

Corpus Protocols:

digital transformations of commercial
newspaper collections for text and data
mining to support academic research

IFLA 2014 Pre-Conference: Digital Transformation and the Changing Role of News
Media in the 21st Century

August 13-14, 2014

International Telecommunication Union Geneva, Switzerland



Arts & Humanities
Research Council

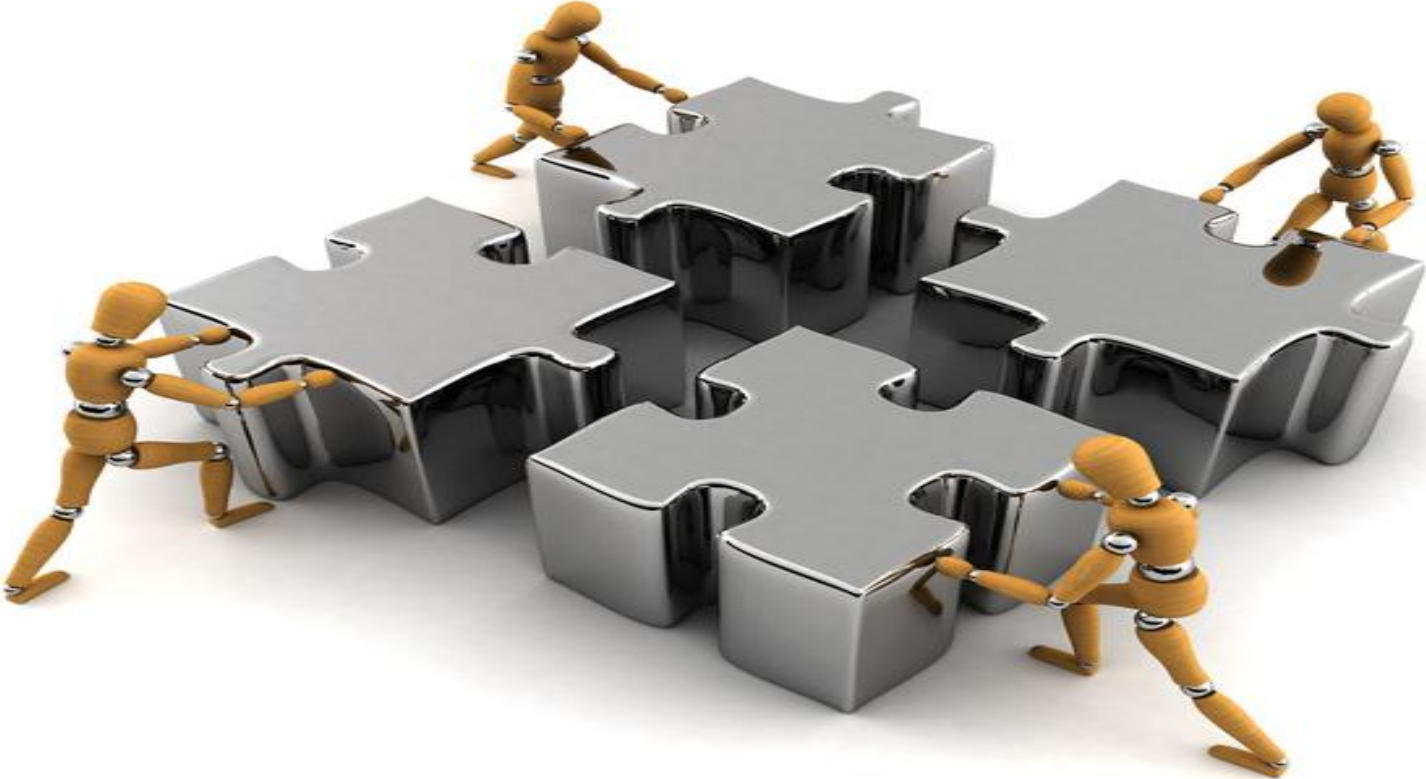
horizon
DIGITAL ECONOMY RESEARCH



The University of
Nottingham

UNITED KINGDOM · CHINA · MALAYSIA

Working together: building research relationships



Corpus Protocols Project Team

- Seth Cayley: Head of Research Solutions, Cengage Learning EMEA
- Mike Gardner: Analyst and Web Developer in Web Technologies, University of Nottingham
- Kat Gupta: Corpus Protocols Researcher, University of Nottingham
- Michaela Mahlberg: Professor of English Language and Linguistics, University of Nottingham
- Neil Smyth: Faculty Team Leader – Arts, University of Nottingham
- Stella Wisdom: Digital Curator at the British Library

Context

- Focusing on textual data (**corpus**) we review relationships between institutional infra-structure, external business partners and research questions and methods that deal with textual data
- Exploring opportunities to future developments (**protocols**)

Problem (practical and research)

- Some University of Nottingham owned data sets are not available for research for several reasons, including:
 - licence agreements restrict copying for data analytics;
 - additional charges for additional licenses;
 - technical issues: copying storage, accessibility of data;
 - and, a lack of shared understanding of research trends in applied linguistics, corpus linguistics and corpus stylistics.

Aims

- To articulate the relationship between data and tools for text and data mining
- Prototype a methodology for using locally stored data using existing corpus linguistic tools
- Use an existing corpus linguist tool to analyse a University owned data set that will be made available on the University network.

Corpus Protocols: didn't start with discourse research questions

- Declassified Documents as opportunistic data
- The Declassified Documents corpus
 - 197,837,328 words in total
 - divided into 30 yearly subcorpora (between 3.3 to 8.3 million words each)

UK Copyright legislation: 2014

"the making of a copy of a work by a person who has lawful access to the work does not infringe copyright in the work provided that (a) the copy is made in order that a person who has lawful access to the work may carry out a computational analysis of anything recorded in the work for the sole purpose of research for a non-commercial purpose, and (b) the copy is accompanied by a sufficient acknowledgement."

(The Copyright and Rights in Performances (Research, Education, Libraries and Archives) Regulations 2014.

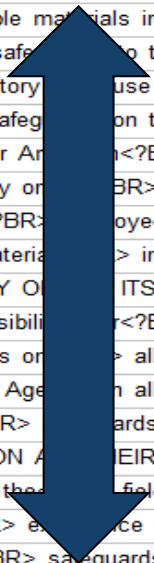
Corpus methods:

- Discourse as representation: labeling, naming, creating reality (e.g. *weapons of mass destruction*).
- Lexis in context

N	Concordance
426	application of IAEA or similar international<?BR> safeguards on all their peaceful nuclear activities. <?HR><?BR> This document consists of 3 pages<?BR> ??
427	FOR MANUFACTURE" INCLUDING INFORMATION<?BR> FOR PEACEFUL NUCLEAR ACTIVITIES. SAID WE THOUGHT PROBLEM<?BR> BETTER
428	accepts the application of Euratom safeguards upon<?BR> all its peaceful nuclear activities. The US considers Euratom<?BR> safeguards to be fully
429	treaty of IAEA or similar international safeguards on all<?BR> peaceful nuclear activities as suggested in alternative<?BR> paragraph 1 of Article II would
430	would object to "all source or<?BR> special fissionable materials in all peaceful nuclear activities." We believed that the treaty must permit the continued
431	facilitate the application of<?BR> IAEA or equivalent safeguards to their peaceful nuclear activities. There would be a review conference after a specified<?BR>
432	West Germany<?BR> argued that this was discriminatory<?BR> use the peaceful nuclear activities<?BR> of the nuclear-weapon nations were not under safeguards.
433	states should accept IAEA or equivalent<?BR> safeguards on their peaceful nuclear activities and that all<?BR> transfers for peaceful purposes should take
434	er Article<?BR> peaceful nuclear activities. Some of these considerations had emerged<?BR> in
435	cy on<?BR> its peaceful nuclear activities as soon as practicable. Each<?BR> State Party to this Treaty
436	<?BR> employed in peaceful nuclear activities of non-nuclear weapons<?BR> and added that the safeguards
437	material<?BR> in all peaceful nuclear activities within the territory<?BR> of such State, under its jurisdiction or
438	BY OF ITS PEACEFUL NUCLEAR ACTIVITIES. EACH STATE<?BR> PARTY TO THIS TREATY
439	ssibility<?BR> peaceful nuclear activities. 3. At conclusion as well as at beginning of meeting Foster
440	ds on<?BR> all its peaceful nuclear activities. Each of the States Party<?BR> to this Treaty further
441	y Age<?BR> on all its peaceful nuclear activities. Each State Party to this Treaty further undertakes<?BR> not to
442	BR> safeguards on peaceful nuclear activities of states<?BR> <?HR><?BR> SECRET/NOFORN<?BR>
443	ON A<?BR> THEIR PEACEFUL NUCLEAR ACTIVITIES. 2. EACH OF THE STATES PARTY TO THIS TREATY
444	to the<?BR> field of peaceful nuclear activities, including the<?BR> international exchange of nuclear material
445	R> encourage that peaceful nuclear activities may encourage<?BR> rather than inhibit desires for bombs. (iii)
446	the application of IAEA or similar international<?BR> safeguards to peaceful nuclear activities. Since the first<?BR> alternative might cause serious resistance
447	be applied on all source or special fissionable<?BR> material in all peaceful nuclear activities within<?BR> the territory of such State, under its jurisdiction,
448	include mandatory IAEA or similar international safeguards for<?BR> the peaceful nuclear activities of non-nuclear states. It anticipated<?BR> that the non-nuclear
449	,<?BR> including international co-operation, in the field<?BR> of peaceful nuclear activities. The article on<?BR> control provides for the establishment of
450	of the Parties of international cooperation<?BR> in the field of peaceful nuclear activities, including<?BR> the international exchange of nuclear material
451	of<?BR> significant quantities (table) of nuclear material from<?BR> peaceful nuclear activities. ?? The Department of Safeguards<?BR> is headed by the
452	As accept IAEA or equivalent international<?BR> safeguards on all peaceful nuclear activities. All parties would<?BR> undertake to cooperate in facilitating

Reading vertically

Getting behind the interface



	1996	1997	1998	1999	2000	2001	2002	2003
	NBSP	ILLEGIBLE	LIBRARY	ILLEGIBLE	ILLEGIBLE	ILLEGIBLE	ILLEGIBLE	ILLEGIBLE
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TIDAL: Times Data Archive Lab project

- Continuing partnership with Cengage
- Times Digital Archive
- University of Michigan
- Investigating social reality in 19th century based on news discourse (to complement picture of Dickensian London)

British Library News Data: Future Plans

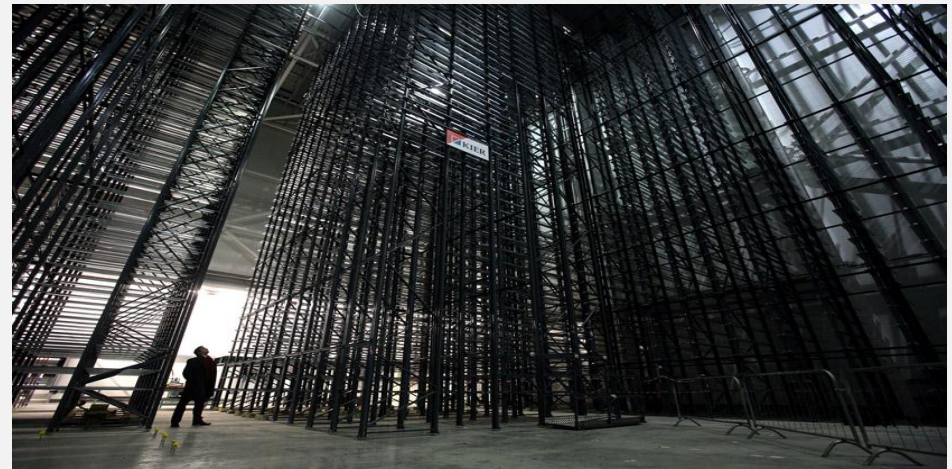
The British Library has one of the world's greatest news archives. Our collection of UK, Irish and world newspapers numbers over 60 million issues, from the 17th century to the present day, and we have growing collections of television, radio and web news.

<http://britishlibrary.typepad.co.uk/thenewsroom/>

https://twitter.com/BL_newsroom

British Library News Data: Future Plans

Print newspapers from Colindale moved to a new newspaper storage building in Boston Spa in Yorkshire





British Library: Newsroom Opened 7th April 2014



British Library News Data: Future Plans

Broadcast News:

Daily television and radio news programmes broadcast in the UK since May 2010 available through an instant access service in the Reading Rooms, new programmes available within hours of broadcast.

Over 60 hours of news are recorded every day from 22 channels including BBC, ITV, Channel 4, Sky News, Al Jazeera English and CNN.

BROADCAST NEWS

Television and radio news programmes

 Search

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- View and listen to television and radio news programmes broadcast in the UK since May 2010
- Available from twenty-two UK and international news channels, with more programmes added daily
- The channels from which we currently select are:
 - Television: Al Jazeera English, BBC One, BBC News, BBC Parliament, BBC Two, BBC Four, Bloomberg, Channel 4, CNN, CCTV News, France 24, ITV1, NHK World, Russia Today, Sky News
 - Radio: BBC London, BBC Radio 1, BBC Radio 4, BBC 5 Live, BBC World Service, LBC, talkSport
- Advanced word-searching by subtitles available for some television channels
- We welcome any feedback on this service. Please contact us broadcastnews@bl.uk

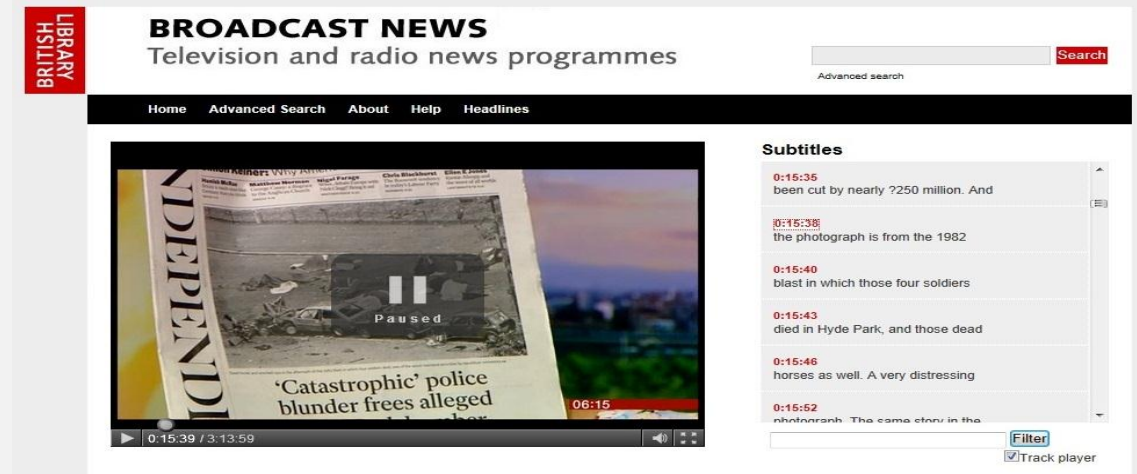
Latest News



British Library News Data: Future Plans

Many recorded news programmes come with subtitles

A corpus of data and metadata with potential for innovative research



The screenshot displays the 'BROADCAST NEWS' section of the British Library website. The page title is 'BROADCAST NEWS' with the subtitle 'Television and radio news programmes'. A search bar is located in the top right corner. Below the title, there is a navigation menu with links for 'Home', 'Advanced Search', 'About', 'Help', and 'Headlines'. The main content area features a video player showing a news broadcast. The video is paused at 06:15. The video frame shows a newspaper with the headline 'Catastrophic' police blunder frees alleged...'. To the right of the video player is a 'Subtitles' panel with a list of subtitle entries, each with a timestamp and a snippet of text. The entries are: 0:15:35: been cut by nearly ?250 million. And; 0:15:38: the photograph is from the 1982; 0:15:40: blast in which those four soldiers; 0:15:43: died in Hyde Park, and those dead; 0:15:46: horses as well. A very distressing; 0:15:52: photograph. The came story in the. There is a 'Filter' button and a 'Track player' checkbox at the bottom of the subtitles panel.



External links, forms and search boxes may not function within this archived website.

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7

«2010 2011 2012»

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10 Apr 08 - 7 Mar 13



Conservatives

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PROTECTING THE NHS FOR TOMORROW

David Cameron has delivered a speech on the future of the NHS setting out his five personal "guarantees" on reform of the health service

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Protecting the NHS for tomorrow

IMF backs Osborne's economic policies

Making homes warmer and cheaper to run

Millions wasted under Labour's BSF scheme

Local TV comes one step closer to reality



David Cameron has given a speech on the future of the NHS setting out his five guarantees on reform <http://j.mp/ICqOj8>



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Conservative party deletes archive of speeches from internet

Decade's worth of records is erased, including PM's speech praising internet for making more information available

Randeep Ramesh and **Alex Hern**

The Guardian, Wednesday 13 November 2013 15.40 GMT

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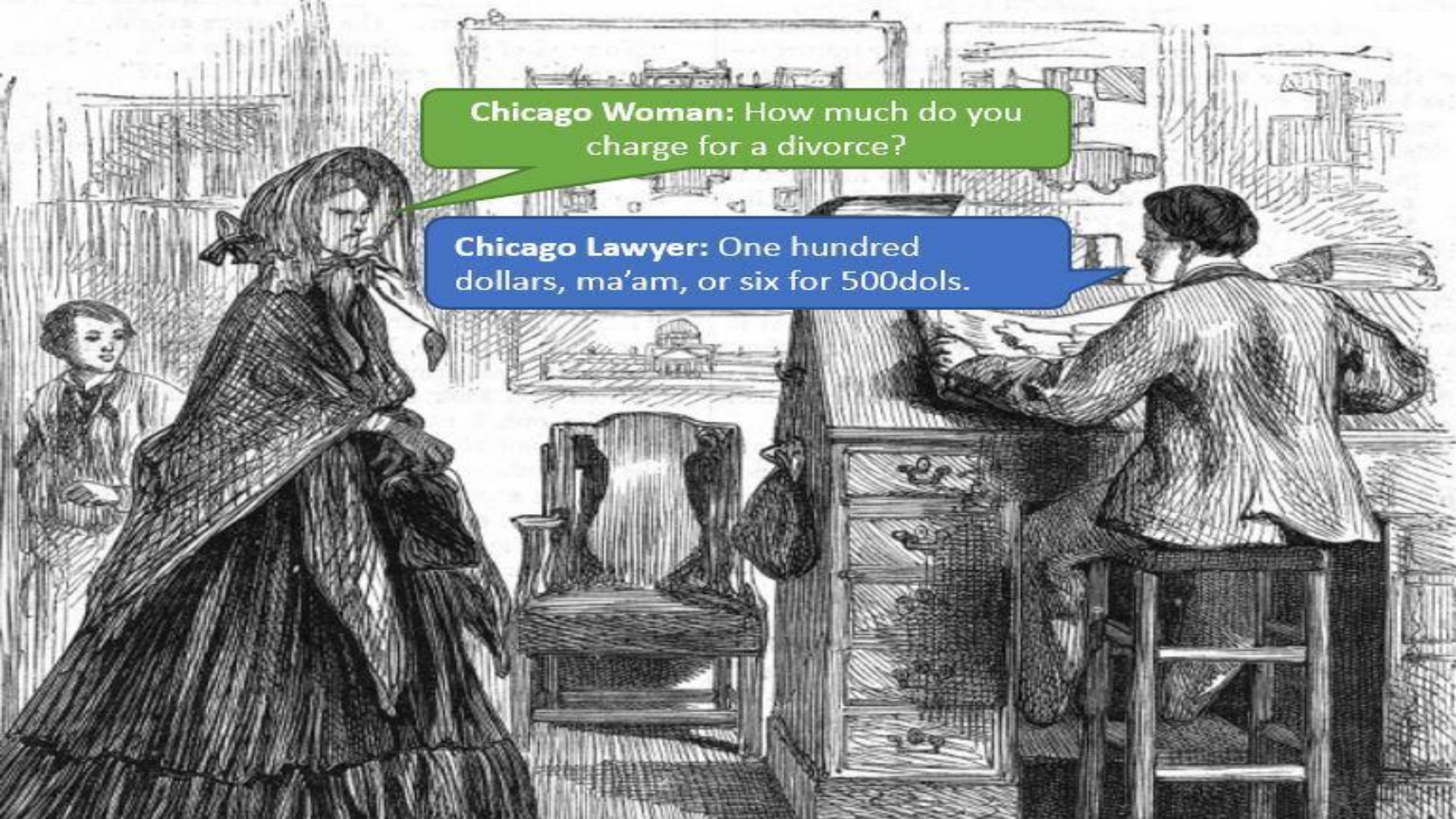




BRITISH LIBRARY

British Library Labs
Experiment with our
digital collections

<http://labs.bl.uk>



Chicago Woman: How much do you charge for a divorce?

Chicago Lawyer: One hundred dollars, ma'am, or six for 500dols.

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