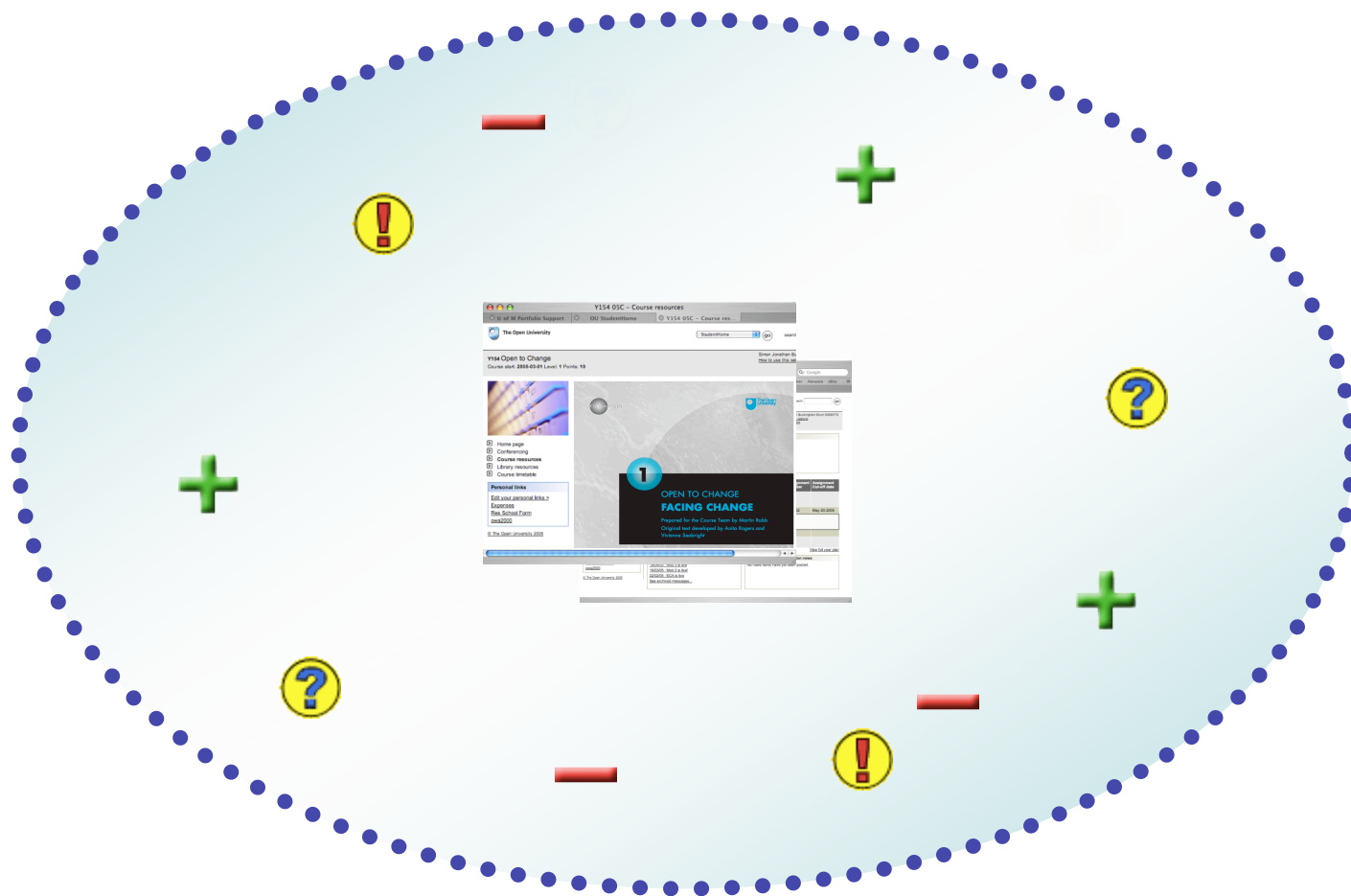
# Taking 'content' to the next level



From raw learning resources...  
(what we *push* to the learner)



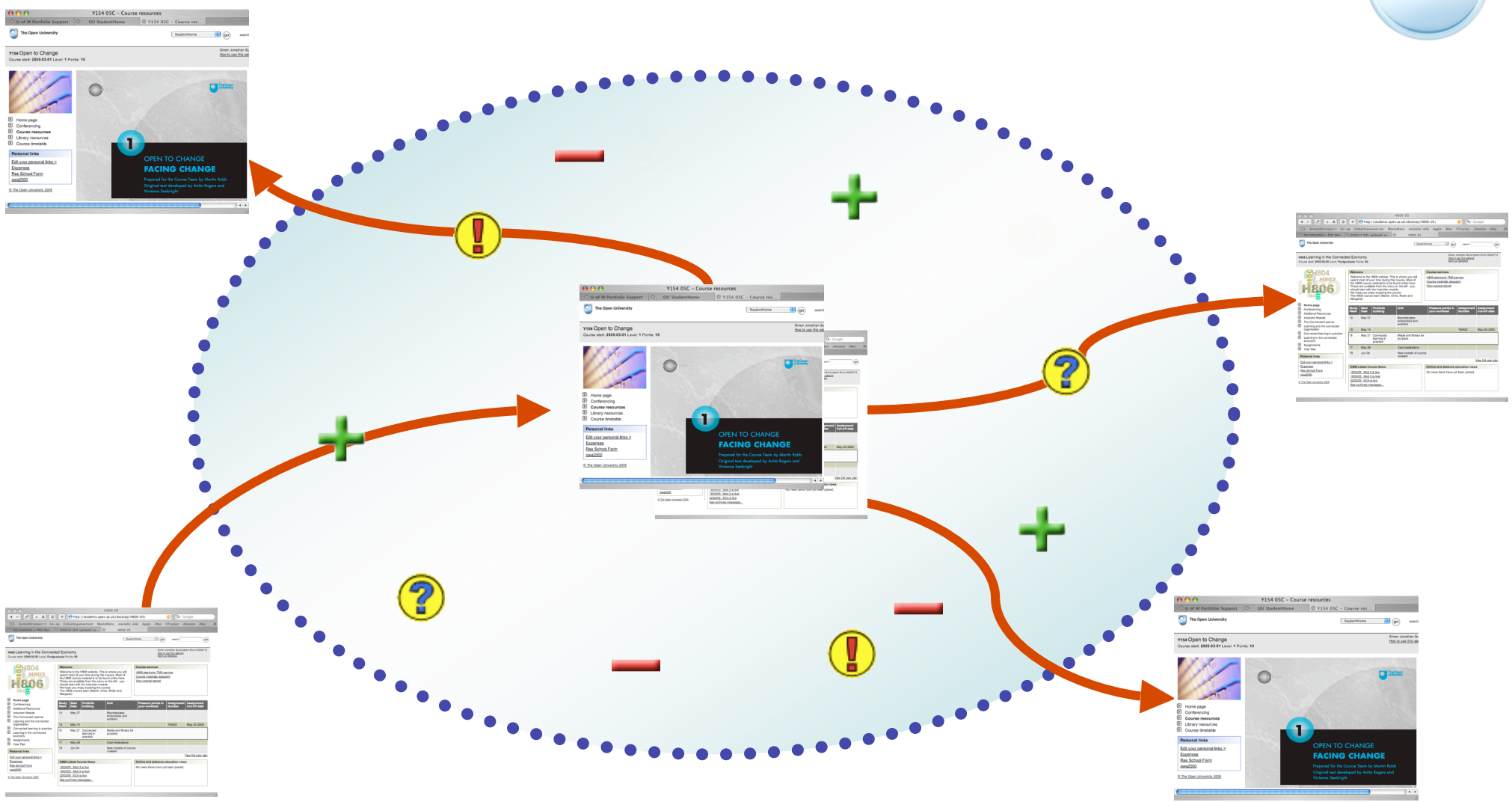
# Taking 'content' to the next level



...to layers of tools for sensemaking  
(what the learners *construct* for themselves)



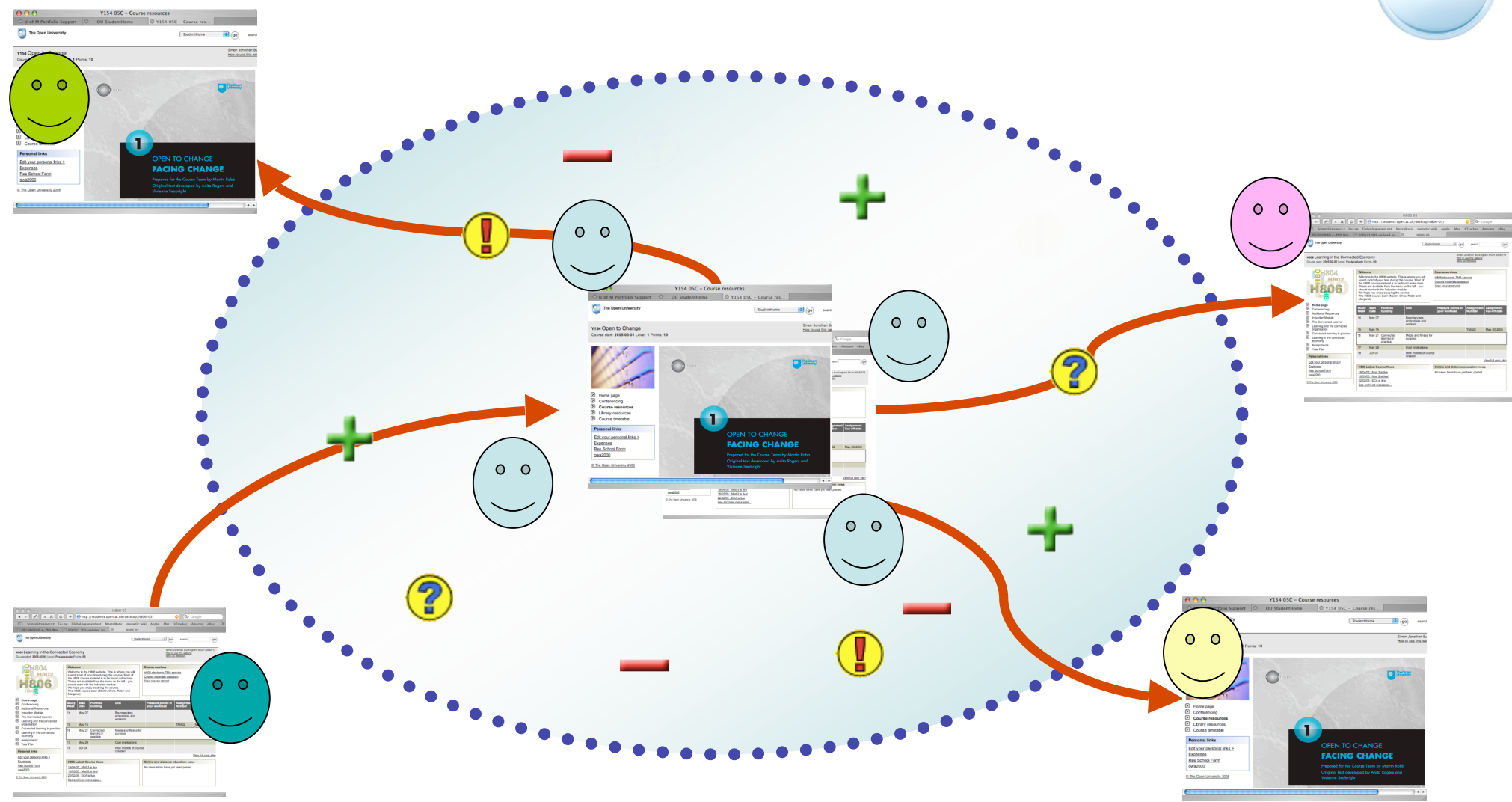
# Taking 'content' to the next level



...creating a web of ideas, open and evolving



# Taking 'content' to the next level



...creating a *learning community*

# The missing layer to support *collective sensemaking...*



***interpretations?***

**domain ontologies**

richer formalisation of consensus:  
minimise inconsistency, ambiguity, controversy

**metadata**

generally uncontroversial:  
minimise inconsistency, ambiguity, controversy

**resources**

documents, datasets, etc...





# ‘Sensemaking’

*sensemaking: community+discourse*

*“Sensemaking is about such things as placement of items into frameworks, comprehending, redressing surprise, constructing meaning, interacting in pursuit of mutual understanding, and patterning.”*

*(Karl Weick, “Sensemaking in Organizations”, 1995, p.6)*

- ... it’s what we do in the face of uncertainty and ambiguity: “What does this *mean?*”
- What tools will support sensemaking, and open learning communities to self-organise?



# Anatomy of the sensemaking layer

*How much does the system 'know' about this layer?*

*→ What kinds of services can it enable for students?*

## *sensemaking*

### *community*

Tools to facilitate emergent social structures, e.g.

- Diverse communication channels for p2p/group interaction
- Self-organising student cohorts
- Peer ratings for p2p support
- Visualizations of community activity

### *discourse*

Tools to construct and publish interpretations, e.g.

- Level 1: annotations, portfolios, web boards, blogs, wikis
- Level 2: semantic structure to
  - provoke deeper personal reflection
  - enable collaborative annotation and discourse

*informal*



*semiformal*



# LabSpace homepage

OpenLearn  
**LabSpace**

[NEWS](#) [TOPICS](#) [TOOLS](#) [FORUM](#) [RESEARCH](#) Site search:


**MSG Instant Messaging**  
My MSG status:  (Offline)  
My contacts: 1 / 0  
All users: 1 / 439  
[Launch MSG](#)  
[QuickStart](#)

**FlashMeeting**  
[QuickStart](#)  
[Book a FlashMeeting](#)  
[Manage My Events](#)  
[Public Replays \(28\)](#)  
[Public Meetings \(0\)](#)  
[Try the demo](#)

**Knowledge Maps**  
[QuickStart](#)  
[Browse Maps \(4\)](#)  
[Download Compendium](#)  
[Share Maps](#)

**Learning Journal Menu**  
[Add a new entry](#)  
[View my entries](#)  
[Learning Journal preferences](#)  
[View site entries](#)  
[Add/delete tags ...](#)

**CONNECT :: DOWNLOAD :: REMIX :: UPLOAD :: FEEDBACK**




**Welcome to the LabSpace**  
the experimental zone for **OpenLearn**

[CONNECT](#)  
with others who share your interests

[DOWNLOAD](#)  
open educational resources and software

[REMIX](#)  
to improve what's here

[UPLOAD](#)  
your work and see it evolve

**LearningSpace**  
[Why not visit our partner site](#)  
[LearningSpace](#) 

**LabSpace News**  
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[Educ Resource news...](#)  
[Tools news...](#)  
[ECOSSENSUS project uses LabSpace for UK-Guyana OER development](#)  
[LabSpace News](#)

**Site Administration**

- [Notifications](#)
- [Users](#)
- [Courses](#)
- [Location](#)
- [Language](#)
- [Modules](#)
- [Security](#)
- [Appearance](#)
- [Server](#)
- [Reports](#)
- [Miscellaneous](#)



**Knowledge  
Mapping**

**P2P  
Collaboration**

**Moodle VLE**

**Social Presence  
& Identity**



# Virtual Learning Environment (VLE)

*Moodle* open source VLE adopted by  
the OU: [moodle.org](http://moodle.org)



# Virtual Learning Environment

- Structured web learning content management and publishing (cf. Blackboard, WebCT, etc)
- Tools for non-technical educators to publish learning resources, manage assignments, configure quizzes, etc
- Tools for learners to navigate resources, maintain a learning blog, hold discussions, etc

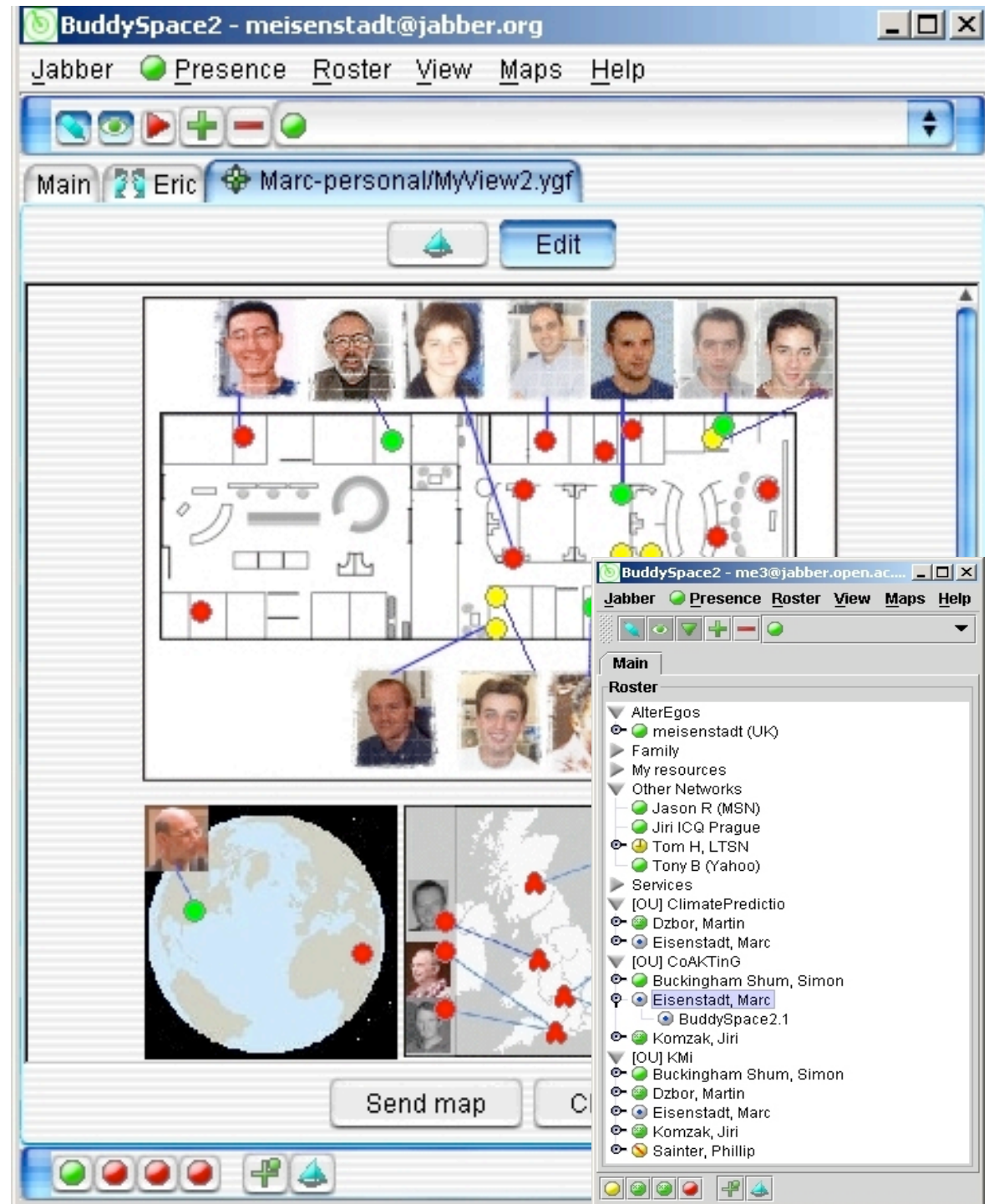


# Social Presence and Identity

# Presence & identity 1

- messaging
- alerts
- location (+ privacy!)
- attention
- mood
- device (e.g. mobile)
- accessibility (interruptable?)
- context (e.g. studying)
- discovery (buddyfinder)

*“Radar dashboard”*





# Location matters: BuddySpace in L203, NASA, etc.



The image shows a screenshot of a BuddySpace2 interface. On the left, a window titled '3/L203-all.ygf' displays a map of the United Kingdom with numerous red and green location pins. The map window has a toolbar with an anchor icon, a location pin icon, and an 'Edit' button. On the right, the main BuddySpace2 window is titled 'BuddySpace2 - me3@im-students.open.ac.uk'. It features a menu bar with 'Jabber', 'Presence', 'Roster', 'View', 'Bookmarks', 'Maps', and 'Help'. Below the menu bar is a toolbar with icons for a location pin, a green eye, a green triangle, a green plus sign, a yellow 'Away' status indicator, and a blue square. The main chat area shows a conversation in a room named 'L203/L203-all.ygf'. The chat text includes: 'deutschen vielleicht Opmann ja auch sind.', '<kr98> Hallo, lw952, ist das Leon?', '<lw952> Ja, ich bin Leon, guten Abend', '<kac222> Guten Abend Leon - Ich bin Kevin', '<lw952> Es freut mich Sie kennenzulernen', '<kac222> Wie geht das wetter in Kent', '<lw952> Sehr gut, danke. Wo wohnen Sie?', '<kr98> Ich vermute Sie haben beide die BuddySpace Karte geladen, wo man sich so schoen sehen kann. Stimmt dass', and '<kac222> Ja ich habe Klaus'. To the right of the chat is a 'Roster' panel with four status indicators: a yellow one at the top and three green ones below. The chat window also has a toolbar with a checked 'Enter = Send' checkbox, a location pin icon, a location pin icon, and a 'Load histo' button. At the bottom of the chat window are 'Send man' and 'Close' buttons.

# BuddySpace for NASA remote science teams



The screenshot displays the BuddySpace2 interface, which is used for remote science teams. It features a main window titled "Compendium - NASA MDRS Crew 29" and a chat window titled "BuddySpace2 - s.buckingham.shum%open.ac.uk@buddyspace".

The main window shows a map of the United States with several red dots indicating the locations of team members. The map is titled "THE MARS SOCIETY MARS DESERT RESEARCH STATION" and "MDRS Crew 29 April 25 - May 8, 2004". The team members shown are Dan, Shannon, Stacy, Kevin, Danius, Michelle, and Simon. A text box on the map reads: "This is an enhanced version of how data should be rendered and clustered, by Worksite (or might be termed Location) but Nomenclature? Waypoint X, Sample 1.ass".

The chat window shows a list of participants in the room: Key, albert.m.selvin%verizon.com, dtm%ecs.soton.ac.uk, mfarley%hotmail.com, s.buckingham.shum%open.ac.uk, and srupert%miracosta.edu. The chat text includes: "One thing we could do is to work offline to create alternative possible templates for future RSTs, now that we have so much more idea of what might be useful." and "Crew can't w the RST".

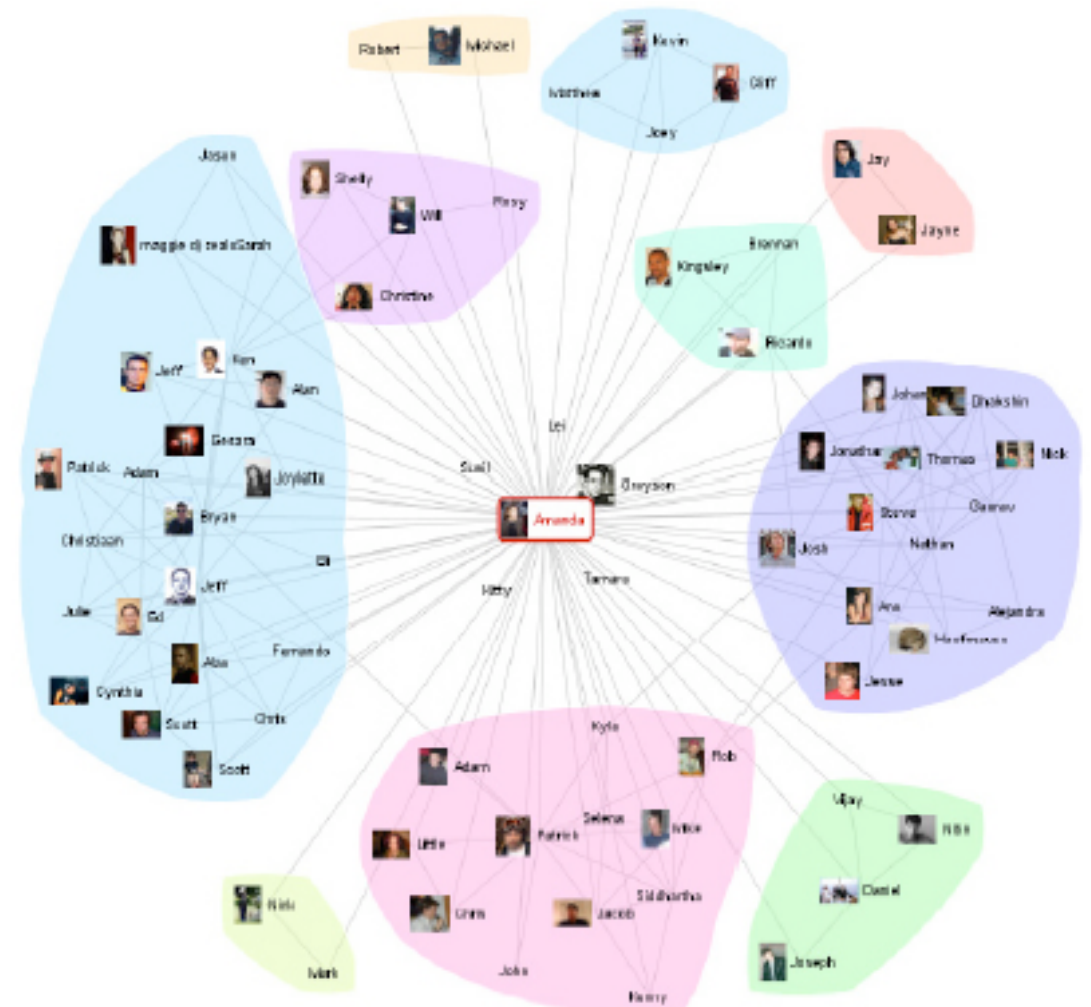
The chat window also has a "Roster" section with a "Load history" button and a "Send" button. The chat window title bar includes "Jabber", "Presence", "Roster", "View", "Bookmarks", "Maps", and "Help".



# Presence & identity 2

- user profiles (+ privacy)
- interests
- **reputation**
- status
- friendship networks
- browsing history
- publishing history
- tag-clouds
- feeds (in & out)
- media (songs, photos)

“sphere of influence”

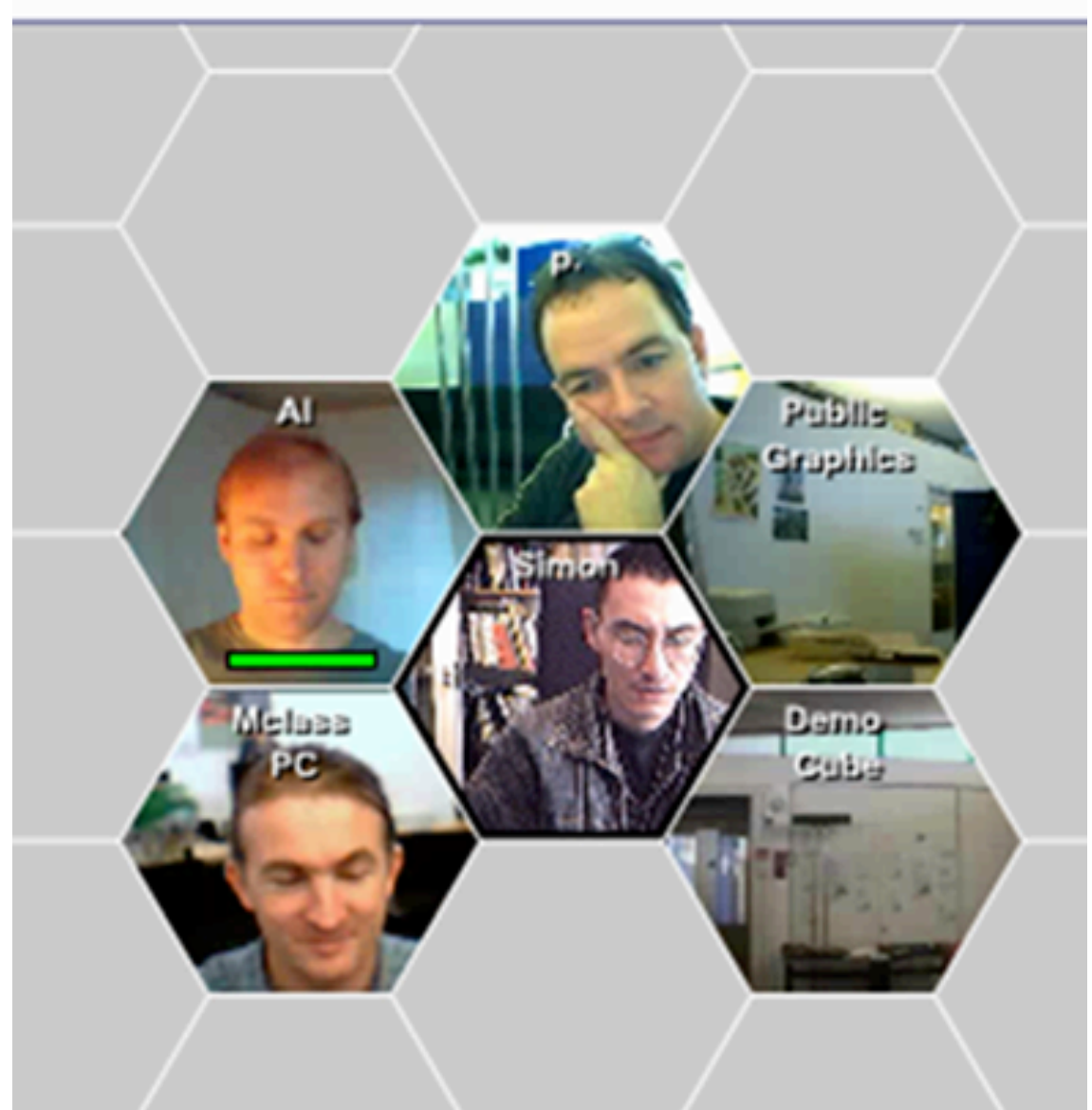


erlinlöch esr family fav female ferrell festive finger fire fish flag fog food funny garrett garth gay  
ged geek german goat gooty grass griff gun heart heather highschool hofer horse HOUSE hug jag  
jason jen jennastein jesse jessicka joe josh judith julie junior justin kallani katze kelly keni kiss krissy krista kristian leonora legs lights  
lindsay lisaphillips lisbon livejournal love mabbi mahlon major makinson marlene mattpeterson  
maureen meena megan menatrott mexico midendian mischa mobley mouth naik naomi nature nick nicole now nyc ollie  
optp OX parade party patrock patrick paula pavlak pearl pee pista plane poi political pool portland pose power pretty project pumpkin rachel  
railing relatives rhino rianne righellis rms rock rose ryan safana sand sandy sanfran santa sarah scene scott  
scrabble screenshot scsi scuba sexy shelby shelly sherm sign sixapart skin sky sleep smile smoke snow snowman sparks  
statue stella steph steve still SUN superman tabby tara tav tech tessa tie tiffany trampoline trees trick trish tydel view  
water wcu whitaker whitakerdance wine work ydnar

# Hexagon: lo-fi visual presence & awareness



- Small 'Hexes' show periodically updated snapshots of people, availability, and activity in the department
- 'Coffee room' for audio chat
- Webcam and Flash plug-in for Web browser

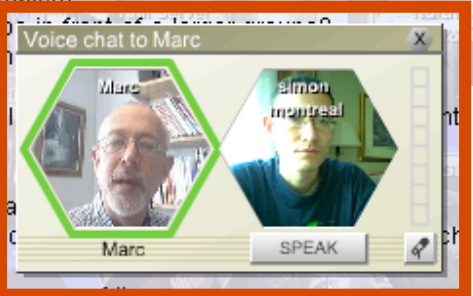


Hexes Text Chat Reg Users Preferences Log Off hexagon 0.908

Marc TO ALL

Marc: 11:39. me?  
Marc: 11:39. no  
Marc: 11:39. ;-)  
Marc: 11:39. should I be?  
simon montreal: 11:40. ok fine  
simon montreal: 11:40. can try  
Marc: 11:40. what I mean is I'm  
simon montreal: 11:40. ok noproblem  
Marc: 11:40. was I supposed to  
Marc: 11:40. (! thought u must h  
Marc: 11:41. hang on a sec  
simon montreal: 11:41. not at  
Manchester  
Marc: 11:41. AHA  
simon montreal: 11:41. oops th  
Marc: 11:41. that explains the "h  
simon montreal: 11:41. !  
Marc: 11:41. I couldn't make any sense of it  
Marc: 11:41. yes, tmrw  
Marc: 11:42. (though the above dialogue makes a cool psycholinguistic case study!!! How did I \*KNOW\* your txt didn't sound "quite right"????!!)  
simon montreal: 11:42. right  
simon montreal: 11:42. timezone disorientation on my part too  
Marc: 11:42. will u b there tmrw?

SEND to Marc



Size: 75% | 100% | 150% | 200% | Fill Window

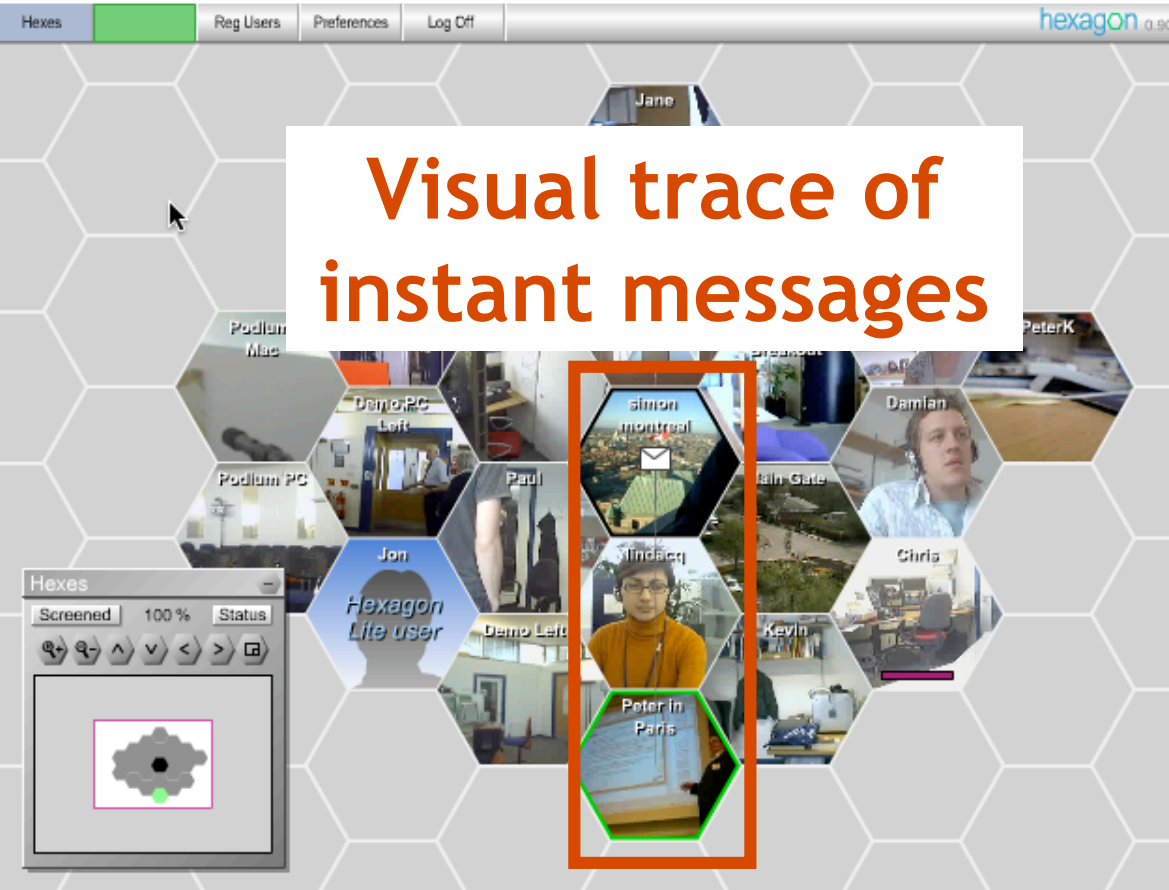


## Voice chat

Hexes Reg Users Preferences Log Off hexagon 0.908

Jane

Visual trace of instant messages



Size: 75% | 100% | 150% | 200% | Fill Window



# P2P Collaboration



# FlashMeeting: Web video conf.



Self-organising communities using FM to discuss ideas and provide social support

1:15:26 🍌 Verdi is next 25 joined names images

Interrupt **JOIN QUEUE** (7) 🖐️

prefs vote urls chat about

matt: kunga - you're doing what?  
Brett: word  
david: to your mutha  
Devlon: why not just use the existing commenting feature that most vlogs have and it's up to the site's 'owner' to ask for feedback  
jamie : but do it well

Send

Microsoft Internet Explorer  
Favorites Tools Help  
Search Favorites  
ash.kmi.open.ac.uk:8080/fm/flashmeeting.php?code=bd3a1f-2168&room=fm2168&size=full  
Search Web My Web Mail My Yahoo! Personals Music

0:14:12 paul et rachel names images

Interrupt **JOIN QUEUE** (0) 🖐️

prefs vote urls chat about

zablo: because il semble qu'on manque de bande passante en general ce soir  
alex: faudrait pouvoir enregistrer, tout ca ... vous le faites ?  
mathieu: tout le monde connait wikipedia :)  
zablo: c'est enregistre automatiquement et ensuite on dispose d'une adresse avec l'archive a envoyer a tous  
Charlie Mars: moi j'enregistre des petit bout avec camtasia


Send

# FlashMeeting Memo video-conference replay p2p student mentoring - now a replayable resource



24-01-06 AM Frame Grabbers Mon. Jan. 23rd 7:43 of 89

urls chat list



Sam P

00:15: Nicole: hey everyone  
00:22: JustinWeg: hello  
00:24: Vincent John: WOOOO!  
00:27: Niem Tran: hi folks! :)  
00:29: Mike Feil: yooo  
00:29: Vincent John: So excited, Eric  
00:38: Jocelyn: hey everyone  
00:53: Jocelyn: I dont think I'm on the list  
01:07: JeffKim Doing Showdown Now as He Listens to FrameGrabbers: SHOWdown is due TONIGHT so i am doing it while im listening in  
01:09: Mike Feil: no vid/audio eric ?

URLs

LOADING BUFFER 00:11 01:58:00

Eric	00:15-00:20	00:25-00:30	00:35-00:40	00:45-00:50	00:55-01:00	01:05-01:10	01:15-01:20	01:25-01:30	01:35-01:40	01:45-01:50	01:55-02:00
davida	00:20-00:25	00:30-00:35	00:40-00:45	00:50-00:55	01:00-01:05	01:10-01:15	01:20-01:25	01:30-01:35	01:40-01:45	01:50-01:55	02:00-02:05
tredeger	00:25-00:30	00:35-00:40	00:45-00:50	00:55-01:00	01:05-01:10	01:15-01:20	01:25-01:30	01:35-01:40	01:45-01:50	01:55-02:00	02:05-02:10
Sam P	00:30-00:35	00:40-00:45	00:50-00:55	01:00-01:05	01:10-01:15	01:20-01:25	01:30-01:35	01:40-01:45	01:50-01:55	02:00-02:05	02:10-02:15
Barry Smith	00:35-00:40	00:45-00:50	00:55-01:00	01:05-01:10	01:15-01:20	01:25-01:30	01:35-01:40	01:45-01:50	01:55-02:00	02:05-02:10	02:15-02:20
kenny	00:40-00:45	00:50-00:55	01:00-01:05	01:10-01:15	01:20-01:25	01:30-01:35	01:40-01:45	01:50-01:55	02:00-02:05	02:10-02:15	02:20-02:25

25 computer animation students in the US enrolled on an online course, showing and discussing work

Self-appointed leader coordinating the use of FM



Date: 24-01-06 03:00:00 GMT +0000  
Attendees: 34  
Duration: 1:58:60 of the 1:59:00 booked  
Note: positions are based on attendee IP





# Knowledge Mapping & Semantic Annotation

**‘Conceptual Cartography’  
for self-organising communities**



# Knowledge Maps in the LabSpace

OpenLearn  
**LabSpace**

NEWS TOPICS TOOLS FORUM RESEARCH Site search:  Go

MSG Instant Messaging  
My MSG status:  (Offline)  
My contacts: 1 / 0  
All users: 1 / 439  
Launch MSG  
QuickStart

FlashMeeting  
QuickStart  
Book a FlashMeeting  
Manage My Events  
Public Replays (28)  
Public Meetings (0)  
Try the demo

**Knowledge Maps**  
QuickStart  
Browse Maps (4)  
Download Compendium  
Share Maps

Learning Journal Menu  
Add a new entry  
View my entries  
Learning Journal preferences  
View site entries  
Add/delete tags ...

CONNECT :: DOWNLOAD :: REMIX :: UPLOAD :: FEEDBACK

Turn editing on

## Knowledge Maps

- QuickStart
- Browse Maps (4)
- Download Compendium
- Share Maps

CONNECT with others who share...

DOWNLOAD open educational resources...

REMIX to improve what's here

UPLOAD your work and see it evolve

Miscellaneous

# Example Knowledge Maps for an OU unit (“B700: Strategy”)



- These examples illustrate the variety of knowledge map that can be created for an open educational resource
- These are created using the OU’s *Compendium* software tool, which is integrated into the LabSpace
  - Maps may be created as a personal resource to keep track of information and ideas
  - Maps can also be exported to HTML and uploaded to the LabSpace, linking it to a specific unit
  - Others can then reversion this if the author has provided the data file

# B700: Learning Path Navigation Map of the unit



## B700\_3 A STRATEGIC VIEW OF PERFORMANCE Learning Path



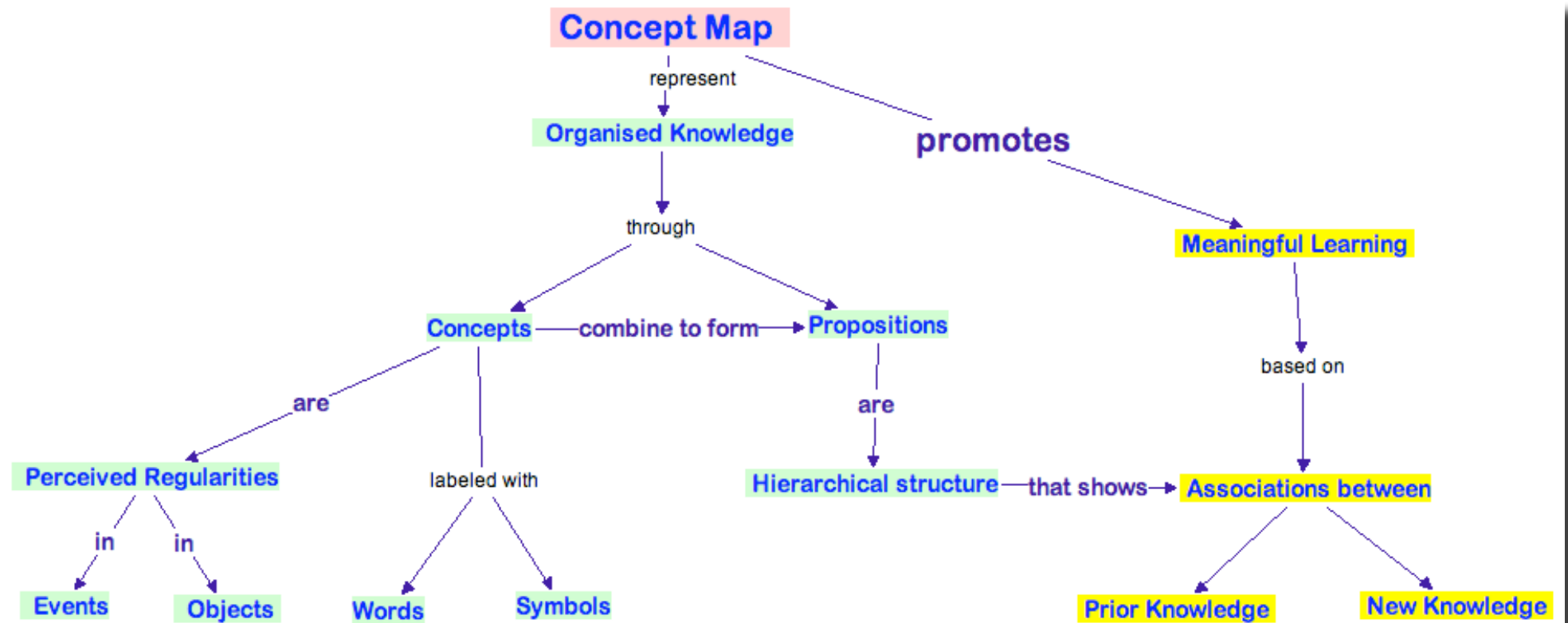


# B700: Mind Map

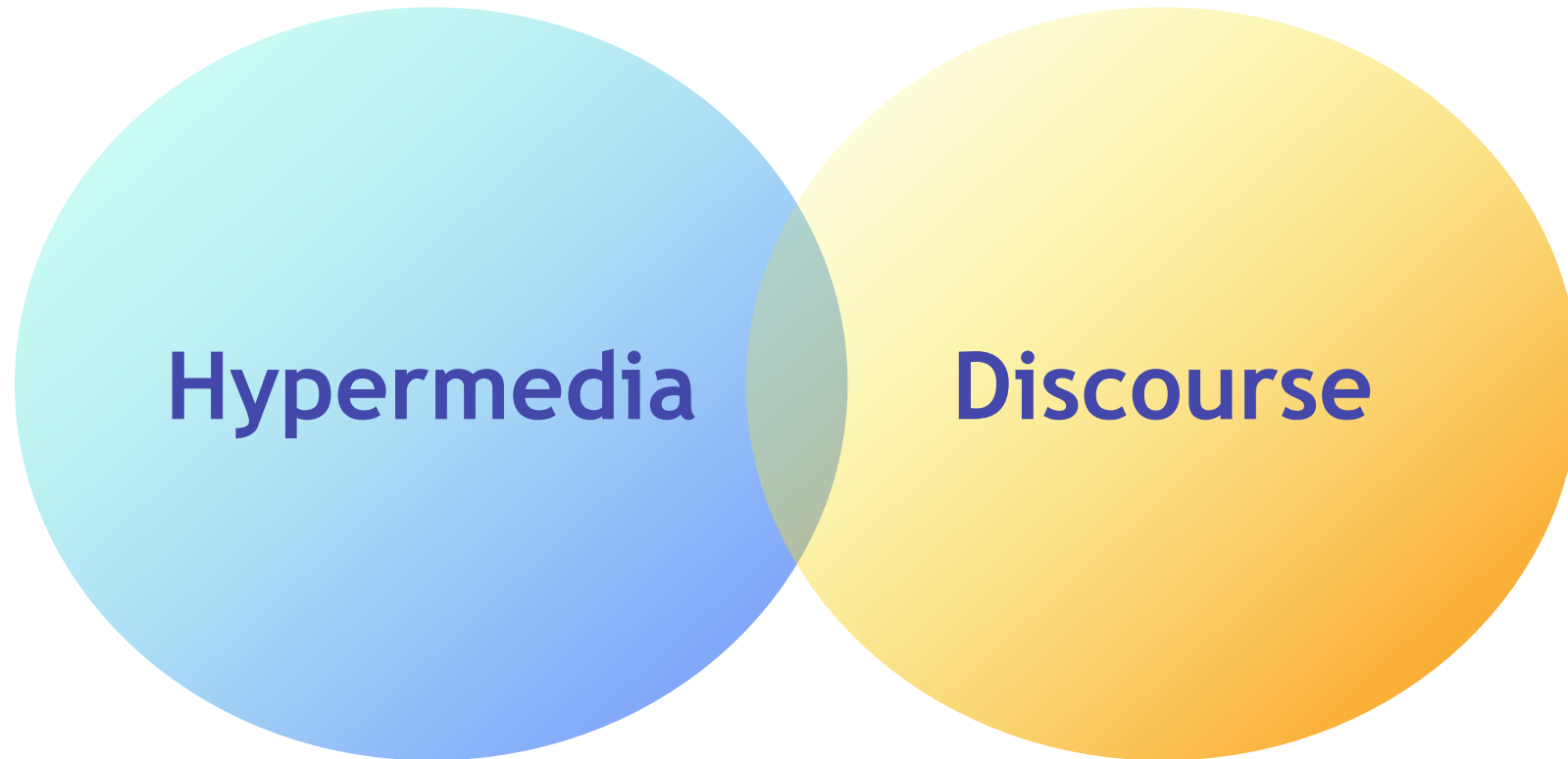
## STRATEGY - MINDMAP



# B700: Concept Map



# Hypermedia Discourse as a framework for structured discourse on the Web



*...reading and writing interactive, evolving networks of  
information, concepts, issues, ideas, arguments*





# Discourse

- Verbal and written workplace communication
- Discourse communities: “making and taking perspectives”
- Dialogue
- Argumentation
- Claim making
- Analytical narrative
- Meetings

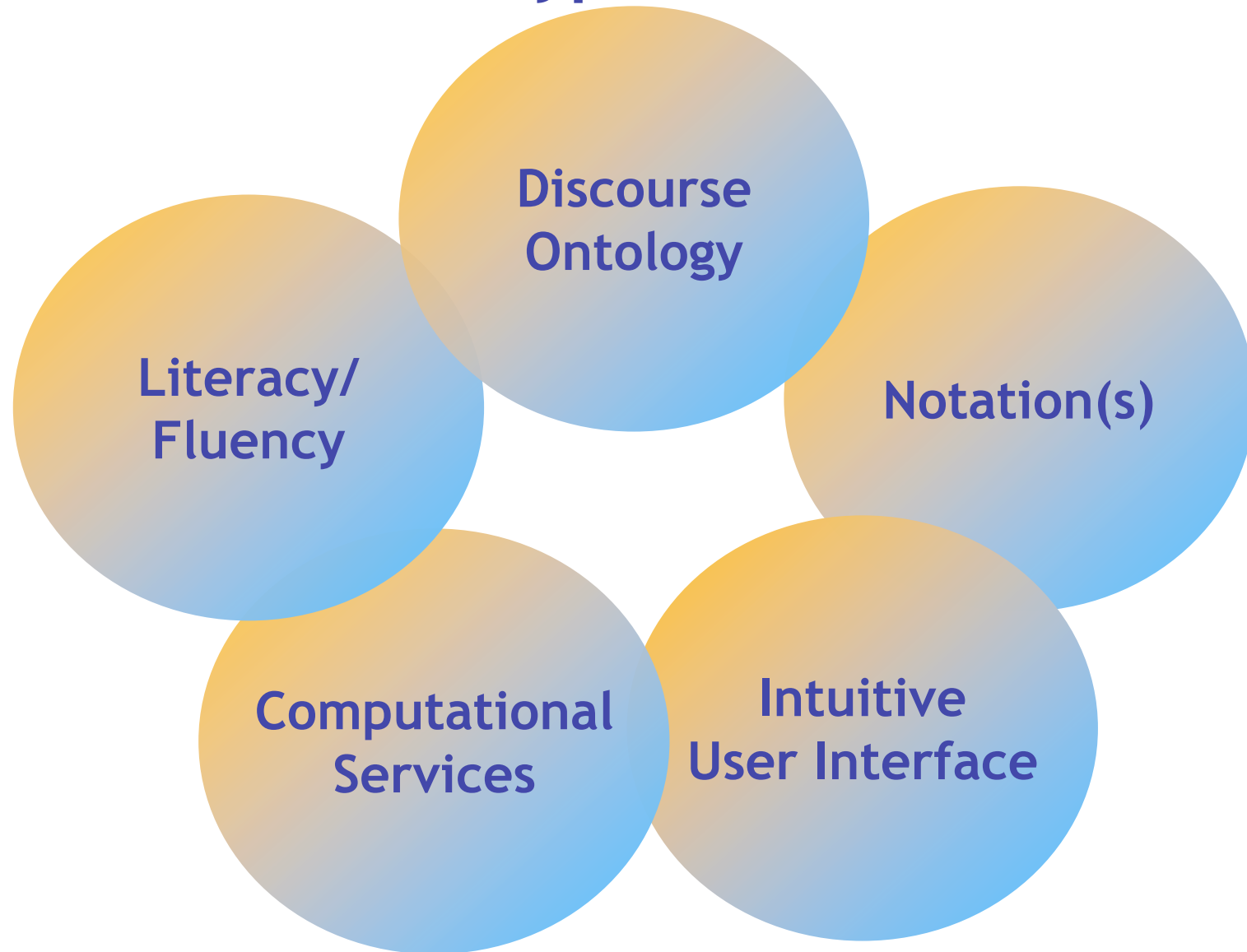




# Hypermedia

- Modelling *discourse relations*
- Expressing *different perspectives* on a conceptual space
- Supporting the *incremental formalization* of ideas
- Rendering *structural visualizations*
- Connecting *heterogeneous* content

# Characteristics of Hypermedia Discourse



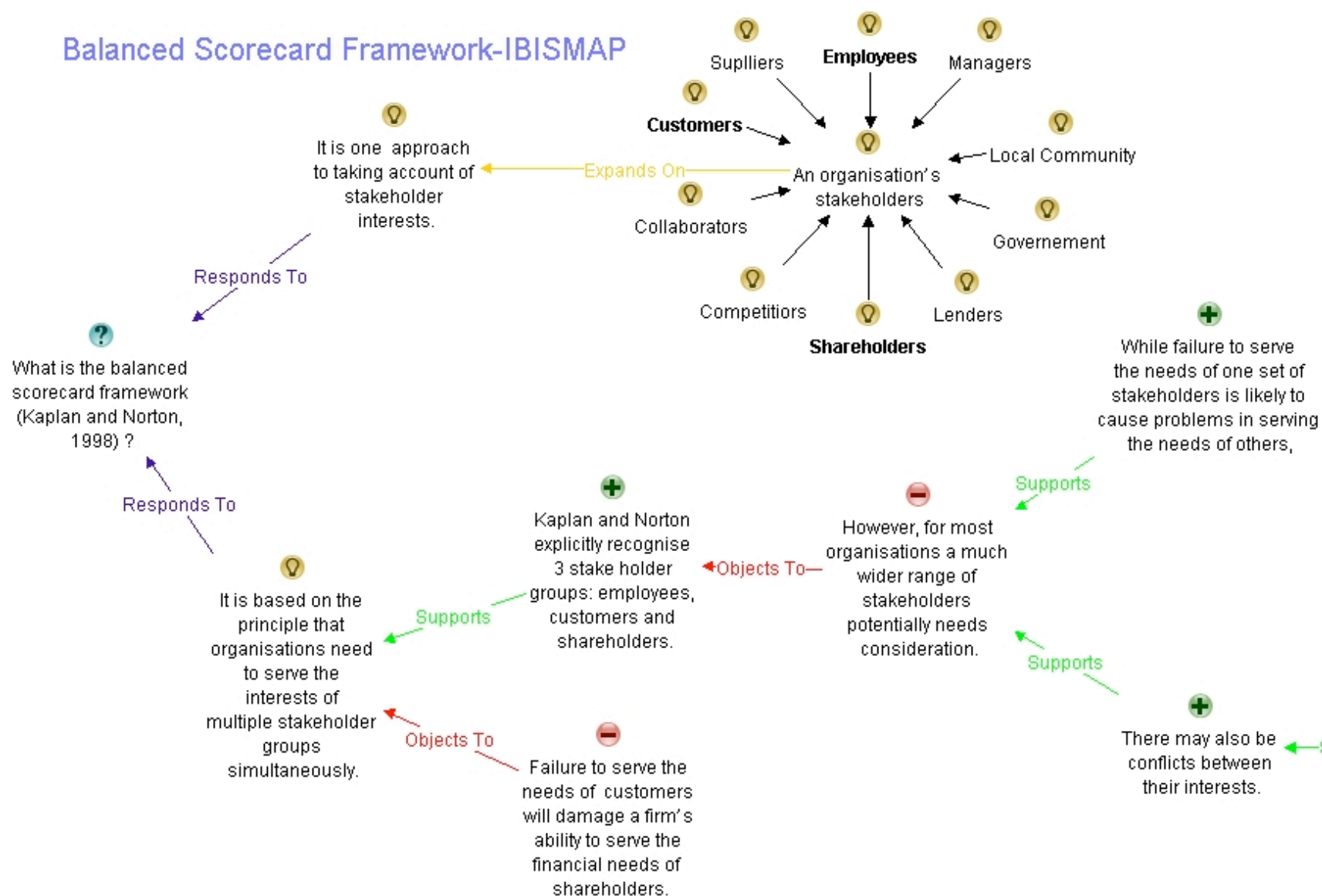
**A helpful framework for DKNs?...**





# B700: Argument Map

## Balanced Scorecard Framework-IBISMAP



# Demos and Movies...



# Dialogue Mapping a research discussion



The screenshot shows a web browser window titled "Compendium: Derby \ Localhost \ Default \ FAQ" with a sub-window titled "[Map]: Agenda for supervision meeting 1/27/2006". The map content includes the following text nodes and connections:

- Central node: "How to validate the research?" (with a question mark icon)
- Node above: "Based on sample of well-accomplished practitioners" (with a lightbulb icon)
- Node to the right: "Would validate the scheme and possibly confirming/adding to base" (with a plus icon)
- Node below: "We can use this to predict the types of things we see in beginners vs more experienced users" (with a lightbulb icon)
- Node below: "Looking at practice outside Compendium" (with a lightbulb icon)
- Node below: "Put together a resource that I release on the web in order to elicit reaction from community of practice" (with a lightbulb icon)
- Node to the right: "Would be nice to add to the resource of training, etc." (with a plus icon)
- Node below: "Would be a form of validation" (with a plus icon)
- Node below: "How validate?" (with a question mark icon)
- Node to the right: "Web form" (with a lightbulb icon)

Arrows indicate relationships: "Based on sample..." points to "How to validate..."; "We can use this..." points to "How to validate..."; "Looking at practice..." points to "How to validate..."; "Put together a resource..." points to "How to validate..."; "Would validate the scheme..." points to "How to validate..."; "Would be nice to add..." points to "Put together a resource..."; "Would be a form of validation" points to "Put together a resource..."; "How validate?" points to "Put together a resource..."; "Web form" points to "How validate?".

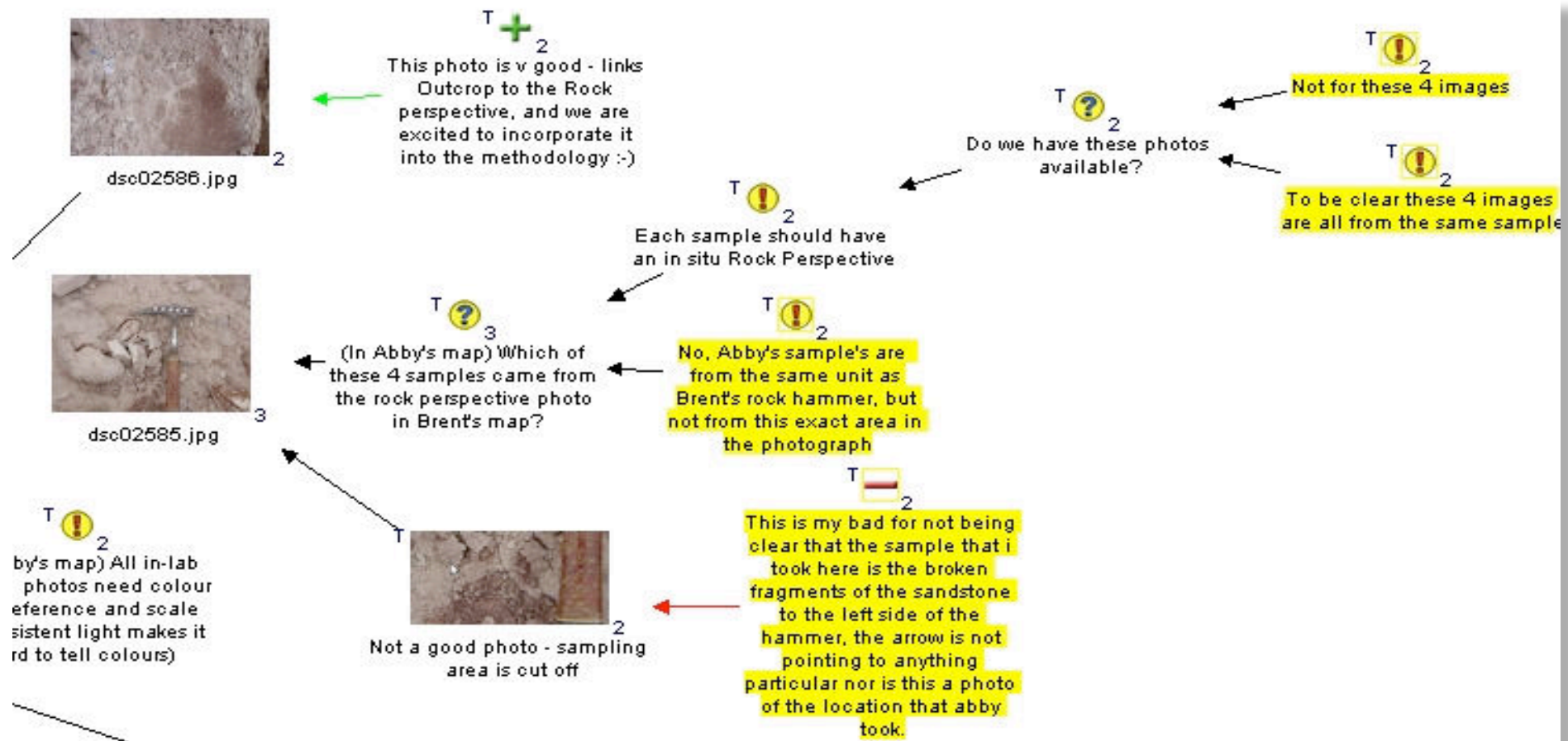
A "Tractaboli" logo is visible at the bottom center of the browser window. In the bottom right corner, a Skype window titled "Skype - sbskml" is open, showing a contact list with "Simon Buc..." and "Al Selvin".



# NASA: Human exploration of Mars



...field trials using knowledge maps to integrate data with real time+async. dialogue



Scientific feedback from Earth scientists to colleagues simulating exploration of Mars, using the Compendium hypermedia tool

# CoAKTiNG NASA testbed:

Meeting Replay tool for *Earth scientists*, synchronising video of *Mars crew's* discussion with their Compendium maps



**[Map]: Lith Canyon EVA Segment 1 Crew Planning Meeting 05/03/04**

lithseg1wproute.jpg

WayPoint0  
WayPoint1  
WayPoint2  
WayPoint3  
WayPoint4

Where should Boudreaux take Panoramas?

Where should Boudreaux take Pictures?

Start Boudreaux Watch me when descending into the canyon starting at Fossil Hill

You can have Boudreaux take a picture of AstroOne at any time after that

Make sure that Boudreaux is in line of sight from AstroOne. Thus move it to...

**Title:** Lith Canyon EVA Segment 1 Planning Meeting - 3rd May 2004  
**Date:** Tue May 4 00:37:00 2004  
**Participants:** [Maarten](#), [Brent](#), [Abigail](#), [John](#)

**Current Speaker:** Maarten  
**Nodes:** Make sure that Boudreaux is in line of sight from AstroOne. Thus move it to WP 2 and 3 at appropriate times

Agenda  
Compendium  
Abigail  
Brent  
John  
Maarten

Video **Playing** 00h 29m 09s **Pause**  
Group Sync **Offline**  Offline  Online  
Mode **Master**  Master  Slave  
Receiving **Yes**  Yes  No

Copyright, 2004,  
RIACS/NASA Ames, Open  
University, Southampton  
University  
Not to be used without  
permission

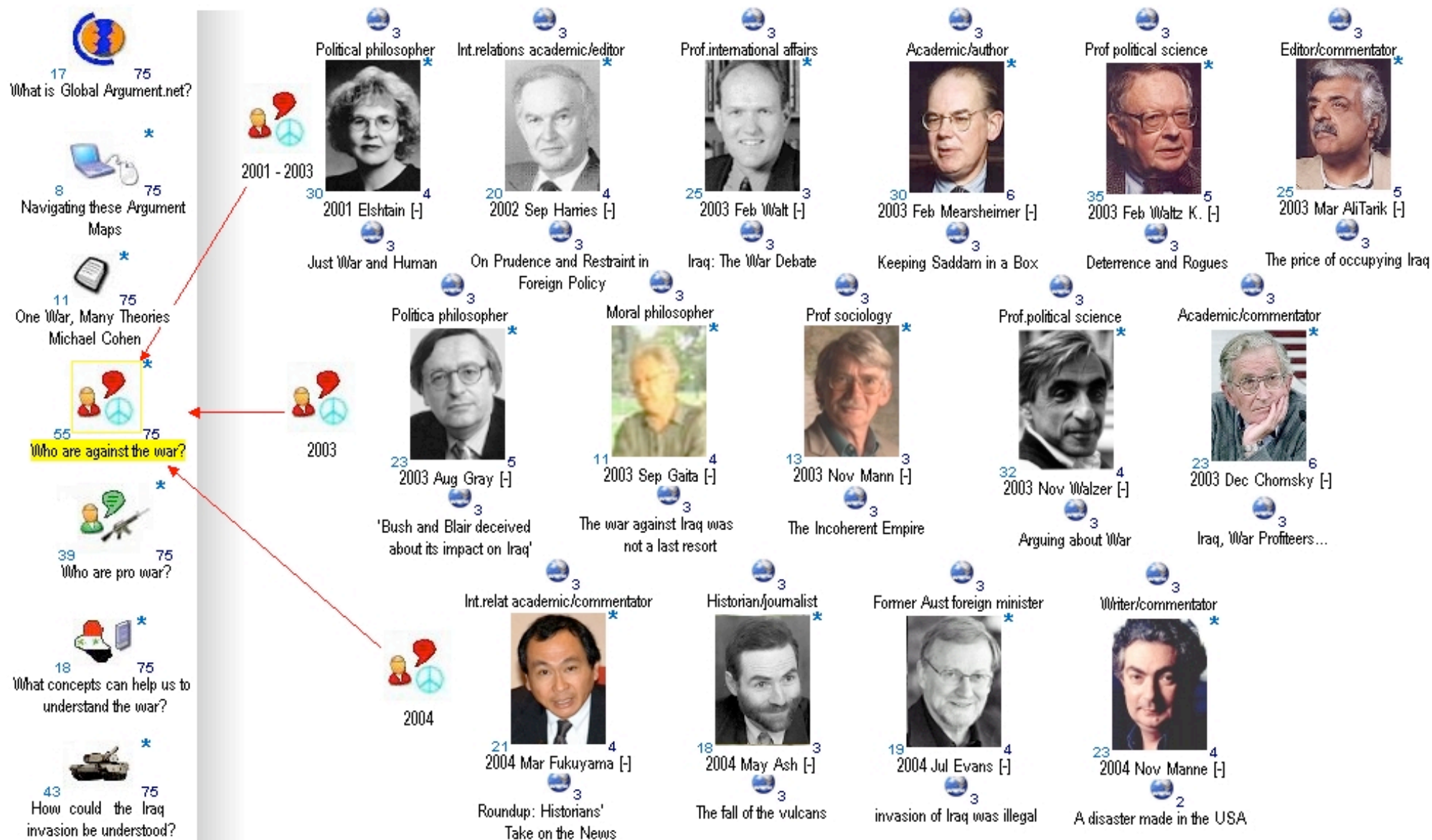
RIACS/NASA Ames  
Research Center  
Mobile Agents Project  
Maarten Sierhuis

KMi Open University  
CoAKTiNG Project  
Simon Buckingham-Shum &  
Al Selvin

Southampton University  
CoAKTiNG Project  
Kevin Page  
Darius Michaelides  
Dave De Roure  
Nigel Shadbolt

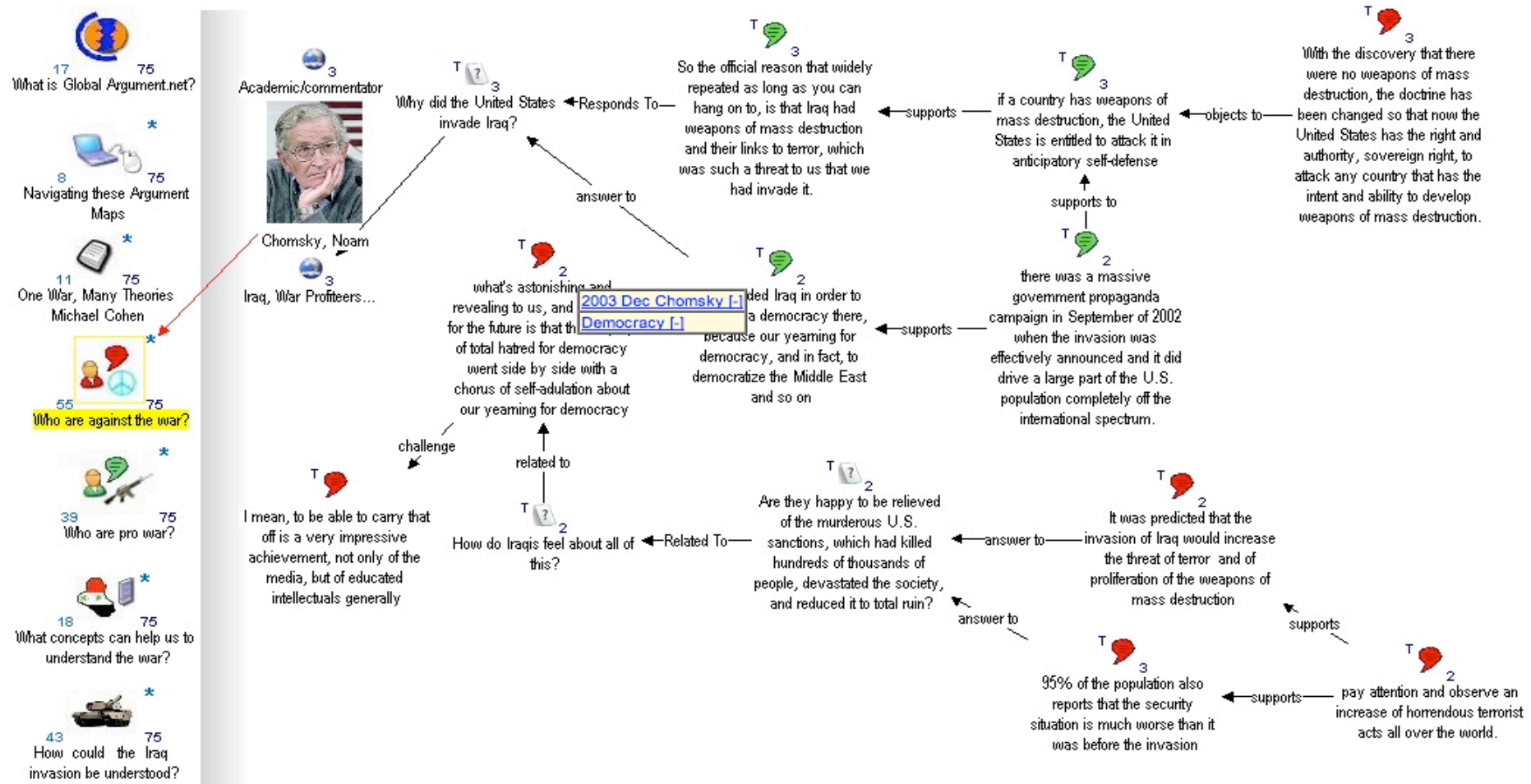


# Mapping the Iraq Debate





# Analysing the literature: The Iraq Debate



The *Compendium* tool provides a rich visual language and hypermedia structure for communicating complex debates to the public, and other analysts



## Compendium ‘literacy’?

...understanding how to write, read,  
talk and think in hypermedia IBIS

...approaches from consultancy in  
the field, and video analysis in the  
lab...

# Literacy: significant user community



[www.CompendiumInstitute.org](http://www.CompendiumInstitute.org)

The image displays a collage of browser screenshots and workshop photographs. On the left, a screenshot of the Compendium Institute website is shown, featuring a navigation menu with links for Home, Tools, Library, Training, Community, Download, Developers, and Support. The main content area includes a section for 'Compendium Institute' with a description of the organization's mission and a section for 'Compendium Institute Workshop 2005' dated [2005.09.22], highlighting 'Compendium 1.4' features like single click installation and power mapping. Below this is an 'About Compendium' section and a 'The Community Showcase' section with a 'Visit the Community Showcase' link. On the right, a screenshot of the workshop page shows sections for 'Day 1' and 'Day 2'. Below the workshop page is a grid of 12 photographs showing people in a workshop setting, including presentations and group discussions.

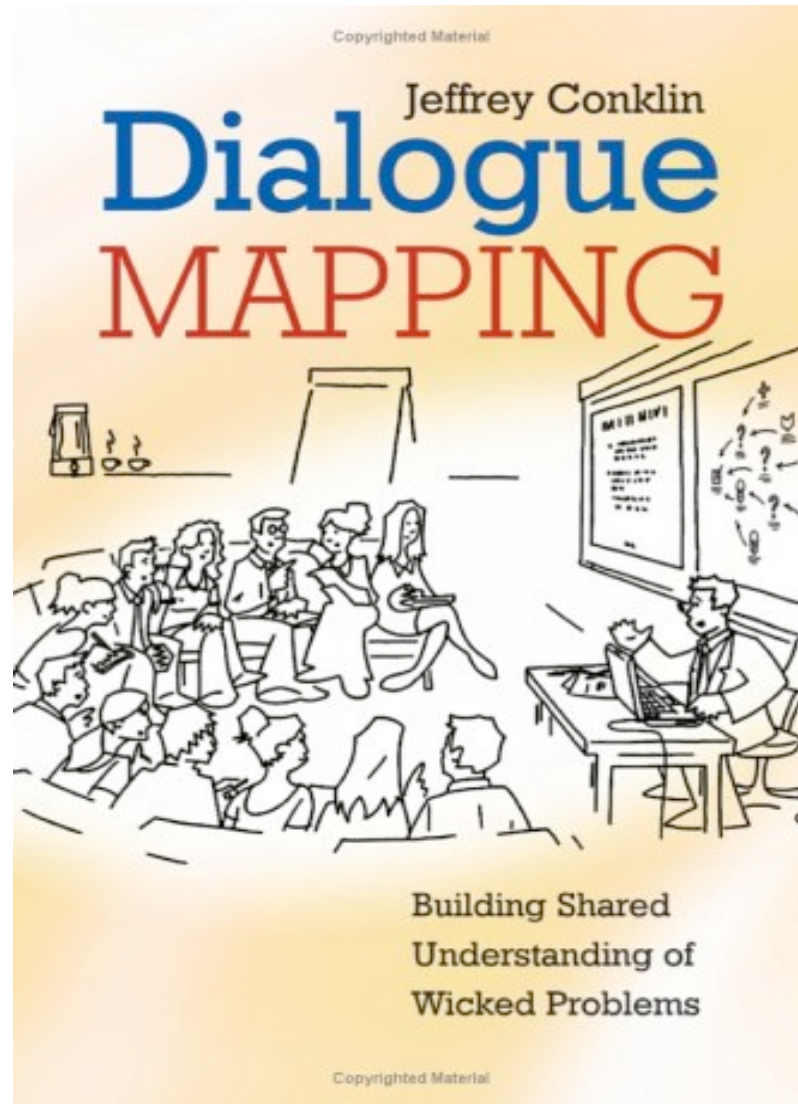




# Literacy: Cognitive task analysis

- Cognitive tasks involved in using a graphical argumentation scheme (Buckingham Shum 1996)
- Affordances of graphical DR for coordinating group design (Buckingham Shum et al 1997)

# Literacy: the craft skill of IBIS mapping in meetings: “Dialogue Mapping”



Jeff Conklin:  
CogNexus Institute:  
[www.CogNexus.org](http://www.CogNexus.org)



# Literacy: expertise analysis

## (Albert Selvin)

- *What is the nature of expert human performance in creating and modifying real time conceptual structures for groups?*
- The NASA knowledge mapper role:
  - Listening and interpreting
  - Intervening in 'normal' conversation flow
  - Getting validation for captured material
  
  - Building hypertext representations on the fly
  - Interrelating data and objects
  - Adding metadata
  - Software-specific skills

# Compendium literacy: expertise analysis

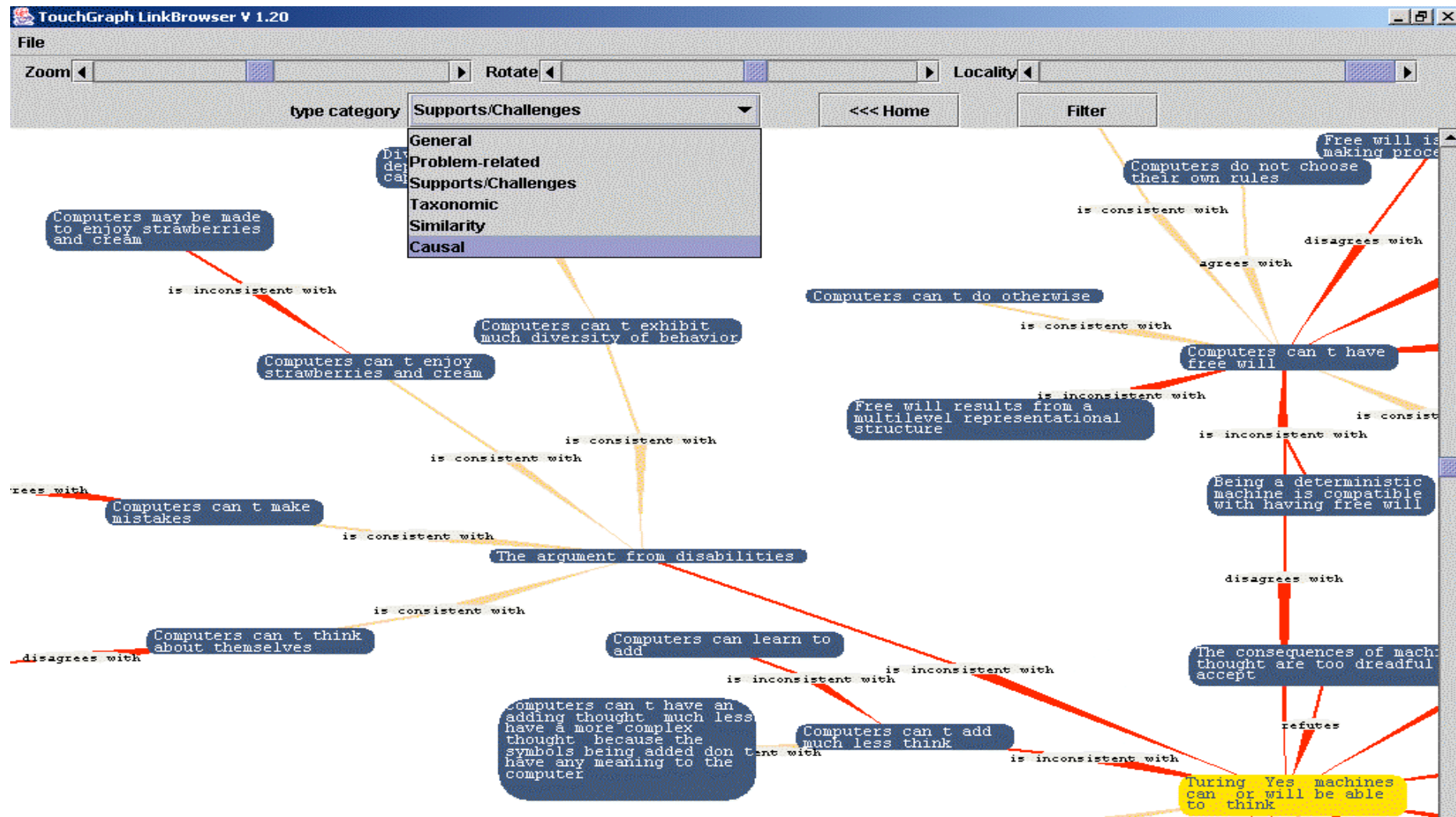
Selvin 2005



## *Practitioner stances*

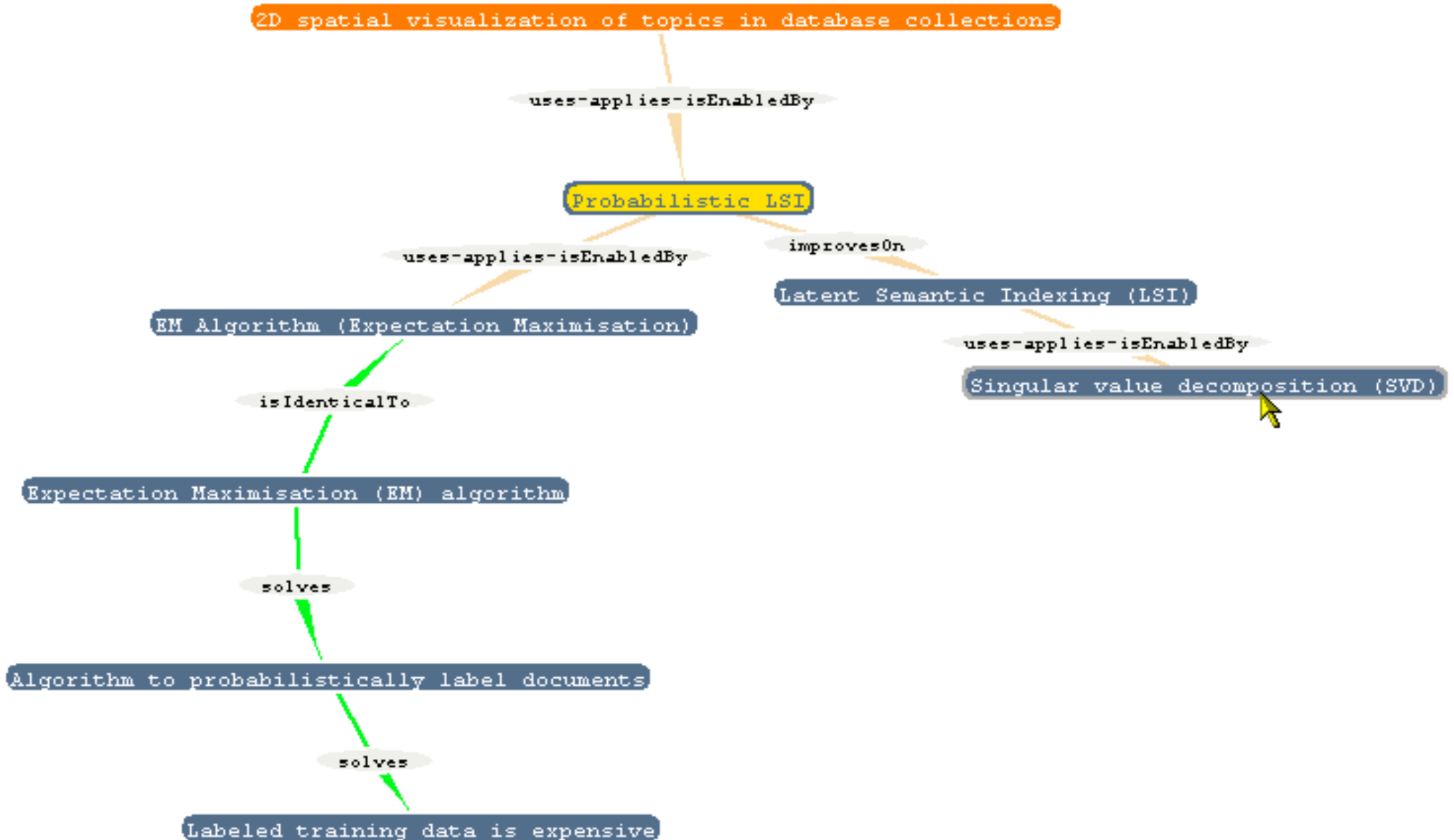
- The position of the practitioner with regard to the current activity:
  - Knowledge Navigator
  - Facilitator
  - Participant
  - Technical Expert
  - Editor

# ClaiMaker: semantic scientific publishing of claims and arguments



The *ClaiMaker* tool helps authors/analysts to filter shared argument maps, in order to find papers that disagree, or to trace the lineage behind an idea









































# Services: *lineage* tree (the roots of the idea)





# ClaiMaker literacy: searching for negative links as visual cues to significant research papers



Left Neighbouring Concepts 	Inward Link	Focal Concepts	Outward Link
correlation between university web site inlinks and research performance   	 uses/applies/is enabled by 		
Inefficient for every researcher to run their own crawler   	 impairs 		
focussed crawling   	 uses/applies/is enabled by 		
crawlers cannot get a snapshot of the Web   	 impairs 	crawler to collect Web data  	 is at  exampl
Creation of citation indices   	 uses/applies/is enabled by 		
crawlers cannot cover the whole Web   	 impairs 		
Link analysis   	 uses/applies/is enabled by 		



# ClaiMaker literacy

ClaimSpotter: extraction and 'semantic social bookmarking' using tag triples (Bertrand Sereno, 2005)

ClaimSpotter 0.4.5 | Annotate

http://127.0.0.1/claimspotter/0.4.5/index.php?user=1&document=1#section-H-1

Login History Add a document Standard Alternate .dot Export Help About

More Ideas Concepts: All Relations: Argument Zones: Importance: >5 Term(s): trust find clear Reset

Show: Notes:  Concepts:  Claims:

concepts

Type	Label	Copy in...
remove n/a	Trellis	[X] [X]
remove n/a	ix of formal and human language	[X] [X]
remove n/a	Representing trust	[X] [X]
remove n/a	Semantic Web	[X] [X]
remove n/a	measures of trust in the content	[X] [X]
remove n/a	Trusting different information sou	[X] [X]

claims

Source	Relation	Destination
Trellis	is about	Trusting different information
n/a		n/a
Concept		Concept
some evidence	is evidence against	[claimNumber29
n/a		n/a
Concept		Link

Submit Reset

Document

TABLE OF CONTENTS:

- Abstract
- Introduction
- Information Analysis in TRELLIS
- Source Attribution and Description
- Deriving an Assessment about a Source
- Helping Users Select Sources
- Related Work
- Conclusions
- References

**INTRODUCTION**

The **Semantic Web** can be described as a substrate to support advanced functions for collaboration (human-human, computer-human, computer-computer), sharing of Web **resources**, and **reasoning** about their content [3]. The markup languages that are being proposed for the **Semantic Web** will be the basis to develop reasoners, proof checking and derivation tools, and many other functions such as Web services.

The **Semantic Web** will also be the basis for the Web of Trust, which will provide mechanisms to handle authentication, permission, and validation of attribution in a Web where, by design, anyone can contribute content, links, and services.

A lot of current emphasis on the Web of Trust is in accessing **resources**, specifically authentication and permission issues. Digital signatures and public keys support authentication. Proofs are another important technology in the Web of Trust, since permission schemes are often described with rules and statements (e.g., anyone working for company C should be allowed to **access** D) and will need to rely on proofs that can reason about the rules and conclude whether **access** should be granted. An important issue with respect to both authentication and permission is checking that a document can be attributed to the source specified. For example, if Joe Doe writes an article and publishes it claiming Henry Kissinger as the author, it should be possible to check the truth about the document's authorship.

**Our work** addresses a different issue on the Web of Trust regarding whether to trust the content of a Web resource depending on its source. It seems that people



## DKN applications?

- DKNs may be a specific example of Open Sensemaking Communities, as defined here
- DKNs need to find each other and communicate:  
LabSpace tools like MSG, Hexagon and FlashMeeting
- They need places to discuss in a structured way:  
Hypermedia Discourse is one approach
  - Compendium
  - ClaiMaker

Thoughts?...



# Resources...

- BuddySpace: Java instant messaging + presence
  - [www.buddyspace.org](http://www.buddyspace.org)
- MSG: Ajax instant messaging + presence (successor of BuddySpace)
  - [www.kmi.open.ac.uk/projects/msg](http://www.kmi.open.ac.uk/projects/msg)
- FlashMeeting: Web+Flash video conferencing
  - [www.flashmeeting.org](http://www.flashmeeting.org)
- Hexagon: Web+Flash video presence
  - [cnm.open.ac.uk/projects/hexagon](http://cnm.open.ac.uk/projects/hexagon)
- Access Grid video conferencing
  - [www.accessgrid.org](http://www.accessgrid.org)
- Memetic: replayable, Compendium-indexed Access Grid video conferences
  - [www.memetic-vre.net](http://www.memetic-vre.net)
- ScholOnto project: papers, demos and movies of ClaiMaker and other tools
  - [www.kmi.open.ac.uk/projects/scholonto](http://www.kmi.open.ac.uk/projects/scholonto)
- Compendium project: papers, community and software
  - [www.kmi.open.ac.uk/projects/compendium](http://www.kmi.open.ac.uk/projects/compendium)
- Sensemaking on the Pragmatic Web: A Hypermedia Discourse Perspective.  
*Proc. PragWeb'06: 1st International Conference on the Pragmatic Web*  
PrePrint: <http://kmi.open.ac.uk/publications/pdf/KMI-TR-06-16.pdf>  
French version of slightly earlier version: <http://kmi.open.ac.uk/sbs/talks/sdc2006>