

Valedictory Lecture, The Open University, 15th July 2014



The Open University

Making Thinking Visible in Complex Times

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twitter: @sbskmi #OU_inaugural



Jonathan Chung-Hin Shum ("Grandad Jon")



<http://people.kmi.open.ac.uk/sbs/2011/12/jon-shum>

1968

San Francisco, Fall Joint Computer Conference – Dec. 9th 1968



monday afternoon

december 9

3:45 p.m. / arena

Chairman:
DR. D. C. ENGELBART
Stanford Research Institute
Menlo Park, California

a research center for augmenting human intellect

This session is entirely devoted to a presentation by Dr. Engelbart on a computer-based, interactive, multiconsole display system which is being developed at Stanford Research Institute under the sponsorship of ARPA, NASA and RADC. The system is being used as an experimental laboratory for investigating principles by which interactive computer aids can augment intellectual capability. The techniques which are being described will, themselves, be used to augment the presentation.

The session will use an on-line, closed circuit television hook-up to the SRI computing system in Menlo Park. Following the presentation remote terminals to the system, in operation, may be viewed during the remainder of the conference in a special room set aside for that purpose.



INSERT STATEMENT
1

Press Esc to exit full screen mode.



KEY 1 COMMAND RESET
ONLY 1

USAGE

APPLICATION EXAMPLES

USER DOCUMENTATION:

PAPER STUDYING OR MODIFYING

PRINTOUT-DIRECTIVE GUIDE,

JOINT-FILE USAGE, MESSAGES

OPEN-HOUSE DUTY ROSTER

HARDWARE-DESIGN DOCUMENTATION,

SYSTEM-ANALYSIS RECORDS

* TWO-PERSON COLLABORATION

INFORMATION RETRIEVAL (BILL)

we need better tools to tackle
“humanity’s complex,
urgent problems”

VUCA

Volatile • Uncertain
Complex • Ambiguous

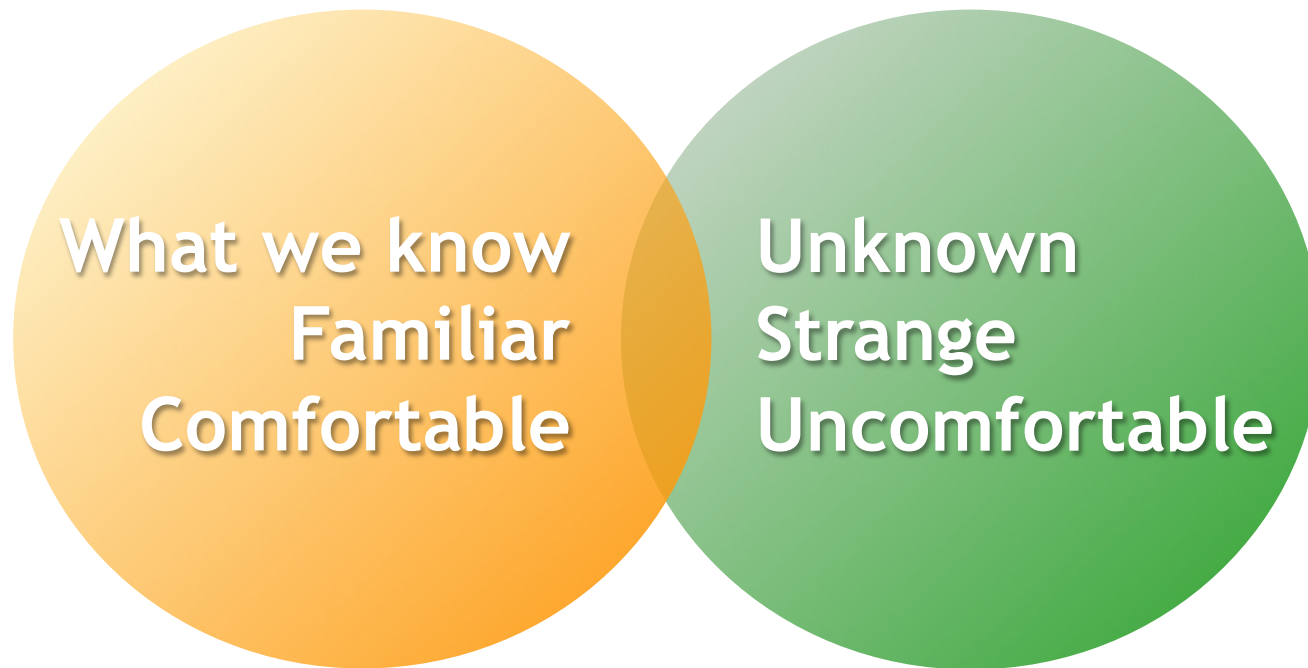
Welcome to “informed bewilderment”

“The 21st century will not be a dark age. Neither will it deliver to most people the bounties promised by the most extraordinary technological revolution in history. Rather, it may well be characterised by informed bewilderment.”

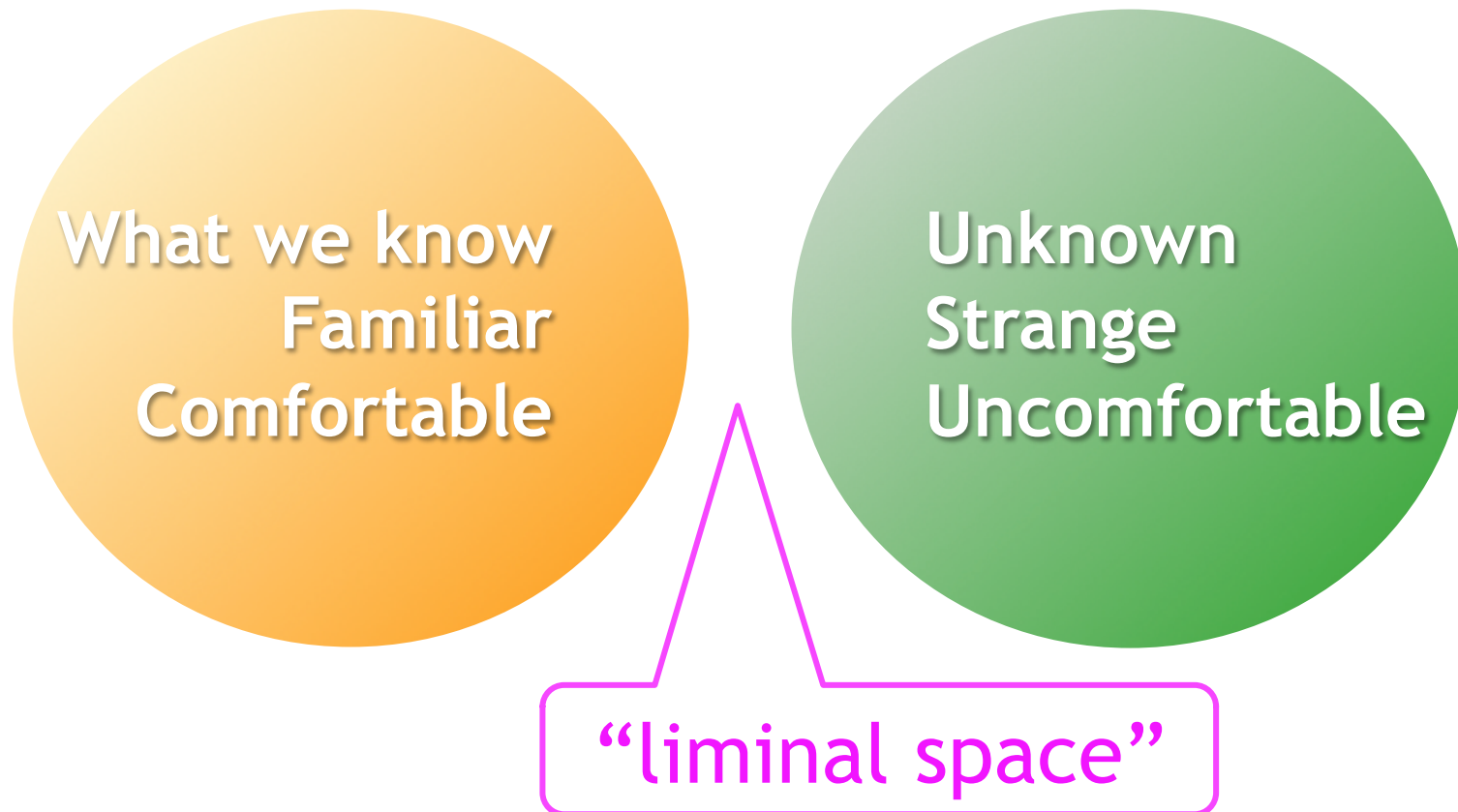
Manuel Castells



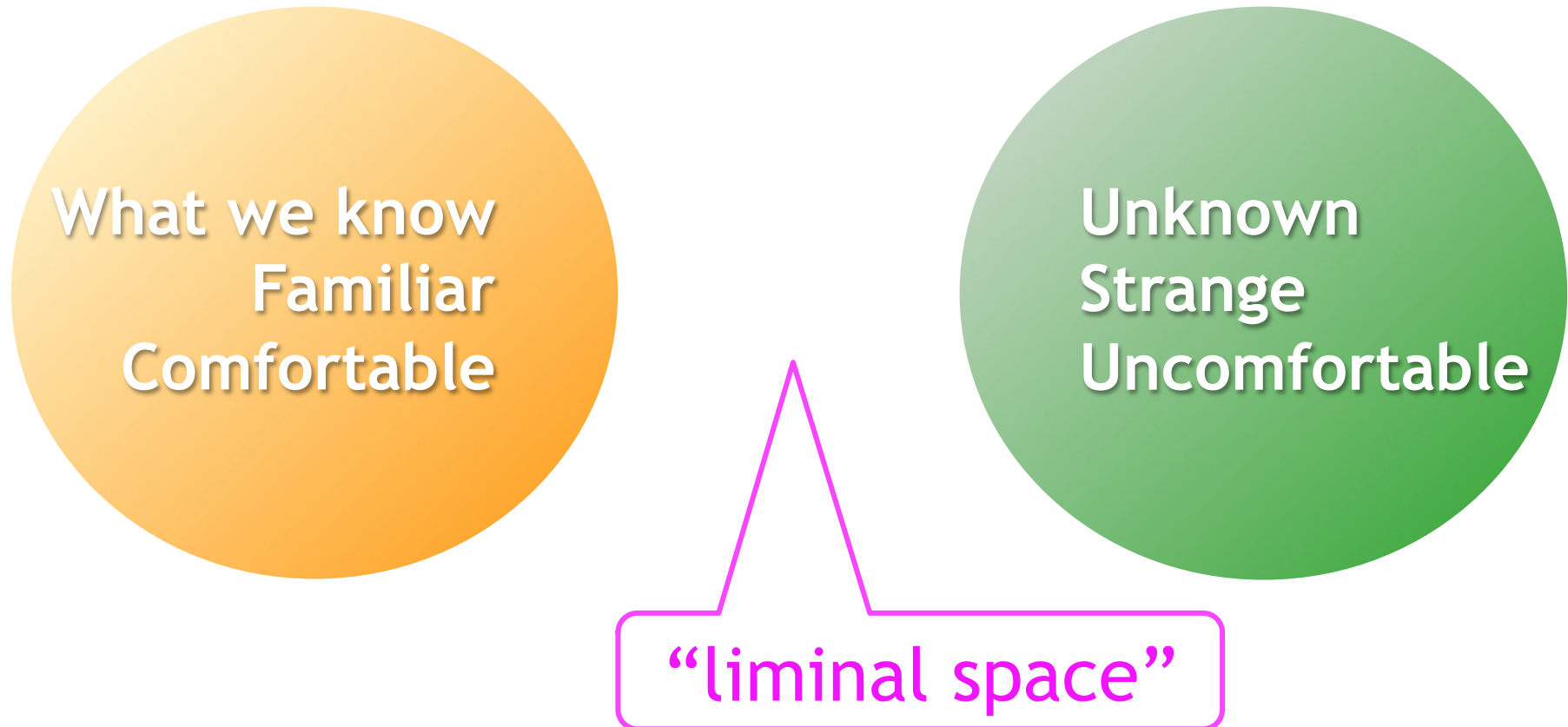
From the known to the unknown



From the known to the unknown



From the known to the unknown



“Liminal Space... when you have left the tried and true but have not yet been able to replace it with anything else.

...when you are between your old comfort zone and any possible new answer... If you are not trained in how to hold anxiety, how to live with ambiguity, how to entrust and wait, you will run... anything to flee this terrible cloud of unknowing.”



Richard Rohr O.F.M.
— on the spirituality of liminal space

Limina is the Latin word for threshold, the space betwixt and between
<http://sojo.net/magazine/2002/01/grieving-sacred-space>

So while we initially strive to make our students **feel comfortable** [...] we then must help them balance their desire for security with the need to **take risks and explore new ideas and possibilities**.

Rather than attempting to resolve the tension, a college should help students **find their place on this precarious threshold, in the liminal space between the familiar and strange**, the old and the new.

Johansson & Felten, 2014





what kind of person
survives - even *thrives* -
in liminal space?

can computers help us
navigate a VUCA world,
and liminal space?


2000

Engelbart's
work has
since been
recognised in
the highest
echelons of
computing...

DougEngelbart.org

<p>Living History <i>The Engelbart Archive</i></p>  <p>San Francisco, 1968</p> <p>Interested in the "Mother of All Demos", or how Doug Engelbart invented the mouse? Learn about his many breakthrough innovations. Visit the Engelbart Archive – complete with historic videos, photos, texts, stories, and more.</p>	<p>Doug's Driving Vision <i>A Call to Action</i></p>  <p>What drove his innovations that sparked a revolution and catapulted us into the Information Age? Doug's vision for boosting our Collective IQ and innovation capacity is not only still viable, it is even more critical to business and society than ever.</p>	<p>The Engelbart Challenge <i>Creating a Brilliant World</i></p>  <p>Put Doug's vision to work in your organization or project with Bootstrapping Innovation. Join the Engelbart Challenge, where organizations making a difference in the world begin doubling their Collective IQ. Learn more, get involved.</p>	<p>IN MEMORIAM</p>  <p>Douglas Carl Engelbart (1925-2013) See Tribute to Doug Engelbart for photos, tributes, and news from his recent passing. He will be missed...</p> <hr/> <p>The National Medal of Technology</p>  <p>the highest award in its class in the United States</p> 
<p>Doug Engelbart's Call to Action - An NMC Tribute</p>  <p>0:00 / 8:58</p>			<p>Sign up for OUR NEWSLETTER</p> <p>f Twitter YouTube</p> <p>Donate</p> <p>Click here for details and more ways to follow and connect</p> <p>What's New</p>

Doug Engelbart, KMi Lecture, Berrill Lecture Theatre, 29 Oct. 2001



Doug Engelbart

Demo of NLS, 1968 Fall Joint Computer Conference, San Francisco
Mouse and chord keypad, video-conferencing, on-screen editing, outlining, hyperlinks, multiple windows, context-sensitive help, shared whiteboards, interactive programming

Continued goal: “to boost mankind’s collective capability for coping with complex, urgent problems.”

KMi Lecture, Open University, UK

KMi INSTITUTE XO STAGE

Engelbart's vision was not just personal computing, but “Collective IQ”



http://visualinsight.net/_engelbart/engelbart_mural.jpg

...and cool tools alone would never be enough:
we needed culture shifts and new ways of working



one day we may
talk online
— for free...

one day we may
even sketch ideas
together

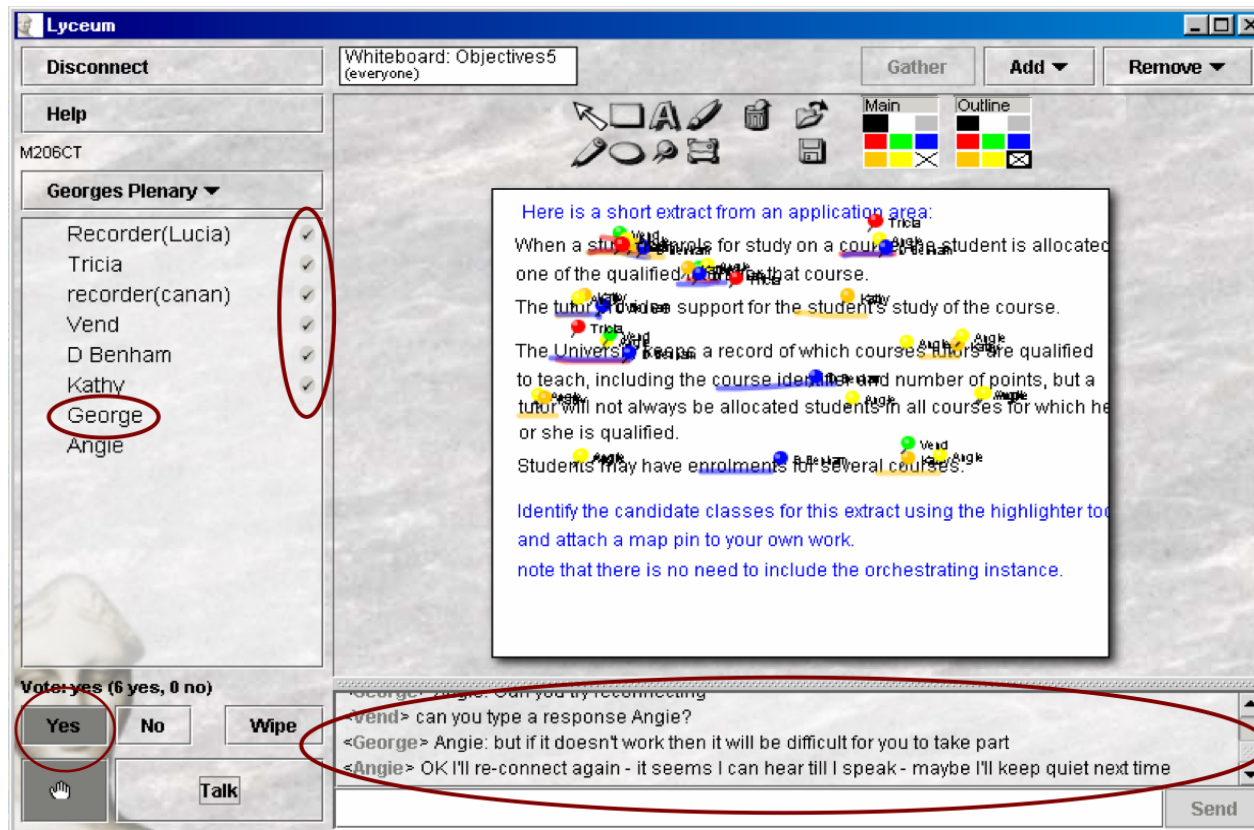
with Marc Eisenstadt, Sam Marshall, Craig Rodine, John Brier and B823's vision led by Paul Quintas

1979: Shared
screens and voice
over the phone



<http://bit.ly/r3wr75>

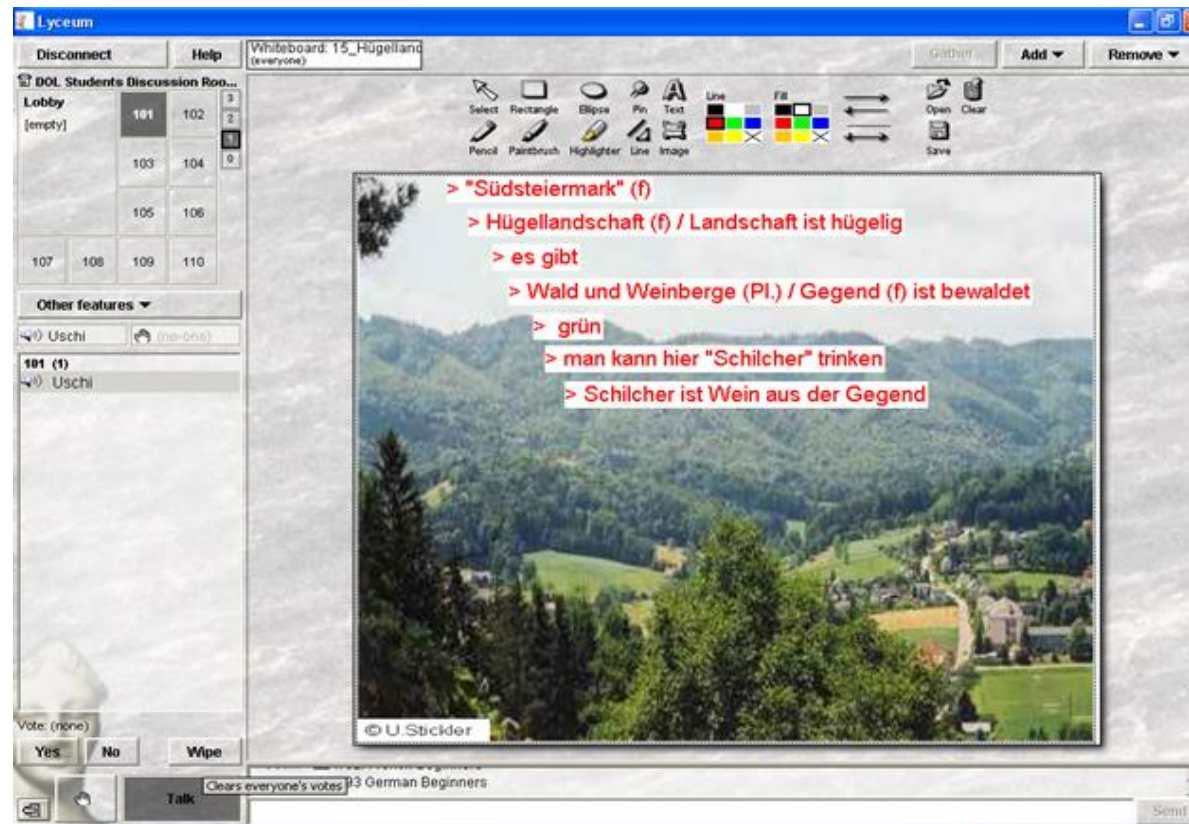
1998: *Lyceum* synchronous meetings and collaboration tools over 56k modems



<http://projects.kmi.open.ac.uk/lyceum>

<http://dl.acm.org/citation.cfm?id=544451>

1998: *Lyceum* synchronous meetings and collaboration tools over 56k modems



<http://projects.kmi.open.ac.uk/lyceum>

<http://www.eurodl.org/?article=277>

Lots of pilot experiments and AL training



Knowledge Media Institute

B823 Experiences with Lyceum

Simon Buckingham Shum

Knowledge Media Institute

Technical Note

Pedagogical design and training

Voice conferencing groupware is a new medium for tutors. Tutors used Lyceum to deliver four online tutorials (about 100 minutes each). This required intensive work to prepare tutorial materials, to give tutors hands-on experience and awareness of the medium effectively. A tutorial working group was formed to develop expertise. Over several months, materials were prototyped and the structuring of tutorials.

Tutorial resource packs

A resource pack was provided (paper and electronic) for sessions (ranging from a single hour to several sessions), for asynchronous textual discussion, and for the tutorial itself.

Voice Conferencing. Headsets (headphones plus microphone) are posted as part of the course materials. On logging into the Lyceum server, students can see the names of any others present in the initial Common Room. The welcome screen. Clicking the *Talk* button at the bottom-left of the window activates the mic for speaking, and all others in the room can hear them (the quality is similar to AM radio, but good enough for foreign language students to be

to practise oral skills).
place in *Rooms* which have
missions (see [Lucia] for
deration and permissions



Figure 1: Logging into the Common Room and speaking to someone (active speaker icon shows who is speaking)

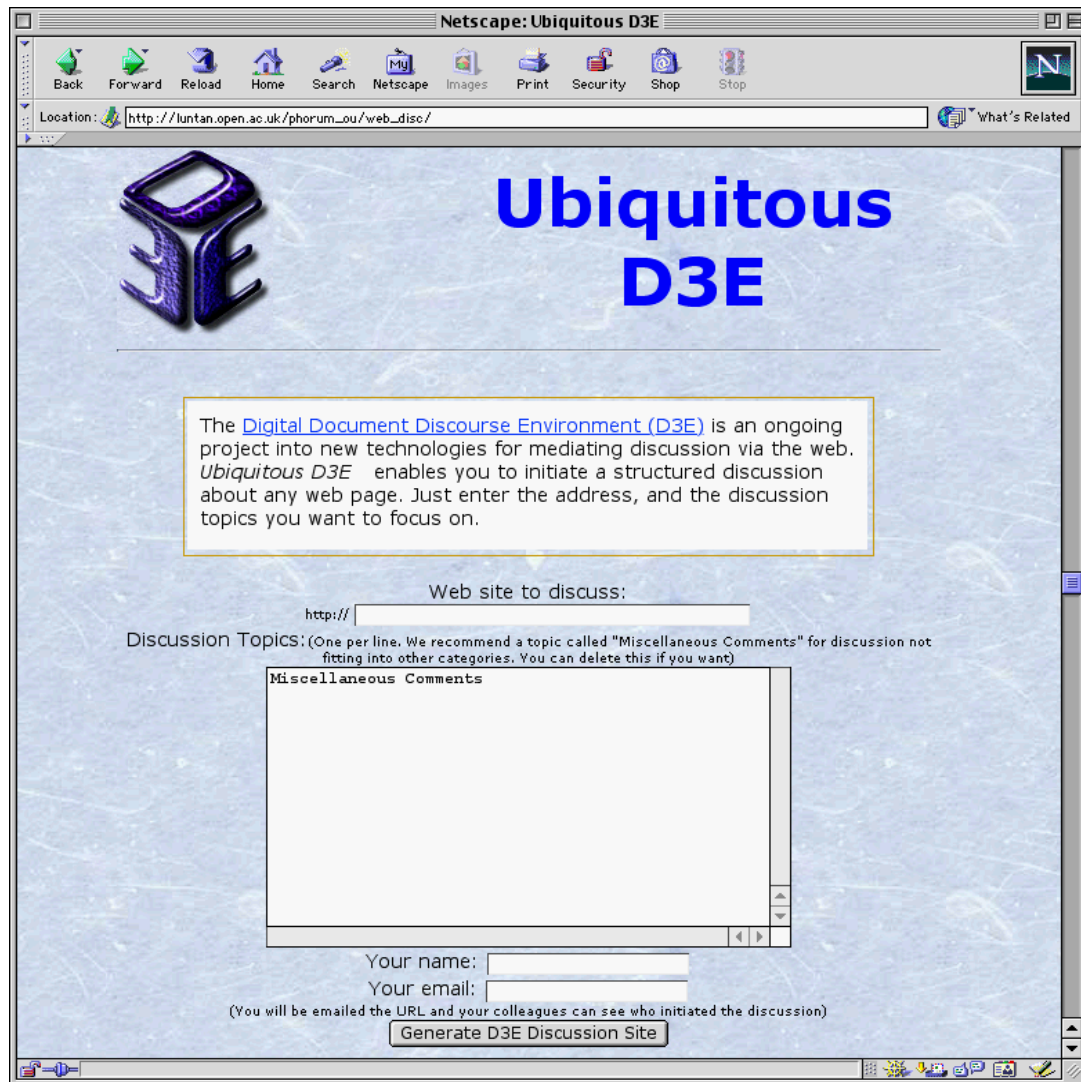
make *any* web page discussable

with Tammy Sumner, Mike Wright, Malcolm Story, Gangmin Li

Enter URL

Enter
discussion
topics

Press Go



The screenshot shows a Netscape browser window titled "Netscape: Ubiquitous D3E". The address bar displays the URL "http://luntan.open.ac.uk/phorum_ou/web_disc/". The page features a blue background with a subtle pattern. At the top left is a 3D logo of the letters "D3E". To its right, the text "Ubiquitous D3E" is displayed in a large, bold, blue font. Below this, a text box contains the following description: "The [Digital Document Discourse Environment \(D3E\)](#) is an ongoing project into new technologies for mediating discussion via the web. *Ubiquitous D3E* enables you to initiate a structured discussion about any web page. Just enter the address, and the discussion topics you want to focus on." Below the text box, there is a form with the following elements: a label "Web site to discuss:" followed by a text input field containing "http://"; a label "Discussion Topics: (One per line. We recommend a topic called 'Miscellaneous Comments' for discussion not fitting into other categories. You can delete this if you want)"; a large text area with the text "Miscellaneous Comments" at the top; a label "Your name:" followed by a text input field; a label "Your email:" followed by a text input field; a note "(You will be emailed the URL and your colleagues can see who initiated the discussion)"; and a button labeled "Generate D3E Discussion Site". The browser's status bar at the bottom shows various icons and the text "What's Related".

Netscape: Ubiquitous D3E

Back Forward Reload Home Search Netscape Images Print Security Shop Stop

Location: http://luntan.open.ac.uk/phorum_ou/web_disc/ What's Related

Ubiquitous D3E

The [Digital Document Discourse Environment \(D3E\)](#) is an ongoing project into new technologies for mediating discussion via the web. *Ubiquitous D3E* enables you to initiate a structured discussion about any web page. Just enter the address, and the discussion topics you want to focus on.

Web site to discuss:

Discussion Topics: (One per line. We recommend a topic called "Miscellaneous Comments" for discussion not fitting into other categories. You can delete this if you want)

Miscellaneous Comments

Your name:

Your email:

(You will be emailed the URL and your colleagues can see who initiated the discussion)

Generating a peer review discussion space for an eprint document

The screenshot shows a Netscape browser window titled "Netscape: D3E Web Site Discussion". The address bar displays the URL: http://luntan.open.ac.uk/phorum_ou/web_disc/d3e_discussion.php?url=arXiv.org/abs/cs.DL/9908015&f=81. The main content area is divided into two columns.

Left Column:

Computer Science, abstract cs.DL/9908015

From: Simon Buckingham Shum <s.buckingham.shum@open.ac.uk>
Date: Thu, 19 Aug 1999 09:51:29 GMT (580kb)

Representing Scholarly Claims in Internet Digital Libraries: A Knowledge Modelling Approach

Authors: [Simon Buckingham Shum](#), [Enrico Motta](#), [John Domingue](#)
Comments: 18 pages. Preprint, to appear: Proceedings of ECDL'99: Third European Conference on Research and Advanced Technology for Digital Libraries, Paris, France, September 22-24, 1999. Springer-Verlag Lecture Notes in Computer Science (Eds.) Serge Abiteboul and Anne-Marie Vercoustre
Report-no: KMI-TR-80
Subj-class: Digital Libraries; Artificial Intelligence; Human-Computer Interaction; Information Retrieval
ACM-class: H.3.7; H.1.2; H5.2; H.5.4; I.2.4; I.7.4

Right Column:

Discussions about arXiv.org/abs/cs.DL/9908015

Buttons: [subscribe](#) | [Collapse Threads](#)

Sections and Comments	Date
<input type="checkbox"/> Connections to OAI ePrint servers? new	01-15-2001 14:12
<input type="checkbox"/> Connections to OpCit? new	01-15-2001 14:12
💡 RE: Connections to OpCit? new	01-15-2001 14:16
<input type="checkbox"/> Miscellaneous Comments new	01-15-2001 14:12

Buttons: [Collapse Threads](#) | [subscribe](#)

Add your email in this email list, you will receive an email alert of any comments made to this discussion. You can also remove your email by unsubscribe to the site through the url provided in the email alert.



Journal of Interactive Media in Education

An Interactive Journal
for Interactive Media

jime.open.ac.uk

JIME document user interface

Article
under
review

Communicate and Communicate to Learn

return home loannidou and Jim Ambach

2. The Media Cube

Out of the many dimensions one could select to classify media, we have chosen the following: *media richness*, *interactivity* and *accessibility* to ground the following discussion. Mok defined a subset of this framework relating the richness and interactivity dimensions of media (Mok, 1996). The cube (Figure 4) formed by these dimensions is used to classify different media and to help understand the value added (or lost) by moving to different spaces within the cube.

Figure 4: The Media Cube

Even though learning is implicit in these media dimensions, we do not explicitly discuss the effects they have on knowledge construction, but focus mainly on the effects these dimensions have on information communication.

The media cube framework provoked some interesting review discussion (Editor).

Mok, C. (1996). *Designing Business*. Adobe Press: San Jose, CA. [cited]

2. The Media Cube

([Link to review debate](#)) , ([S. Buckingham Shum@open.ac.uk](#))
10 Mar 1998 13:40 GMT

[Add Comment](#) to: "2. The Media Cube"

[Next Thread](#) [Previous Thread](#) [Go to top of Review Debate](#)
[First Response To This Comment](#)

Responses [Expand comments to level: [Off](#) [1](#) [2](#) [3](#) [*All](#)]

Re: 2. The Media Cube

(Tom Moher, [moher@secs.uic.edu](#))
09 Apr 1998 19:47 GMT

I have some concern about the rendering of specific technologies as points rather than as spaces within the cube.

In particular, the characterization of immersive VR at the "passive observation" point on the interactivity dimension is misleading, certainly that is true for simplest such applications (such as architectural walk-throughs), but there are now several examples of applications which could reasonably be classified as either active exploration or even constructivist.

Areas for Debate [Expand comments to level: [Off](#) [1](#) [2](#) [3](#) [*All](#)]

Re: 2. The Media Cube

([S. Buckingham Shum \[Editor\]](#))
12 Jun 1998 12:02 GMT

Reflecting on the reviewer-author exchange, I think it's useful to consider different dimensions of the 'media cube' but I hope it's useful...

A conceptual space which clarifies this further. However, a space is only as good as the review exchanges, the ones you have, and fail to address some other important ones.

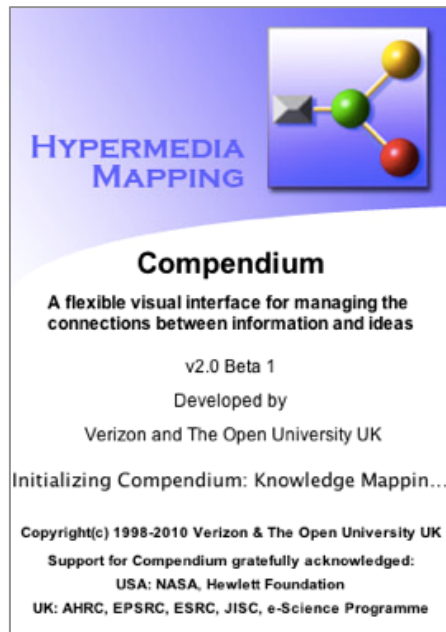
Why we were confused...

There seems to be an important distinction to make between the symbol system and the technology by which it is instantiated and rendered tangible. You might want to look at Salomon (1979), who presents a detailed analysis of media and learning. He argues that a medium comprises a "technology" and a "symbol system". A medium also has "content" and a "situation of use". Or take Thomas Green's (1980) analysis...

digital webs
of ideas +
arguments?

Compendium software (open source)

visual hypermedia for managing the connections between ideas flexibly



Acknowledgements:

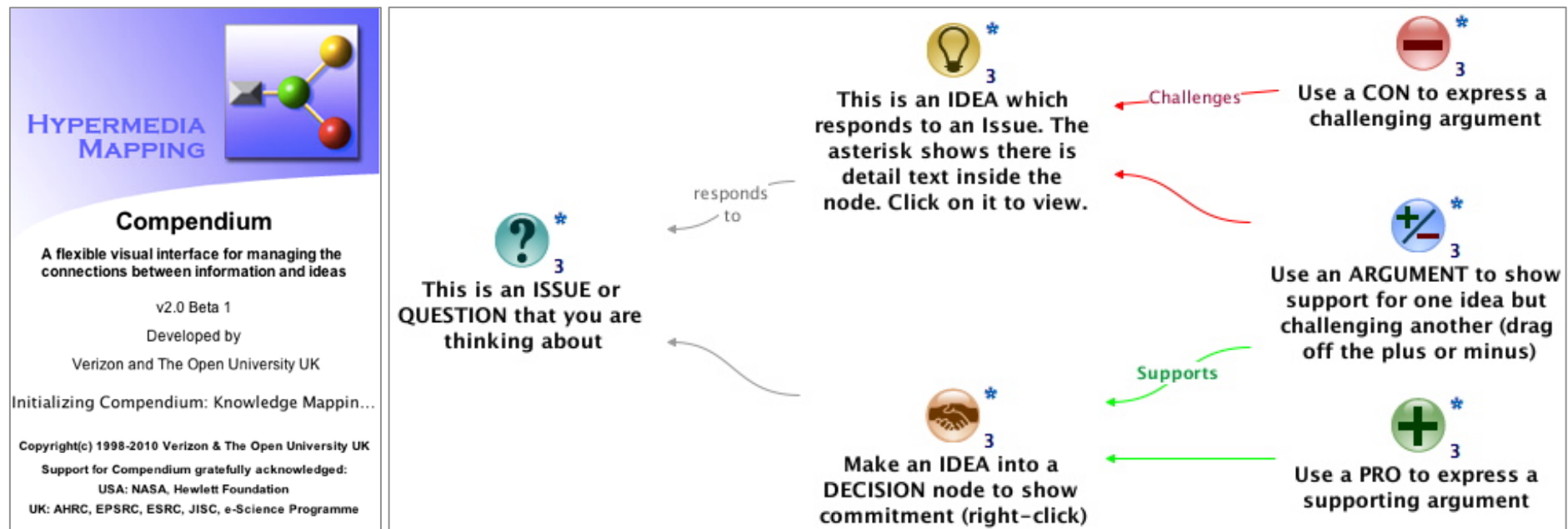
Jeff Conklin (CogNexus Institute)

Al Selvin & Maarten Sierhuis
(NYNEX Science & Technology)

<http://compendiuminstitute.net> (archive) + compendiumng.org (next gen)

Compendium software (open source)

visual hypermedia for managing the connections between ideas flexibly



<http://compendiuminstitute.net> (archive) + compendiumng.org (next gen)



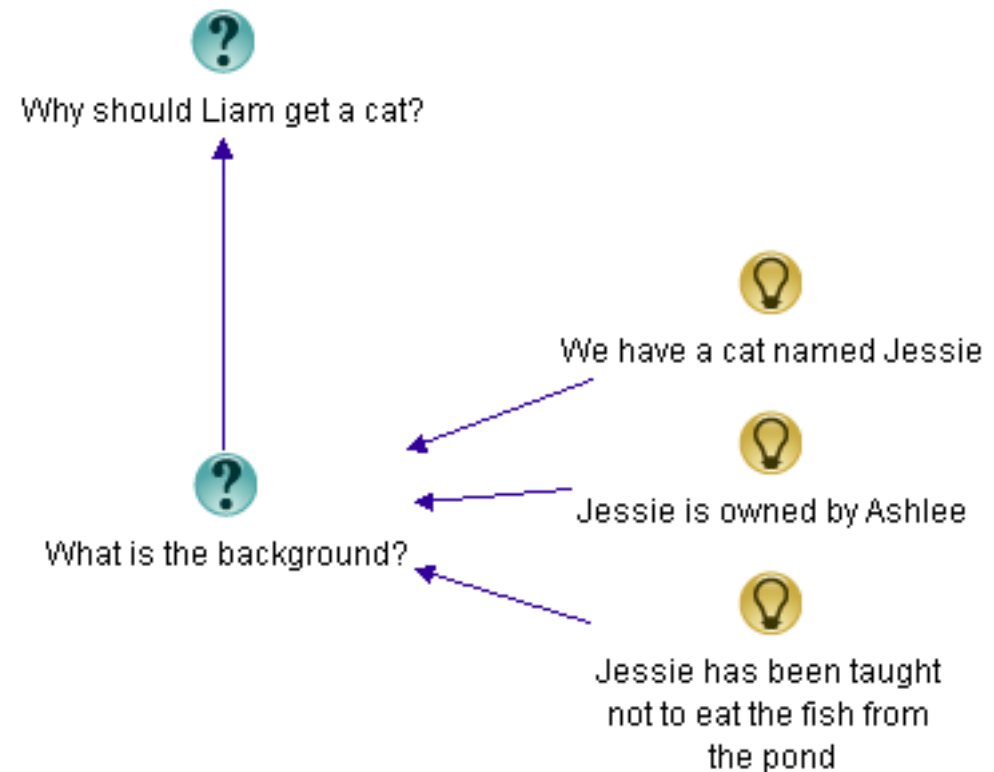
Dialogue Mapping in a nutshell



Why should Liam get a cat?

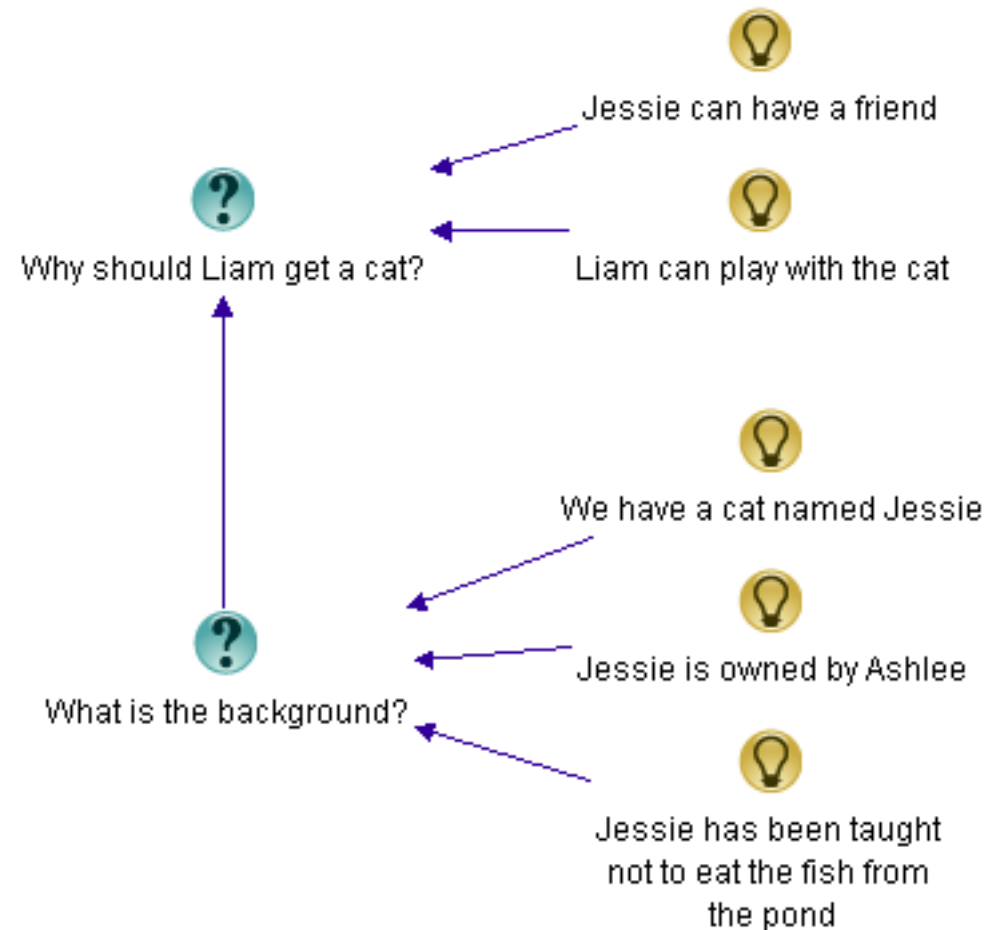
With thanks to Paul Culmsee! <http://www.cleverworkarounds.com/2009/12/16/the-rationale-of-a-5-year-old>

Dialogue Mapping in a nutshell



With thanks to Paul Culmsee! <http://www.cleverworkarounds.com/2009/12/16/the-rationale-of-a-5-year-old>

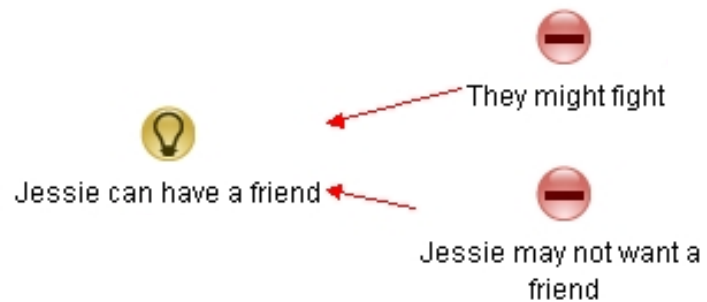
Dialogue Mapping in a nutshell



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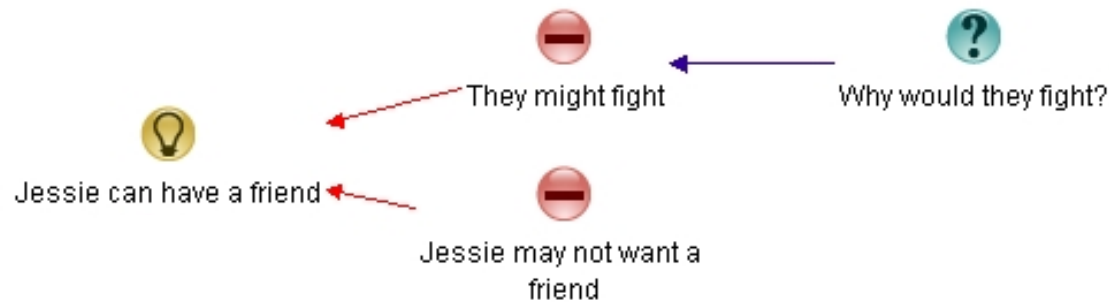
Dialogue Mapping in a nutshell

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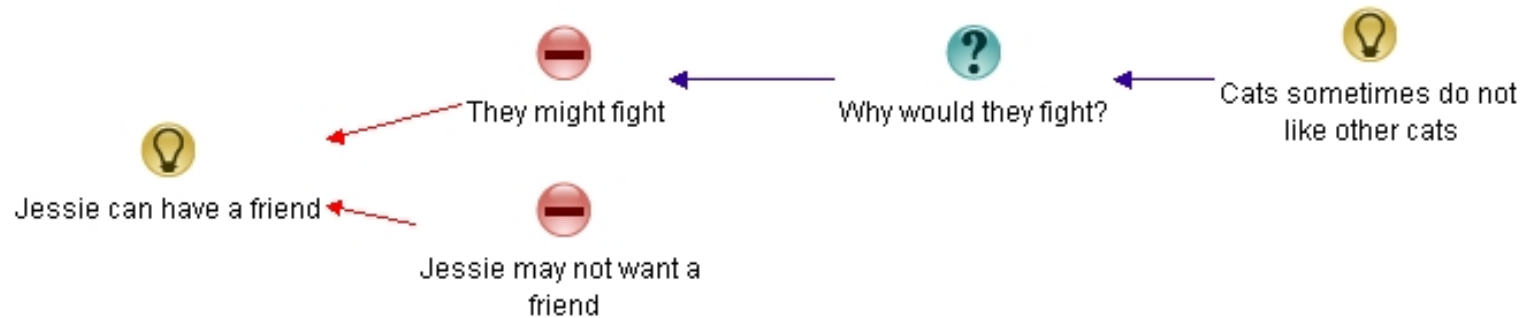
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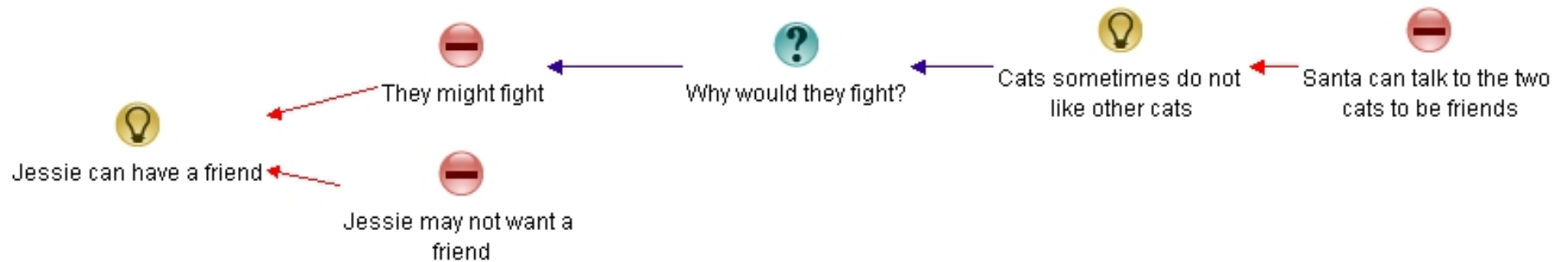
Dialogue Mapping in a nutshell

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Dialogue Mapping in a nutshell

With thanks to Paul Culmsee! <http://www.cleverworkarounds.com/2009/12/16/the-rationale-of-a-5-year-old>



this simple set of moves —
combined with hypertext
— goes a long way...

Compendium Institute: international community

CompendiumInstitute.net

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[Screencast](#): Introductory movie to Compendium, set in the context of the

Compendium Institute

The Compendium Institute is an open forum for the ongoing development and dissemination of the **Compendium** methodology and software tools. Compendium is about sharing ideas, creating artifacts, making things together, and breaking down the boundaries between dialogue, artifact, knowledge, and data. Please visit the resources on this site to learn more. See [what our users are saying...](#)

Let us know what you think of Compendium!
[Please take our short survey ==>](#)

The Community Showcase



The Compendium Exchange

Compendium has a place where the community can share maps, stories, and more. Here we are also developing Compendium training materials.

[The Compendium Exchange](#)

TESTIMONIALS

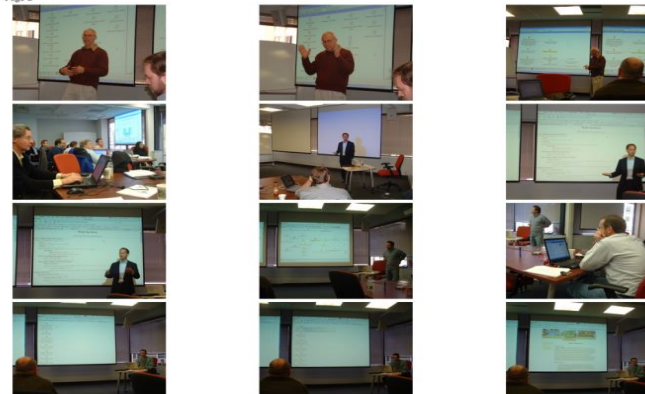
Compendium is used globally across diverse sectors. Of **188** endorsements received so far:

Business: 19% (58)	Education: 26% (82)
Government: 2% (5)	Not for Profit: 14% (43)
Personal: 31% (98)	Other: 8% (26)

"I found use for compendium a few years ago in my final years completing my BEng with the OU and found it to be the most amazing piece of software I had ever encountered. The fact that it could be so multi layered became invaluable, not only in my studies, but also for endeavours to muster ideas for business, novels, etc etc. My OU work had been using windows, and then via a VM on a Mac. I thought I would never find the versatility of a Compendium like program again on a mac. I cannot tell you how relieved I am to have found the DMG now available for mac after trying so many

and effort that your always recommend
or-14

Page 1 | Page 2



scaling it up

NASA field trials

EPSRC CoAKTinG Project: <http://projects.kmi.open.ac.uk/coakting/nasa>

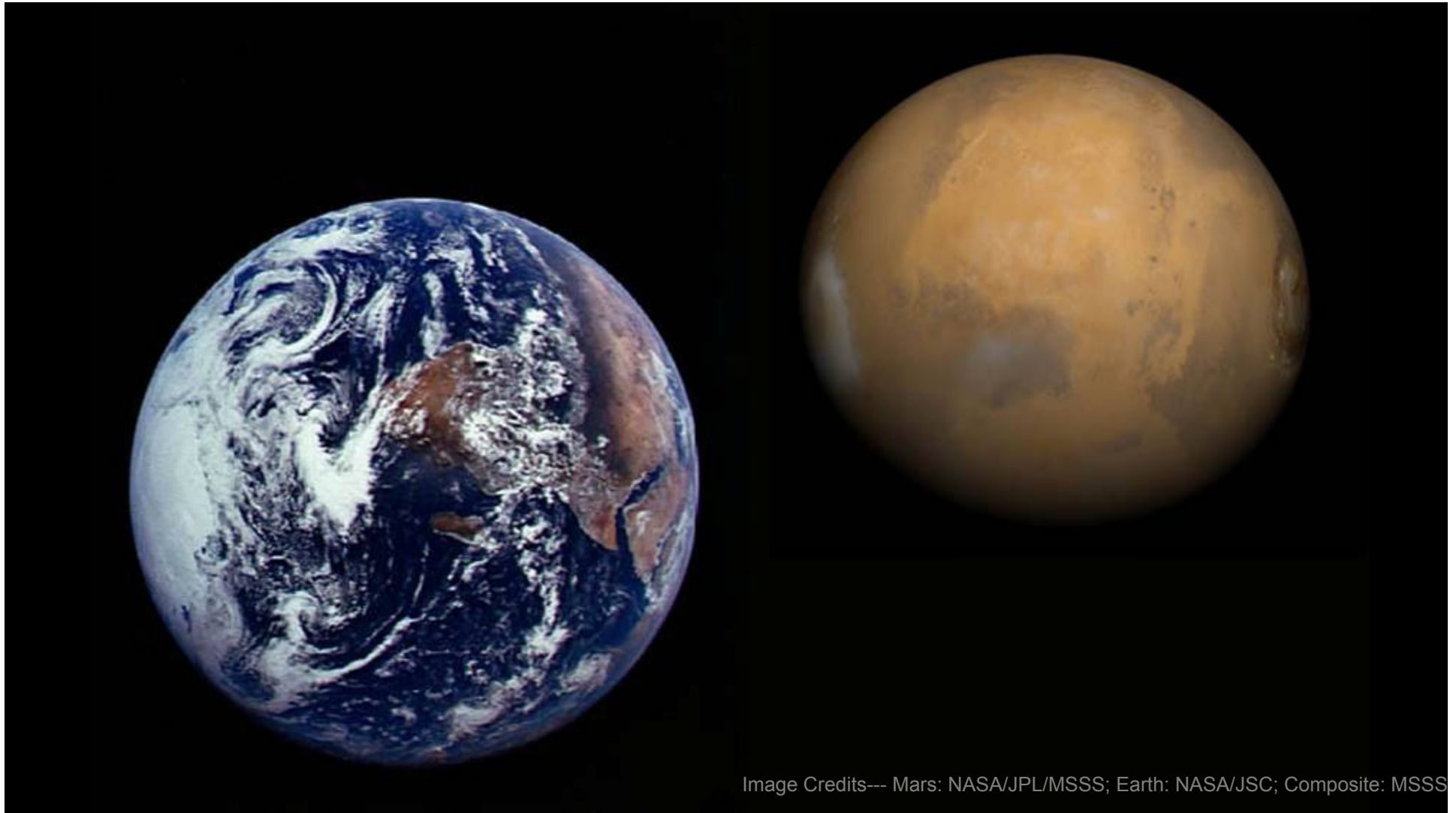


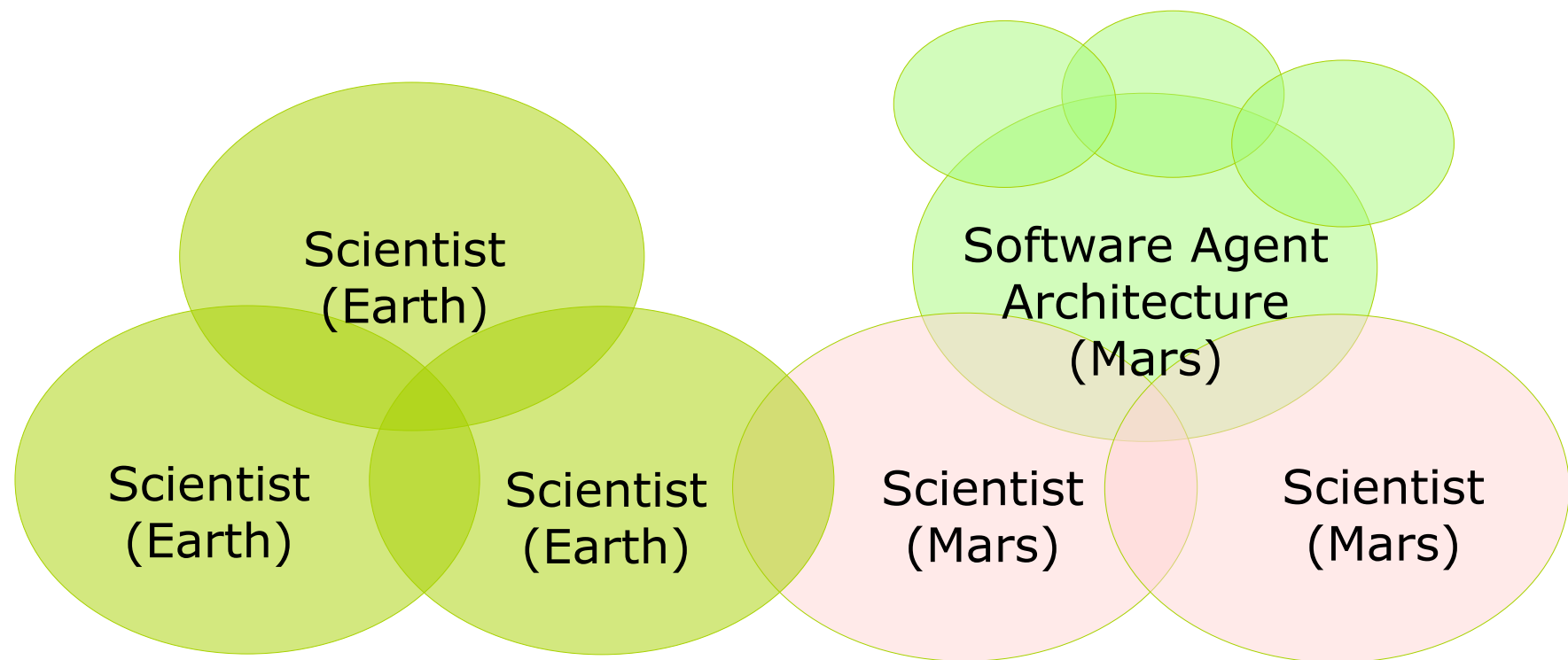
Image Credits--- Mars: NASA/JPL/MSSS; Earth: NASA/JSC; Composite: MSSS

NASA: Mars Habitat field trials in Utah desert

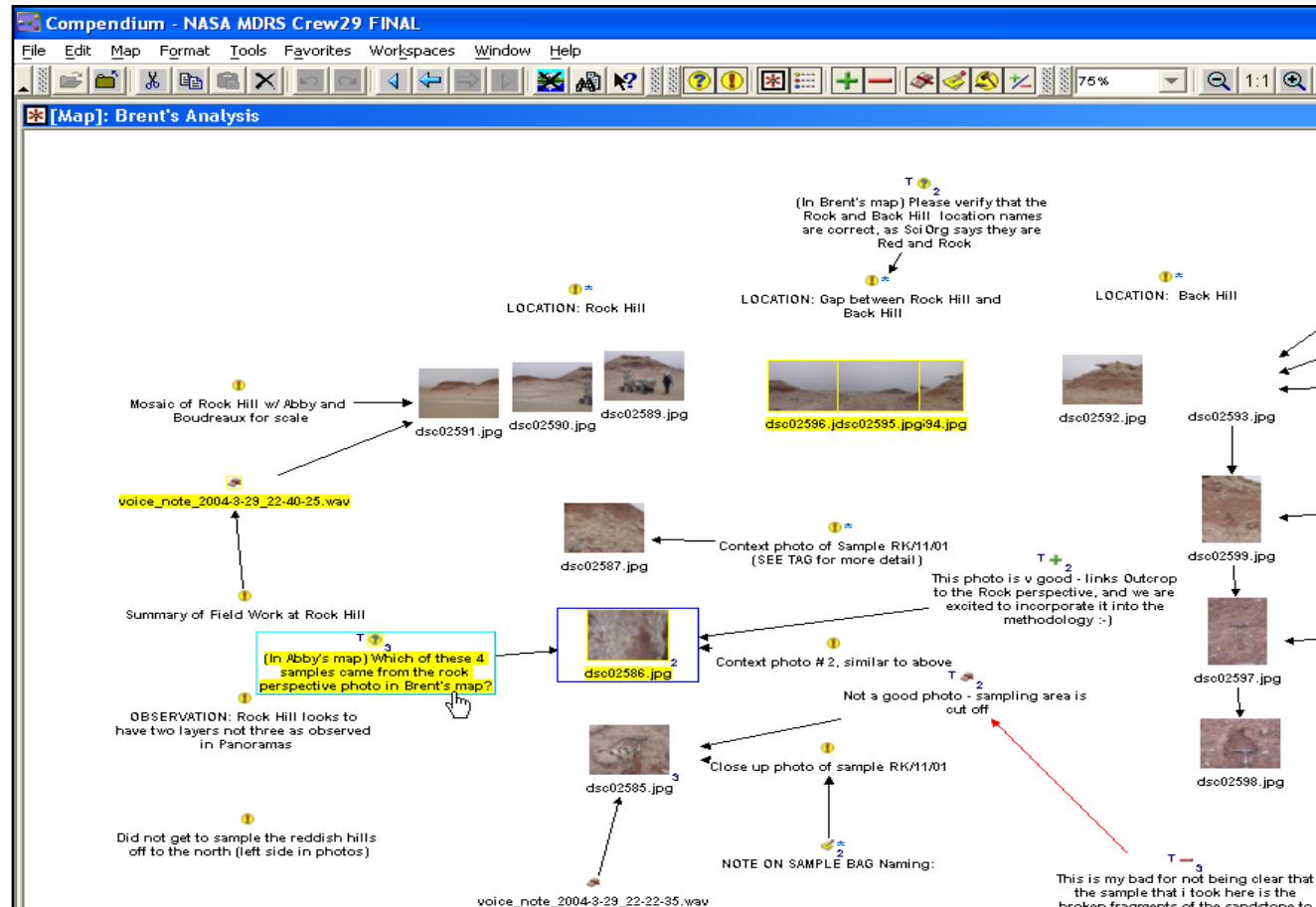


NASA remote science team tools

Compendium used as a collaboration medium at all intersections: humans +agents reading+writing knowledge maps

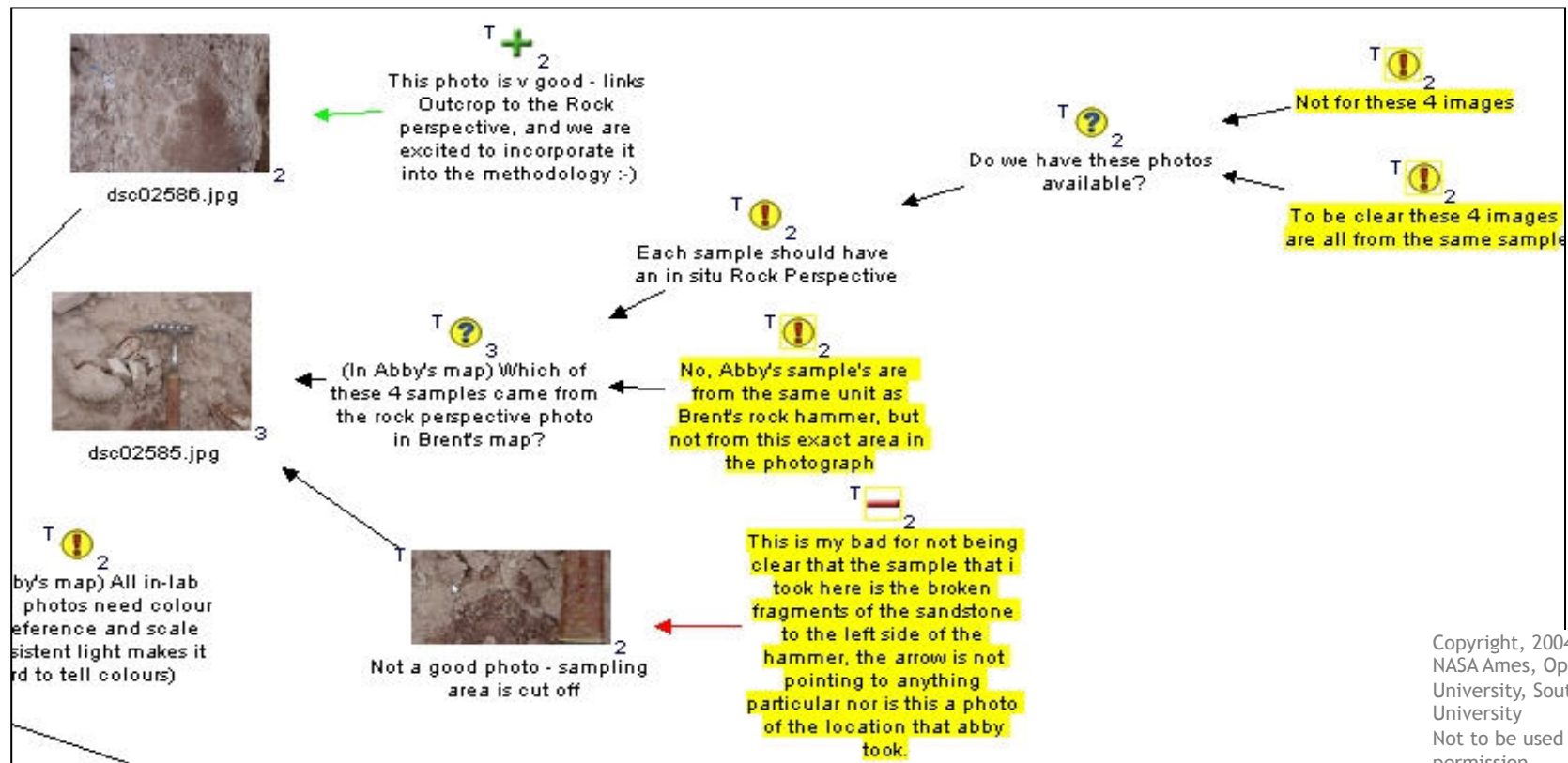


Compendium-based photo analysis by *geologists* on 'Mars'

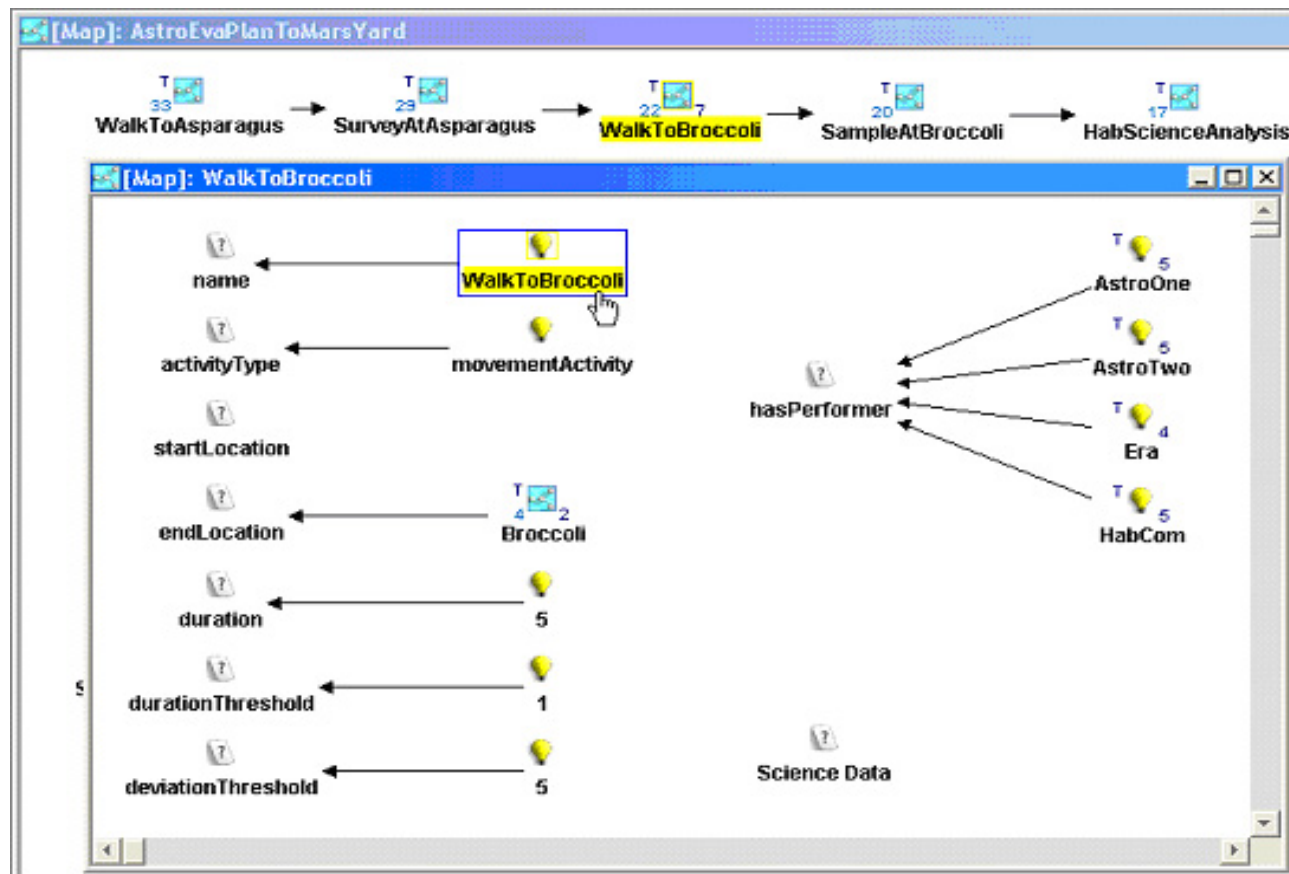


Copyright, 2004, RIACS/
NASA Ames, Open
University, Southampton
University
Not to be used without
permission

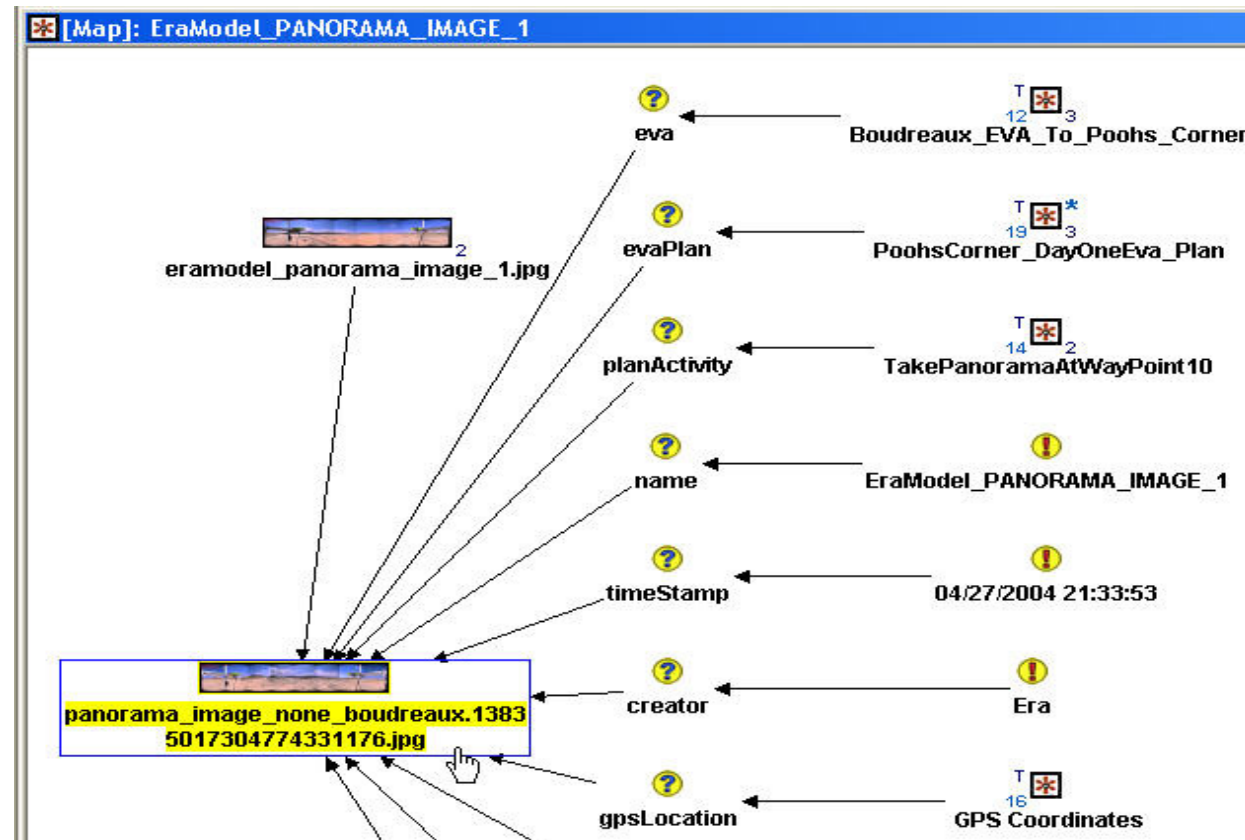
Geology dialogue map between *Earth-based scientists and 'Mars'*



Compendium activity plans for surface exploration, constructed by *scientists*, interpreted by *software agents*



Compendium science data map, generated by *software agents*, for interpretation by *Mars+Earth scientists*



replaying meetings:
rich video
+ conceptual structure

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University, Southampton University
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University, Southampton University
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What if you map during a videoconference?

Replay and navigate Access Grid videoconferences by the ideas in the meeting

The screenshot displays a videoconference interface. On the left, a grid of six video windows shows participants: *R* RS Sla..., *R* Univer..., *R* Manch..., *R* Manch..., *R* Simon ..., and *R* Univer... The main window on the right, titled 'ScreenStreamer: Compendium', shows a diagram titled '[Map]: 2.0 Memetic interface mockup (Clara's email of 14 Dec)'. The diagram includes nodes like 'Can we parse blank lines to identify agenda items?', 'Good to have the record controls here', 'Pressing Play will launch Mlt, filling the screen, it provides its own controls which the user will use', 'What should happen with Compendium when you press play?', 'If user has Web Launched Compendium, or Compendium already running, then connect to the Jabber group for ML communication', and 'In Comp for convenience'. A yellow box highlights a node with the text 'How to make agenda items editable easily?'. The bottom panel contains metadata: Title: Memetic Meeting 2005-12-15 (Imported), Date: 15 Dec 2005, 09:37, Participants: Michelle Bachler, Simon Buckingham Shum, Ben Juby, Clara Mancini, Darius Michaelides, Andrew Rowley, Roger Slack (sites), Speaker: Ben Juby, Agendum: 2.0 Memetic interface mockup (Clara's email of 14 Dec), Events: Selecting node, Nodes: How to make agenda items editable easily?, and a video control panel with 'Video: Playing', 'Group Sync' (Offline, Online), 'Mode' (Master, Slave), 'Receiving' (Yes, No), and links for 'sync node' and 'create node'.

back Title: [Memetic Meeting 2005-12-15 \(Imported\)](#)
Date: 15 Dec 2005, 09:37
Participants: Michelle Bachler, Simon Buckingham Shum, Ben Juby, Clara Mancini, Darius Michaelides, Andrew Rowley, Roger Slack ([sites](#))
Speaker: Ben Juby
Agendum: 2.0 Memetic interface mockup (Clara's email of 14 Dec) [View Agenda](#)
Events: Selecting node [View Documents](#)
Nodes: ? How to make agenda items editable easily?
00h 36m 22s / 02h 06m 12s
Video: Playing
Group Sync Offline Online
Mode Master Slave
Receiving Yes No
[sync node](#) [create node](#)

<http://memetic-vre.net>

General Election debates, 2010

[Movie Map]: What key elements for fair immigration are required? 2

The First Election Debate 12:19 / 01:33:53

IC: A lot of people would ask by a government that has been in power 13 years just now start to address the problem of immigration?

DC: Immigration is too high. 200,000 is too high. Needs to be tens of thousands. Migration limit needed. New EU countries need transitional controls.

NC: Past govts have failed us. Exist controls removed. Need restoring. Currently you need to show you have a sponsor, and a job. I would add: you only go to a region where you're needed

GB: Already done this: points system for those outside EU; jobs for skills matching overseas visitors; No care assists either. Right controls

DC: We need not border control but also border police force in order to stop illegal immigration.

GB: It's failing already. An arbitrary cap is not enough.

DC: I think the cap is necessary because we are not going to controll immigration until we take some concrete and positive steps. We need the cap.

NC: There is good immigration and bad immigration. There are expertices coming from abroad that our social services need. We don't want a cap but a regional approach.

GB: Illegal immigrant are deterred already because we introduced ID cards

<http://people.kmi.open.ac.uk/sbs/2010/04/debate-replay-with-map>

Next General Election...



Election Debate Visualisation

Search

HOME

AIM

BLOG

RESULTS

TEAM

CONTACT



During the 2010 UK general election, the first ever televised Prime Ministerial debates took place. Our research and pilot work demonstrated the interest that this sparked in the public, their need for more understanding of the issues, and the potential of mapping the debates in visual ways.

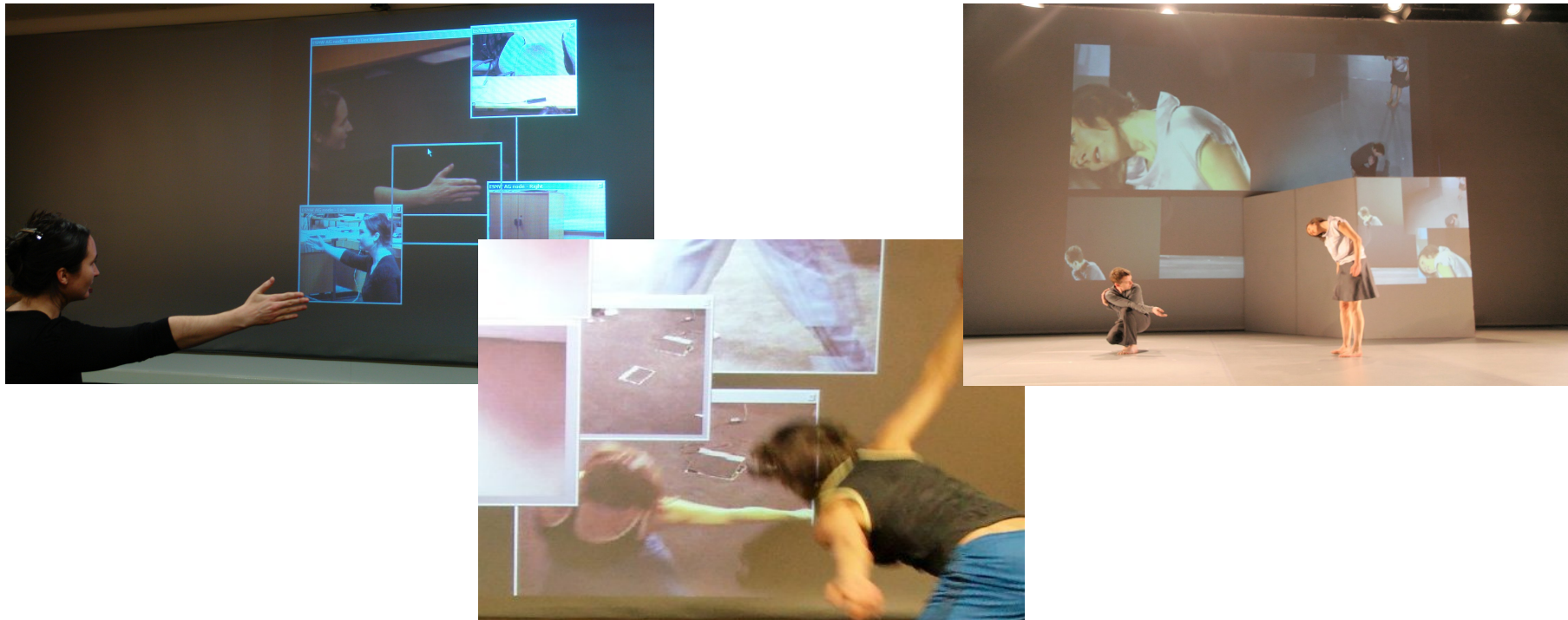


<http://edv-project.net>

providing a video annotation
medium for digital
choreographers

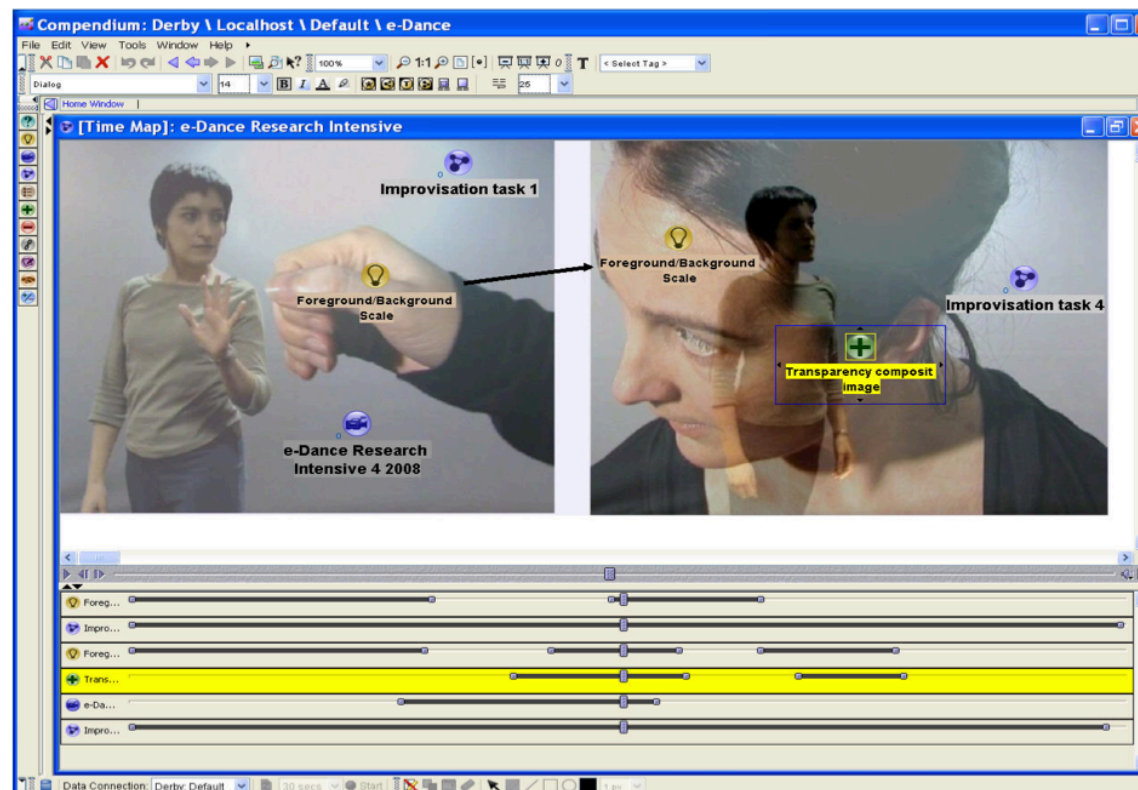
— document rehearsals and research

e-Dance Project: Choreography practice as research, & the transformative role of digital media



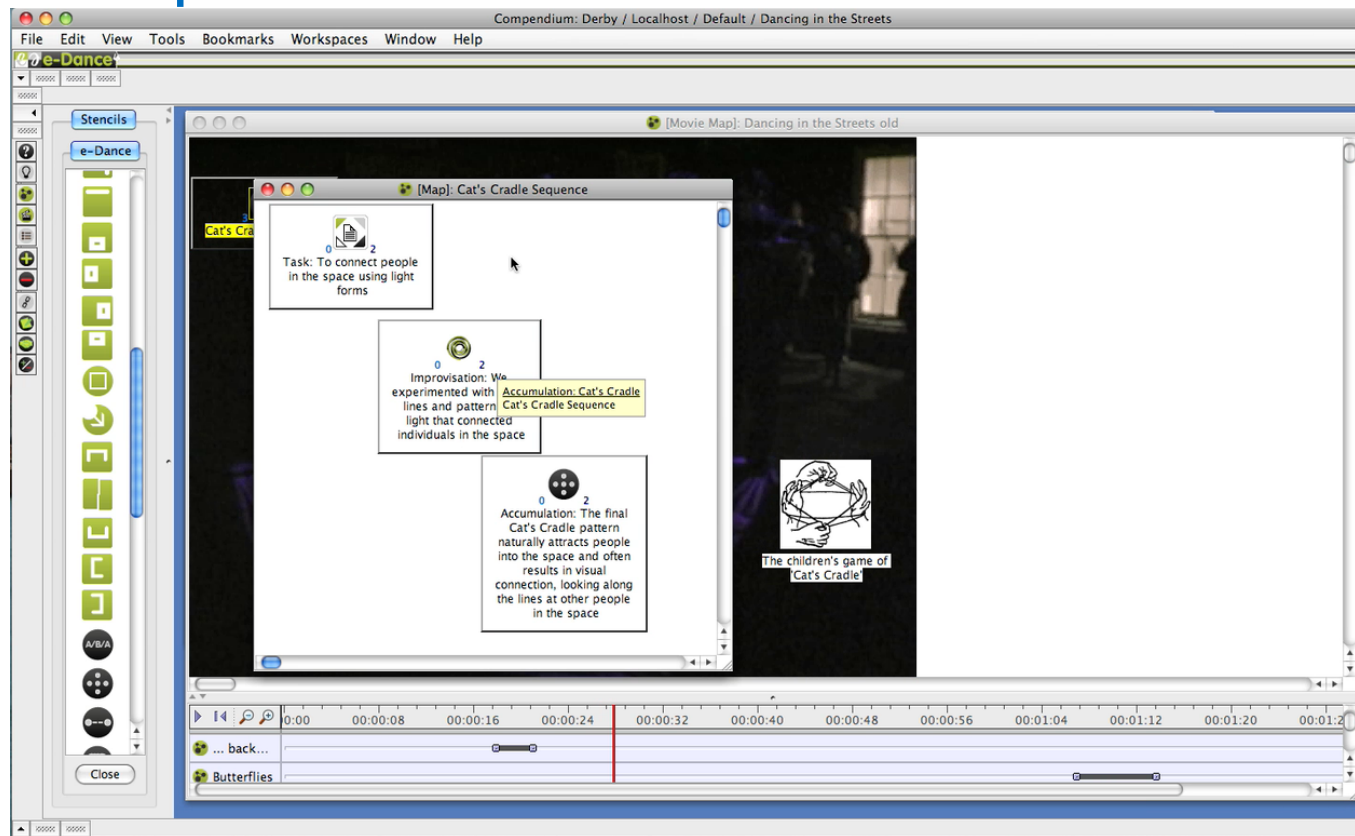
AHRC/EPSC/JISC e-Dance Project: <http://projects.kmi.open.ac.uk/e-dance>
— in collab. with: Helen Bailey (Univ. Bedfordshire), Sita Popat (Univ. Leeds), Martin Turner (Univ. Manchester)

e-Dance Project: Choreography practice as research, & the transformative role of digital media



Bailey H., Bachler M., Buckingham Shum S., Le Blanc A., Popat S., Rowley A. and Turner M. (2009). Dancing on the Grid: Using e-Science Tools to Extend Choreographic Research. *Philosophical Transactions of the Royal Society A*. 367: 2793-2806. <http://oro.open.ac.uk/12901>

Multimedia presentations for a multimedia, practice-based discipline



<http://projects.kmi.open.ac.uk/e-dance/2009/09/14/choreographic-video-annotation>

putting arguments under
the microscope

Argument Mapping in a nutshell

<http://people.kmi.open.ac.uk/sbs/2009/12/when-children-learn-to-map-dialogue-and-argument>

Literacy Homework

We have been looking at writing persuasive arguments this week.
Look at the following scenario.

Your parents have decided that you watch too much TV. They are going to limit you to just half an hour a day.

In the Speech bubbles below can you list arguments for and against this idea.

For	Against
<div style="border: 1px solid black; border-radius: 15px; padding: 5px; margin-bottom: 10px;">I will have to find other things to play with, which might be more stimulating.</div> <div style="border: 1px solid black; border-radius: 15px; padding: 5px; margin-bottom: 10px;">That's great, I'll have more time to play.</div> <div style="border: 1px solid black; border-radius: 15px; padding: 5px; margin-bottom: 10px;">It'll give me more time to get ready for my clubs.</div> <div style="border: 1px solid black; border-radius: 15px; padding: 5px; margin-bottom: 10px;">It will give me more time to cuddle my guinea pig.</div> <div style="border: 1px solid black; border-radius: 15px; padding: 5px;">That's fab, it will give me more time to do my homework and it won't become a bore at weekends.</div>	<div style="border: 1px solid black; border-radius: 15px; padding: 5px;">It's not fair I work hard all day and TV is a good way to relax. I really enjoy it.</div>

Challenge.
Can you take one positive and one negative statement and write a persuasive sentence for each.
Remember to use persuasive language.

Argument Mapping in a nutshell

<http://people.kmi.open.ac.uk/sbs/2009/12/when-children-learn-to-map-dialogue-and-argument>

Literacy Homework

We have been looking at writing persuasive arguments this week.
Look at the following scenario.

Your parents have decided that you watch too much TV. They are going to limit you to just half an hour a day.

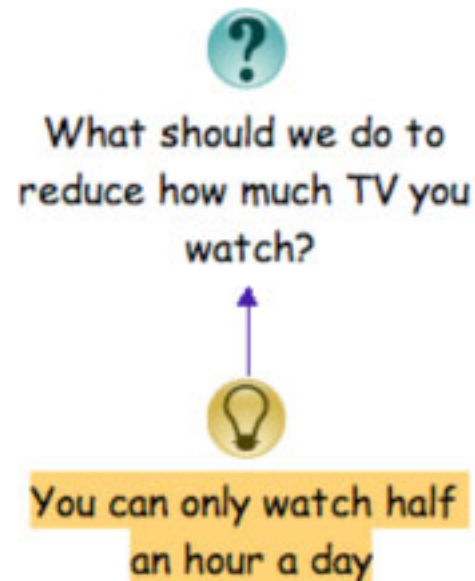
In the Speech bubbles below can you list arguments for and against this idea.

For	Against
I will have to find other things to play with, which might be more stimulating.	It's not fair I work hard all day and TV is a good way to relax. I really enjoy it.
That's great, I'll have more time to play.	But I'll miss loads of TV programmes that I want to watch.
It'll give me more time to get ready for my clubs.	But I can get dressed really quickly for clubs.
It will give me more time to cuddle my guinea pig.	But I hardly ever watch telly.
That's fab, it will give me more time to do my homework and it won't become a bore at weekends.	But I hate the homework.

Challenge.
Can you take one positive and one negative statement and write a persuasive sentence for each.
Remember to use persuasive language.

Argument Mapping in a nutshell

Your parents have decided that you watch too much TV. They are going to limit you to just half an hour a day. Can you map the arguments for and against this idea?



Argument Mapping in a nutshell

Your parents have decided that you watch too much TV. They are going to limit you to just half an hour a day. Can you map the arguments for and against this idea?



Using argument mapping to visualize, analyse and challenge racist literature

Buckingham Shum, S. (2007). Undermining Mimetic Contagion on the Net: Argumentation Tools as Critical Voices. COV&R 2007: Colloquium on Violence & Religion, Amsterdam Vrije Universiteit July, 4-8 2007

http://www.bezinningscentrum.nl/teksten/girard/c/c2007_Buckingham-Shum_Simon_abstract.htm

<http://www.slideshare.net/sbs/undermining-mimetic-contagion-on-the-net-argumentation-tools-as-critical-voices>

Interactive Web Maps: <http://bit.ly/aP4M0P> (View in Safari)

Example: a “scientific argument” on National Front website

“What are the facts? ... on every measure of intellectual ability and educational attainment Blacks perform significantly worse, on average, than Whites. In the case of average IQ, for example, the average Negro figure is only 85% of the White average.”

Readers can consult *Race* by Dr. John R. Baker, former Reader in Cytology at Oxford University, published by the Oxford University Press, or *The Testing of Negro Intelligence*, an exhaustive review of hundreds of studies demonstrating racial differences in intellectual ability by Dr. Audrey M. Shuey, and of course there is *The Bell Curve* by Herrnstein and Murray.

2
are innately
inferior"

2
of intellectual
attainment
cantly worse, on
Whites."

2
er evoked potentials"

2
"These tests are unfair: they are
written by White people in a White
Society and thus are biased against
non-Whites."

2
"Chinese and Japanese, who are not
noticeably more Caucasian and are often
very much more culturally distinct from
White society than Negroes, actually do
as well or slightly better on average
than Whites"

2
"This is due to the environment rather
than innate heredity."

2
Blacks tend to come from deprived
environments

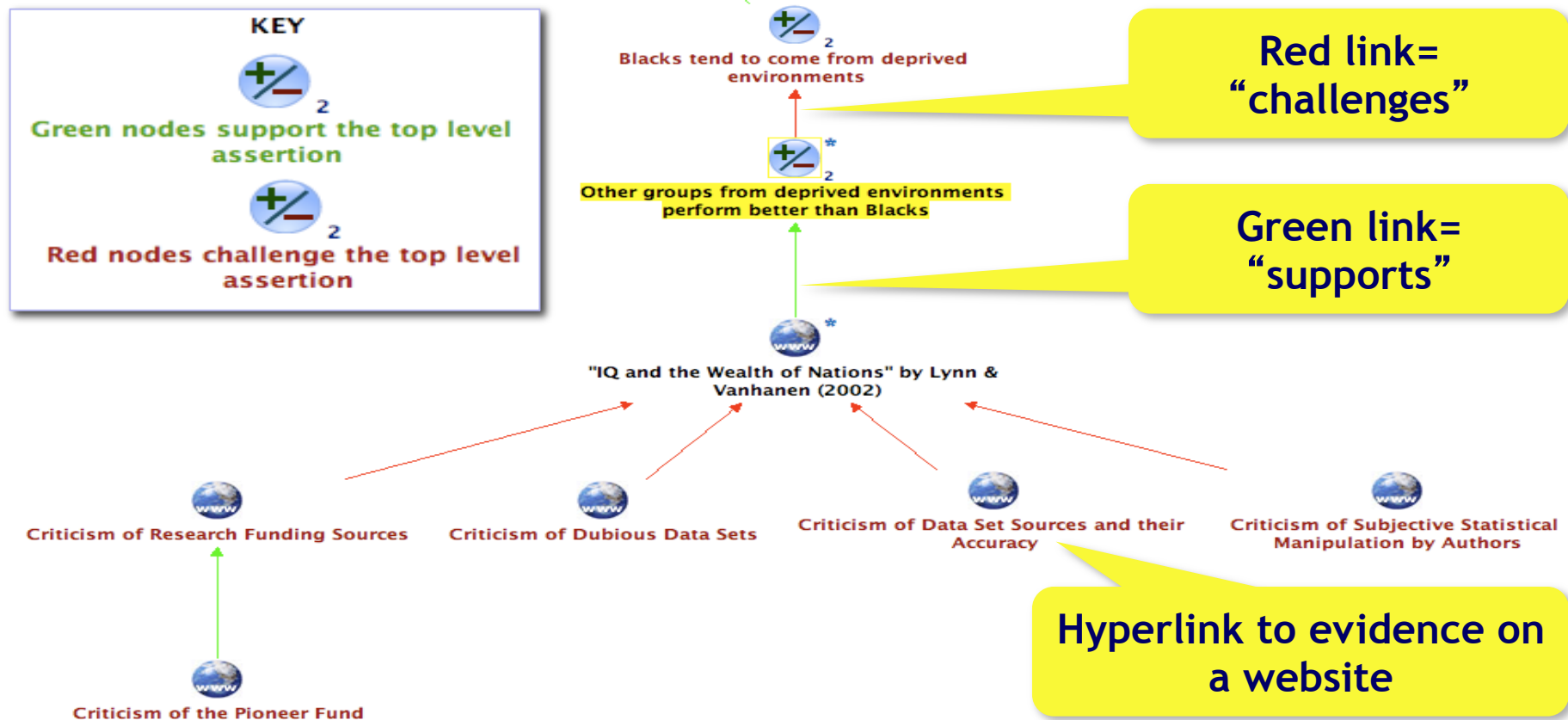
2
"At least 80% of differences in
intelligence are inborn"

2
Other groups from deprived environments
perform better than Blacks

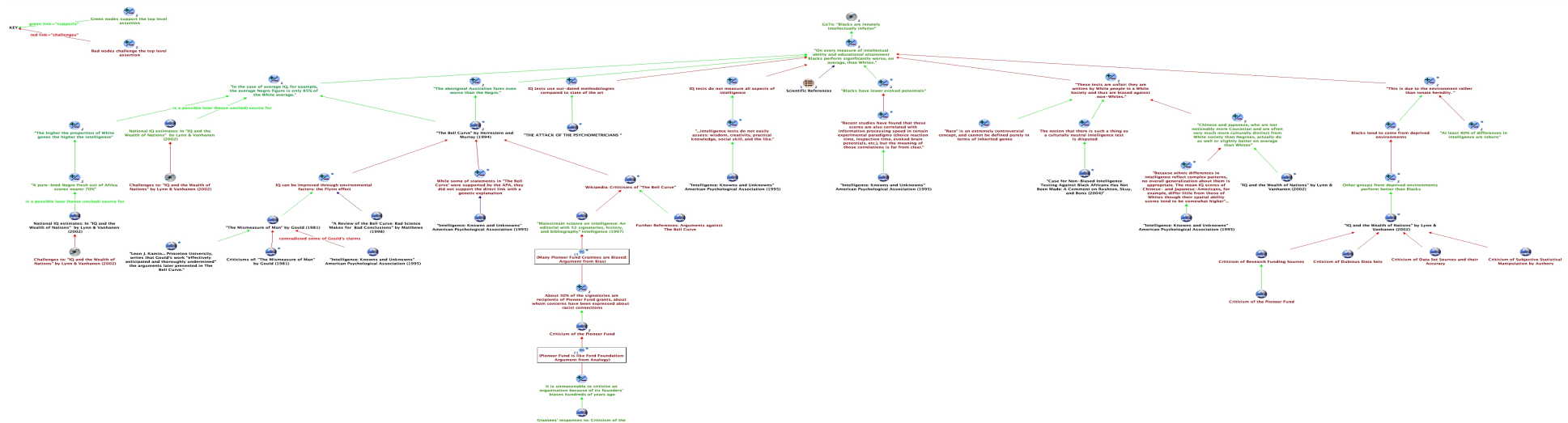
<http://bit.ly/aP4M0P> (View in Safari)

Analysing the NF “negro intelligence” case using argument mapping

<http://bit.ly/aP4M0P> (View in Safari)



Refuting the NF “negro intelligence” argument using argument mapping



<http://bit.ly/aP4M0P> (View in Safari)


Compendium in OU teaching and learning

Compendium used widely across OU



<http://compendium.open.ac.uk>

Compendium in OpenLearn



The Open University

[The Open University](#) | [Study at the OU](#) | [Research at the OU](#)

OpenLearn

The home of free learning from The Open University

[Health, Sports & Psychology](#) | [Education](#) | [History & The Arts](#) | [Languages](#) | [Money & Management](#) | [Nature & Environment](#) | [Science, Maths & Technology](#) | [People, Politics & Law](#)

You are here: [Home](#) > [Health, Sports & Psychology](#) > [Psychology](#) > [EPOCH Psychology history timeline](#)


> Activity 1: Using the timeline

EPOCH Psychology history timeline

This unit uses an interactive resource (EPoCH) to gain a better sense of how the

- [_Epoch](#)
- [TOPICS](#)
- [CONTEXTS](#)
- [PERSPECTIVES](#)
- [ACTIVITIES](#)
- [METHODS](#)
- [FIGURES](#)
- [HELP](#)
- [TIME LINE](#)
- [Acknowledgements](#)
- [ACTIVITY 1 Using the timeline](#)
- [ACTIVITY 3 Exploring perspectives](#)
- [ACTIVITY 2 Using the biographies](#)
- [ACTIVITY 4 Exploring Topics](#)
- [ACTIVITY 5 Using the figures, methods, perspectives, topics](#)

Asperger

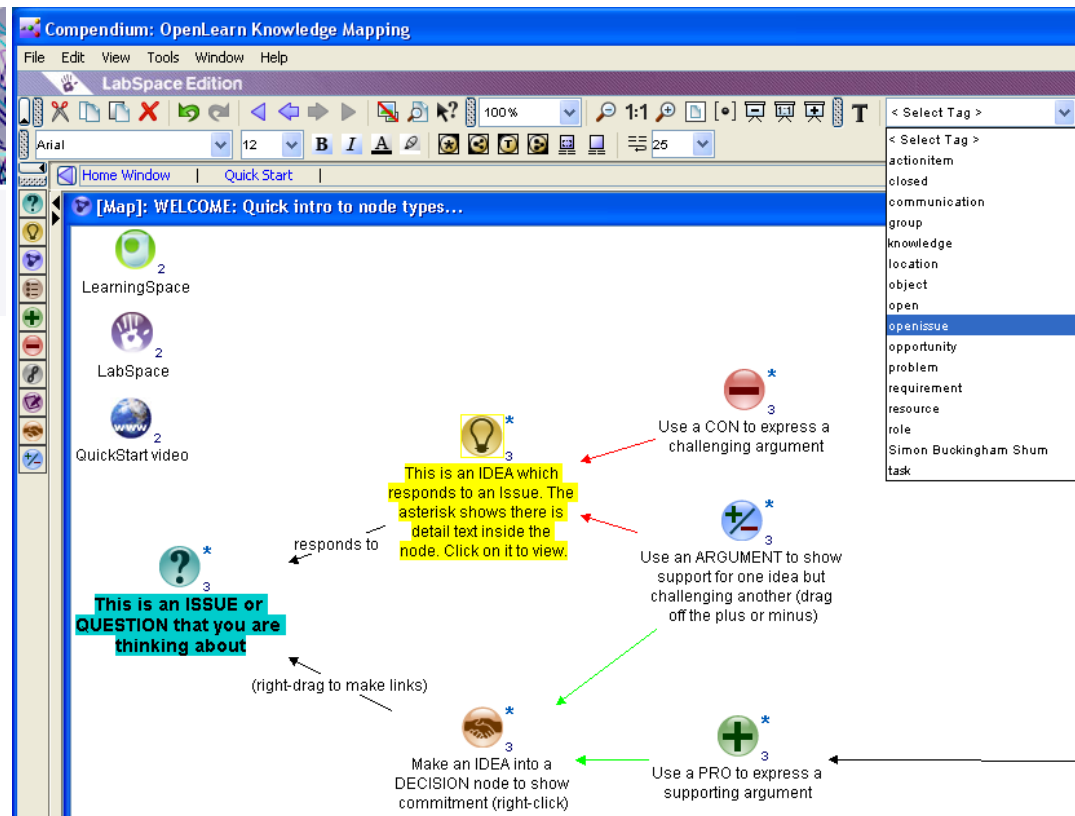


Asperger, Hans

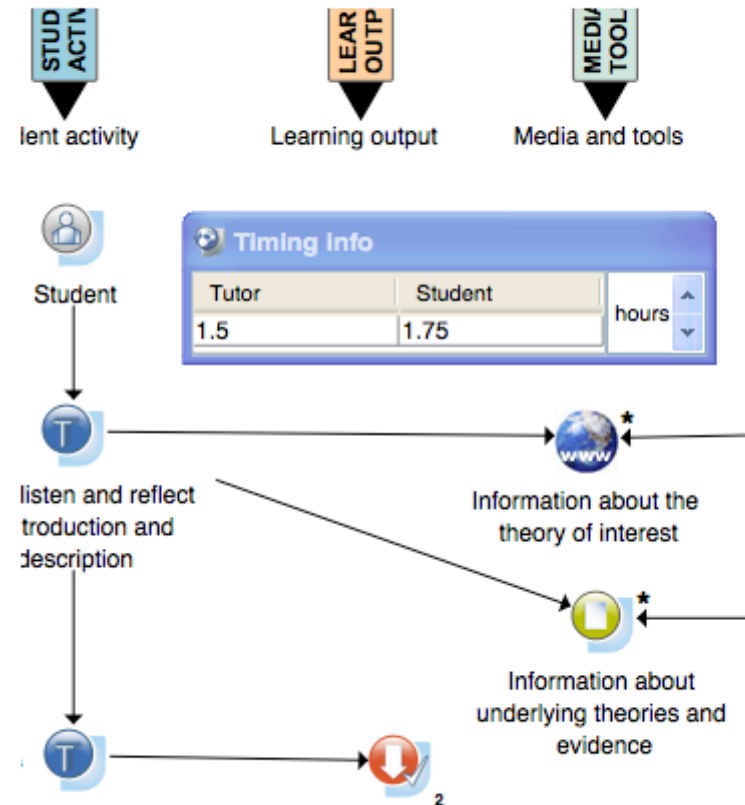
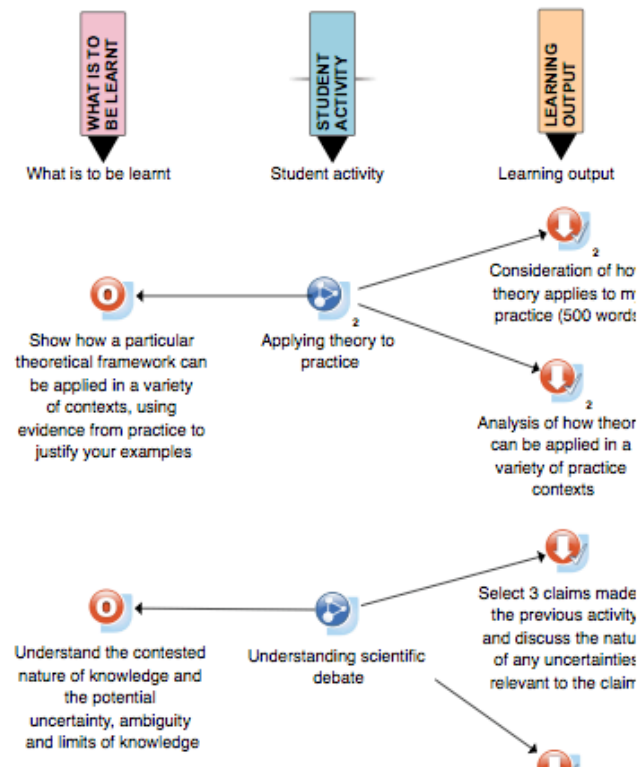
[TIME LINE](#) | [FIGURES](#) | [METHODS](#) | [PERSPECTIVES](#) | [TOPICS](#) | [CONTEXTS](#) | [ACTIVITIES](#) | [COMPENDIUM](#) | [HELP](#)

Methods	Perspectives	Topics	Contexts
		6 Autism	18 World War 2 active service
		7 Treatment	

Compendium in OpenLearn LabSpace

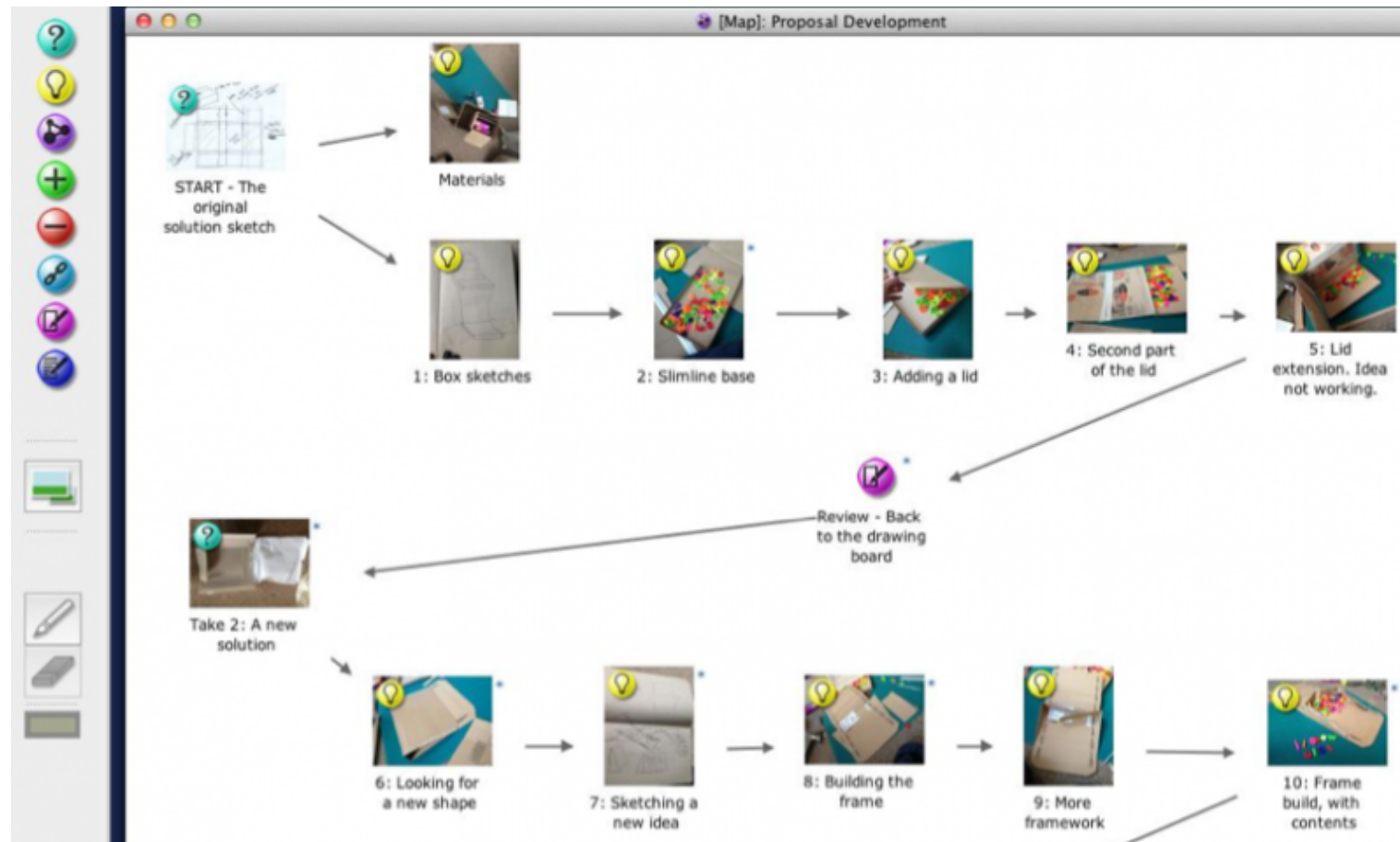


CompendiumLD: for OU Learning Design



OU LDI Project led by Grainne Conole: <http://compendiumld.open.ac.uk>

CompendiumDS: the award-winning *U101 Design Studies* course



CompendiumDS wins e-Assessment Scotland award for Best Product



e-Assessment
Scotland



eAssessment Scotland
@eassessscotland



Follow

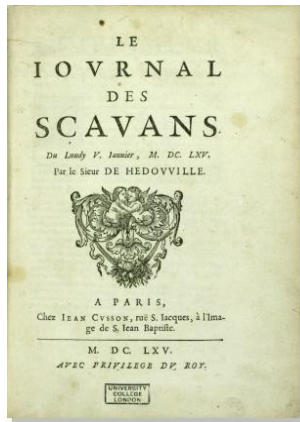
Winner in the best Product category was
Derek Jones [@plug103](#) from the OU for
CompendiumDS [#easc13](#)
pic.twitter.com/9IidgxRiNu

[Reply](#) [Retweet](#) [Favorite](#) [More](#)

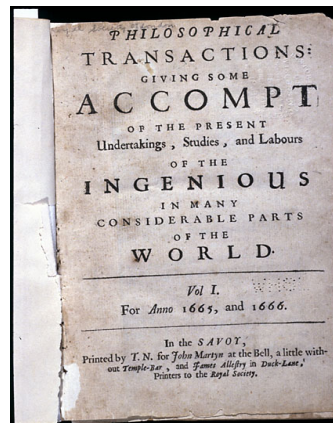


what if we start to publish
scholarly/research
knowledge as webs of
arguments?

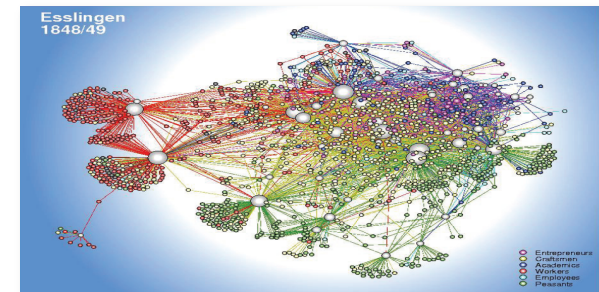
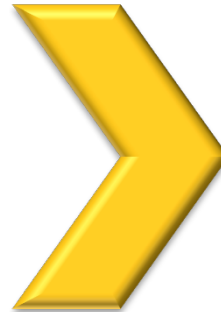
Scholarly discourse as webs of ideas...



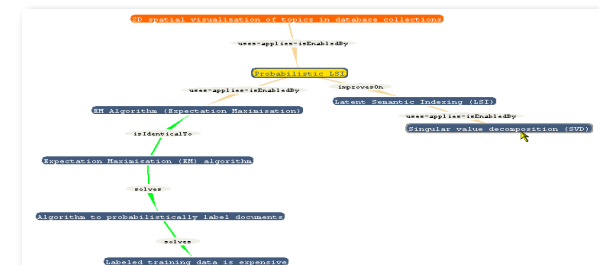
Le Journal des Sçavans
January 1665



Philosophical Transactions of the Royal Society of London
March 1665



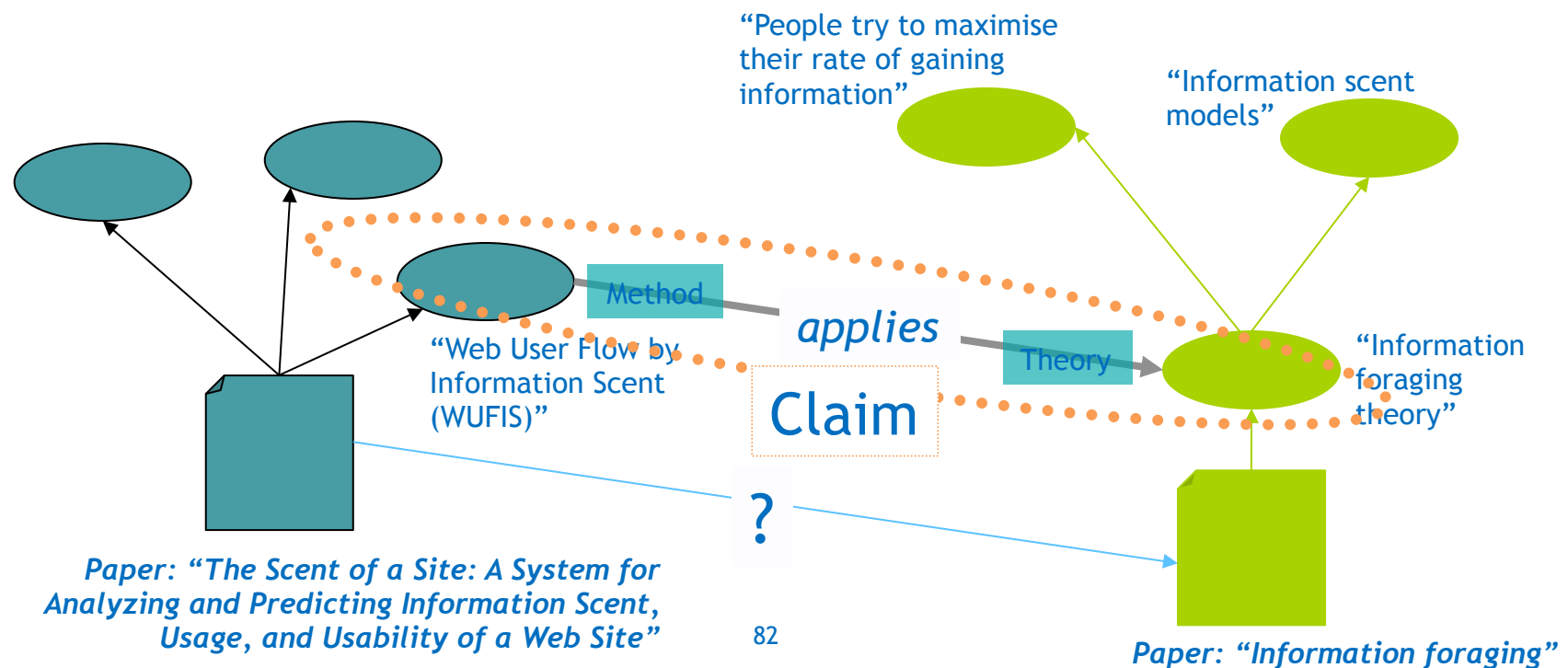
Chaomei Chen, 2006: Citation analysis



Buckingham Shum et al, 2003: lineage analysis

Scholarly discourse as CKS...

Beyond document citations...



Annotating the web with an Argument Web

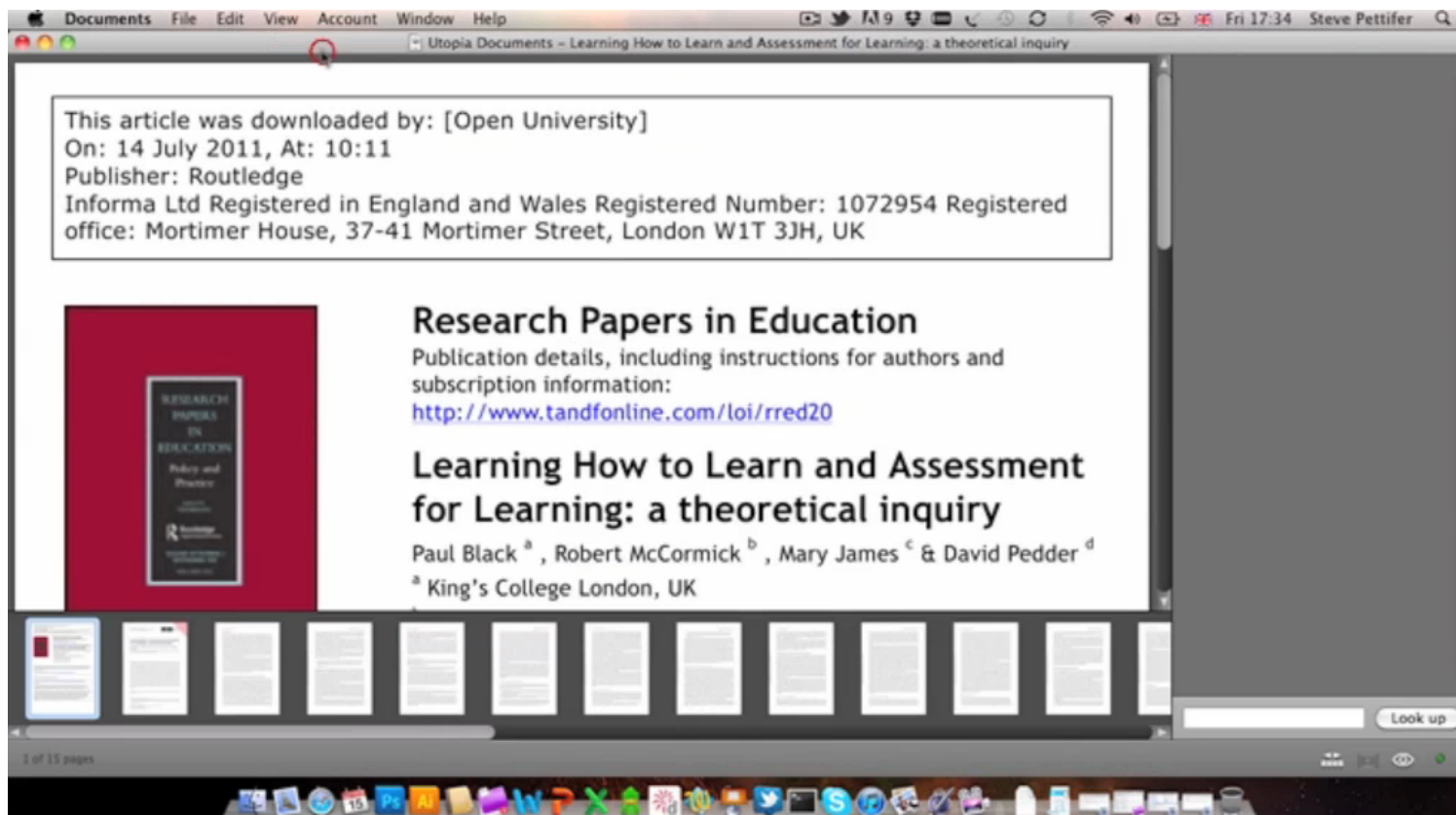
The screenshot displays the Utopia website interface. The main content area features an article titled "Argument Map: Bio vom Discounter?". Below the article, there is an argument map diagram with various nodes and connecting arrows. The nodes include questions like "Was ist mein Essen wert?", "Welche Einflüßmöglichkeiten bestehen aus Konsumentensicht?", and "Senkung der Hemmschwelle gegenüber Biolebensmitteln bei Normalverbrauchern". The diagram is interactive, with arrows indicating relationships between different aspects of the argument.

On the right side, there is a user profile for "Lena Greiner" with a "follow" button. Below the profile, there is a table titled "Zusammenfassung über erstellten Inhalt" (Summary of created content) showing the number of articles created for different aspects.

Artikeltyp	Zähler über Erstellung	Ansehen
Aspekt	7	View
Contra Argument	3	View
Pro Argument	2	View

EU Catalyst Project: <http://catalyst-fp7.eu> • Example: <http://www.utopia.de/argument-map/bio-vom-discounter>

Embedded argument annotations in journal articles



Acknowledgements: Steve Pettifer, <http://utopiadocs.com>

moving towards
Contested
Collective
Intelligence

DebateHub

minimalist user interface for social ideation

Anna De Liddo | [Edit Profile](#) | [Sign Out](#) | [About](#) | [Help](#) | [Admin](#)

Site Search



Debate Hub

Civic Society



What would attract you to work in a civic sector organization?

Please add ideas on what would be your main motivation and reward for working in the civic society sector.

19/3/14 [Dashboard](#) [Follow](#)

Add Your Idea

Submit

Organize

1 to 4 (4)

0

0



Better pay would help. [✎](#) [✕](#)

100%

Civic sector organisations often come from a tradition of NGO and volunteering and this, even if Nobel has somehow converted into the wrong assumption that civil sector officers can be lower paid. I think on the contrary a new trend should start and better salary should be offered to "reward" people for the choice to work on a sector that mainly aims at the improvement of civic society at large.

[Comments \(0\)](#) [Arguments \(1\)](#)

0

1



Org makes it possible to solve complex, urgent problems

50% 50%

My reason for joining a civic sector org would be to participate in collectively finding solutions to complex, urgent problems

[Comments \(0\)](#) [Arguments \(1\)](#)

0

0



I think that the use of role models could help [✎](#) [✕](#)

67%

For (1)

I think not just students but also adults may be in need nowadays of positive rolemodel. Especially since the one that media and economy propose turn to be often limited. The problem though is how do we propose them? [✎](#) [✕](#)

Supporting Argument Title...

Supporting Argument Description...

Paste Url...

[Add Another Url](#)

Submit

Against (2)

Role models is something you pick it is not something you can choose for someone else. If we propose civic rolemodels to teenagers it is the best way to have them DO NOT FOLLOW. [✎](#) [✕](#)

The problem with role models is that they do not really push people to think creatively to what they could be or do to improve the civic society. [✎](#) [✕](#)

Counter Argument Title...

Counter Argument Description...

Paste Url...

[Add Another Url](#)

Submit

2

0



I think about joining an organization, and not a "sector."

100%

I have spent much of my career working in non-profits or working as an external service provider to non-profits. I have chosen to work for each of these organizations based on the particular mission/purpose of that organization, but I don't really think about it as choosing to work in a "sector." It's an organization by organization kind of assessment for me.

[Comments \(0\)](#) [Arguments \(1\)](#)

Evidence Hub: semantic storytelling for students, practitioners and researchers

Evidence Hub
for Systems Learning and Leadership

Add your story as a Researcher

Please be aware that all data you enter here will be publically viewable on this site by other users.
(fields with a * are compulsory only if you want to enter that item)

Step 1: Issue → Step 2: Research Claim → **Step 3: Evidence** → Step 4: Resource (Optional) → Step 5: Themes & Tags & Organization/Project

Is there any Evidence to support your Claim?
Add a Supporting Evidence to the Research Claim you proposed by specifying what type of Evidence it is (Stories of Change, Case Study, Policy, Report, Research Finding)

Evidence Type: ? * **Stories of Change**
Evidence Summary: ? * **Case Study**
Description: **Formatting** ?

< Back Cancel Next > Skip >

A wizard guides the user through the submission of a structured story:

- What's the Issue?
- What claim are you making/ addressing?
- What kind of evidence supports/challenges this?
- Link it to papers/data
- Index it against the NIC's core themes

Evidence Hub: Argument Maps

The wizard then generates a structured Knowledge Tree showing evidence-based claims (and disagreements)

The screenshot displays the Evidence Hub interface, which is divided into two main sections: a wizard for adding a story and a view of the generated knowledge tree.

Wizard Section (Left):

- Header:** Evidence Hub for Systems Learning and Leadership. Add your story as a Researcher.
- Disclaimer:** Please be aware that all data you enter here will be publically viewable on this site by other users. (fields with a * are compulsory only if you want to enter that item)
- Progress Bar:** Step 1: Issue, Step 2: Research Claim, Step 3: Evidence (highlighted), Step 4: Resource (Optional), Step 5: Themes & Tags & Organization/Project.
- Form:**
 - Is there any Evidence to support your Claim?** Add a Supporting Evidence to the Research Claim you proposed by specifying what type of Evidence (Stories of Change, Case Study, Policy, Report, Research Finding).
 - Evidence Type:** * (dropdown menu with options: Stories of Change, Case Study, Policy, Report, Research Finding).
 - Evidence Summary:** ? *
 - Description:** Formatting ?
- Buttons:** < Back, Cancel.

Knowledge Trees Section (Right):

- Header:** Knowledge Trees (View wider knowledge trees).
- Text:** This item is contained in 1 Knowledge tree(s).
- Issue:** ? Issue: The focus on school transitions is primarily on pastoral care. What about maintaining or improving academic attainment during transitions from primary to secondary school? (7) +
- Research Claim:** ! Research Claim: Research and subsequent practice on transitions needs to refocus on academic performance during a dip in attainment in addition to the established pastoral element.
- Evidence (Research Finding):** + Evidence (Research Finding): Research has shown that the longer term effects of a dip in academic attainment are important to address that dip so it does not become a trend.
- Resource (Publication):** Resource (Publication): Crosnoe, R. (2010). Economically Disadvantaged Children's Transitions Into Elementary School Learning Family Processes, School Contexts, and Educational Policy. American Educational Research Journal, 47(2), 258–291.
- Actions:** + Add Supporting Evidence, + Add Counter Evidence, Vote: 0, Full Details, Knowledge Trees, Who connected it?, Report as Spam.

Systems Learning & Leadership Evidence Hub: <http://sysll.evidence-hub.net>


Evidence Hub: professional development

<http://learningemergence.net/2013/07/17/deed-elli-ai-ci-systemic-school-learning>

Issue

? **Issue:** How does a change in Mathematics teaching approach impact the strategic aw

Potential
Solution

 **Potential Solution:** Adopting a method that could initialise sustainable change i that they were less robotic in learning and more strategically aware of their lear



Added on: 15/7/13

Added by: Phil Cocks

Description:

The method would encompass a three phase approach. The first phase would be to adop (<http://investigations.terc.edu>) and then collect data in both a qualitative and quantitative r questionnaire designed both to measure a person's learning power at any moment in time



Evidence (Stories of Change): The profiles show the two most develop st well behaved, however with the change of teaching approach have begun dimensions. The results were surprising to the researcher, because the major ability to be more strategically aware of their learning and interestingly in othe



Added on: 15/7/13

Added by: Phil Cocks

Description:

The results of the interviews were surprisingly positive about how students' feel interviewed gave us a wealth of information regarding their views on their teach students talk about how they like Maths, that they like the teacher and that they directly to them and real life. The students were able to compare themselves to some students at certain points in the lesson. The information from the interview Rogers would regard is an ideological learning situation. The students recalled lesson when they were given time to "give it a go".

Supporting
Evidence
(practitioner
story)

Phil's Story

Phil's talk about his enquiry about how to engage students in a top Year 8 Maths set by 'handing over responsibility to students' and helping them to develop their strategic awareness.



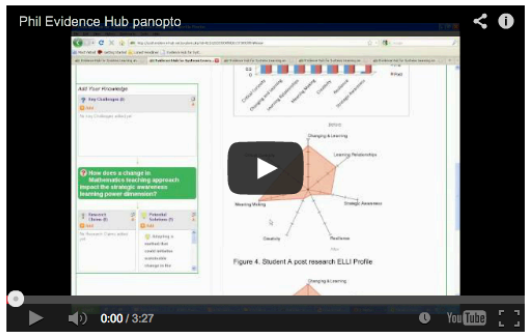
DEED Seminar - a maths teachers view



0:00 / 8:40

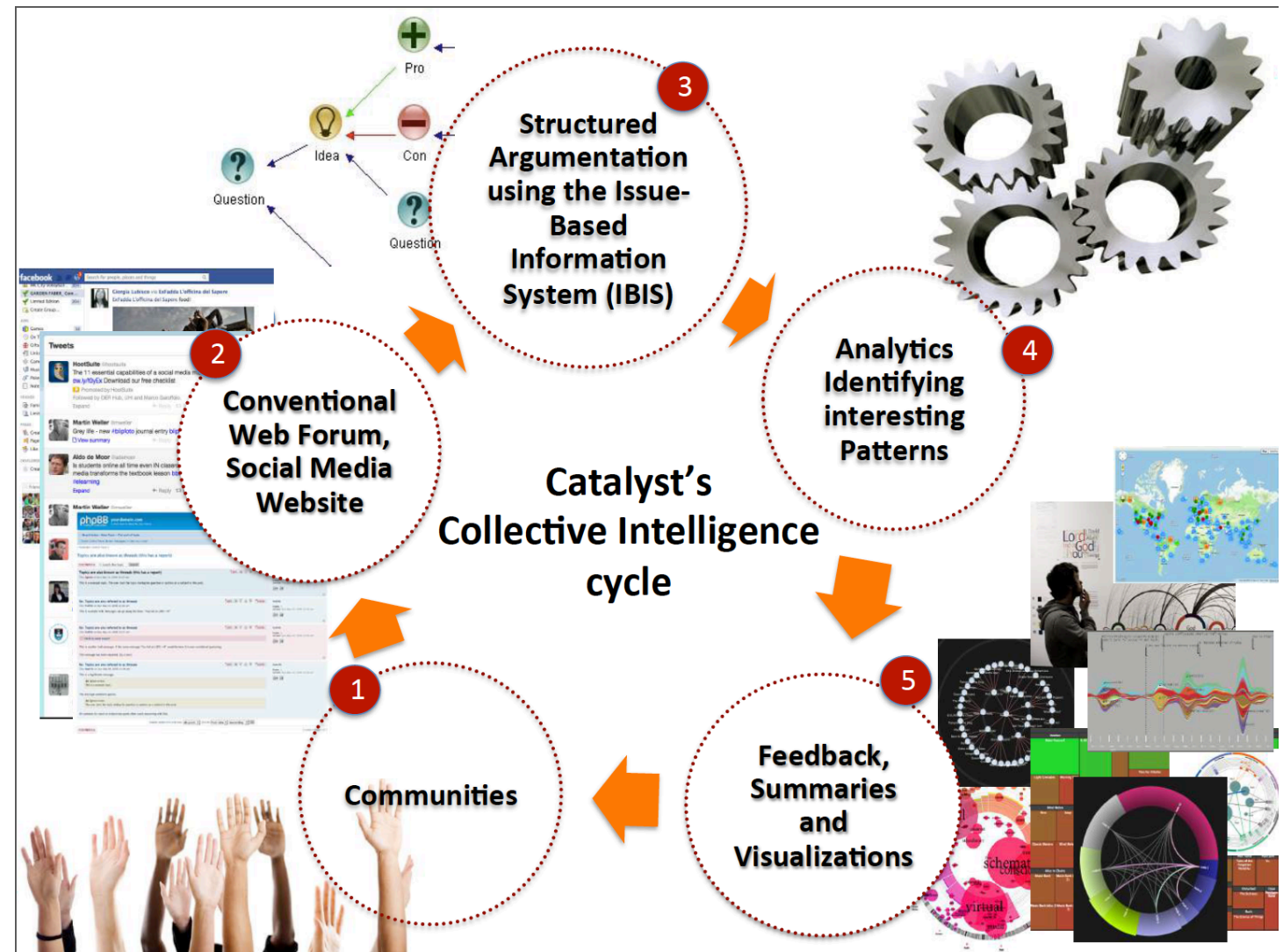
Simon then explored Phil's story distilled on the Evidence Hub [[view on Hub](#)]:

Phil Evidence Hub panopto



0:00 / 3:27

Reflective,
structured
deliberation,
which
computers can
understand, is
beginning to be
possible at
scale



learning analytics

can we tell from your digital traces
if you're learning?

Every learning tool now has an “analytics dashboard”

(a Google image search)



https://twitter.com/Wiswijzer2/status/414055472451575808



W.v.Ravenstein
@Wiswijzer2



Follow

Opmerkelijk: check het enorme verschil tussen weten en meten....

[#learninganalytics](#) pic.twitter.com/PfrAGAEGsP

View translation

Reply Retweet Favorite More



RETWEETS
33

FAVORITES
7



3:31 PM - 20 Dec 2013

Flag media



W.v.Ravenstein
@Wiswijzer2



+ Follow

Opmerkelijk: check het enorme verschil tussen weten en meten....

#learninganalytics pic.twitter.com/PfrAGAEGsP

View translation

Reply Retweet Favorite More



RETWEETS
33

FAVORITES
7



3:31 PM - 20 Dec 2013

Flag media

“Note: check the huge difference between knowing and measuring...”

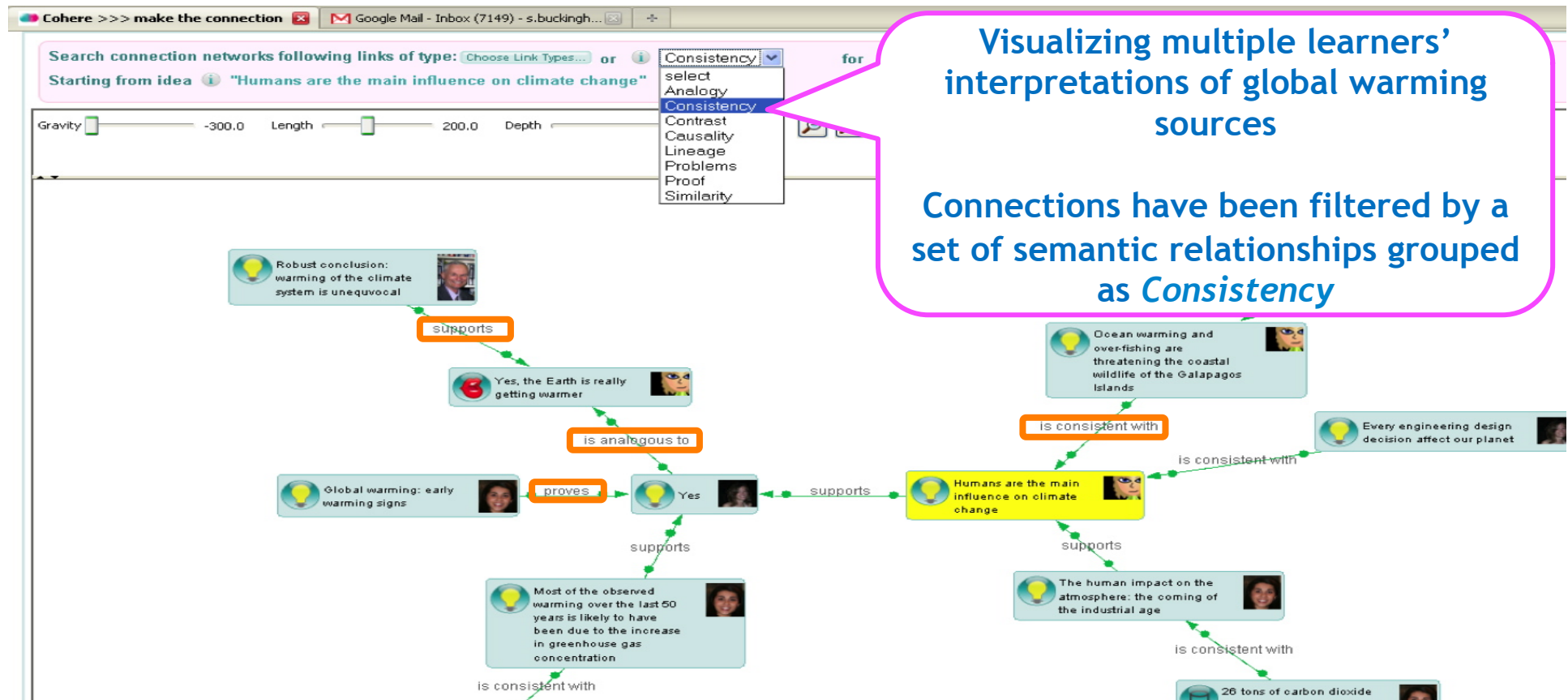


- ✓ Scalable
- ✓ Precise
- ✓ Quantifiable
- ✓ Reprocessable

what kind of analytics
might point to higher
order learner qualities?

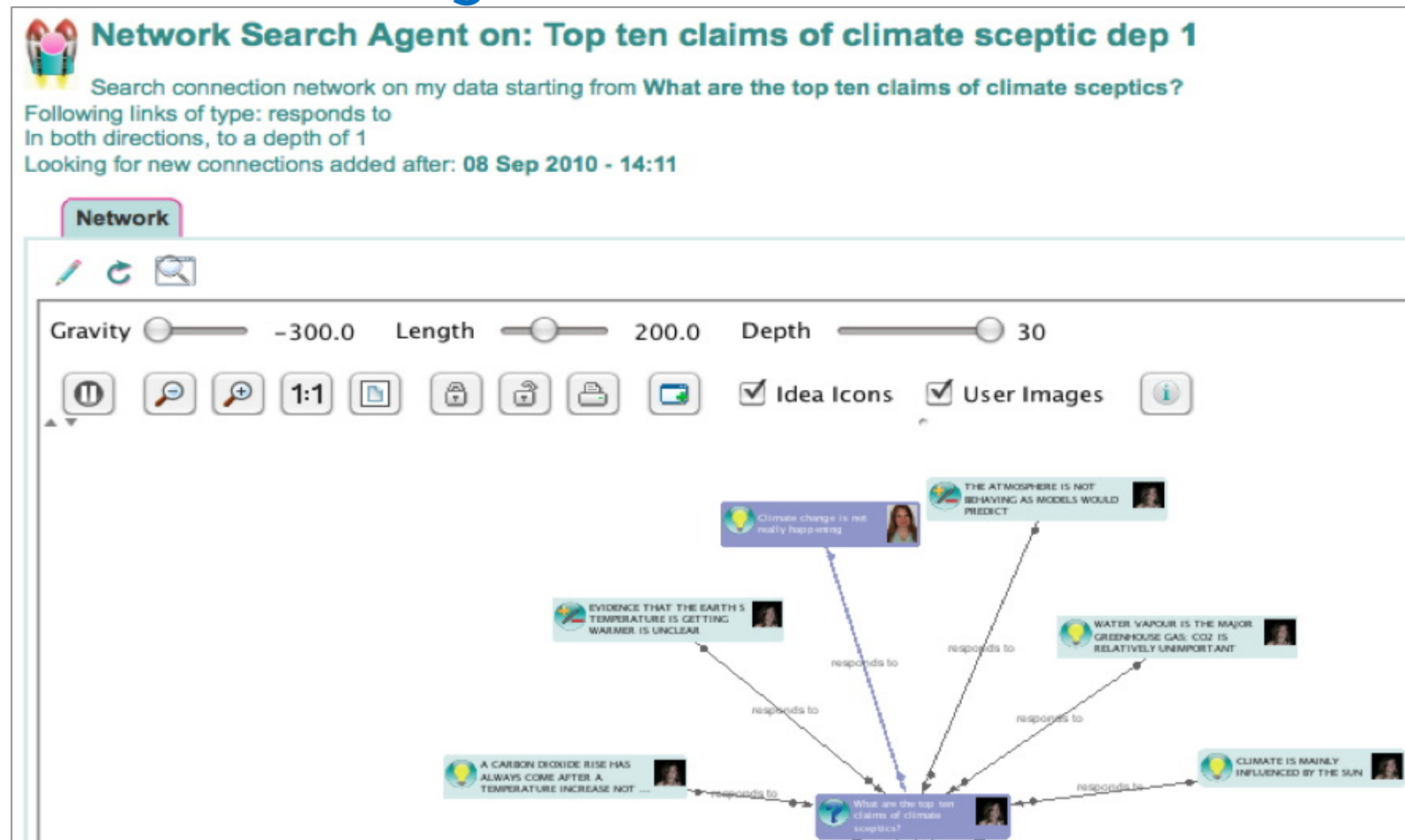


— semantic filtering of connections

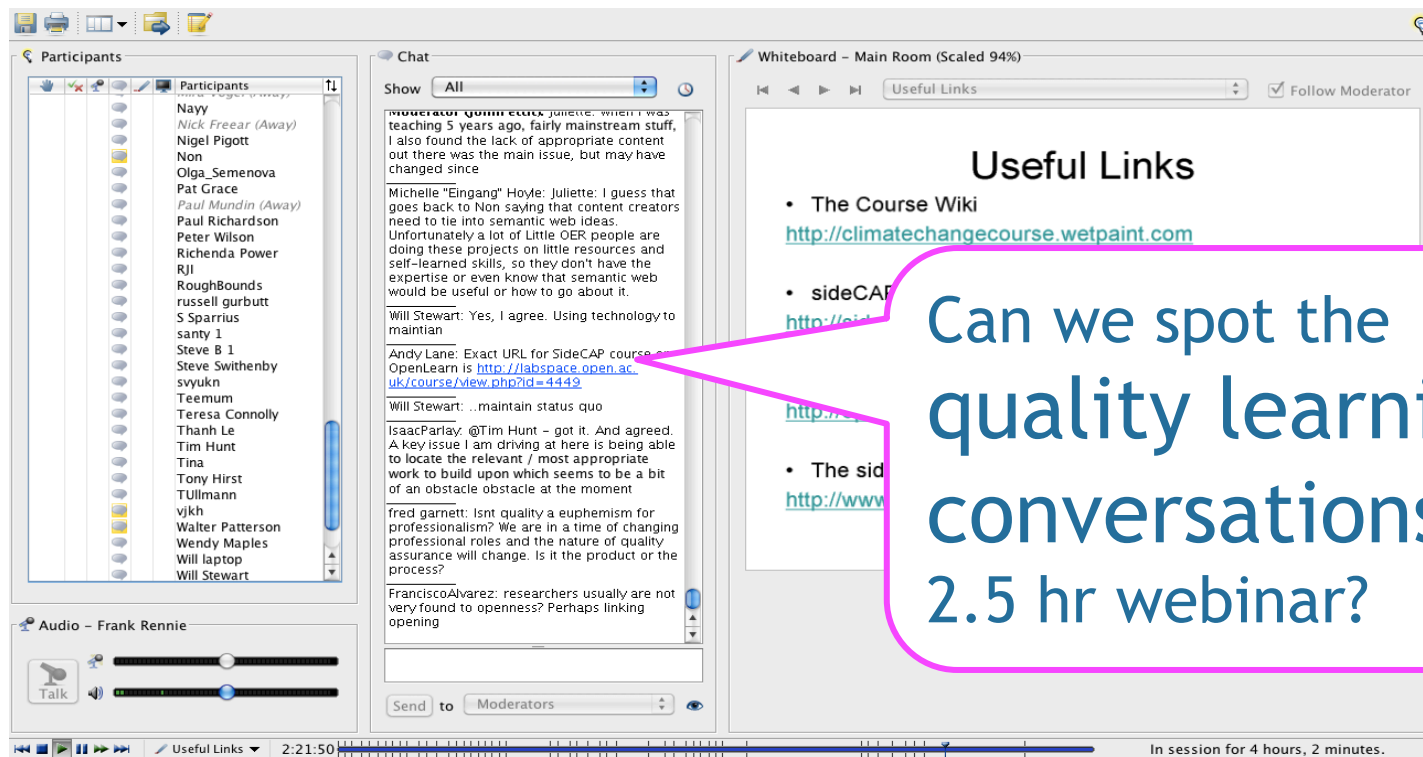


De Liddo, A. and Buckingham Shum, S. (2010). Cohere: A prototype for contested collective intelligence. In: *ACM Computer Supported Cooperative Work (CSCW 2010) - Workshop: Collective Intelligence In Organizations*. February 6-10, 2010, Savannah, Georgia, USA. <http://nrc.nyu.ac.uk/19554>

cohere — an agent alerts me to new connections



Discourse analytics on webinar textchat



Ferguson, R. and Buckingham Shum, S., Learning analytics to identify exploratory dialogue within synchronous text chat. In: *1st International Conference on Learning Analytics and Knowledge* (Banff, Canada, 2011). ACM, pp. 99-103. Open Access Eprint <http://oro.open.ac.uk/28955>

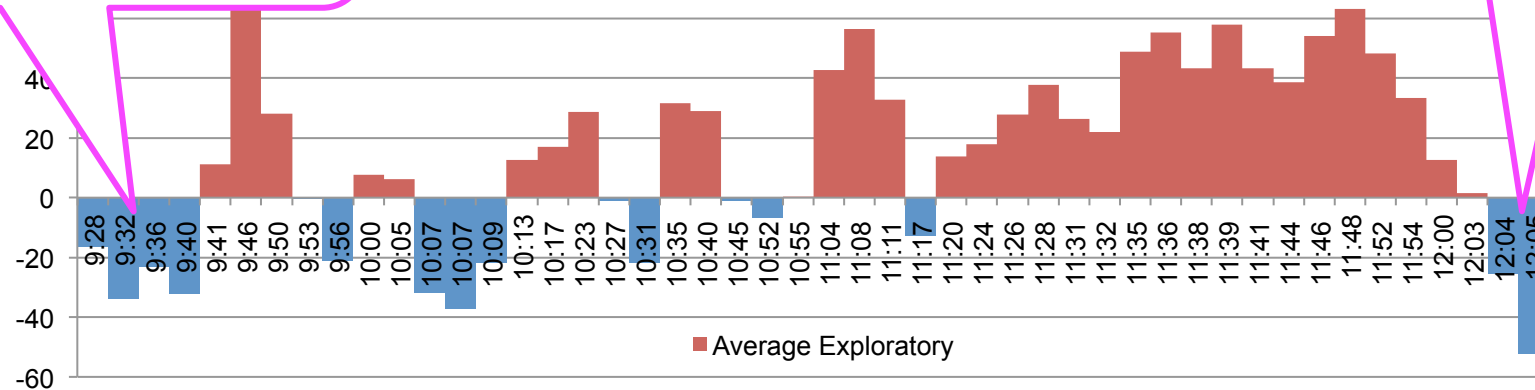
Discourse analytics on webinar textchat

Given a 2.5 hour webinar, where in the live textchat were the most effective learning conversations?

Not at the start and end of a webinar...

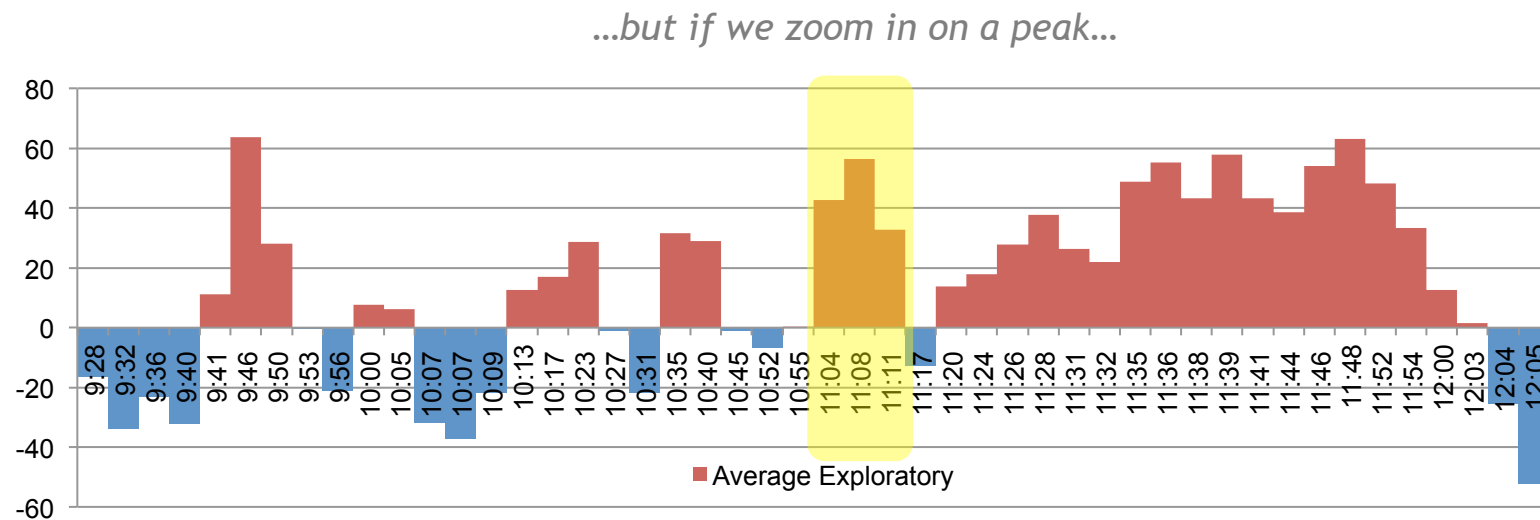
Sheffield, UK not as sunny as yesterday - still warm
Greetings from Hong Kong
Morning from Wiltshire, sunny here!

See you!
bye for now!
bye, and thank you
Bye all for now



Ferguson, R., Wei, Z., He, Y. and Buckingham Shum, S., An Evaluation of Learning Analytics to Identify Exploratory Dialogue in Online Discussions. In: *Proc. 3rd International Conference on Learning Analytics & Knowledge* (Leuven, BE, 8-12 April, 2013). ACM. <http://oro.open.ac.uk/36664>

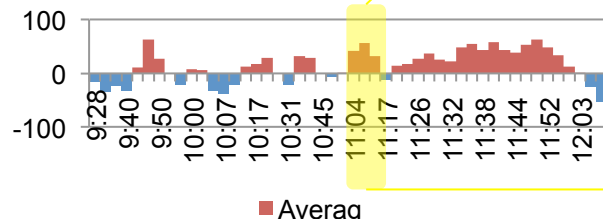
Discourse analytics on webinar textchat



Ferguson, R., Wei, Z., He, Y. and Buckingham Shum, S., An Evaluation of Learning Analytics to Identify Exploratory Dialogue in Online Discussions. In: *Proc. 3rd International Conference on Learning Analytics & Knowledge* (Leuven, BE, 8-12 April, 2013). ACM. <http://oro.open.ac.uk/36664>

Discourse analytics on webinar textchat

...language is used in a manner more akin to “Exploratory Talk” (Neil Mercer)



right	
I wonder if it also changes from introspective feel of some (of our) materials to more of an open dialogue?	
Course teams (not necessarily OU) can become incredibly blinkered during the period of writing a course and an additional external view is valuable	
Is the authoring out loud model best suited for new, emerging fields? Introduction to Algebra might go be so ripe for this model -- unless there was a novel dimension to it, eg. a new way of teaching it, or for s niche audience	
hello Helen!	
OK i take your point - I think there are points when it could really help. Eg. inviting ALs and students in to comment on course outlines or particularly tricky chunks of material. Yes - take your point.	Classified as “exploratory talk” (more substantive for learning)
would you like me to speak?	
I'm just wondering how 'team work' works when live authoring is used?	
That's what I was looking for Tony - lovely, "Conversational" is the term	
<RT>@Tony Does the meaning of 'a course' change through the process? I.e. there is effectively a different learning process (course) in the preparation of the actual course.</RT>	
I'd also like to point out that this particular model is more agile, not just in initial development but in ongoing development. "Traditional" OU courses are written and pretty much well fixed in stone for extended periods of time.	
The link to the artist who painted the image I used on one of my slides is Steve Russell http://www.russellstudio.co.uk/russell_studio/steve_russell.html	“non-exploratory”

Ferguson, R., Wei, Z., He, Y. and Buckingham Shum, S., An Evaluation of Learning Analytics to Identify Exploratory Dialogue in Online Discussions. In: *Proc. 3rd International Conference on Learning Analytics & Knowledge* (Leuven, BE, 8-12 April, 2013). ACM. <http://oro.open.ac.uk/36664>

Rhetorical discourse analytics



Xerox Research Centre Europe

OPEN QUESTION:

“... little is known ...”

“... role ... has been elusive”

“Current data is insufficient ...”

CONTRASTING IDEAS:

“... unorthodox view resolves ...”

“In contrast with previous hypotheses ...”

“... inconsistent with past findings ...”

SURPRISE:

“We have recently observed ... surprisingly”

“We have identified ... unusual”

“The recent discovery ... suggests intriguing roles”

<http://technologies.kmi.open.ac.uk/cohere/2012/01/09/cohere-plus-automated-rhetorical-annotation>

De Liddo, A., Sándor, Á. and Buckingham Shum, S., Contested Collective Intelligence: Rationale, Technologies, and a Human-Machine Annotation Study. *Computer Supported Cooperative Work*, 21, 4-5, (2012), 417-448. <http://oro.open.ac.uk/31052>

Rhetorical discourse analytics



Xerox Research Centre Europe

Human analyst

The primary goal of this project was to conduct an exploratory research study to determine if providing a professional development program using open education resources (OER) would help teachers begin to transform their curriculum and teaching through the use of technology. Our eight-year Maine Learning Technology Initiative (MLTI) experience had shown us that while providing laptops to all middle school teachers and students has had many positive impacts on schools, classrooms and learning, many mathematics teachers still had not fully integrated the laptop technology into their teaching. Accordingly, this research study was designed to determine the impacts of helping a group of middle school and high school mathematics teachers, through professional development with mathematics OER, to teach targeted algebra topics using technology.

Comment [Panglola 1]: brief summary

Several key activities were undertaken in this project over an 18-month time period. First, we attempted to conduct an environmental scan to determine the challenges teachers encounter in using OER. Although the use of OER has grown quite extensively in higher education and K-12 settings in developing countries, OER use by K-12 teachers in the United States appears to be limited. The purpose of this activity was to explore why this was the case, to identify challenges teachers encounter in using OER, and to develop strategies for overcoming these challenges through our professional development program and research. This environmental scan consisted of several activities, including interviews with leading OER experts and proponents, surveys of teachers, and a limited number of focus groups. Through these activities we began to draw conclusions about the use of OER in K-12 school settings, and these conclusions are discussed below under Lessons Learned.

Comment [Panglola 2]: summary

Comment [Panglola 3]: good arguments, rigorous methodology

Comment [Panglola 4]: multiple methods

Rhetorical discourse analytics



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Glimpses of analytics capable of detecting higher order thinking.

But humans will always read differently to machines

Can we correlate this with “academic writing”, and can such analytics be used as formative feedback on drafts?

Duygu Simsek's PhD: <http://people.kmi.open.ac.uk/simsek/research/>

Rhetorical discourse analytics



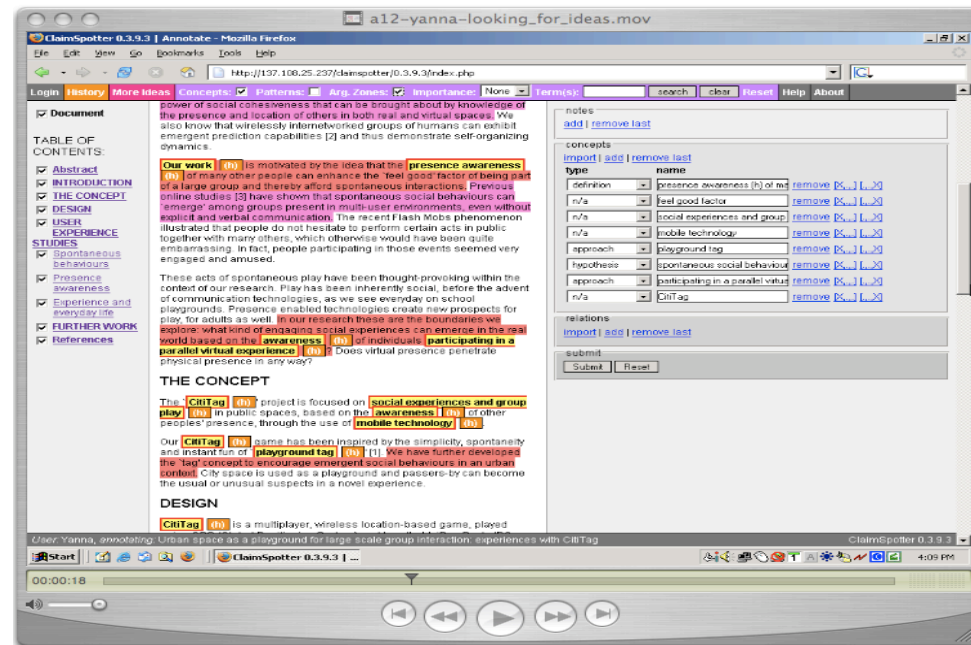
Xerox Research Centre Europe

CONTRAST

The problem with this method is a lot of electricity is required especially on a large industrial scale, which would be required on Mars. Therefore you would have to construct large power plants and electrolysis units to manufacture the oxygen that would be required within a biodomes. **Another problem with this method** is that it is not efficient and produces a large amount of wasted heat. Perhaps this wasted heat could be used for further things within the biodomes like heating. **In conclusion** I would **suggest** that such a **method would be** a useful method of searching for water supplies and then use more geological methods once the mission has arrived on the surface.

SUMMARY &
CONTRIBUTION

Detailed video analysis of how users engage with semantically annotated texts



Buckingham Shum S.J., Uren V., Li G., Sereno B. and Mancini C. (2007). Modelling Naturalistic Argumentation in Research Literatures: Representation and Interaction Design Issues. *International Journal of Intelligent Systems*, Special Issue on Computational Models of Natural Argument, Eds: C. Reed and F. Grasso, 22: 17-47.

Sereno B., Buckingham Shum S. and Motta E. (2005). ClaimSpotter: an environment to support sensemaking with knowledge triples. *Proceedings of the 10th international conference on Intelligent user interfaces*. San Diego, California, USA: ACM, 199-206.

what kind of person
survives - even *thrives* -
in liminal space?

a key 21st century literacy:

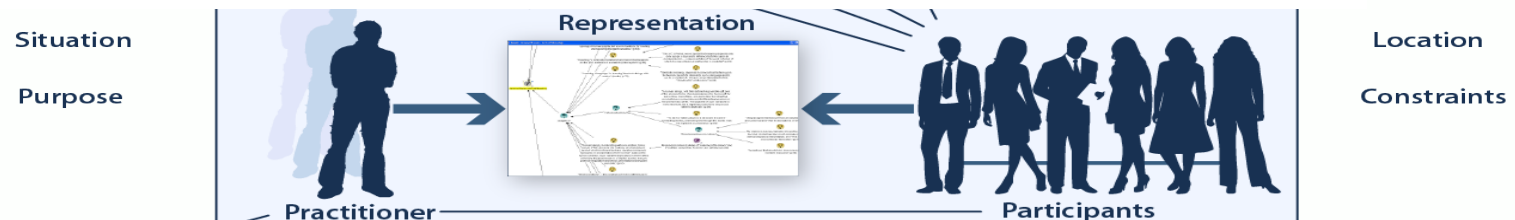
what skills and dispositions help you
create the right visual diagram at
the right moment in a meeting?

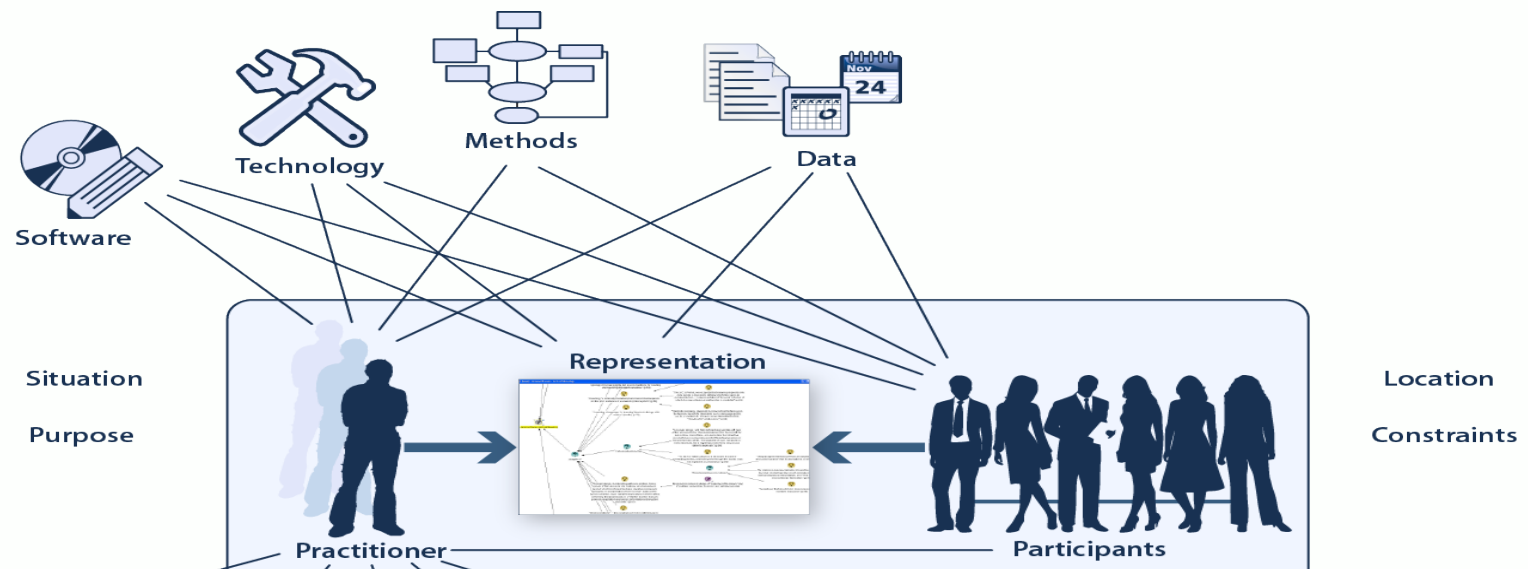
Al Selvin's PhD: <http://people.kmi.open.ac.uk/sbs/2011/12/making-representations-matter-al-selvin-phd>

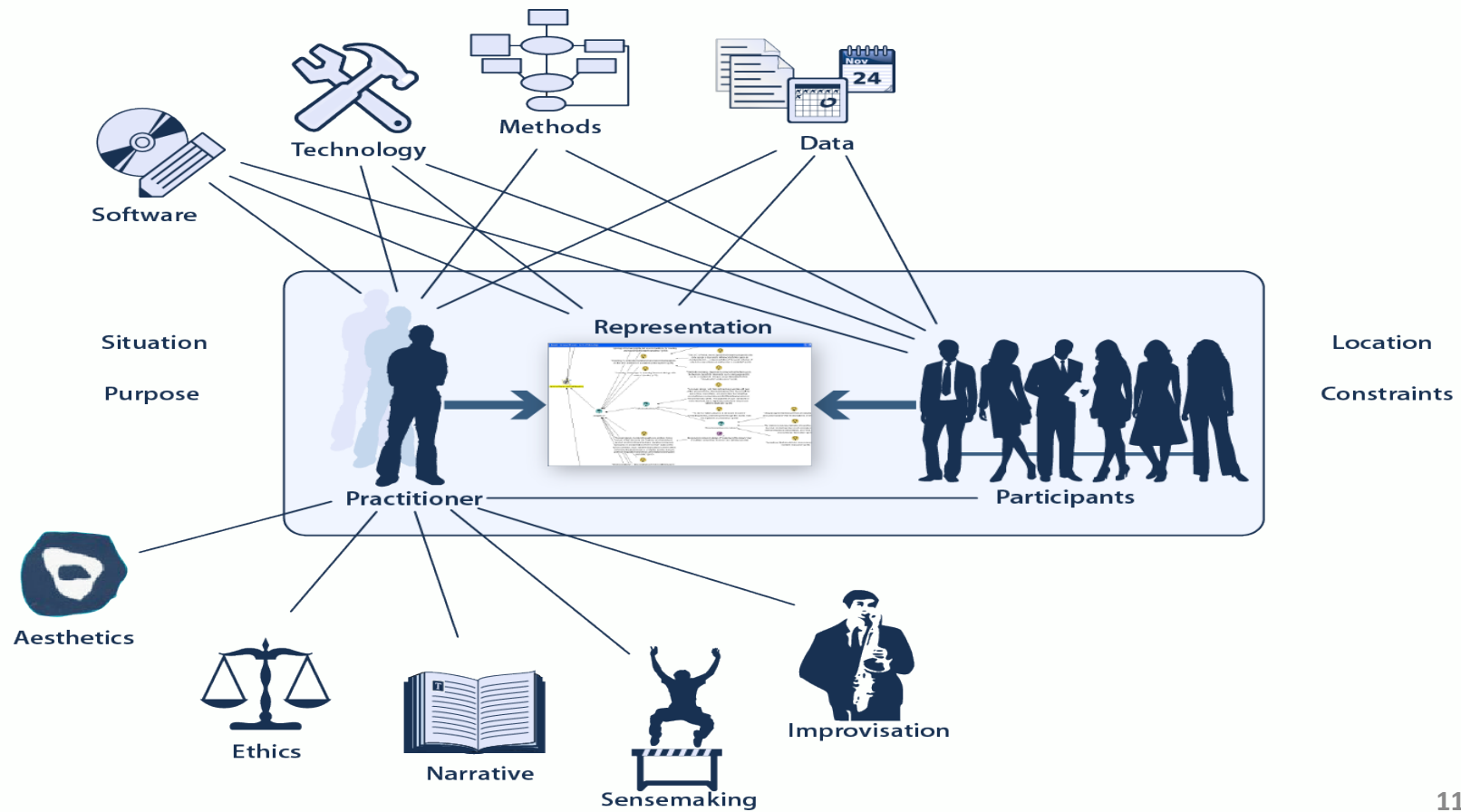
Real time kitchen improvisation



A language for talking about the skills and dispositions needed to use the right representation at the right moment to help a team make sense of a problem







**let's go deeper on
these dispositions**

We worry about disengaged low achievers...
but we need to worry about the “high” achievers too...

- I know I'm bright, and that I'm going to get good grades. But I worry I've become a tape-recorder. I worry that once I'm out of school, and people stop handing me information with questions, I'll be lost.

Emily, 16

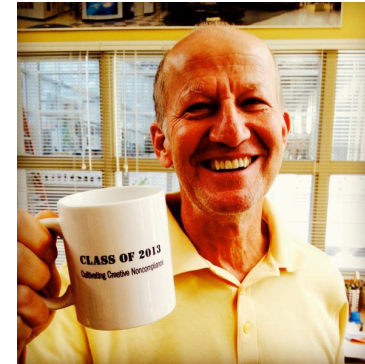
Spoon-feeding works – but it works at the expense of something that British schools have always been rather good at, namely, turning out young people who are creative, thoughtful, critical... even intelligently awkward sometimes.

Independent Schools Inspectorate



Why are dispositions important?

“It’s more than knowledge and skills. For the innovation economy,
**dispositions come into play:
readiness to collaborate;
attention to multiple
perspectives; initiative;
persistence; curiosity.”**



0:00 + 0:46

Larry Rosenstock

LearningREimagined project: <http://learning-reimagined.com>

Larry Rosenstock: <http://audioboo.fm/boos/1669375-50-seconds-of-larry-rosenstock-ceo-of-hightechhigh-on-how-he-would-re-imagine-learning>

Why are dispositions important?

“a growth mindset — a commitment to ... taking informed risks ... surrounding yourself with people who will challenge you to grow”

Carol Dweck



Interview with Carol Dweck:

http://interviewscoertvisser.blogspot.co.uk/2007/11/interview-with-carol-dweck_4897.html

Another interview: <http://www.youtube.com/watch?v=ICILzbB1Obg>

Why are dispositions important?

“We’re looking at the profiles of what it means to be effective in the 21st century. [...]

Resilience will be the defining concept.
When challenged and bent, you learn and bounce back stronger.”



“Dispositions are now *at least* as important as Knowledge and Skills. ...
They cannot be taught.
They can only be cultivated.”

John Seely Brown

US Dept. of Educ. <http://reimaginededucation.org> conference (May 28, 2013)

Dispositions clip: <http://www.c-spanvideo.org/clip/4457327>

Whole talk: <http://www.c-spanvideo.org/program/SecD>

See also: <https://screen.yahoo.com/genconnect/john-seely-brown-education-060000474.html>

Designing holistic analytics for 21st century learners?



<http://reinventors.net/roundtables/new-metrics>

SERIES CHALLENGES | ROUNDTABLE CONVERSATIONS | REINVENTORS NETWORK

New Metrics

How will we measure the impact of education, capturing the full range of outcomes we value? What are the "analytics" of an integrative education?



Roundtable took place on
Jun 17, 2014 at 11:00 am PT
[Visit our Google+ Event Page](#)



**Reinvent the University for the Whole
Person Series**



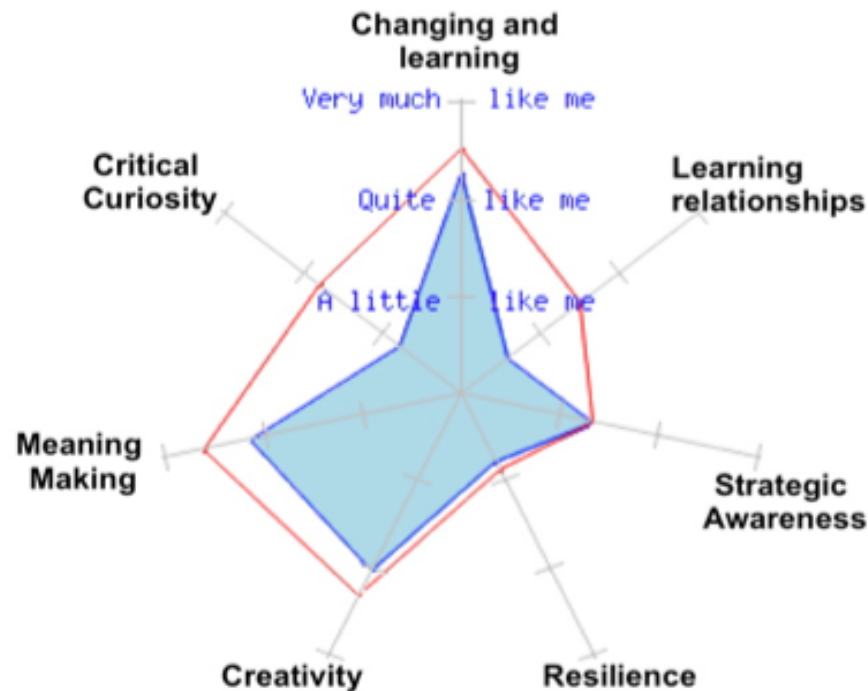
SERIES HOST



Randy Bass
Vice Provost for Education and
Professor of English at
Georgetown University

Assessing learning dispositions

agency; identity; motivation; responsibility (Ruth Deakin Crick, Univ. Bristol)



Already piloted at the OU with ALs, in a UK universities student retention project: Chris Edwards (IET)

<http://oro.open.ac.uk/32823> and <http://learningemergence.net/2012/04/30/learning-powered-learning-analytics>

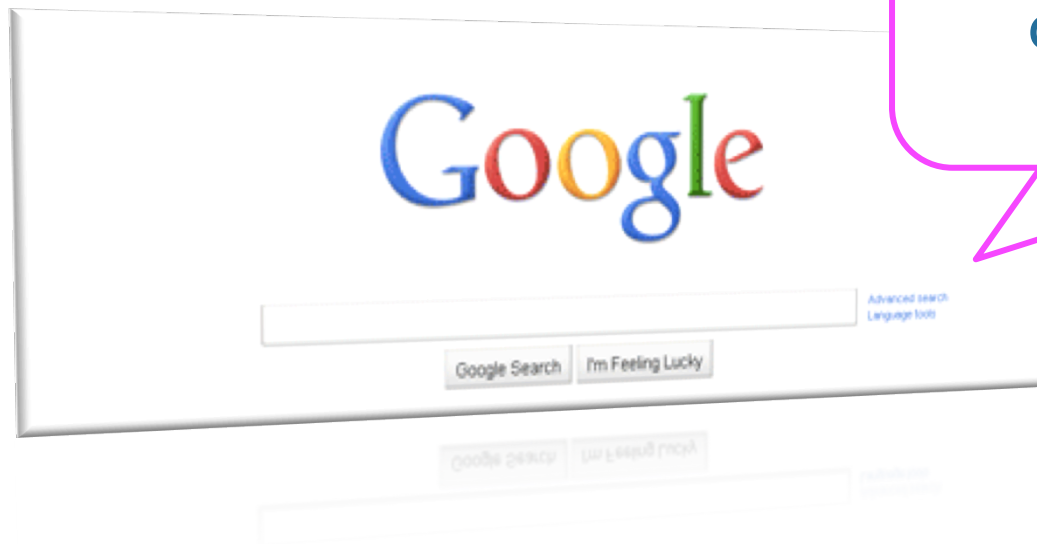
Edwards C. (2011). Embedding reflective thinking on approaches to learning - moving from pilot study to developing institutional good practice. *The 16th Annual Conf. of Education, Learning, Styles, Individual differences Network*. 29 June - 1 July, 2011, University of Antwerp. <http://oro.open.ac.uk/29505>

could a *computer* help us
reflect on different
learning dispositions?

Shifts in epistemic commitments?

(Simon Knight, KMi PhD research)

Does the way you search online reveal what you think counts as trustworthy knowledge?



What is it to 'know' when we search? <http://sjgknight.com/finding-knowledge/2014/02/knowledge-in-search>

Danish exams permit Net: <http://sjgknight.com/finding-knowledge/2013/07/danish-use-of-internet-in-exams-epistemology-pedagogy-assessment>

Epistemic networks for epistemic commitments: <http://oro.open.ac.uk/39254>

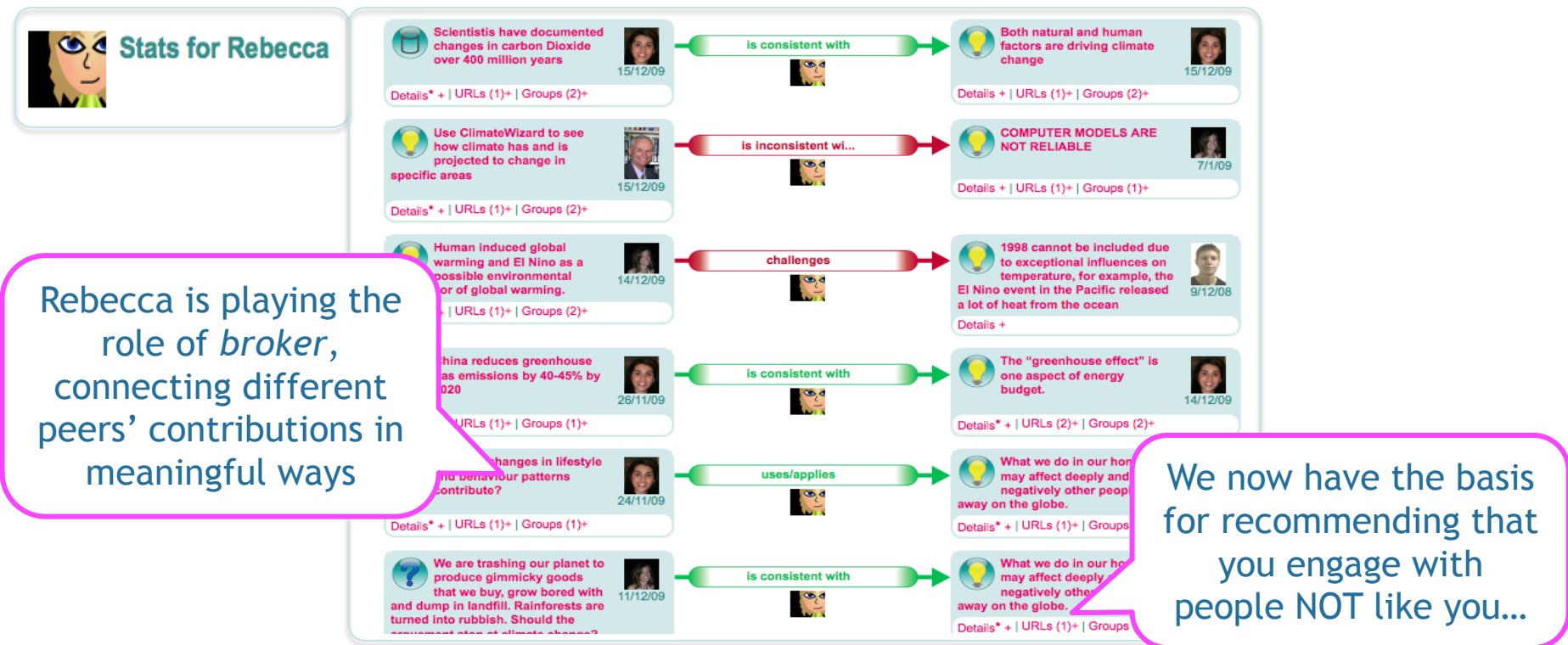
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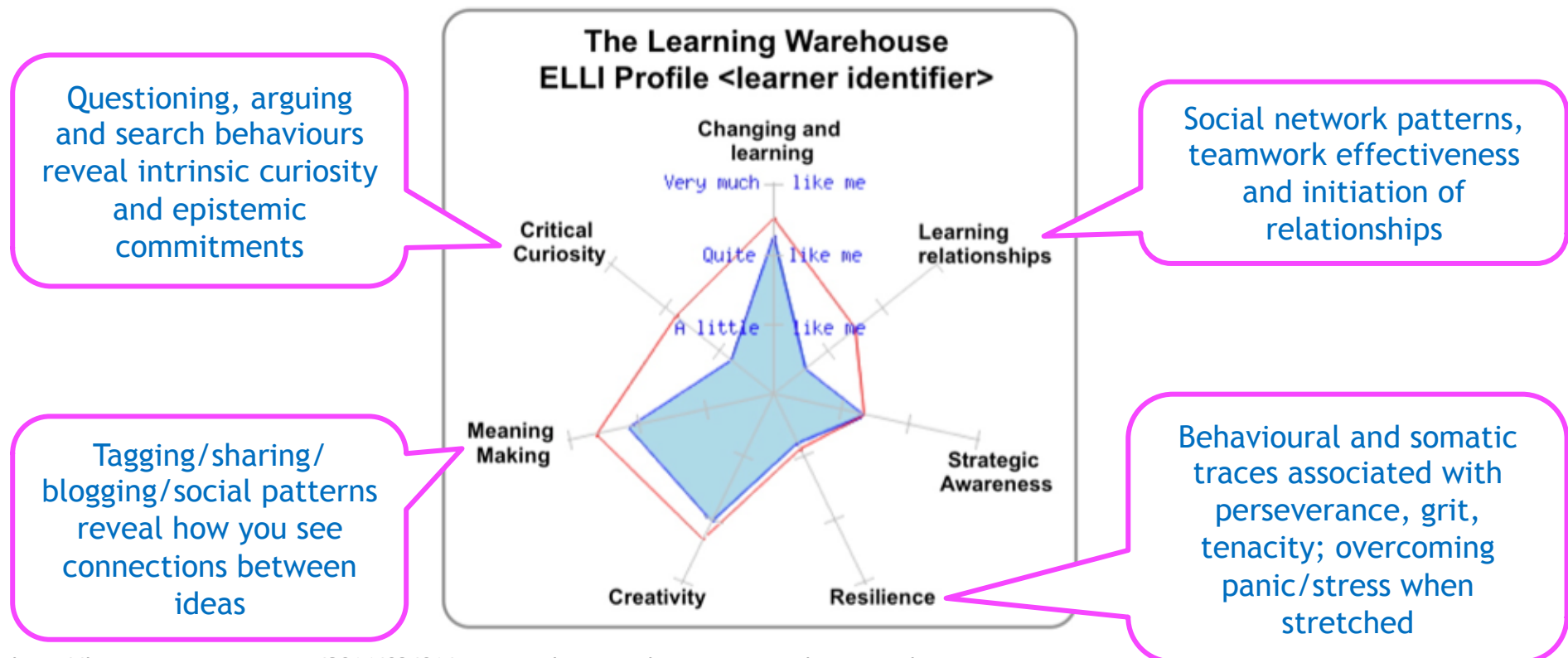
Dimensions of Epistemic Belief	
Certainty	The degree to which knowledge is conceived as stable or changing, ranging from absolute, to tentative and evolving
Simplicity	The degree to which knowledge is conceived as compartmentalised or interrelated, ranging from knowledge as made up of discrete and simple facts to knowledge as complex and comprising interrelated concepts
Source	The relationship between knower and known, ranging from the belief that knowledge resides outside the self and is transmitted, to the belief that it is constructed by the self
Justification	What makes a sufficient knowledge claim, ranging from the belief in observation or authority as sources, to the belief in the use of rules of inquiry and evaluation of expertise

Knight, Simon; Buckingham Shum, Simon and Littleton, Karen (2014). Epistemology, assessment, pedagogy: where learning meets analytics in the middle space. *Journal of Learning Analytics* (In press). <http://oro.open.ac.uk/39226>

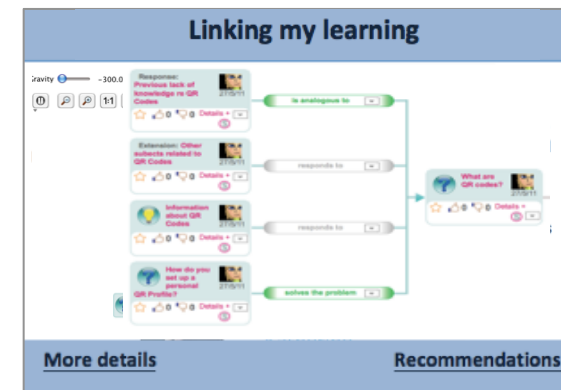
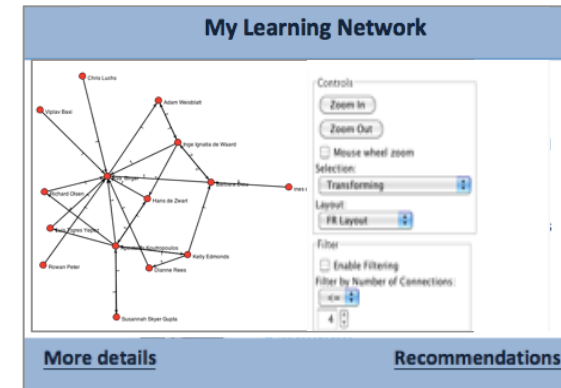
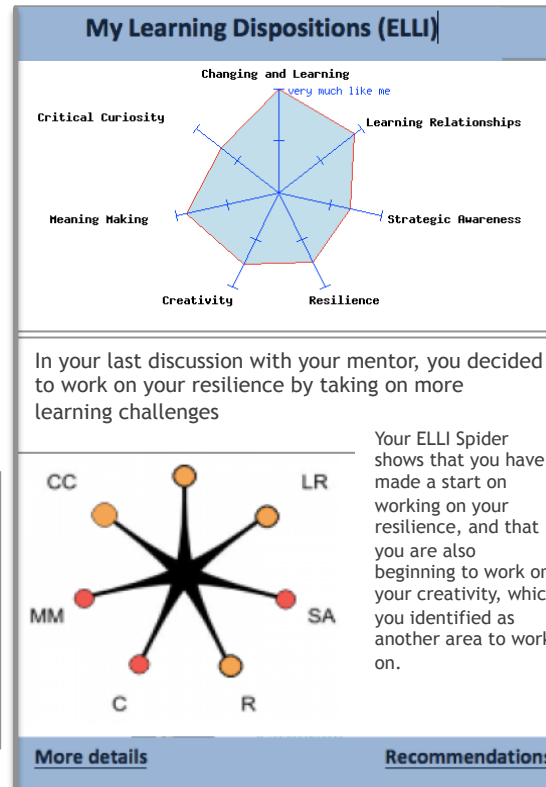
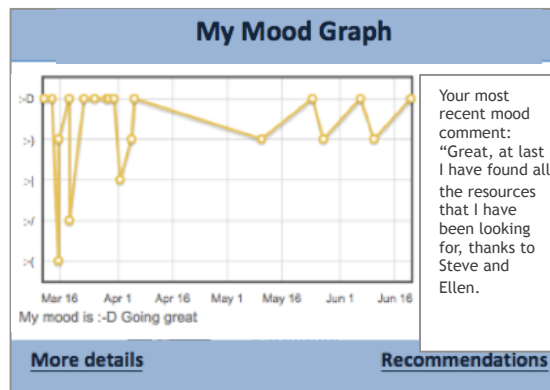
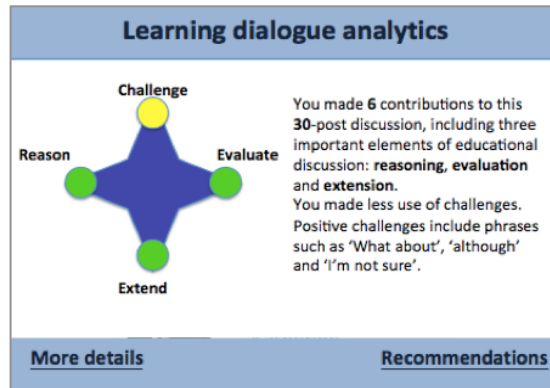
What epistemic contributions are learners making in the community?



Dispositional profile from behavioural traces, to complement self-report?



Social learning analytics: mirrors for the learner to reflect




Ferguson R and Buckingham Shum S. (2012) Social Learning Analytics: Five Approaches. *Proc. 2nd International Conference on Learning Analytics & Knowledge*. Vancouver, 29 Apr-2 May: ACM: New York, 23-33. DOI: <http://dx.doi.org/10.1145/2330601.2330616> Eprint: <http://oro.open.ac.uk/32910>

LearningEmergence.net

Learning Emergence

deep learning | complex systems | transformative leadership | knowledge media

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- Learning to Learn – International Perspectives
- Learning Analytics + NICs for Systemic Educational Improvement
- Networked Improvement Communities: Bryk lectures Bristol 2014
- Professor Anthony Bryk : Master Class and Public Lecture in Bristol 21st May 2014
- Learning Dispositions + Authentic Inquiry in a Primary School
- Quantifying deeper learning dispositions for the future data cloud
- Assessing learning dispositions/academic mindsets


[← Learning Dispositions + Authentic Inquiry in a Primary School](#)

[Networked Improvement Communities: Bryk lectures Bristol 2014 →](#)

Professor Anthony Bryk : Master Class and Public Lecture in Bristol 21st May 2014

Posted on April 24, 2014 by [Damian](#) | [Leave a comment](#)

[Prof Tony Bryk](#) (President of the Carnegie Foundation for the Advancement of Teaching). He will be providing a one day masterclass, followed by a public lecture on the [Design-Educational Engineering and Development \(DEED\)](#) approach to school improvement. This work has inspired several projects in the UK including a study into student engagement in [Oasis Academy John Williams](#).



Professor Anthony Bryk

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<http://learningemergence.net>

Learning Analytics + NICs for Systemic Educational Improvement

Posted on May 29, 2014 by [Simon Buckingham Shum](#) | [Leave a comment](#)



Educator-NICs:

Envisaging the Future of ICT-enabled Networked Improvement Communities

Learning Emergence Workshop
University of Bristol • 20th May

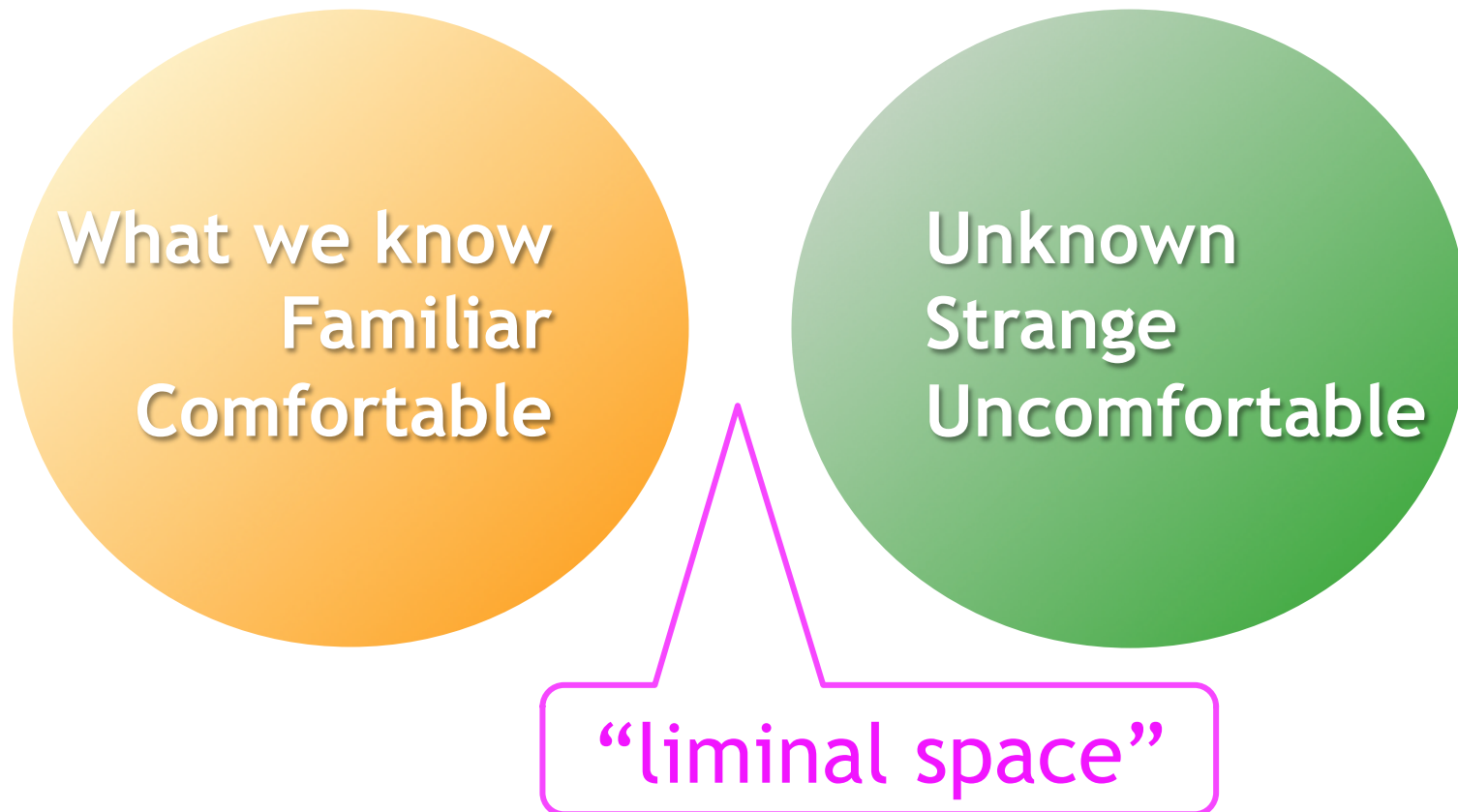
Learning Dispositions + Authentic Inquiry in a Primary School

Posted on April 7, 2014 by [Simon Buckingham Shum](#) | [Leave a comment](#)

What happens when you turn a curriculum topic over to 10-11 year old children, give them freedom to choose their focus, and increasing autonomy to make their own decisions to design, create and run a showcase event? Indeed, how do *staff* cope with stepping back like this? If Ofsted inspectors were to walk in, how could the school evidence learning? How can you evidence the development of lifelong learning dispositions, and how does this relate to the school's strategic concerns about the progress of different pupil groups on traditional attainment measures? What roles do social learning tools like reflective blogging have to play?



From the known to the unknown



“liminal space tools” should help us grapple
with uncertainty + complexity...

manage webs of connections

think critically + engage in debate

hold conflicting perspectives in tension

wield tools for collective sensemaking

integrate identity + aspiration with learning

Thank you to all my colleagues, past and present

I daren't try and name you all — you know who you are!

None of this was remotely possible without you 😊