Web archiving at the University of Victoria





Corey Davis, Systems Librarian, University of Victoria, British Columbia PRDLA Meeting, December 2014, Macau



ISSN 1940-5758

Search

Current Issue

Issue 26, 2014-10-21

Previous Issues

Issue 25, 2014-07-21 Issue 24, 2014-04-16 Issue 23, 2014-01-17 Issue 22, 2013-10-14 Older Issues

For Authors

Call for Submissions Article Guidelines

Archiving the Web: A Case Study from the University of Victoria

The University of Victoria Libraries started archiving websites in 2013, and it quickly became apparent that many scholarly websites being produced by faculty, especially in the digital humanities, were going to prove very challenging to effectively capture and play back. This article will provide an overview of web archiving and explore the considerable legal and technical challenges of implementing a web archiving initiative at a research library, using the University of Victoria's implementation of Archive-it, a web archiving service from the Internet Archive, as a case study, with a special focus on capturing complex, interactive websites that scholars are creating to disseminate their research in new ways.

By Corey Davis

Introduction

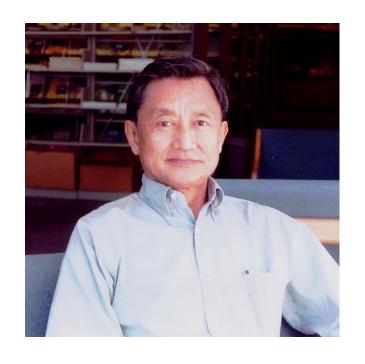
While "paper survives benign neglect for a long time" (Rosenthal, 2010a), such is not the case with materials on the web. Digital information is far more fragile than print. "Electronic resources are profoundly unstable," and unlike paper, they are not generally intelligible following even a modest amount of wear and tear (Cohen & Rosenzweig, 2005). Websites are especially problematic because of the ephemeral nature of content on the web itself. The average half-life of a webpage has been estimated at two years (Koehler, 2004), which is almost certainly too generous, and those that do survive tend to change frequently (Dougherty et al., 2010). So while the web's impact on society has continued to grow alongside an explosive growth of the content available, this rich trove of informational resources remains very much at risk. Roger Highfield (2014) of *The Telegraph* captures the feeling of many librarians and archivists involved in web archiving when he states: "[i]f we're not careful, historians will know more about the beginning of the past century than the start of this one." It is this sense of urgency and obligation that in great part animates web archiving initiatives throughout the world.

Web archiving

Web archiving involves collecting data from the web, storing that data and preserving it at some level, and making it accessible to users (Niu, 2012). Julien Masanès of the Internet Memory Foundation, and former director of web archiving at the Bibliothèque Nationale de France (BnF), has identified three main technical approaches to web archiving (Pennock, 2013): transactional, server-side, and client-side.

http://journal.code4lib.org/articles/10015

"What are the implications and opportunities presented to cooperative collection development by the growing unimportance of national borders and other geographical restraints?"



Mirsky, P., Miller, R. B., & Lo, K. (1999). From Farmington plan to the Pacific Rim Digital Library Alliance: New strategies in developing international collections. *Collection management*, *24*(3-4), 241-250.

CERN: birthplace of the web

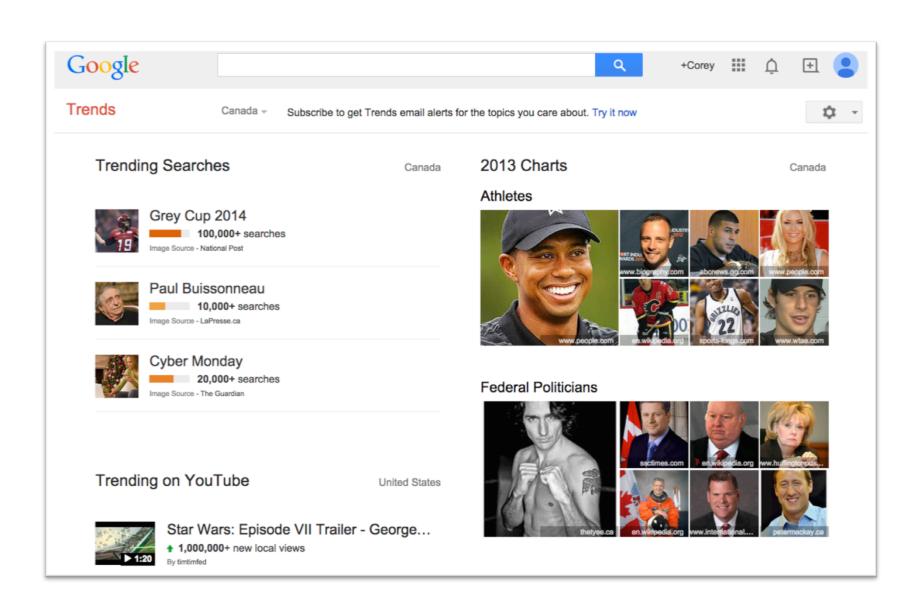


Humble beginnings



A new dark age?

- "It will be very hard for future scholars even in five years, ten years to understand what kinds of political and social and cultural moments or phenomena retrospectively without key aspects of the web."
 - Kirsten Foot, University of Washington
 http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1714997



"...pamphlets distributed in Paris during the French Revolution still exist, stored in libraries. We in libraries must begin to acquire and preserve the 'pamphlets' of the 21st Century—blogs, websites and other digital commentary on the events of our time."

Larry Alford, University of Toronto

























Web archiving

 National and state libraries, archives, and other public memory institutions



Australian Government Web Archive

The Australian Government Web Archive (AGWA) is a web archiving initiative of the National Library of Australia which complements the Library's long established PANDORA Archive. The AGWA public interface was released in March 2014. The AGWA is a collection of Commonwealth Government websites. Initially content collected specifically for the collection commenced in June 2011. However earlier content sourced from other web archiving activities is progressively being added (see 'Latest updates' below). Selected older government web content along with some state and local government material may also be found at in the PANDORA Archive.

Latest updates: On 13 October a substantial amount of content collected between 2005 and 2014 was added to AGWA. This content derives from whole .au domain harvests conducted over the past ten years by the NLA in collaboration with the Internet Archive. At the moment this new content is only searchable using URLs while we work on completing the full text indexing task.

Disclaimer: The AGWA is a specialised service that incorporates the delivery of historic snapshots of third-party content - that is, content not created by the NLA - as faithfully to the original as the technologies used allow. However, content in the archive may not comply with accessibility standards and some of the functionality and content of the original websites may be absent.

Browser note: The AGWA was developed using HTML5. Web browsers that do not support HTML5 will not provide full functional access to the archive. It is recommended that the AGWA should be viewed using current versions of Firefox, Chrome or Safari browsers. For more information see the <u>About</u> section.





FAQ | WAS Disclaimer | Bookmark

Go



Web Archive Singapore (WAS)

NLB's Web Archive Singapore is a rich collection of some 1,000 Singaporerelated online contents that showcase various facets of Singapore life.

Ranging from subjects such as government administration and education to popular topics like arts and recreation, these websites were carefully selected to be part of the nation's documentary heritage.



Browse Categories

Architecture and Landscape

Arts

Commerce and Industry

Ethnic Communities

Events

Geography

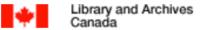
Nature

Organisations

Personalities

Politics and Government

Recreation







Library and Archives Canada

www.collectionscanada.gc.ca

Français **Contact Us** Help Search Home canada.gc.ca

Home > Government of Canada Web Archive > Introduction

Introduction

Search

Basic Search

Advanced Search

Department List

URL List

Help

FAQ

Technical Details

Comments

Government of Canada Web Archive

Introduction

The Library and Archives of Canada Act received Royal Assent on April 22, 2004. For the purposes of preservation it allows Library and Archives Canada (LAC) to collect a representative sample of Canadian websites. To meet its new mandate, LAC began to harvest the web domain of the Federal Government of Canada starting in December 2005. As resources permit, this harvesting activity will be undertaken on a semi-annual basis. The website data which is harvested is stored in the Government of Canada Web Archive (GC WA). Client access to the content of the GC WA is provided through searching by keyword, by department name, and by URL. It is also possible to search by specific format type, e.g. .pdf. At the time of its launch in Fall 2007, approximately 100 million digital objects (over 4 terabytes) of archived Federal Government website data was made accessible via the LAC website. The GC WA currently contains over 170 million digital objects and more than 7 terabytes of data.

Please note the following:

 JavaScript is required to enable the display of the archived websites. As a result, it is possible that the archived sites will not be viewable when utilizing assistive technologies to access the GC WA.

If you have questions about the Government of Canada Web Archive, please email webarchives-web@lac-bac.gc.ca.

Donate | Store | Blog | FAQ | Jobs | Volunteer Positions Home

> Search: All Media Types

Advanced Search

Anonymous User (login or join us)

Upload

INTERNET ARCHIVE



http://

BROWSE HISTORY

435 billion web pages saved over time. **DONATE**





















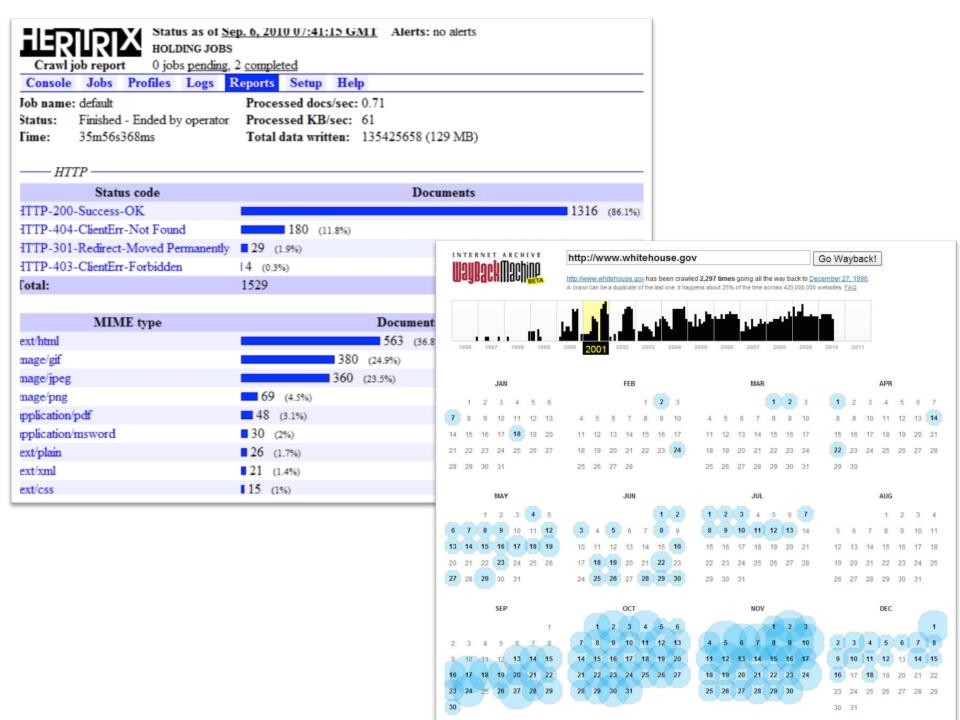
Wayback Machine Availability API Build your own tools.



Subscription Service

Archive-It enables you to capture, manage and search collections of digital





Focused, deep

- "...broad national web archive collections, which often only have limited accessibility for legal and technical reasons, may not meet the dispersed needs of individual researchers, and be in danger of providing a 'one-size fits nobody' solution."
 - Hockx-Yu, H. (2012, December 19). Digital humanities and the study of the web and web archives. Retrieved http://britishlibrary.typepad.co.uk/webarchive/2012/12/digital-humanities-and-the-study-of-the-web.html#sthash.CSWkLtSl.dpuf



<u>Internet Archive Global Events</u>

Archive-It Partner Since: Feb. 2006 Organization Type: Other Institutions

Organization URL: http://www.archive-it.org

Description: These collections of global events have been created by the Archive-It team in conjunction with curators and subject matter experts from institutions around the world.

Earthquake in Haiti

Archived since: Jan, 2010

Description: This collection is currently documenting the events of the January 2010 earthquake in Haiti and the aftermath, including the rescue efforts from around the world and the stories and circumstances of the Haitian people. Archive-It partners Library of Congress, Bibliothèque Nationale France, Virginia Tech and CTRnet, and University of Texas Libraries have all contributed websites fo this collection

Subject: Spontaneous Events, Society & Culture, earthquake, poverty, global aid, infrastructure,

Date: 2010-01-21 00:00:00

Ferguson, MO - 2014

Archived since: Aug, 2014

Description: This is a collection of web content related to the August 9th, 2014 shooting of Michael Brown in Ferguson, MO. The collection includes news articles, blogs, social media, and other websites from within the community of Ferguson and around the world. This collection contains contributions from Archive-It partner Washington University in St. Louis, MO as well as crowd sourced content. W appreciate everyone's contributions and will continue to record the events as they unfold. Note: Mar of these sites contain videos, some of which may not play back in the page. To view archived videos of on the Videos link in the yellow banner at the top of the archived web page.

Jasmine Revolution - Tunisia 2011

Archived since: Jan. 2011

Description: This collection consists of websites documenting the revolution in Tunisia in 2011. Ou partners at Library of Congress and Bibliothèque Nationale de France have contributed websites for this collection, and the sites are primarily in French and Arabic with some in English. Subject: Spontaneous Events, Blogs & Social Media, Government - National

North Africa & the Middle East 2011-2013

Archived since: Jan, 2011

Description: This collection documents the events in Northern Africa and the Middle East starting January 2011. Content includes blogs, social media and news sites about Egypt, Yemen, Libya, Sudan (other countries. Countries separated by site groups (scroll down the page to see all of them). Archive content is in Arabic, English, and French.

Subject: Spontaneous Events, Government, Blogs & Social Media, North Africa, Middle East, blog social media

Creator: Archive-It Publisher: Archive-It

Coverage: North Africa, Middle East, Syria, Yemen, Egypt, Bahrain, Libya, Sudan

Date: 2011 Rights: CC

Occupy Movement 2011/2012



Jim's Blog Liberty in an unfree world

« The Spandrellian trichotomy

Supposedly black Egypt »

hide

Ferguson chimp out

Short recap of the Ferguson story:

Michael Brown, a huge black man helped himself to some tobacco in a shop, then strong armed the shopkeeper rather than paying. He then walked down the street, expecting traffic to get out of his way. When a policeman told him to stop jaywalking, he attacked the policeman, forced his way into the policeman's car, and attempted to take the cops gun. The cop shot him.

According to heavily tattooed gang members wearing clothes intended to intimidate, after being shot, Michael Brown ran with his hands in the air, and the policeman shot Michael Brown again while he was holding his arms in the air and running.

This might well nonetheless be true, at least the part about him



<u>Settings</u>

Reset Password



Home Collections Crawls

Reports

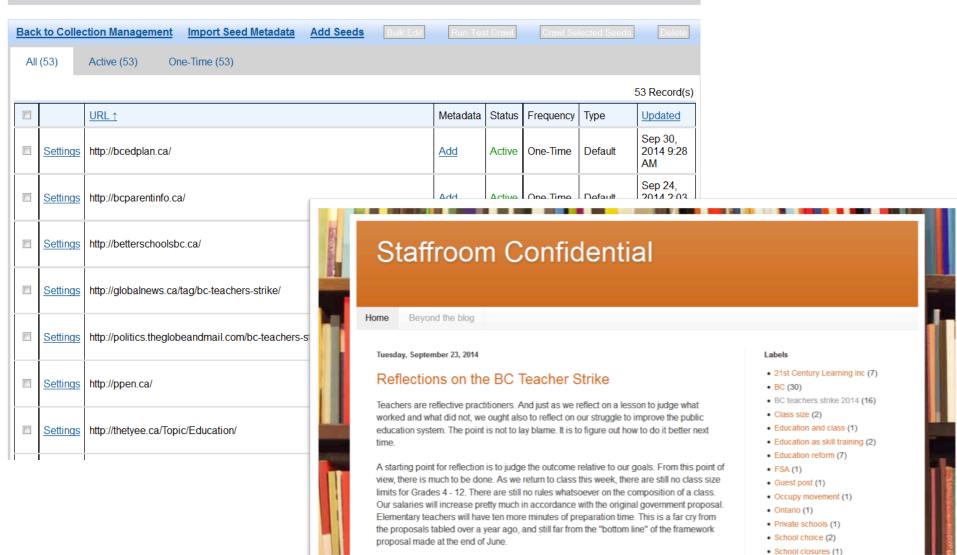
Access

Help Documentation ₽

Submit a Question &

B.C. Teachers' Labour Dispute (2014)

Seed Management



Collections

Settings

Settings

Settings

Settings

Settings Settings

Settings

Crawls

http://friendsofuplandspark.wordpres

http://linnet.geog.ubc.ca/

http://mountdouglaspark.ca/

http://westcoastaquatic.ca/

http://www.goert.ca/

http://www.hat.bc.ca/

Reports

Access

Help Documentation ₽

Submit a Question ₽

Environmental Organizations and Resources of British Columbia

Seed Management

Back to Collection invariagement import seed inetadata Add seeds Dark Collection invariagement import seed inetadata								
All	(11)	Active (11) One-Time (11)						
								11 Record(s
		<u>URL ↑</u>		Metadata	Status	Frequency	Туре	<u>Updated</u>
	Settings	http://clayoquotaction.org/		Add	Active	One-Time	Default	Sep 24, 2014 4:22 PM
	Settings	http://clayoquotbiosphere.org/		<u>Add</u>	Active	One-Time	Default	Sep 24, 2014 4:22 PM
	Settings	http://ecoreserves.bc.ca/		Add	Active	One-Time	Default	May 7 2014 2:19 PM
	Settings	http://focs.ca/				Frier	nds d	of Uplands

Friends of Uplands Park

Creating opportunities for stewardship, education and inspiration, focusing on Uplands Park, Oak Bay, BC, Canada.



"Ivy Off the Oaks" Invasive Removal Happening @ Uplands Park on March 29-2014

osted on February 27, 2014 | Comments Off

Invitation: The Friends of Uplands Park invites you to our 2nd 'Ivy Off the Oaks" Invasive Removal Happening.

Place: Uplands Park - Meet at the Entrance to Cattle Point, Oak Bay



POSTINGS BY CATEGORY

- Anderson Hill Collaboration
- Bike Racks
- Birding at Uplands Park
- Blackberries
- Broom Bashing Events

CONNECTING WITH **FOUP**

Search

To become a member of the Friends of Uplands Park (FOUP), send an email to one of the FOUP Co-Chairs. Email addresses are on the FOUP CONTACTS tab (top right). There is no fee.

Our collections

Topic-based

- Anarchist Archives
- The Trans* Web
- Environmental Organization of British Columbia

By genre

- Local News
- Digital Projects Websites
- Vancouver Island Local Governments

Events-driven

- B.C. Teachers' Labour Dispute 2014
- University of Victoria Faculty Association Certification
- University of Victoria 50th Anniversary

Institutional memory and records management

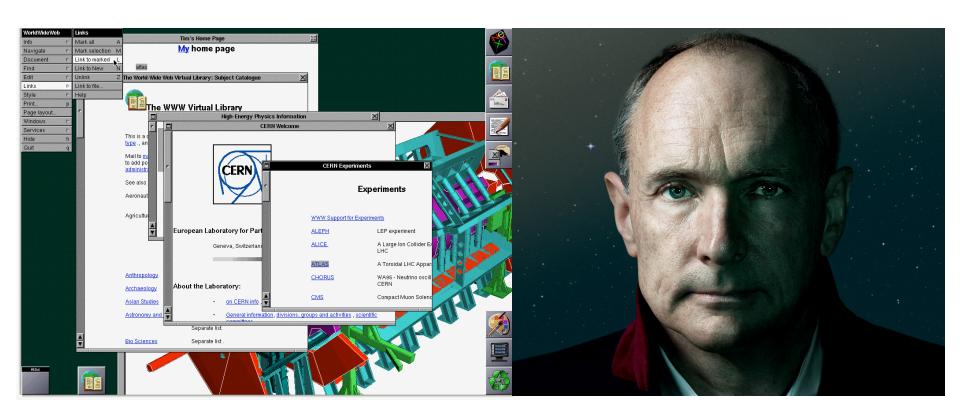
University of Victoria Websites

Lots of challenges

- Theoretical
- Organizational
- Legal
- Technical

Technical challenges

The web was originally envisioned as a collection of interlinked documents



Welcome! First-time users register here or take a QuickTour of the site.



The New York Times

celtics one on one

"All the News That's Fit to Print"

Wednesday, December 18, 1996

SECTIONS

- Front Page Cyber Times
- Politics
 Business
- Editorials/Letters Op-Ed
- Arts & Leisure
 Travel
- Real Estate Job Market
- Diversions
 Web Specials

NEWS BY CATEGORY

CLASSIFIEDS | FORUMS

SERVICES | SEARCH

TABLE OF CONTENTS



Some Hostages Released in Peru

LATE NEWS UPDATE

Veteran F.B.I. Agent Arrested on Charges Of Spying for Russia

IN CYBERTIMES

Calligraphy Slips In Japan, Pushed By the Computer











The New York Times

Sunday, November 30, 2014 📗 Today's Paper 📗 💌 Video 🗆 🛖 53°F 🗀 Shangh

International New York Eimes
99¢ FOR 4 WEEKS
THEN 50% OFF

GET IT NOW>

World U.S. **Politics** New York **Business** Opinion Technology Science Health Sports Style Food Home Travel Magazine Real Estate ALL

International New York Times

GLOBAL COVERAGE THAT GOES EVERYWHERE YOU DO.

JUST 99¢ FOR 4 WEEKS THEN 50% OFF

GET IT NOW >

Grim Reality Amid Optimism Ahead of Climate Talks

By CORAL DAVENPORT

Even as United Nations negotiators gathering in South America this week expressed optimism that they may finally achieve a deal, experts caution it may not be enough to stave off the nearterm impact of global warming.

Ferguson Officials Say Officer Will Not Receive Benefits

By MITCH SMITH and MONICA DAVEY 2:54 PM ET

Leaders in Ferguson, Mo., said Darren Wilson, the police officer who submitted a letter of resignation after a grand jury declined to indict him, would receive no pension, severance package or other benefits.



Police officers threw a pro-democracy protester to the ground outside government headquarters in Hong Kong on Sunday. Kin Cheung/Associated Press

Hong Kong Protesters Surround Offices

By CHRIS BUCKLEY and ALAN WONG

The police used pepper spray to try to subdue thousands of prodemocracy demonstrators who surged around the Hong Kong leader's offices in an escalation of the protests.

ARCHITECTURE REVIEW

■397 Comments

Flawed 1 World Trade Center Is a Cautionary Tale

By MICHAEL KIMMELMAN

The design of 1 World Trade Center speaks volumes about urban priorities. Even a tower with an outsize claim on the civic soul needs to be more than tall and shiny.



Sunday Review

In Praise of Impracticality

By BILL HAYES

Had I been prudent, I would never have known the charm of New York.

- · Editorial: Homeownership and Wealth Creation
- · Bruni: Just Plane Ugly
- · Douthat: The Retreat to Identity
- Kristof: When Whites Just Don't Get It, Part 5
- Egan: Sex and the Saints



Epiphany, With Encyclopedias

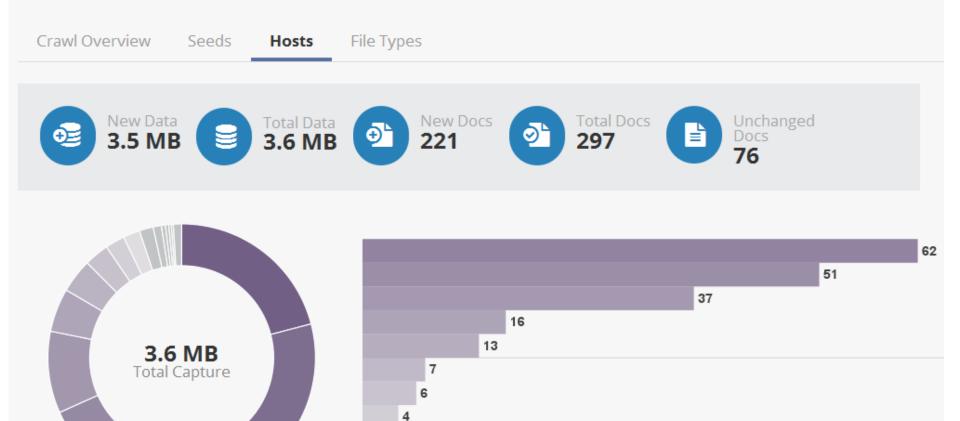
By EUGENE LINDEN

We were college students, selling worthless books.

International New York Times

JUST 99¢ FOR 4 WEEKS THEN 50% OFF

GET IT NOW >



Data by Host

Top 10 Hosts by Document Count

"It's not your grandfather's web anymore"

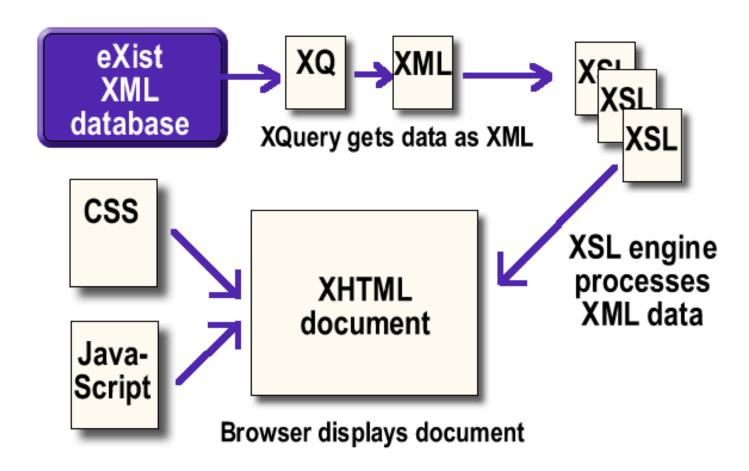
- JavaScript
- XML
- JSON
- AJAX/J

Browse documents by date

- 1846
 - 1846-09
 - 1846-09-07
 - Pelly to Grey 7 September 1846 (CO / 305 / 1 / 1 / 1074 / received 7 September)
 - An annual HBC supply ship is set to the North West Coast for mid-September.
 - Pelly writes to ascertain the British Government's plans for the lands associated with the Oregon Treaty; he wants to know what will happen to the HBC's establishment on the southern Vancouver Island. He adds that a former Crown grant, an 1838 exclusive trade-grant for the lands in question, has yet to expire.
 - The minutes discuss the nature of the HBC's original entitlements and question whether or not, and in what capacity, the Oregon Treaty affects the HBC's position. The majority council further investigation, and to reply cautiously and judiciously to the HBC inquiry.
 - A summary of a meeting with <u>Pelly</u> is offered in order to elucidate the HBC's intentions.
 - Lord Grey calls for greater consideration on the issue of colonization; he
 asks that Stephen write the Company, asking them to detail their
 intentions, and to state their legal opinion for entitlement.

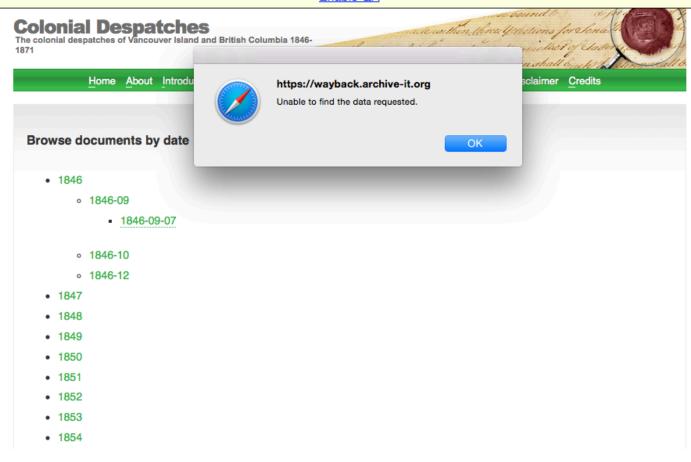
Colonial Despatches

http://bcgenesis.uvic.ca/



You are viewing an archived web page, collected at the request of <u>University of Victoria</u> using <u>Archive-It</u>. This page was captured on 15:45:56 Aug 12, 2014, and is part of the <u>Digital Projects Websites @ the University of Victoria (beta)</u> collection. The information on this web page may be out of date. See <u>All versions</u> of this archived page. Note that this document was downloaded, and not saved because it was a duplicate of a previously captured version (18:05:14 Aug 7, 2014). HTTP headers presented here are from the original capture. <u>Metadata</u>

Enable QA



The web is dead. Long live the web.

 "Impact of HTML5, embedding of various Javascript things, personalization, etc... it's getting pretty hard to actually capture web pages....We're starting to get an uneasy feeling about what we're doing here."



– Clifford Lynch https://www.youtube.com/watch?v=FfJBcX9

What next?

- Cross-jurisdictional cooperation both to build collections and to create new tools to capture web sites as they grow in complexity
 - 'Keepers registry' for web archives?
- Researcher engagement with web archives as corpus

Thank you

• coreyd@uvic.ca