

ASSIST project

- Aims to deliver a service for searching and qualitatively analysing social sciences documents
- NaCTeM is designing and evaluating an innovative search engine embedding text mining components
 - **Domain knowledge** facilitates expansion of user queries
 - Real Time **clustering** of search results
 - **Semantic Information enrichment** for targeting the main topics
 - **Term extraction** for improved browsing capabilities
- Final deliverable will include a web demonstrator for further integration into JISC e-Infrastructure
- NaCTeM local project website: <http://www.nactem.ac.uk/assist/>

ASSIST project

- Limitation of existing search engines
 - return long list of documents accessed through laconic contexts of the words queried as plain-text
- ASSIST search engine improves:
 - the research process with domain knowledge for the Educational Evidence Portal (EPPI-Centre)
 - the content access of documents through semantic information for sociological analysis of mass-media documents (NCeSS)

Query interface

Expanding the standard query interface

- ✓ Semantic operators to build complex queries
- ✓ Browsing documents through a domain taxonomy

NaCTeM - ASSIST Browser

authors:Wintour AND city:London AND educat*

Search

Sample queries include:
'ID', 'ID*' or 'ID OR Scientist'

Browse...

Curriculum subject and skills

[School](#) [Sixth form](#) [Higher](#) [Adult learning...](#)

[Learning/teaching needs and practice](#)

[Early years](#) [Primary](#) [Secondary](#) [Homework...](#)

[Performance, assessment, standards](#)

[Inspection](#) [Early years education](#) [Secondary...](#)

[Careers and work experience](#)

[Career guidance](#) [Employment](#) [Apprenticeships...](#)

Administration, governance and finance

[Finance](#) [Buildings](#) [ICT](#) [Admissions](#) [Governors](#)

[Teachers, lecturers and support st...](#)

[Teachers](#) [CPD](#) [Professional teacher education...](#)

[Home, community and society](#)

[Parents](#) [Equality and diversity](#) [Crime](#) [NEETs...](#)

[Care, welfare and psychology](#)

[Adoption](#) [Childcare](#) [Truancy...](#)

The NaCTeM ASSIST Browser is an beta version demonstrator for the [ASSIST](#) project funded by [JISC](#) to investigate the benefits of text mining in 2 case studies within the social science disciplines. This includes a review of the requirements gathering stage in order to advise future projects in this area and the development of high profile exemplars demonstrating how text mining solutions can solve, in part at least, major challenges facing e-Researchers across all domains.

- Automatic grouping of documents into *useful categories*
- Automatic creation of *descriptive labels* for categories based upon content
- Automatic identification of similar or *related documents*

Search Result Interface

Cluster results for: **education**, N

Query Results Semantic Content

Treated like truants -
AUTHORS: Nancy Patton Wood, DATE: June 23, 2004, Wednesday
CONTEXT(s):
...legally required to receive full-time **education**, they are not required to attend school and it is possible to legally **educate** their children at home. Home schoolers are not obliged ...
...a classroom-only to **educate** their children appropriately for their age and ability. Families choose ...

Reply: Letters and ... Towards a surveillance society -
AUTHORS: Robin Hull, DATE: April 26, 2006 Wednesday
CONTEXT(s):
... whether guilty or not, appears to be comparable to the change from **education** based on reason to **education** based on faith. Now, it seems, we can expect justice by faith instead of justice by reason ...

Whitehall poised for shuffle of top posts -
AUTHORS: David Hencke, Westminster correspondent, DATE: July 18, 2005
CONTEXT(s):
secretary's post last month. Mr Macpherson, 46, was **educated** at Eton and Balliol College, Oxford ...
... He has avoided big public controversies. Sir John, 55, **educated** at Charterhouse and New College ...
... at the Department for **Education** and Skills, to the Home Office. He wants to poach Sir David, 53, **educated** ...

Overview: Fight for tuition charges holds key to success -
AUTHORS: Patrick Wintour, DATE: November 27, 2003
CONTEXT(s):
health bills and seven **education** bills can hardly inspire the electorate with another round of law making ...
fortunate enough to see the Tories' own higher **education** policy totally rejected by 122 higher **education** establishments. But Paul Farrelly, the articulate leading Labour rebel, said yesterday he had ...

<< 1 2 3 4 >> | Show

✓ Clustering the query results in real time

Lingo algorithm merges instances of commonly occurring phrases, keeping the best candidate to describe each cluster

✓ A familiar presentation of query results including snippets

Search Result Interface

NaCTeM - ASSIST

Cluster results for: education

Query Results Semantic Content

Treated like trust

AUTHORS: Nancy Patton Wood, DATE: June 23, 2004, Wednesday

ORGANIZATION: [government, the police]

PERSON: [hennessy, patton wood, pauline bastick, kathryn]

COUNTRY: [britain]

CITY: [nancy, westminster, london, oxford]

TERMS: [home-schooling families, home schoolers, national curriculum, young people, overzealous local authorities, welfare officers, major tourist areas, individualistic home education]

Reply: Letters and emails: Towards a surveillance society -

AUTHORS: Robin Hull, DATE: April 26, 2006 Wednesday

PERSON: [robin hull]

MONTH: [april]

TERMS: [legal compensation shakeup, false court actions, compensation issue, dangerous issue, lingering human error, good faith]

Whitehall poised for shuffle of top posts -

AUTHORS: David Hencke, Westminster correspondent, DATE: July 18, 2005

CELEBRITY: [gordon brown, charles clarke, mr clarke, david blunkett, ruth kelly]

PERSON: [o'donnell, nicholas macpherson, sir john gieve, mr macpherson, ken, norman lamont, sir david normington, sir kevin tebbit, sir joe, mavis, sir brian bender, andrew, turnbull]

ORGANIZATION: [whitehall, treasury, home office, cabinet office]

VOCATION: [civil servants, home secretary, education secretary]

CITY: [jeton, oxford, charterhouse, bradford]

TERMS: [permanent secretary posts, principal private secretary, cabinet secretary applicant, senior civil servants, welfare reform programme, deputy permanent secretary, big public controversies]

All Documents (686)

Blair Seeks (101)

ID Cards (70)

Labour at MANCHESTER (64)

Willfully (42)

David Cameron (42)

Election AFTERMATH (34)

Government Plans (47)

Blunkett Affair (31)

Delay School Reform (20)

Britain (23)

Religious Hatred Bill (21)

(Other) (365)

<< 1 2 3 4 >>> | Show All

Document content is described using semantic information

✓ makes document analysis easier, faster and more efficient

Access to document contents

NaCTeM - ASSIST

Cluster results for: educa

All Documents (686)	Query Results	Semantic Content
Blair Seeks (101)		
ID Cards (70)		
Labour at MANCHESTER (64)		
Willfully (42)		
David Cameron (42)		
Election AFTERMATH (34)		
Government Plans (47)		
Blunkett Affair (31)		
Delay School Reform (20)		
Britain (23)		
Religious Hatred Bill (21)		
(Other) (365)		

<< 1 2 3 4 >> | [Show All](#)

Created the truants -
 AUTHORS: Nancy Patton Wood, DATE: June 23, 2004, Wednesday
 ORGANIZATION: [government, the police]
 PERSON: [hennessy, patton wood, pauline bastick, kathryn]
 COUNTRY: [britain]
 CITY: [nancy westminster, london, oxford]
 TERMS: [home-schooling families, home schoolers, national curriculum, young people, overzealous local welfare officers, major tourist areas, individualistic home education]

Reply: Letters and emails: Towards a surveillance society -
 AUTHORS: Robin Hull, DATE: April 26, 2006 Wednesday
 PERSON: [robin hull]
 MONTH: [april]
 TERMS: [legal compensation shakeup, false court actions, compensation issue, dangerous issue, lingering human error, good faith]

Whitehall poised for shuffle of top posts -
 AUTHORS: David Hencke, Westminster correspondent, DATE: July 18, 2005
 CELEBRITY: [gordon brown, charles clarke, mr clarke, david blunkett, ruth kelly]
 PERSON: [o'donnell, nicholas macpherson, sir john gieve, mr macpherson, ken, norman lamont, sir o'kevin lebbitt, sir joe, mavis, sir brian bender, andrew, turnbull]
 ORGANIZATION: [whitehall, treasury, home office, cabinet office]
 VOCATION: [civil servants, home secretary, education secretary]
 CITY: [jeton, oxford, charterhouse, bradford]
 TERMS: [permanent secretary posts, principal private secretary, cabinet secretary applicant, senior civil servants, welfare reform programme, deputy permanent secretary, big public controversies]

Document content is described using semantic information

- **Metadata**: informing the origin of documents
- **Terms**: most significant multi-words phrases in the document
- **Named Entities**: main discourse objects belonging to predefined categories

Document Analysis

Document returns for: identity cards, N

Document: LNDocument1007.xml

ID cards an 'intrusion on privacy' say MPs

IDENTITY cards will intrude on our **private lives**, MPs and peers said last night.

The Government's plans for cards would allow the state to build up a 'comprehensive picture' of how people live, including their employment record and use of public services, Parliament's Joint Committee on Human Rights said.

Over time, this would amount to a 'considerable intrusion on the individual's **private life**' and could breach human rights law, its report said.

A **separate all-party group** of peers warned that the card would 'fundamentally alter the relationship between the individual and state'.

The House of **Lords Constitution Committee** criticised the lack of safeguards in the **ID Cards Bill**, passed by a reduced Government majority last week.

Peers debate the legislation on Monday.

The committee said it 'firmly rejects Government claims that, in respect of privacy, ID cards are comparable to driving licences and passports'.

Home Secretary Charles Clarke said the Bill would set limits on information stored on the database.

Labour says the scheme will tackle crime.

Semantic Information

- TERMS**
- NAMED ENTITIES**
 - ☒ **CELEBRITY**
 - ☒ **ORGANIZATION**
 - ☒ **VOCATION**
- SENTIMENT ANALYSIS**

Display

Related Documents

- ID cards 'could breach human rights, say MPs'
- BACK FOR IDENTITY CARD PLAN AS MP'S SAY
- PEERS POINT OUT THE RISK TO HUMAN RIGHTS
- ID CARDS WILL INTRUDE ON PRIVATE LIVES, SAY MP'S AND PEERS
- ID cards 'could fall foul of human rights law'
- ID cards 'threat to human rights'

Related Topics [LOW](#) [MED](#) [HIGH](#)

[ID Cards Bill](#)

[Lords Constitution Committee](#)

[separate all-party group](#)

- ✓ Identification of conceptually similar documents using the most commonly occurring terms and words in the source document
- ✓ Highlighting selected semantic information within the document
- ✓ Selecting terms according to their importance and using them to browse documents

Document Analysis

Semantic Informations

- TERMS
- NAMED ENTITIES
 - ☒ CELEBRITY
 - ☒ UNIT
 - ☒ ORGANIZATION
 - ☒ VOCATION
 - ☒ NATIONALITY
- LEXICAL CHAIN
- SEMANTIC ANALYSIS

Display

Related Documents

- ID cards may breach human rights, say MPs
- SETBACK FOR IDENTITY CARD PLAN
- ID CARDS WILL PUT HUMAN RIGHTS AT RISK
- ID cards 'could fall foul of human rights law'
- ID cards 'threat to human rights'

Related Topics

- [private life](#)
- [ID Cards Bill](#)
- [Lords Constitution Committee](#)
- [separate all-party group](#)

Document returns for: id cards, New re

Document: LNDocument1007.xml

ID cards an 'intrusion on privacy' say MPs

IDENTITY cards will intrude on our private lives, MPs and peers said last night.

The Government's plans for cards would allow the state to build up a 'comprehensive picture' of how people live, in their employment record and use of public services, Parliament's Joint Committee on Human Rights warned.

Over time, this would amount to a 'considerable intrusion on the individual's private life' and could breach European human rights law, its report said.

A separate all-party group of peers warned that the card would 'fundamentally alter the relationship between citizen and state'.

The House of Lords Constitution Committee criticised the lack of safeguards in the ID Cards Bill, passed by MPs, reduced Government majority last week.

Peers debate the legislation on Monday.

The committee said it 'firmly rejects Government claims that, in respect of privacy, ID cards are comparable to driving licences and passports'.

Home Secretary Charles Clarke said the Bill would set limits on information stored on the database.

Labour says ...

FACSIMILE

- ✓ Named Entities are selected and displayed according to their categories
- ✓ 26 categories of Named Entities are recognized and coloured in their context

Sentiment Analysis

Subjective Sentiment

Automatic estimation of the opinion of the writer regarding a fact or an event

- ✓ Negative opinion
- ✓ Neutral opinion
- ✓ Positive opinion

Document returns for: identity c

Document: LNDocument1007.xml

ID cards an 'intrusion on privacy' say MPs

Sentiment annotations Key: + + + + + 0 -- -- -- -- --

IDENTITY cards will intrude on our private lives, MPs and peers said last night. The Government's plans for cards would allow the state to build up a 'comprehensive picture' of how people live, including their employment record and use of public services, Parliament's Joint Committee on Human Rights warned. Over time, t 'considerable intrusion on the individual's private life' and could breach European human rights law, its report said. A separate all-party group of peers warned that the card would 'fundamentally alter the relationship between citizens and state'. The House of Lords Constitution the lack of safeguards in the ID Cards Bill, passed by MPs with a reduced Government majority last week. Peers debate the legislation on Monday. The committee said it 'firmly rejects Government claims that, in respect of privacy, ID cards are comparable to driving licences and passports'. Home Secretary Charles Clarke said the Bill would set limits on information stored on the database. Labour says the scheme will tackle crime.

Semantic Informations

- TERMS
- NAMED ENTITIES
 - ☒ CELEBRITY
 - ☒ ORGANIZATION
 - ☒ VOCATION
- SENTIMENT ANALYSIS

Display

Related Documents

- ID cards may breach human rights, say MPs
- SETBACK FOR IDENTITY CARD PLAN AS MPS AND PEERS POINT OUT THE RISK TO HUMAN RIGHTS
- ID CARDS WILL PUT HUMAN RIGHTS AT RISK, SAY MPS AND PEERS
- ID cards 'could fall foul of human rights law'
- ID cards 'threat to human rights'

Related Topics LOW MED HIGH

- [private life](#)
- [ID Cards Bill](#)
- [Lords Constitution Committee](#)
- [separate all-party group](#)

Future Work

- Automatic Summarization for accessing cluster content
 - ➔ Extraction of the most salient sentences from the documents in a cluster
- Improving the interaction between the system and the users
 - ➔ Correction of the title and the content of the clusters
 - ➔ Graphical interfaces to add user defined annotations