



Strategies for Institutions: Responding to the Digital Challenge

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Digital Library Offsite Session
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Current Conditions

Increasing to Near-Total Reliance of User Groups on Electronic Media for Access to Information

- Evidence of trend is supported by vast body of statistical and anecdotal evidence
- The Google phenomenon
 - “Digitizing every book in the world”
 - “Organizing the world’s information”
- Empty reading rooms in university and other libraries
- Growth in use of Kindle and other electronic book readers
 - Reaching a take-off point in digital reading
- Financial difficulties in old media

Strategies

- Go where the users are – online
- Deal with copyright and intellectual property issues in a new way
- Redefine relations with private industry – as both partner and competitor

Problems of Financial Viability and Sustainability

- Dearth of viable economic models in both old *and* new media
- Increased challenges for cultural institutions
 - More work
 - Fewer resources
- Increased demands on governments and foundations

Strategies

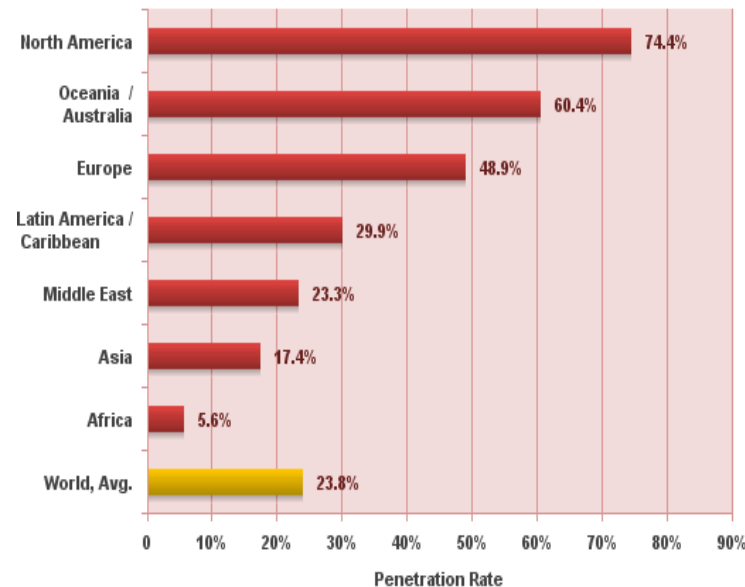
- Cut back on legacy functions
- Private fundraising
- Partnerships with industry
- Assert public-good functions as a way of garnering increased government support
- Tap into volunteer communities

Globalization, but with Persisting Digital Divides

- About 25 % of the world's population has Internet access, and this number continues to grow
- However, Internet penetration rates range from 74.4% in North America to 5.6% in Africa
- Disparities in access to broadband are even wider
- Disparities with regard to content creation are wider still
- English content still dominant, but rapid growth in other languages, especially Chinese

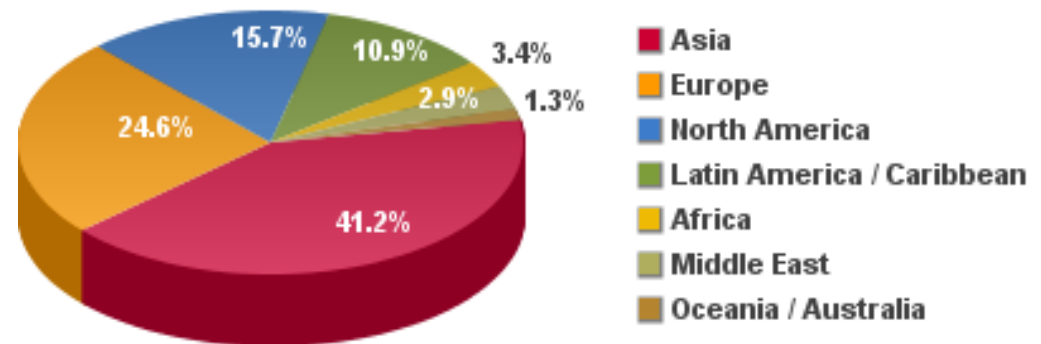
Globalization, but with Persisting Digital Divides (continued)

**World Internet Penetration Rates
by Geographic Regions**



Source: Internet World Stats - www.internetworldstats.com/stats.htm
Penetration Rates are based on a world population of 6,710,029,070 and 1,596,270,108 estimated Internet users for March, 2009.
Copyright © 2009, Miniwatts Marketing Group

**World Internet Users
by World Regions**



Source: Internet World Stats - www.internetworldstats.com/stats.htm
1,596,270,108 Internet users for March 31, 2009
Copyright © 2009, Miniwatts Marketing Group

Strategies

- Partner with organizations committed to bridging the digital divide (IFLA, UNESCO, foundations)
- Tailor services to reach global as opposed to just local or national audiences



COLLABORATIVE DIGITAL LIBRARIES

bilingual, multimedia digital libraries, built with partners from around the world...

France In America
Conceived in partnership with France's national library, the Bibliothèque nationale de France, *France in America / France en Amérique* is a bilingual digital library made available by the Library of Congress. It explores the history of the French presence in North America from the first decades of the 16th century to the end of the 19th century.

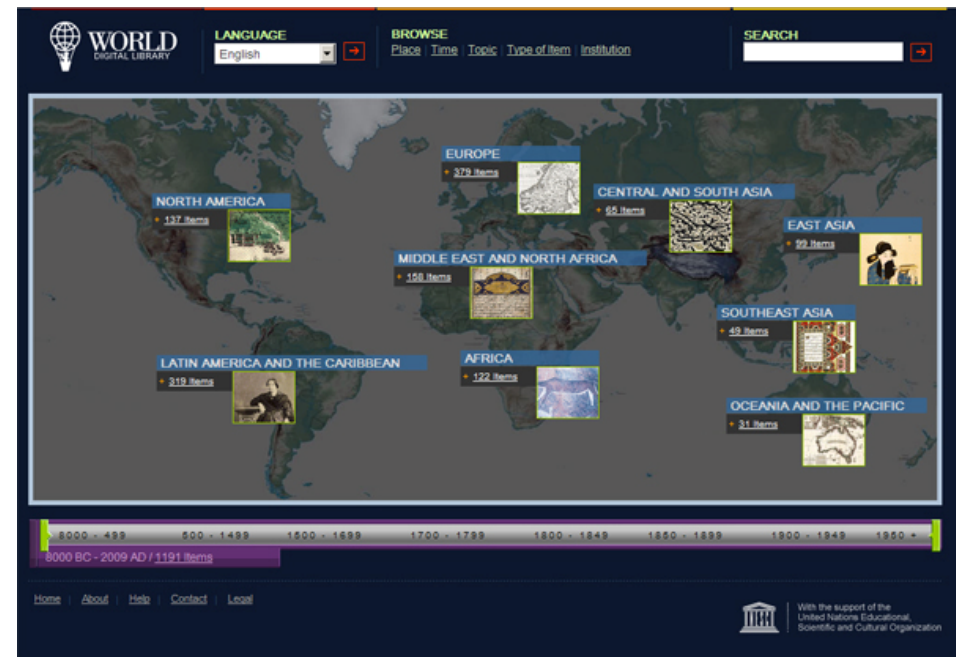
La France en Amérique
Conçu en partenariat avec la Bibliothèque nationale de France, *La France en Amérique / France in America* est une bibliothèque numérique bilingue de la Bibliothèque du Congrès. Elle explore l'histoire de la présence française en Amérique du Nord des premières décennies du XVIe siècle à la fin du XIXe siècle.

The Atlantic World: America and the Netherlands
The Atlantic World: America and the Netherlands explores the history of the Dutch presence in America and the interactions between the United States and the Netherlands from Henry Hudson's 1609 voyage to the post-World War II period. The project is a cooperative effort between the Library of Congress and the National Library of the Netherlands, which in turn has enlisted the participation of other leading Dutch libraries, museums, and archives.

De Atlantische Wereld: Amerika en Nederland
De Atlantische Wereld: Amerika en Nederland verkennen de geschiedenis van de Nederlandse aanwezigheid in Amerika en de uitwisseling tussen de Verenigde Staten en Nederland vanaf de reis van Henry Hudson in 1609 tot de periode na de Tweede Wereldoorlog. Het project is een gezamenlijke inspanning tussen de Library of Congress en de Koninklijke Bibliotheek, waarin de Koninklijke Bibliotheek de werkzaamheden met andere toonaangevende bibliotheken, musea en archieven heeft gecoördineerd.

Meeting of Frontiers: Siberia, Alaska, and the American West
Meeting of Frontiers tells the story of the American exploration and settlement of the West, the parallel exploration and settlement of Siberia and the Russian Far East, and the meeting of the Russian-American frontier in Alaska and the Pacific Northwest. Project partners include the Library of Congress, the University of Alaska Fairbanks, the Russian State Library, the National Library of Russia, and more than twenty libraries, archives, and museums located in cities in Siberia and the Russian Far East.

Встреча на границах: Сибирь, Аляска, и американский Запад
"Встреча на границах" знакомит с историей исследования и заселения Запада Америки, о параллельном освоении Сибири и Дальнего Востока, а также о встрече русской и американской земель и их народов, территорий.



WORLD DIGITAL LIBRARY

LANGUAGE: English

BROWSE: Place Time Topic Type of Item Institution

SEARCH

8000 BC - 499 500 - 1499 1500 - 1699 1700 - 1799 1800 - 1849 1850 - 1899 1900 - 1949 1950 +

8000 BC - 2009 AD / 1191 Items

Home About Help Contact Legal

With the support of the United Nations Educational, Scientific and Cultural Organization

Regional links on the map:

- NORTH AMERICA: 137 Items
- EUROPE: 379 Items
- CENTRAL AND SOUTH ASIA: 66 Items
- EAST ASIA: 99 Items
- MIDDLE EAST AND NORTH AFRICA: 168 Items
- SOUTHEAST ASIA: 49 Items
- OCEANIA AND THE PACIFIC: 31 Items
- AFRICA: 122 Items
- LATIN AMERICA AND THE CARIBBEAN: 319 Items

Increasing Diversity of Ways to Access Digital Content

- Devices: PCs, Laptops, “Netbooks,” iPod, Mobile phones and PDAs
- Applications: Traditional web pages, web 2.0 applications, social networking sites

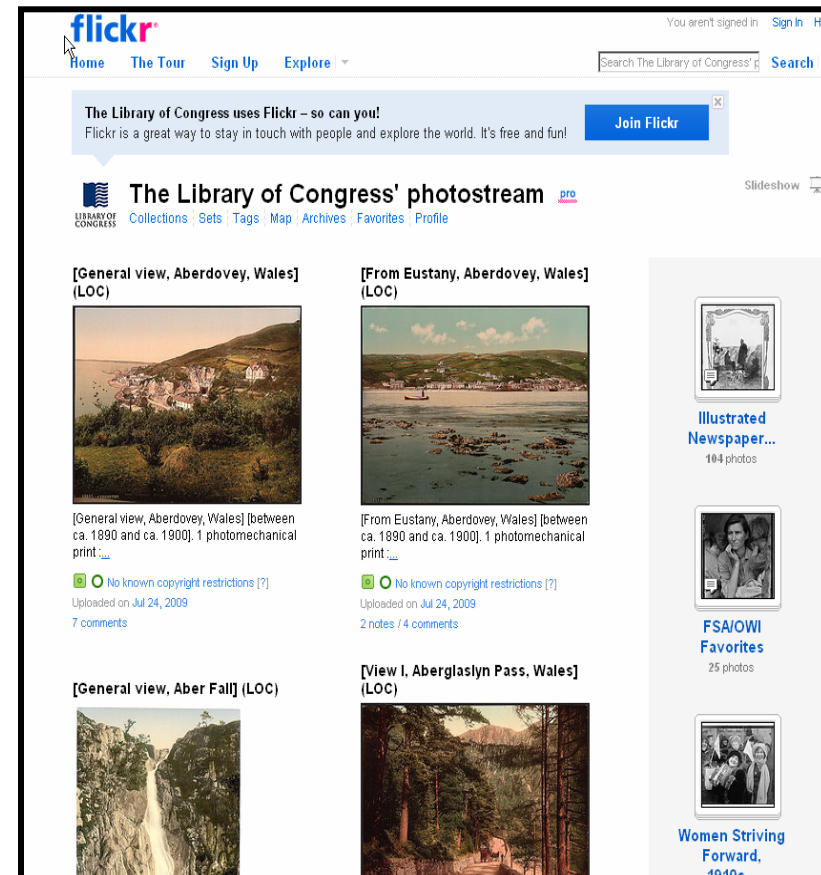
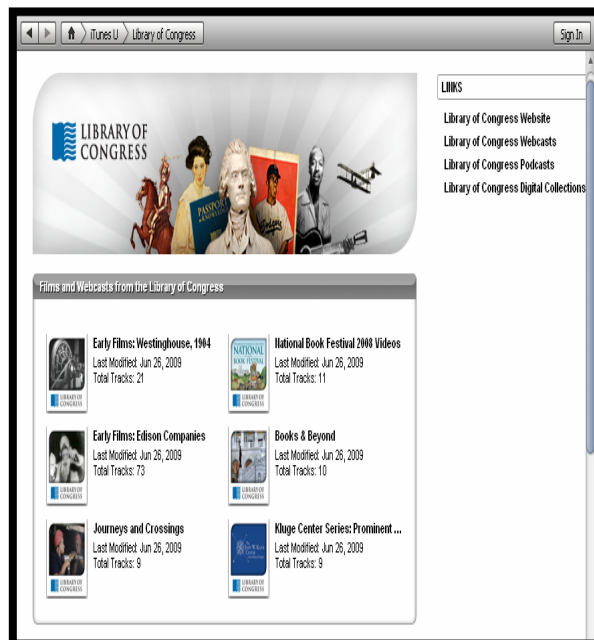
flickr™



You Tube

Strategies

- Go where the users are – *and* make the content available where it will be found and used
 - Flickr
 - YouTube
 - iTunes and iTunesU

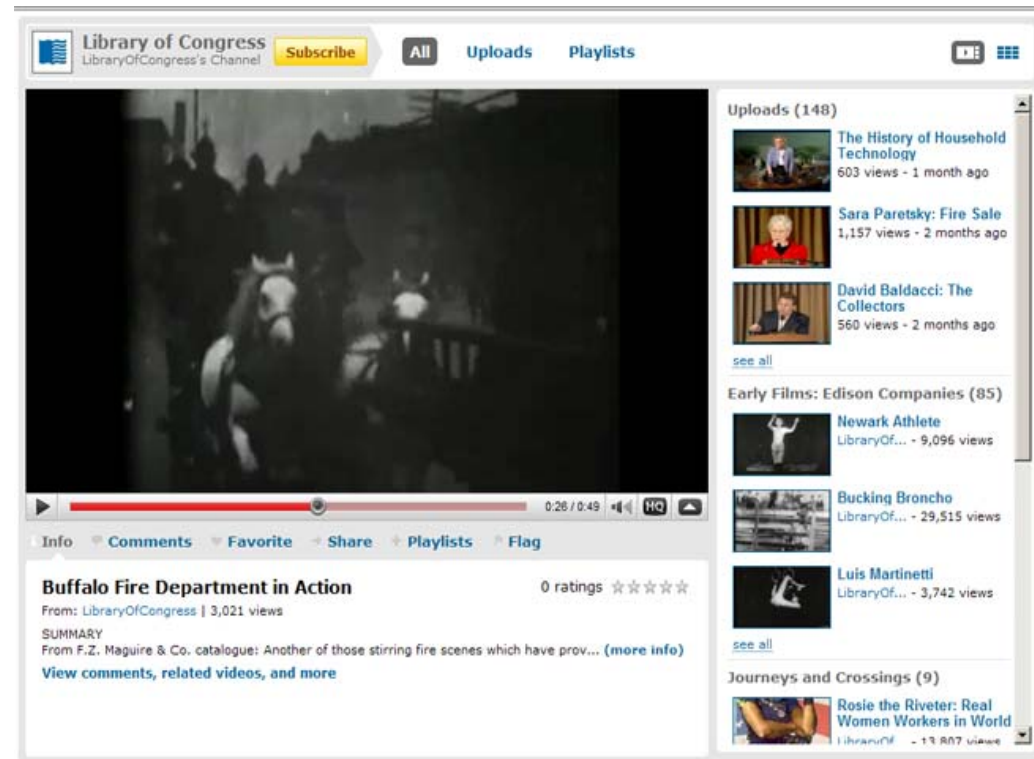


Relative Shift from Text to Audio and Audio-Visual Media

- Success of YouTube and iTunes
- Mixing of text with audio and audio-visual in traditional sites (BBC, Reuters, *New York Times*)
- Trend will accelerate with increases in streaming and broadband

Strategies

- Exploit vast archival holdings of audio and audio-visual content
- Focus on multi-media treatment of themes and topics
- Highlight special role with regard to preservation



Dominant Role of Search Engines

- Rapid access to vast amounts of information
- But: tendency to fragment and disaggregate information
 - Cf. “Is Google killing general knowledge?” *Intelligent Life*, Summer 2009.
- Displacement of other methods of finding information
 - E.g. online catalogs based on traditional metadata
- Potential for commercial and political manipulation

Strategies

- Expose metadata to search engines
- Factor external search into design of web sites and digital libraries
- Share content so that it is located in and can be found in multiple places
- Provide intellectual value-added *beyond* search

Ever-Rising User Expectations

- **Availability of content**
 - Everything should be online
 - Everything should be free (but renewed interest in subscription or pay-per-view revenue models)
- **Findability of content**
 - Should be able to search everything in a simple way and get rapid results
 - Should have access to deep content from search engines
 - Should be able to manipulate search results
 - Want suggestions based on related information, recommendations, popularity rankings, etc.

Ever-Rising User Expectations (Continued)

- **Sharing, re-use, and participation in the creation of content**
 - Should be able to download, embed, link to, email any piece of content
 - Should have opportunity to improve or transform content through corrections, tagging, translation, etc.
 - Should be able to share content in social networks and form virtual communities around content
- **Understanding content**
 - Users don't always "know what they are missing," but they tend to welcome:
 - Selection and authentication by curators and experts
 - Analysis and interpretation by experts
 - Maps, timelines, visualizations, interactives that make accessing content fun
 - This is an area in which libraries can shape user expectations

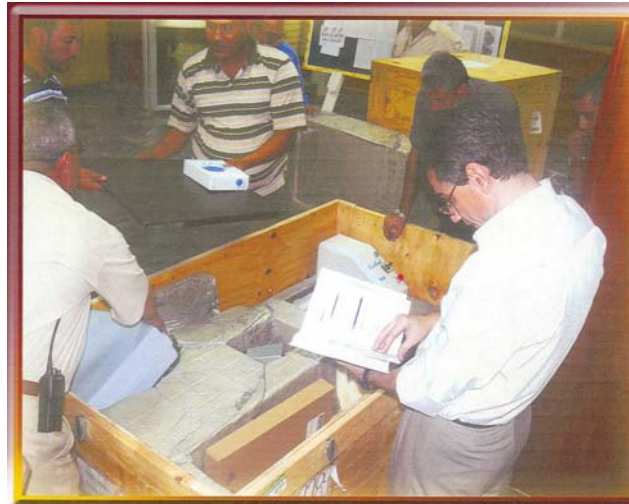
Strategies

- Know what users are thinking and doing (statistics; feedback mechanisms)
- Collaborate (Europeana, World Digital Library)
- Exploit the possibilities of open source
- Improve design and functionality of sites
- Undertake pilot projects and get user feedback
- Offer better search features
- Offer web 2.0 features
- Involve curators and outside experts in digital library projects

World Digital Library as a Response to the Digital Challenge

Capacity-building in the Developing World

- Digital conversion centers (Brazil, Egypt, Iraq, Uganda)
- Online tools for distributed content creation



Emphasis on Quality, Performance, and Metrics

- Speed and reliability
- Consistent experience for users around the world
- Detailed statistical reports; simple user feedback mechanisms



Consistent Metadata to Facilitate Search and Browse

**WORLD
DIGITAL LIBRARY**

LANGUAGE
English

BROWSE
Place Time Topic Type of Item Institution

SEARCH

[Open](#)

SHARE

Similar Items



Title: Codex Gigas

Description

The Codex Gigas (or Devil's Bible) is a large 13th-century manuscript from Bohemia, one of the historical Czech lands. Renowned for its size and its striking full-page rendition of the devil, it contains a number of parts: the Old and New testaments, two works of Josephus Flavius, Isidore of Seville's *Etymologies*, the standard textbook for teaching medicine in the Middle Ages known as *Ars medicinae* (The art of medicine), the 12th-century *Chronica Boemorum* (Chronicle of the Bohemians) of Cosmas of Prague, and a calendar. Of special interest are the sections that testify to the Bohemian origin of the manuscript and its eventful history. At the end of the 16th century, the Codex was incorporated into the collections of Habsburg ruler Rudolph II. During the Swedish siege of Prague at the end of the Thirty Years' War (1648), the manuscript was taken as war booty and transferred to Stockholm.

Date Created

Early 13th century

Language

[Latin](#)

Place

[Europe](#) > [Czech Republic](#) > [Bohemia](#)

Time

[500 AD - 1499 AD](#)

Topic

[Religion](#) > [Bible](#)

Type of Item

[Manuscripts](#)

Physical Description

310 pages; parchment; 89 x 49 centimeters

Institution


[National Library of Sweden](#)

External Resource


<http://hdl.loc.gov/loc/wdl/wwskb.3042>

Items Individually Indexable by Search Engines

Google

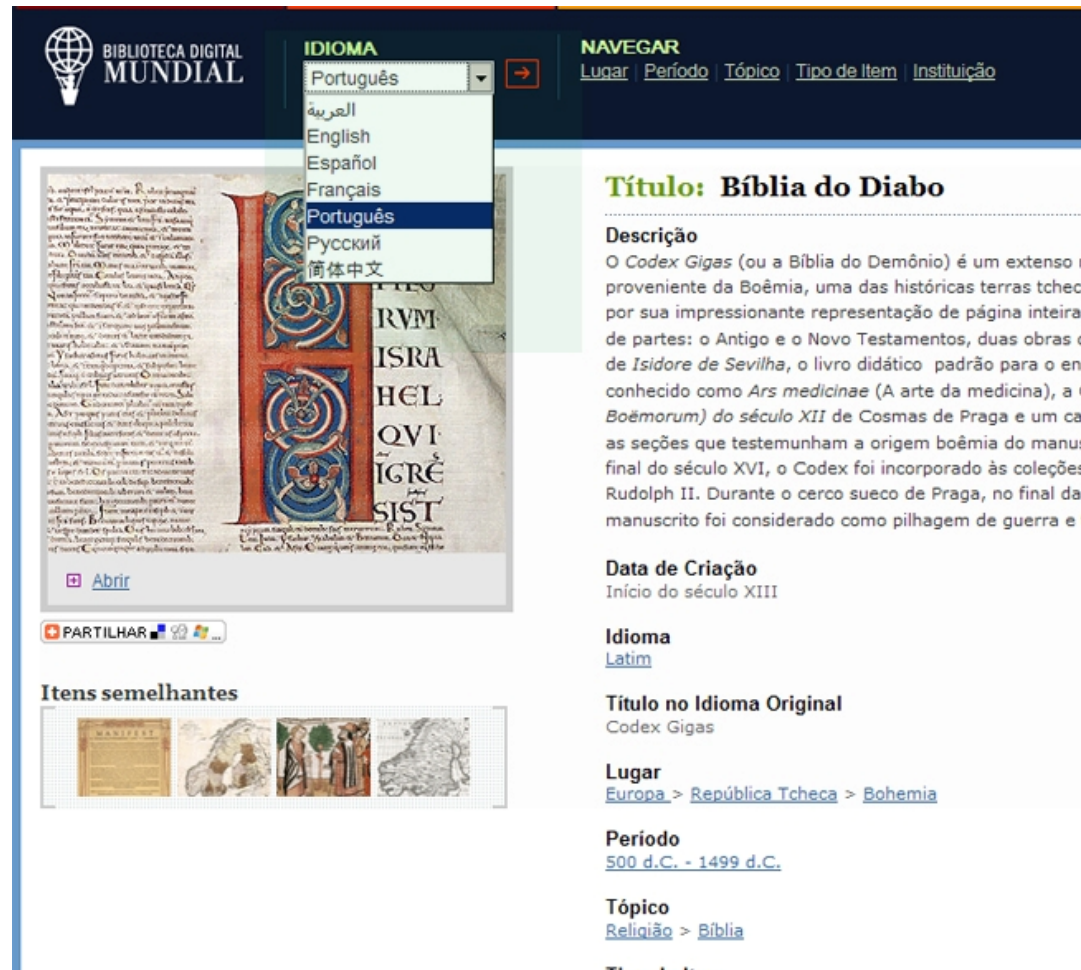
Web  [Show options...](#)

[Codex Gigas](#) - [Wikipedia, the free encyclopedia](#)
Codex Gigas — Official Codex Gigas site at the National Library of Sweden
Digital Library — High quality version of book at WDL; National Geographic
en.wikipedia.org/wiki/Codex_Gigas - [Cached](#) - [Similar](#)

[Codex Gigas](#) - [World Digital Library](#) 
May 7, 2009 ... The World Digital Library will make available on the Internet
and in ... The Codex Gigas (or Devil's Bible) is a large 13th-century manuscript
Bohemia, ... Institution. National Library of Sweden ...
www.wdl.org/en/item/3042 - [Cached](#) - [Similar](#)

[Codex Gigas](#) [encyclopedia topics](#) | [Reference.com](#)
Codex Gigas — Official Codex Gigas site at the National Library of Sweden
Codex Gigas in The European Library: treasure of national library of Sweden
Bible, the world's biggest manuscript, which is on display in. ... Building a European
library: a challenge in the culture wars. ...
www.reference.com/browse/wiki/Codex_Gigas - [Cached](#) - [Similar](#)

Interface in Seven Languages; Content in Many More



BIBLIOTECA DIGITAL MUNDIAL

IDIOMA

Português
العربية
English
Español
Français
Português
Русский
简体中文

NAVEGAR

[Lugar](#) | [Período](#) | [Tópico](#) | [Tipo de Item](#) | [Instituição](#)

Título: **Bíblia do Diabo**

Descrição

O *Codex Gigas* (ou a Bíblia do Demônio) é um extenso r proveniente da Boêmia, uma das históricas terras tchei por sua impressionante representação de página inteira de partes: o Antigo e o Novo Testamentos, duas obras d de *Isidore de Sevilha*, o livro didático padrão para o en: conhecido como *Ars medicinae* (A arte da medicina), a (*Boëmorum*) do século XII de Cosmas de Praga e um cal as seções que testemunham a origem boêmia do manus final do século XVI, o Codex foi incorporado às coleções Rudolph II. Durante o cerco sueco de Praga, no final da manuscrito foi considerado como pilhagem de guerra e t

Data de Criação

Início do século XIII

Idioma

[Latim](#)

Título no Idioma Original

Codex Gigas

Lugar

[Europa](#) > [República Tcheca](#) > [Bohemia](#)

Período

[500 d.C.](#) - [1499 d.C.](#)

Tópico

[Religião](#) > [Bíblia](#)

Tipo de Item

[Abrir](#)

Itens semelhantes

[PARTILHAR](#)

Options to Print, Download, Share, and Reuse Content

**WORLD**
DIGITAL LIBRARY

LANGUAGE
English

BROWSE
[Place](#) | [Time](#) | [Topic](#) | [Type of Item](#) | [Institution](#)


[Open](#)

SHARE
Bookmark & Share
Email
Print
Digg
MySpace
Google
Twitter
What's this?
Favorites
Delicious
Facebook
Live
StumbleUpon
More... (55)
Add This

Title: **Codex Gigas**
Description
The *Codex Gigas* (or Devil's Bible) is a large historical Czech manuscript. Renowned for its size, it contains a number of parts: the Old Testament, the Middle Ages known as *Ars medicinae* (The Art of Medicine), the Middle Ages known as *Bohemorum* (Chronicle of the Bohemians) of interest are the sections that testify to the Bohemian history. At the end of the 16th century, the manuscript was taken as war booty by the Habsburg ruler Rudolph II. During the Swedish War (1648), the manuscript was taken as war booty by the Swedish king Charles X Gustav.

Date Created
Early 13th century

Language
[Latin](#)

Place
[Europe](#) > [Czech Republic](#) > [Bohemia](#)

Time
[500 AD - 1499 AD](#)


Topic
[Religion](#) > [Bible](#)

Type of Item
[Manuscripts](#)

Physical Description

Features to Facilitate Understanding the Content

- High quality metadata
- Item-level descriptions
- Curator videos
- Superior viewing technology
- Timelines and geographic clusters



The screenshot shows the World Digital Library interface. At the top, there is a navigation bar with the logo, language dropdown (English), and browse links (Place, Time, Topic, Type of Item, Institution). Below this, the item title is 'Zenith: International Review of Arts and Culture, Number 11, February 1922'. The description provides historical context about the magazine's significance in the early 20th-century avant-garde movement. A 'Curator Video' link is highlighted with a green arrow. The editor is listed as Ljubomir Micić (1895-1971). A 'Related Items' section is visible at the bottom.

Title: Zenith: International Review of Arts and Culture, Number 11, February 1922

Description

Zenit (Zenith) was the most important avant-garde magazine published in the former Yugoslavia and one of the most significant publications of the broader European avant-garde movement of the early 20th century. It was launched in February 1921 by the artist Ljubomir Micić (1895-1971) and published monthly in Zagreb and Belgrade until December 1926, when it was banned by the authorities. A total of 43 issues were published, as well as one poster, "Zenitismus," and one issue of a daily Zenit newspaper dated September 23, 1922. "Zenitism" was an avant-garde movement born around the magazine. The Zenitist Manifesto of June 1921 proclaimed humanist and anti-war ideals, and called for the creation of a new and united Europe. Besides Micić, noteworthy contributors to Zenit included Miloš Crnjanski, Dušan Matić, Stanislav Vinaver, Pablo Picasso, Alexander Blok, Jaroslav Seifert, Wassily Kandinsky, Vladimir Tatlin, Kazimir Malevich, Tommaso Marinetti, Marc Chagall, Ilya Ehrenburg, and many others. The complete run of Zenit presented here is from the special collections of the National Library of Serbia, and is part of the Micić's legacy to the library.

Editor
Micić, Ljubomir (1895-1971)



The screenshot shows a curator video player. The video title is 'Zenit, an International Review for Art and Culture was started by Ljubomir Micić, in Zagreb in February 1921.' The speaker is Sreten Ugričić from the National Library of Serbia. The subject is 'The Avant-Garde Journal Zenit 1921-1926'. The video player shows a progress bar at 0:05 / 2:21. The video content shows a man speaking in front of a bookshelf.

Speaker
Sreten Ugričić

Institution
National Library of Serbia

Subject
The Avant-Garde Journal Zenit 1921-1926

Zenit, an International Review for Art and Culture February 1921. The monthly issuing of the journal was marked by an uneven and slow issuing, by frequent pauses in its function. That brave and unusual attempt of its publication, after a several month pause, ended, in spite of its success, after No. 43 inclusive. The editorial board tried to squeeze several issues into one, which sometimes resulted in double issues (17/18, 19/20) becoming eight-issue volumes. Besides, the issuing strategy ex

Audio and Audio-Visual Content as well as Textual Content

**WORLD**
DIGITAL LIBRARY

LANGUAGE
English

BROWSE
[Place](#) | [Time](#) | [Topic](#) | [Index](#)



Emigrants
[i.e., Immigrants],
Landing at Ellis Island
Thomas A. Edison, Inc.
July 24, 1903

0:00 / 2:23

MPEG 20Mb | [SHARE](#)

Title: Emigrants
Island

Description
Ellis Island was the
This film, shot by pr
production of Thom
contemporary comp
description: "Shows
just arrived from El
ferryboat *William M*
vessel is docked, th
gangway. The film c
arrivals. Entrants w
language—and giver
being labeled as dis

Creator
[Abadie, Alfred C.](#)

Date Created
July 9, 1903

Publication Inform
Thomas A. Edison, :

Similar Items



Reliance on Private Fundraising



The screenshot shows the World Digital Library website. At the top, there is a dark blue header with the WDL logo on the left, a language dropdown menu set to 'English' in the center, and a 'BROWSE' section on the right with links for 'Place', 'Time', 'Topic', 'Type of Item', and 'Institution'. Below the header, a light blue banner reads 'About the World Digital Library: Financial Contributors'. Underneath this, a navigation bar contains links: 'Mission', 'This Site', 'Background', 'Partners', 'Financial Contributors', 'Frequently Asked Questions', and 'Acknowledgments'. The main content area is titled 'Financial Contributors' and contains a paragraph stating that the Library of Congress and its WDL partners acknowledge the following financial contributors:

- Google, Inc., for \$3 million for the initial development of a WDL plan and the WDL prototype.
- The Qatar Foundation, for \$3 million in general support for the WDL, and to support the development of the key node in the WDL network.
- The Carnegie Corporation of New York, for \$2 million to support the inclusion of cultural institutions from the Middle East.
- The King Abdullah University of Science and Technology, Saudi Arabia, for \$1 million to support activities of digital versions of manuscripts and other materials relating to science in the Arab and Islamic worlds.
- Microsoft, Inc., for \$1 million in general support.
- The Lawrence and Mary Anne Tucker Foundation to support the establishment of a digital conversion center.
- The Bridges of Understanding Foundation for the development of Middle East-related content for inclusion.

Collaboration and Sharing with Partners



II. General Guidelines for Content Selection

Manuscripts

Key historical documents; illuminated and illustrated manuscripts; (e.g., pre-print materials); examples of calligraphy in all scripts; sacred texts and other religious texts; personal diaries and letters of general interest.

Books

Rare and significant volumes of history, culture, literature, science, and other topics, in all languages. Books that complement special format materials (e.g., books that explain manuscripts or photographs).

Other Printed Materials

Pamphlets and ephemera that are of interest to scholars (e.g., railroad and shipping timetables, early advertisements and directories) and that help to convey a sense of popular culture and everyday life.

Maps, Atlases

Hand-drawn maps by explorers; early printed maps; printed maps that played significant roles in shaping national consciousness in different countries; maps by indigenous peoples or that show geographic knowledge obtained from indigenous peoples; topical maps showing industry, transportation, ethnographic and linguistic distribution.

Prints, Drawings

Printed pictorial materials from the pre-photographic era, for example, posters associated with important personalities, events and social, cultural, economic, scientific, and technological developments.

Photographs

Collections that document everyday life, buildings, and infrastructure; albums (published or unpublished) created for special occasions such as visits and anniversaries; collections owned

Future Priorities

- WDL Charter
- Online content transfer, cataloging, and translation tools
- Improved optimization for low bandwidth users
- Applications developed for mobile devices
- WDL blog
- Pilot projects with volunteer communities