Iniciativas de preservación de la Web: una visión actual

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Presentation overview

- Reasons for collecting and preserving the Web
- Main approaches to collection:
  - Whole-domain harvesting
  - Selective capture or deposit
  - Combined approaches
  - International Internet Preservation Consortium (IIPC)
- Issues:
  - Conceptual, legal, technical (size and dynamic nature), preservation and curation

The World Wide Web (1)

- Origins in scientific community
  - CERN (early 1990s)
  - Now part of the common 'cyberinfrastructure' of science and scholarship
  - Scientists 'increasingly reliant' on Web for supporting research activities (James Hendler, 2003)
  - Helps to promotes 'open access' principles (peer-reviewed publications, data resulting from publicly-funded research)
  - Other educational roles - e.g., e-learning

The World Wide Web (2)

- Scholarly concern with the longevity of Internet references
  - Link rot problem
  - A study of three leading peer-reviewed journals showed that 13 percent of links were inactive after 3 years (Dellavalle, *et al*., 2003)
  - Same trends demonstrated in biomedicine, computer science, information science, …
  - Wallace Koehler's longitudinal studies show that after seven years, just 33.8 percent of a sample of Web pages persisted at their original URL

The World Wide Web (3)

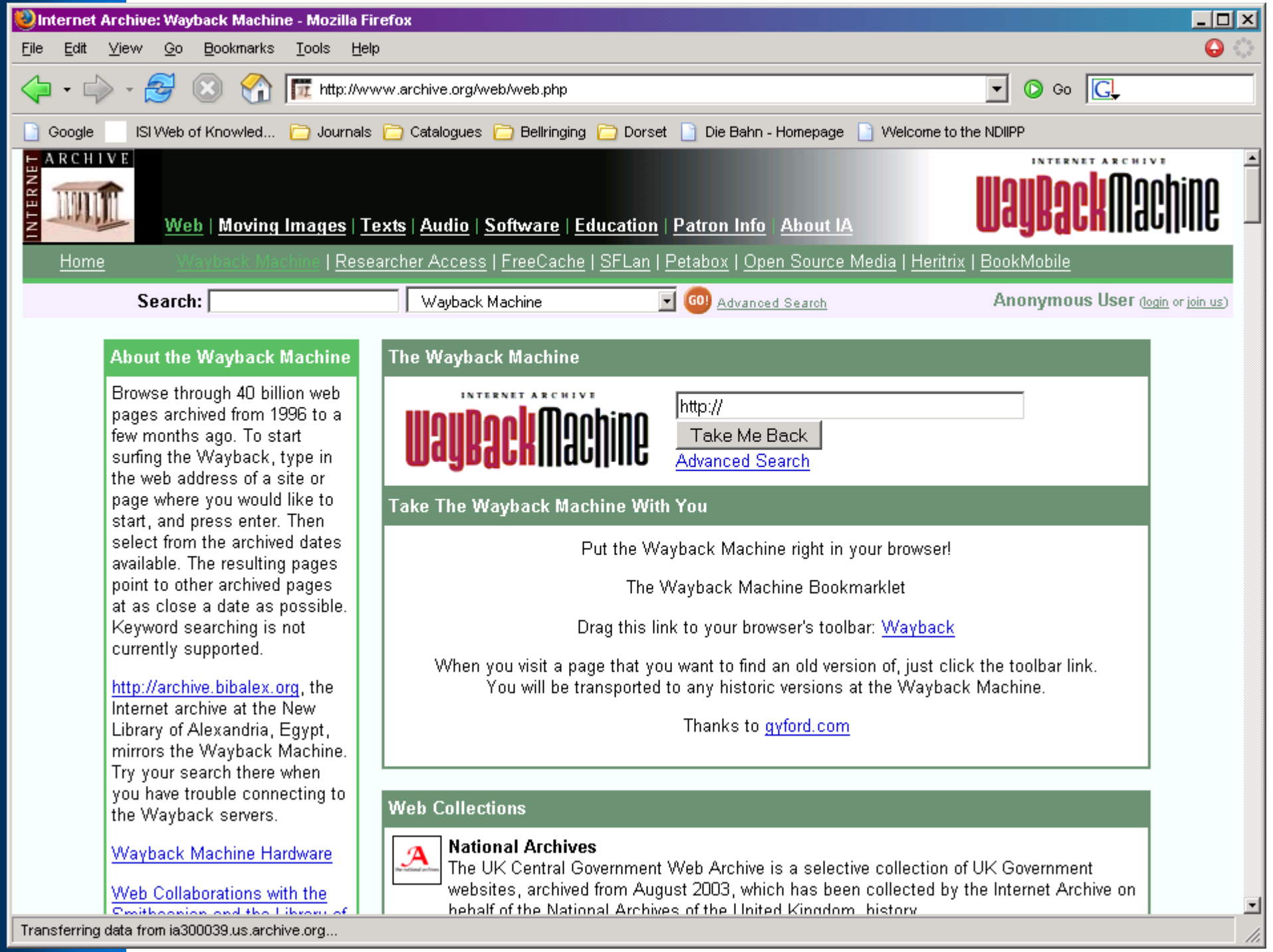
- The Web now widely used across many different communities:
  - Commerce, marketing, publishing
  - Government information (e-government)
  - Personal communication
    - e.g., 44 percent of US Internet users in a 2003 survey had contributed some kind of content to the Internet
  - "The information source of first resort for millions of readers" - Peter Lyman (2002)

Why preserve the Web? (1)

- Cultural importance
  - National Library of Australia noted its responsibility to develop collections of library materials, regardless of format
  - Many national libraries have now developed operational or pilot Web archives, e.g.
    - Australia, Austria, China, Czech Republic, Denmark, Finland, France, Iceland, Japan, New Zealand, Norway, Slovenia, UK, USA, etc.
  - Some have made changes to legal deposit laws to accommodate Web content

Why preserve the Web (2)

- Cultural importance
  - Internet Archive
    - not-for-profit organisation, based in San Fransciso
    - Acquired Web content from Alexa Internet and its own Web crawls, provides access through the Wayback Machine (http://www.archive.org/)
    - Co-operates with memory institutions on developing special collections, e.g. Library of Congress, The National Archives (UK)
    - Part of International Internet Preservation Coalition
    - Mirror of Wayback Machine at Bibliotheca Alexandrina (Egypt)


Internet Archive: Wayback Machine - Mozilla Firefox
File Edit View Go Bookmarks Tools Help
http://www.archive.org/web/web.php
Go
Google ISI Web of Knowled... Journals Catalogues Bellringing Dorset Die Bahn - Homepage Welcome to the NDIIPP
INTERNET ARCHIVE
Web | Moving Images | Texts | Audio | Software | Education | Patron Info | About IA
INTERNET ARCHIVE
WayBackMachine
Home Wayback Machine | Researcher Access | FreeCache | SFLan | Petabox | Open Source Media | Heritrix | BookMobile
Search:
Wayback Machine
GO!
Advanced Search
Anonymous User (login or join us)
About the Wayback Machine
Browse through 40 billion web pages archived from 1996 to a few months ago. To start surfing the Wayback, type in the web address of a site or page where you would like to start, and press enter. Then select from the archived dates available. The resulting pages point to other archived pages at as close a date as possible. Keyword searching is not currently supported.
http://archive.bibalex.org, the Internet archive at the New Library of Alexandria, Egypt, mirrors the Wayback Machine. Try your search there when you have trouble connecting to the Wayback servers.
Wayback Machine Hardware
Web Collaborations with the
The Wayback Machine
INTERNET ARCHIVE
WayBackMachine
http://
Take Me Back
Advanced Search
Take The Wayback Machine With You
Put the Wayback Machine right in your browser!
The Wayback Machine Bookmarklet
Drag this link to your browser's toolbar: Wayback
When you visit a page that you want to find an old version of, just click the toolbar link.
You will be transported to any historic versions at the Wayback Machine.
Thanks to gyford.com
Web Collections
National Archives
The UK Central Government Web Archive is a selective collection of UK Government websites, archived from August 2003, which has been collected by the Internet Archive on
Transferring data from ia300039.us.archive.org...

Why preserve the Web? (3)

- Web content are records of evidence
  - National archives guidance for Web managers
  - Some collection of Web sites has started
    - The National Archives UK Government Web Archive, joint project with Internet Archive
    - US National Archives and Records Administration collected snapshot of federal agency Web sites at end of the Clinton Administration
- Scholarly interest
  - Politics (Archipol), social history (Occasio), Chinese studies (DACHS)

Why preserve the Web? (4)

- Joint approaches
  - The UK Web Archiving Consortium
    - Led by the British Library
    - Partners include The National Archives, the national libraries of Wales and Scotland, the Joint Information Systems Committee, and the Wellcome Trust
    - Sharing costs, risks and experiences
    - Each partner focuses on sites relevant to their own interests

Approaches (1)

- Automatic harvesting
  - Web crawler programs
  - National libraries tend to focus on national Web domains, e.g. Kulturarw^3 (Sweden)
  - Harvester fed set of links, pages fetched, analysed, etc., etc.
  - Internet Archive uses same approach for whole Web, since 1996 has generated >1 petabyte
    - Problems with functionality and country representation (but still a very valuable resource)
  - Development of Heritrix crawler program

Approaches (2)

- Selective capture or deposit
  - Pioneered by National Library of Australia (PANDORA)
  - Development of selection guidelines, selection of sites, negotiation with site owners, capture using gathering or mirroring tools
  - Used by UK Web Archiving Consortium
  - Sites can also be captured and deposited by Web site owners
    - e.g., NARA 2001

Approaches (3)

- Combined approaches
  - Some selective capture, periodic whole domain harvesting
  - Reflects relative strengths of the two approaches
    - Harvesting approach much cheaper per terabyte, enables large collections to be built up
    - More detailed attention can be paid to complex sites, e.g. database driven (deep Web) sites
  - Approach pioneered by Bibliothèque nationale de France (BnF)
  - Recent Australian whole domain harvest

Approaches (4)

- International Internet Preservation Consortium (IIPC)
  - Group of national libraries and the Internet Archive, led by BnF
  - Co-operation on coverage and access - a global distributed collection
  - Development of tools
    - Harvesting - Heritrix, DeepArc
    - Storage - ARC, BAT
    - Search and navigation - NutchWAX, WERA, Zinq
    - Web Archiving Metadata Set

Issues (1)

- What is the Web?
  - A conceptual problem
  - Components of the Web easier to understand than the whole
  - What is is that we want to preserve?
    - Content? - easy for HTML pages, more difficult for databases
    - Interfaces?
  - Personalisation features

Issues (2)

- Legal problems
  - Legal environment in many countries does not take Web archives into account (Charlesworth, 2003)
  - Problems with:
    - Copyright
    - Archives could be deemed to be the "publishers" of defamatory or otherwise illegal content, or held responsible for breaches of data protection legislation
  - Remedies = select content or restrict access

Issues (3)

- Scale
  - Web is large (and growing)
  - Regular snapshots grow even bigger
  - Internet Archive: >1 petabyte, growing at >20 terabytes a month
  - Differences in Web archive size depending on domain:
    - Finland (2002) 500 gigabytes
    - Portugal (2003) 78 gigabytes
    - Australia (2005) 6.69 terabytes

Issues (4)

- Dynamic nature of the Web
  - Pages, sites, domains, constantly changing
    - e.g. new top level domains
    - Web content disappearing (link rot)
  - Some *ad hoc* focus on the ephemeral
    - Political elections, sports events, 9/11, Hurricanes Katrina and Rita
  - Changes in Web technologies
    - Personalised delivery of content
    - Increased interactivity, Web 2.0, etc.

Issues (5)

- Access
  - Problem of linking content stored in multiple, distributed archives
  - Need for co-operation
  - Role for IIPC?
- Digital preservation and curation
  - What this might mean for the Web has not been explored in detail
  - Web archives need to fit into the wider landscape of digital preservation and curation

Conclusions

- The Web is culturally important
- To date, Web archiving initiatives have collected a significant amount of content
- Different capture techniques compliment each other
- There has been a major improvement in the tools being used to harvest and manage content, e.g. the IIPC toolkit
- Co-operation - the IIPC provides one venue for this. Are others needed?
- Some significant issues remain to be solved

Internet Archive - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://www.archive.org/

Go

INTERNET ARCHIVE

Web | Moving Images | Texts | Audio | Software | Education | Patron Info | About IA

Forums | FAQs | Contributions | Jobs | Donate

Search: All Media Types GO!

Universal access to human knowledge

Anonymous User (login or join us)

Announcements (more)

Dead update

Katrina web archive launches, over 25 million pages, text searchable

Web-archive-on-demand service for libraries launched

Web

40 billion pages

INTERNET ARCHIVE WayBackMachine

http://

Take Me Back Advanced Search

Welcome to the Archive RSS

The Internet Archive is building a digital library of Internet sites and other cultural artifacts in digital form. Like a paper library, we provide free access to researchers, historians, scholars, and the general public.

Moving Images

22,972 movies

Browse (by keyword)

Upload your own movie

This Just In (more) RSS

Technolotics #20 -...

20 minutes ago

Curator's Choice (more)

Brothers and Sisters - filmstrip

Live Music Archive

27,731 concerts

Browse (by band)

Upload your own concert

This Just In (more) RSS

The LeeVees Live at...

4 hours ago

Curator's Choice (more)

Live Music Archive

John Brown's Body Live at State Theater on...

Disc 1 1. Band Introduction 2. Singers & Players 3. Among

Audio

49,451 recordings

Browse (by keyword)

Upload your own recording

This Just In (more) RSS

wimp ma pimp

1 hour ago

Curator's Choice (more)

Richard Nixon Press Conference 3/24/1972

Nixon press conference on March 24, 1972. The press

Texts

24,729 texts

Browse (by keyword)

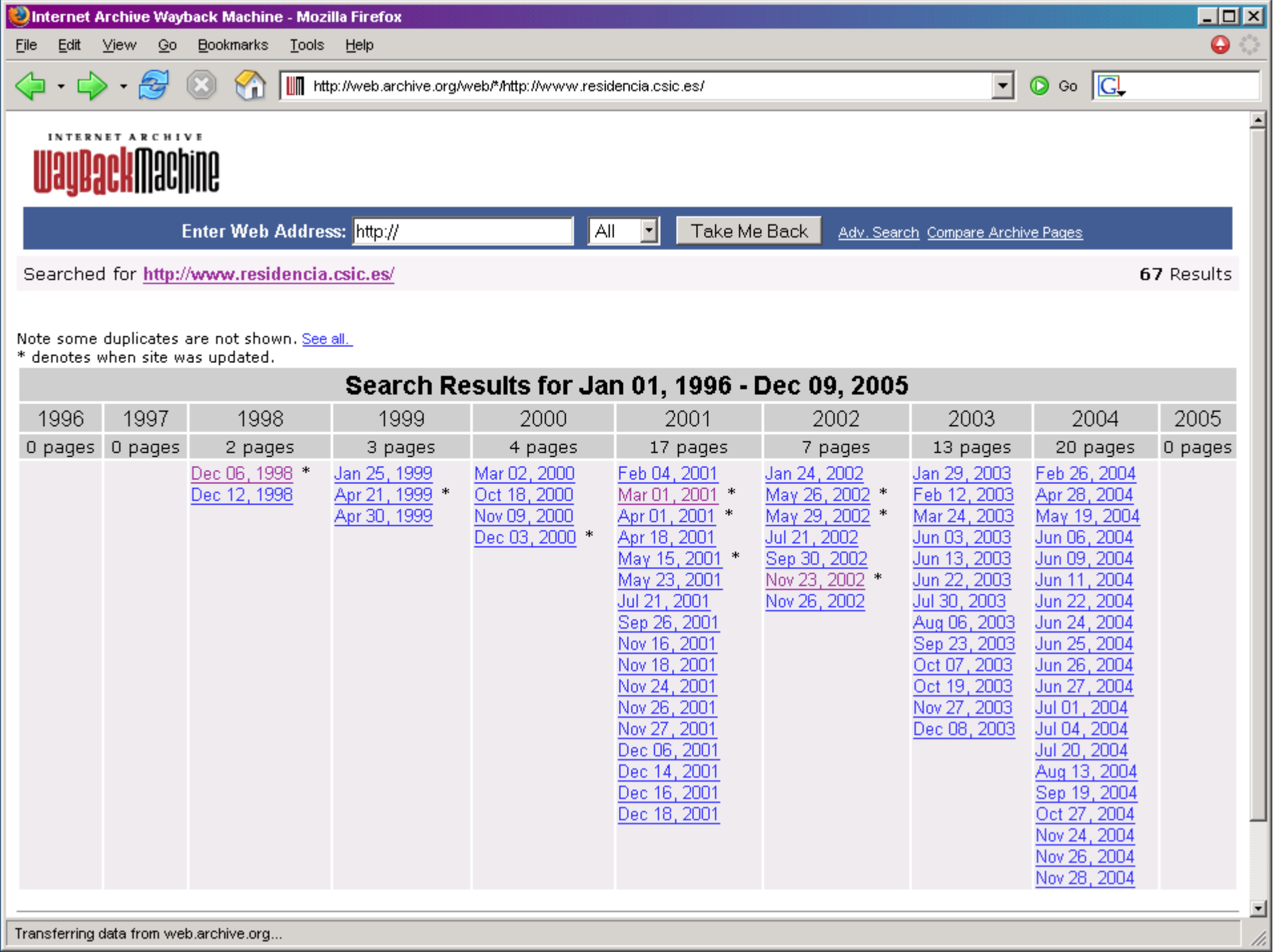
This Just In (more) RSS

Seven Myths About...

9 minutes ago

Curator's Choice (more)

Transferring data from ia300139.us.archive.org...


Internet Archive Wayback Machine - Mozilla Firefox
File Edit View Go Bookmarks Tools Help
http://web.archive.org/web/*/http://www.residencia.csic.es/
Go
INTERNET ARCHIVE
WayBackMachine
Enter Web Address: http://
All
Take Me Back
Adv. Search Compare Archive Pages
Searched for http://www.residencia.csic.es/
67 Results
Note some duplicates are not shown. See all.
* denotes when site was updated.
Search Results for Jan 01, 1996 - Dec 09, 2005
1996 1997 1998 1999 2000 2001 2002 2003 2004 2005
0 pages 0 pages 2 pages 3 pages 4 pages 17 pages 7 pages 13 pages 20 pages 0 pages
Dec 06, 1998 *
Dec 12, 1998
Jan 25, 1999
Apr 21, 1999 *
Apr 30, 1999
Mar 02, 2000
Oct 18, 2000
Nov 09, 2000
Dec 03, 2000 *
Feb 04, 2001
Mar 01, 2001 *
Apr 01, 2001 *
Apr 18, 2001
May 15, 2001 *
May 23, 2001
Jul 21, 2001
Sep 26, 2001
Nov 16, 2001
Nov 18, 2001
Nov 24, 2001
Nov 26, 2001
Nov 27, 2001
Dec 06, 2001
Dec 14, 2001
Dec 16, 2001
Dec 18, 2001
Jan 24, 2002
May 26, 2002 *
May 29, 2002 *
Jul 21, 2002
Sep 30, 2002
Nov 23, 2002 *
Nov 26, 2002
Jan 29, 2003
Feb 12, 2003
Mar 24, 2003
Jun 03, 2003
Jun 13, 2003
Jun 22, 2003
Jul 30, 2003
Aug 06, 2003
Sep 23, 2003
Oct 07, 2003
Oct 19, 2003
Nov 27, 2003
Dec 08, 2003
Feb 26, 2004
Apr 28, 2004
May 19, 2004
Jun 06, 2004
Jun 09, 2004
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Jun 22, 2004
Jun 24, 2004
Jun 25, 2004
Jun 26, 2004
Jun 27, 2004
Jul 01, 2004
Jul 04, 2004
Jul 20, 2004
Aug 13, 2004
Sep 19, 2004
Oct 27, 2004
Nov 24, 2004
Nov 26, 2004
Nov 28, 2004
Transferring data from web.archive.org...

Residencia de Estudiantes-Presentación - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://web.archive.org/web/19990128065527/www.residencia.csic.es/pres/presenta.htm

Go

Residencia de Estudiantes

EXPOSICIÓN

UN SIGLO DE CIENCIA EN ESPAÑA

A partir del 24 de diciembre

Historia de la Residencia
La Residencia Hoy
Amigos

Calendario Semanal

Calendario semanal de actos

Publicaciones
Boletín Residencia
Centro de Documentación

EXPOSICIONES

Correo
English

[From December 1998]

Done

Thank you / gracias

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