

CompendiumInstitute

cohere  
>>> make the connection



Evidence-Hub.net

EDV

Election Debate Visualisation

KNOWLEDGE MEDIA  
KMi  
INSTITUTE

Catalyst  
catalyst-fp7.eu

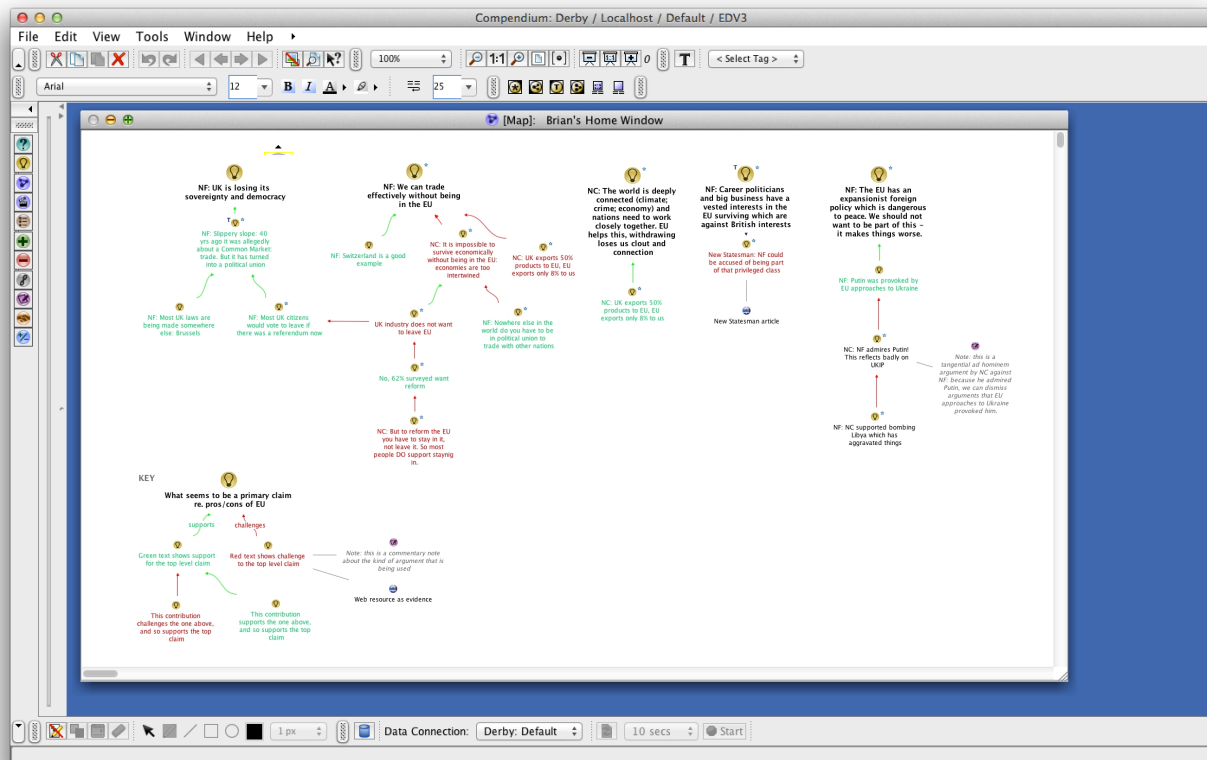
# From Argument Mapping to Argument Mining, and Back

Brian Plüss  
Anna De Liddo  
Simon Buckingham Shum

SICSA Workshop on Argument Mining  
University of Dundee, 9-10 July 2014

Knowledge Media Institute  
The Open University, UK

# Tool Support for Argument Mapping and Visualisation



HYPERMEDIA  
MAPPING

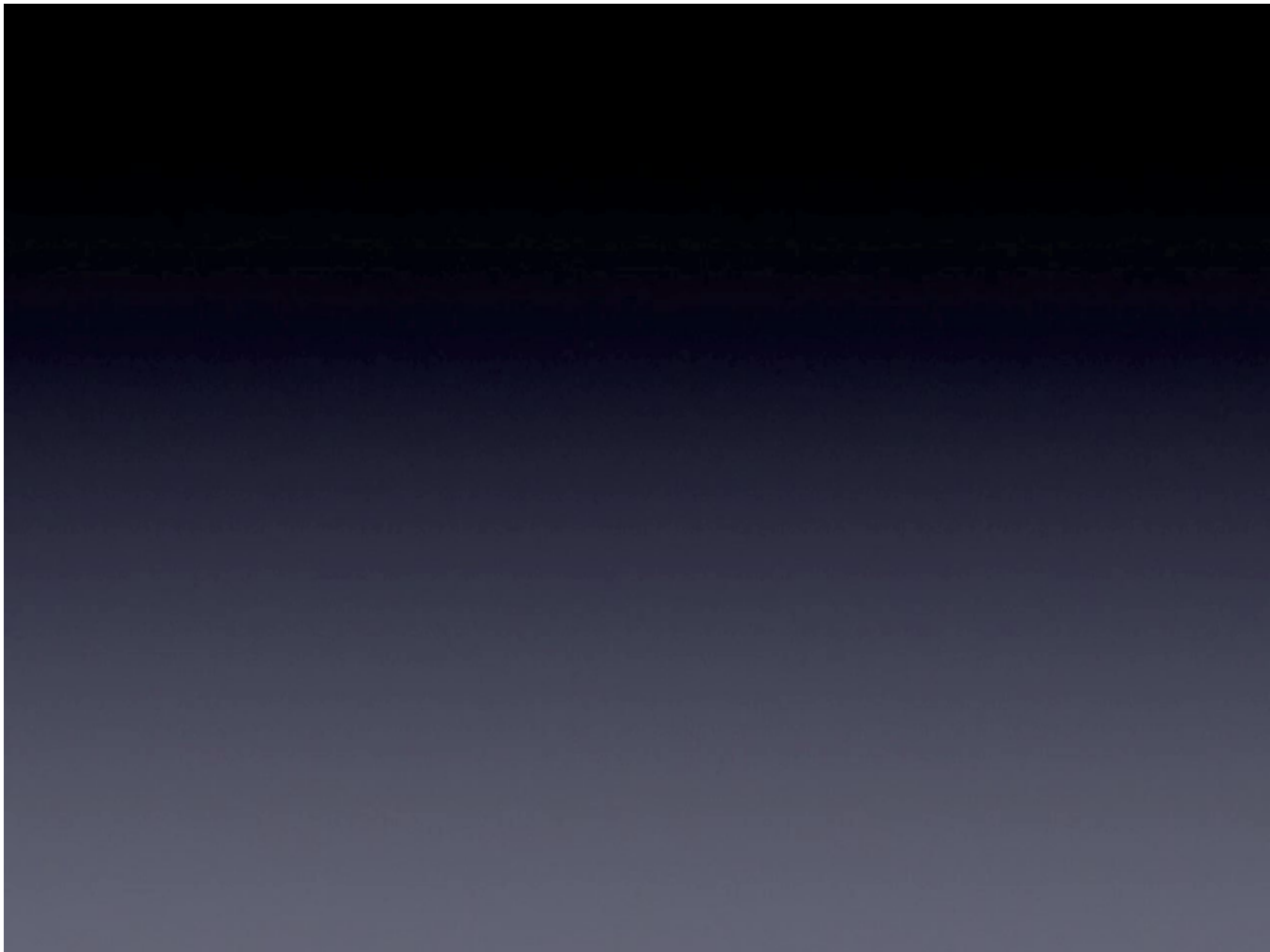
## Compendium

A flexible visual interface for managing the connections between information and ideas

CompendiumInstitute



<http://compendiuminstitute.net>



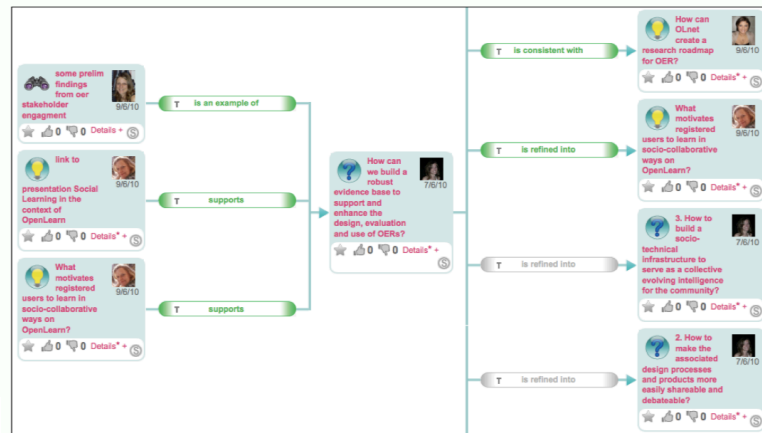
# Tool Support for Argument Mapping and Visualisation

The screenshot shows the Cohere web interface. On the left, there's a sidebar with 'Ideas (3)', 'Clips (2)', and 'Connections (4)'. Below this is a 'Select:' dropdown with options 'All', 'My', 'Pro', 'Con', and 'Clear'. Three ideas by 'Anna De Liddo' are listed, each with a 'Connections' count. The main content area shows a detailed view of an idea titled 'Is Global Warming Unstoppable?'. It includes a 'Science News' section with a quote from ScienceDaily (Nov. 24, 2009) and a 'See Also:' section with links to 'Earth & Climate' topics like Energy and the Environment, Renewable Energy, Sustainability, Global Warming, Environmental Science, and Climate. A 'Reference' section at the bottom mentions 'Climatic Change'.

Highlighted text becomes a new source for an idea, annotated in the margin, which becomes a node in an argument map (private or shared)

The screenshot shows the Cohere desktop application interface. It has a top navigation bar with 'Home', 'Screenshots', 'Ideas', 'Connections', and 'People & Groups'. Below this is a 'Sign in to:' section with options 'Add Idea', 'Add Connection', 'Import Data', and 'Edit Profile'. A 'Top 20 Tags' list includes 'Argumentation Scheme', 'Coating Services Conclusion', 'Copyright Issues', 'Corruption Coating', 'Corruption Prevention', 'Corruption Protection', 'Critical Question', 'Crisis Dynasties', 'EU Copyright Greenpaper', 'Heat Resistant Coating', 'How to Teflon Coat', 'Industrial Coatings', 'Katzav+Reed', 'mode OLnet Powder Coatings', and 'Premise tnc Walton'. A 'Publish Ideas' section encourages users to publish ideas and optionally add relevant websites. A 'Weave webs of meaningful connections' section encourages users to discover new ideas and people. A 'Top Connection Builders' list includes 'Anna De Liddo', 'Simon Buckingham Shum', 'Helen Jella', and 'Neil Bann'. A 'News' section is also visible.

**cohere**  
 >>> make the connection  
<http://cohere.open.ac.uk>





# Tool Support for Argument Mapping and Visualisation



[Home](#) [Demos](#) [Tutorial](#) [Collaborate](#) [Open Source](#) [About](#)

## Welcome to Evidence-Hub.net

BY SBS | PUBLISHED MAY 2, 2012

Launch an Evidence Hub to help the members of your community of practice or organization pool their collective intelligence.



An Evidence Hub is designed to help your members add their insights where they'll make the highest impact, and through the use of different visualizations/maps, helps answer questions such as the following:

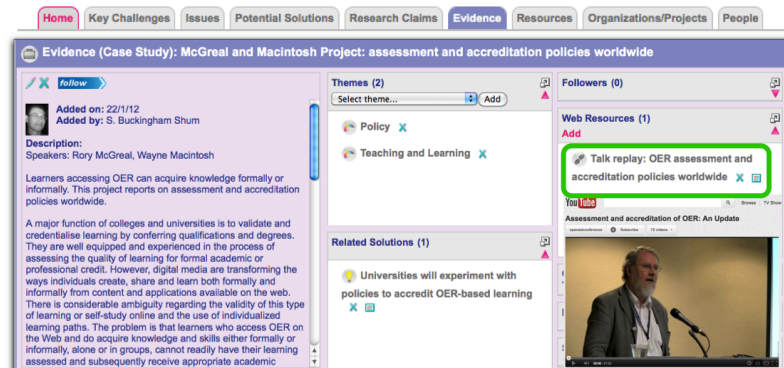
Who in my region is working on this problem?

Are there any partnerships between projects in these two areas, on this theme?

## Evidence Hubs



Twitter



## Communities of enquiry



<http://evidence-hub.net>

# Tool Support for Argument Mapping and Visualisation

Structured Online  
Discussion and  
Argumentation

**Debate Hub**

**EdgeSense**

Social Network  
Analysis and  
Visualization



Advanced Analytics for:  
Attention mediation &  
Deliberation diagnostic



**Assembli**

Collaborative  
Knowledge  
Production



**LiteMap**

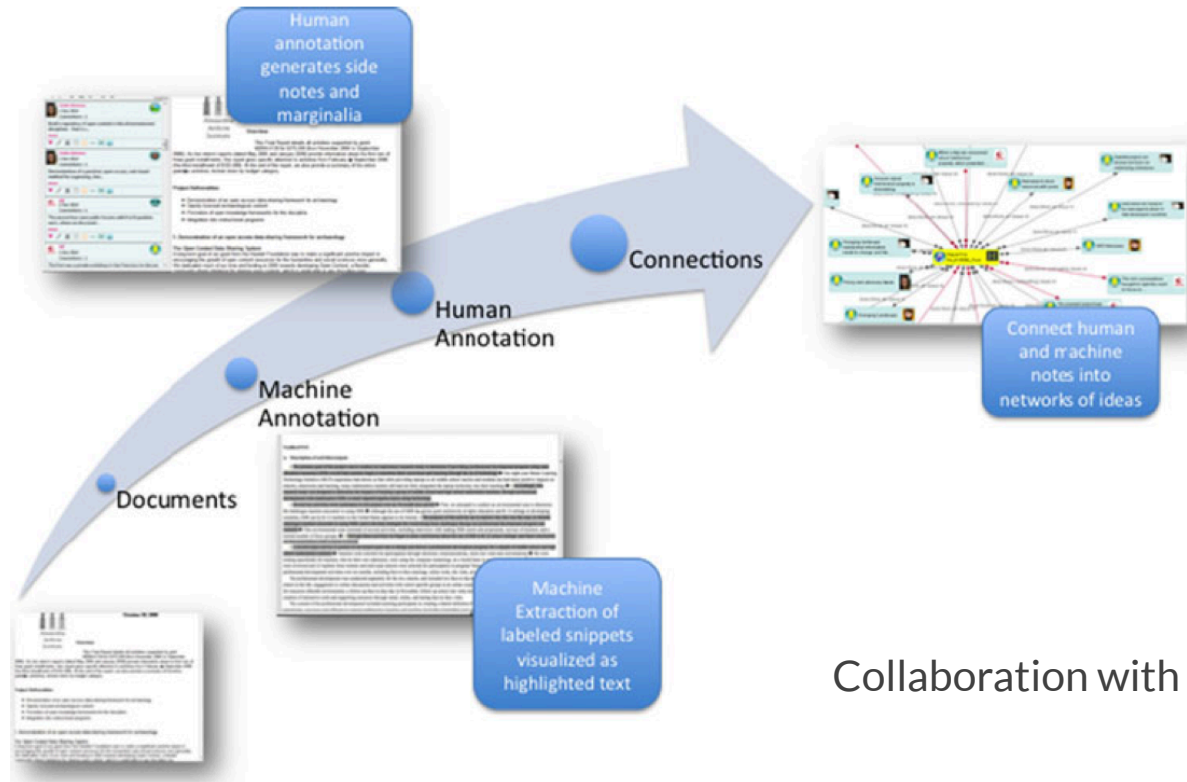
Collaborative  
Web Annotation  
and Knowledge  
mapping



<http://catalyst-fp7.eu>

Collective intelligence  
for social innovation

# Human-Machine Annotation for Collective Sensemaking

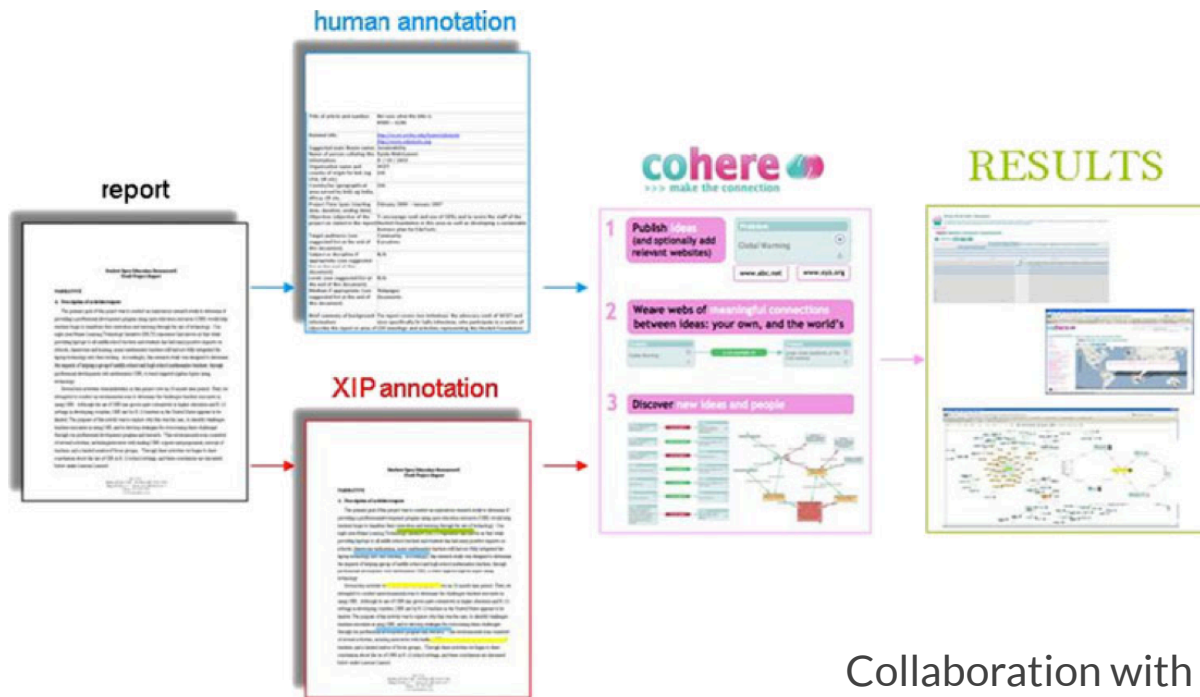


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Collaboration with Ágnes Sándor



# Human-Machine Annotation for Collective Sensemaking



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**xerox**

# Rhetorical functions of **metadiscourse** identified by the Xerox Incremental Parser (**XIP**)

## BACKGROUND KNOWLEDGE:

Recent studies indicate ...  
... the previously proposed ...  
... is universally accepted ...

## SUMMARIZING:

The goal of this study ...  
Here, we show ...  
Altogether, our results ... indicate

## GENERALIZING:

... emerging as a promising approach  
Our understanding ... has grown exponentially ...  
... growing recognition of the importance ...

## NOVELTY:

... new insights provide direct evidence ...  
... we suggest a new ... approach ...  
... results define a novel role ...

## SIGNIFICANCE:

studies ... have provided important advances  
Knowledge ... is crucial for ... understanding  
valuable information ... from studies

## SURPRISE:

We have recently observed ... surprisingly  
We have identified ... unusual  
The recent discovery ... suggests intriguing roles

## OPEN QUESTION:

... little is known ...  
... role ... has been elusive  
Current data is insufficient ...

## CONTRASTING IDEAS:

... unorthodox view resolves ... paradoxes  
...  
In contrast with previous hypotheses ...  
... inconsistent with past findings ...



# Human–Machine Annotation for Collective Sensemaking



- Case study on project report dataset
- XIP + Cohere *versus* Humans + Cohere
- Promising overlaps between the two
- XIP's output could be integrated with human annotation for visualization
- Applications on Learning Analytics for academic writing



Collaboration with Ágnes Sándor



**xerox**

# Citizen Engagement in Televised Election Debates



Election Debate Visualisation

<http://edv-project.net>



Election Debate Visualisation

Search

HOME

TEAM

SOFTWARE

BLOG

RESULTS

CONTACT



UNIVERSITY OF LEEDS

**EPSRC**

Pioneering research  
and skills



# Citizen Engagement in Televised Election Debates



Election Debate Visualisation

<http://edv-project.net>






# Replay Platform

EDV Debate Replay System - 2010 General Election: Third Leaders' Debate


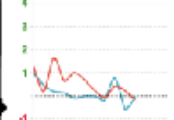

[http://edv-project.net/replay/play?d=2010ged3](#)

Video Argument Map Fact-Checking ...



Video Player

Fact-Checks Tweet Sense Cooperation ...

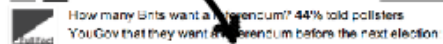


Visualisations Menu


Have your say!

Is this true	Where can I find more info on this	How does this affect me	Why should I care	Can I trust him	What are the pros and cons of this policy
It is vague & avoiding the question	This is a wrong statement	I do not believe this	It is not as confident precise	Correct	I believe in this
I love it	This is better than I expected	I would love the room if I could	This is so sad	I'm losing interest	This is unnerving

Soft Feedback



Public attitudes to EU referendum



Visualisation in Focus



# Election Debate Visualisation



Focus groups motivate a set of 'democratic entitlements'

- Ability to scrutinise the communicational strategies adopted by the speakers, e.g. to detect intentional confusion & manipulation
- Understand the meaning, background and historical record of political claims
- Connect disparate arguments and claims with a view to understanding their ramifications, esp. negative
- ...

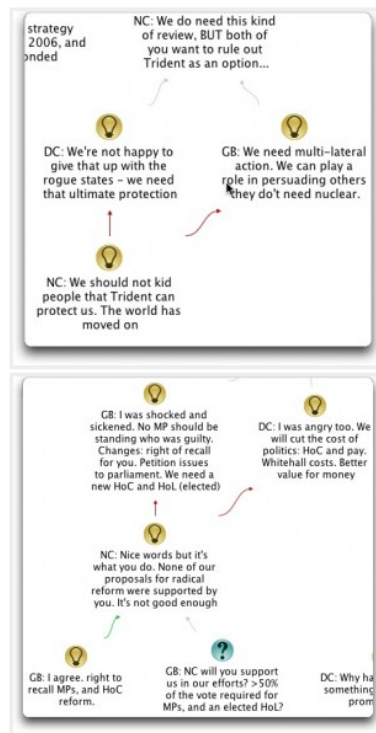
# Mapping the UK election TV debates

The screenshot shows a live broadcast of the 'The First Election Debate - ITV1' on the left. The main window displays a 'real-time dialogue map' application. The map's central question is 'What key elements for fair immigration are required?'. Responses are mapped as follows:

- GB:** Already done this: points system for those outside EU; Jobs for skills matching overseas visitors; No care assists either. Right controls
- 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. Existing controls removed. Need restoring. Currently you need to show you have a sponsor, and

The Twitter sidebar on the left shows tweets related to the debate, including mentions of David Cameron and the hashtag #leadersdebate.

## Seeing Nick Clegg's moves



# Rhetoric and Rules of the Game

(Non-Cooperation in Dialogue)



# Rhetoric and Rules of the Game

## (Non-Cooperation in Dialogue)

TWIST Dialogue Annotation Tool – Brian – paxman-howard-annot.xml

Context  
BBC presenter Jeremy Paxman questions former UK Home Secretary Michael Howard with respect to a meeting in 1995 between Howard and the head of the Prison Service, Derek Lewis, about the dismissal of the governor of Parkhurst Prison, John Marriott, due to repeated security failures. The case was given considerable attention in the media, as a result of accusations by Lewis that Howard had instructed him, thus exceeding the powers of his office.

#	Speaker	Turn	Annotated Turn
0	IR	Right , uh ... can you help us with this then ? You stated in your statement	
1	IE	Right , uh ... can you help us with this then ? You stated in your statement that the Leader of the Opposition had said that I ( that is , you ) personally told Mr Lewis that the governor of Parkhurst should be suspended immediately , and that when Mr Lewis objected as it was an operational matter , " I threatened to instruct him to do it " . Derek Lewis says " Howard had certainly told me that the Governor of Parkhurst should be suspended , and had threatened to overrule me " . Are you saying Mr Lewis is lying ?	
2	IR		
3	IE	You stated in your statement that the Leader of the Opposition had said that I ( that is , you ) personally told Mr Lewis that the governor of Parkhurst should be suspended immediately , and that when Mr Lewis objected as it was an operational matter , " I threatened to instruct him to do it " .	

Segments

0 :: Init-Inform :: On-Topic :: Objective :: Accurate :: New ::

1 :: Init-Inform ::

Derek Lewis says " Howard had certainly told me that the Governor of Parkhurst should be suspended , and had

Turn Annotator

Function: Init-Inform

Referent Segment

Content Features

- ☒ On-Topic
- ☐ Off-Topic
- ☒ Objective
- ☐ Subjective
- ☒ Accurate
- ☐ Inaccurate
- ☒ New
- ☐ Repeated

Add/Change Segment

Comment (optional)

Remove

Save Cancel

Loaded dialogue from /Users/bp2392/Desktop/Work/PhD/Workspaces/OU4/Code-TWISTAnnotationTool/tests/paxman-howard-annot.xml

- Manual annotation + automatic analysis
- Is further automation possible?

# Social Media Mining for Critical Engagement in Political Debates



- **Aim:** develop online tools for assisting citizens in making sense of dynamics around more general political agendas
  - E.g.: a citizen interested in a particular idea, debate or controversy can retrieve the political actors that align with the different positions
- **Challenge 1:** extracting arguments from social and online media and presenting them in ways that are tailored to a citizen's interests and needs
- **Challenge 2:** extracting arguments from published media, such as newspapers, blog posts or party policy documents and automatically link social media contributions to these arguments



<http://sense4us.eu>

# Thanks!



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