



W. l. 27 Mr 1870

S 16
D XXIII

Ma chère Madame Walewska
Je vous remercie de la lettre
que vous m'avez écrite hier
et des renseignements que vous
me donnez. J'ai télégraphié
à Corbié de ne pas faire
de souscription pour la prison
parce que vous croyez qu'elle
ne réussirait pas.

Je voudrais bien écrire à
Ostie mais je n'ai aucun
portrait pour la faire.
J'espère que vous voyez de bons
nouvelles de votre fils. Il
me tarde bien que tout cela



finira car plus nous
attens et plus les ruines
s'accumulent

Bonne nuit
afin de ne pas
oublier de vous
embrasser
Napoléon

Napoleon writes to
Maria Walewska

54352



ITC and Culture Economy

Invited lecture held on 14 May 2013 at the University of the
Chinese Academy of Sciences (UCAS),

Beijing, P.R. China

by

F. G. Filip

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UCAS

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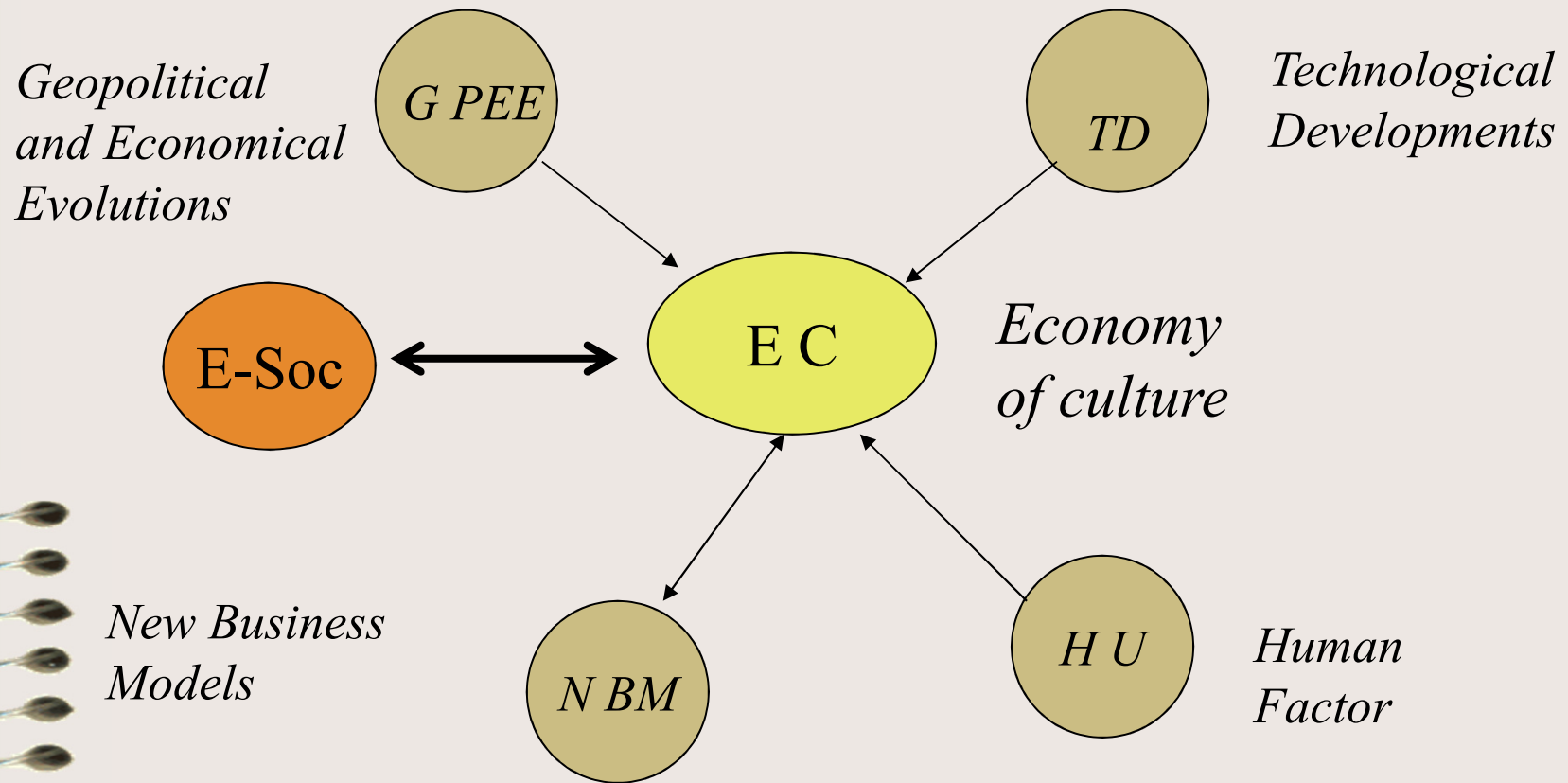
CONTENT

- Context
- Perceived evolutions
- Convergences
- Conclusions
- Bibliography

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Interactions



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Geopolitical and Economical Evolutions

- **General**
 - **Globalization or regionalization or isolationism?**
 - **Democracy and collaboration or terrorism and dictate?**
 - **Peace or wars?**
 - **Global financial and economic crisis**
- **Specific to our region**
 - **Transition to market economy**
 - **Emigration of young[and educated] people**

Technological and Conceptual Developments

- **Virtual and augmented reality**
- Broadband, “social” nets
- Web Science
- *Ambient Intelligence*
 - Incorporation of IT in environment: ubiquity, discretion
 - Usability: personalization according to needs, adaptation to the level of knowledge, anticipation of the user’s requests
- RFID => Internet of things
- Big data
- Everything as a service (pay per usage) => **cloud computing**,
- Mobile society
- *Zuhandenheit* (M. Heidegger, *Sein und Zeit*, 1927): “Everything at hand”

Cloud Computing -CC(Mell, Grance , 2011)

- **Definition:** "CC is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction "
- **Service Models**
 - *Infrastructure as a Service (IaaS).*
 - *Platform as a Service (PaaS).*
 - *Software as a Service (SaaS)*

Software as a Service-SaaS

Steps toward SaaS

- Mainframe centralized computing
- APS (Application Service Providers) to reduce costs through administration centralization and specialization

SaaS characteristic features

- The providers develop and manage the own software
- Access through browsers
- Multi-tenant architecture serving multiple users and businesses
- A growing business: Sales -\$12Bn /2011 [Gartner Group,]

Cloud Computing/SaaS

Advantages

Pay per service
Easy installation of new
SW releases
"Freemium" pricing
system
Facilitated by web
technology and
broadband penetration

Open problems

Data security and
protection
Latency -not suitable for
RT applications
Difficult customization for
large applications
Captive clients of the
Service providers

Virtual Reconstruction of Prince Castle of Suceava (Capital of Moldova)



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Prince Chamber



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Suceava: The Chapel



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Foundation for Hellenic World Virtual Theatre (I)

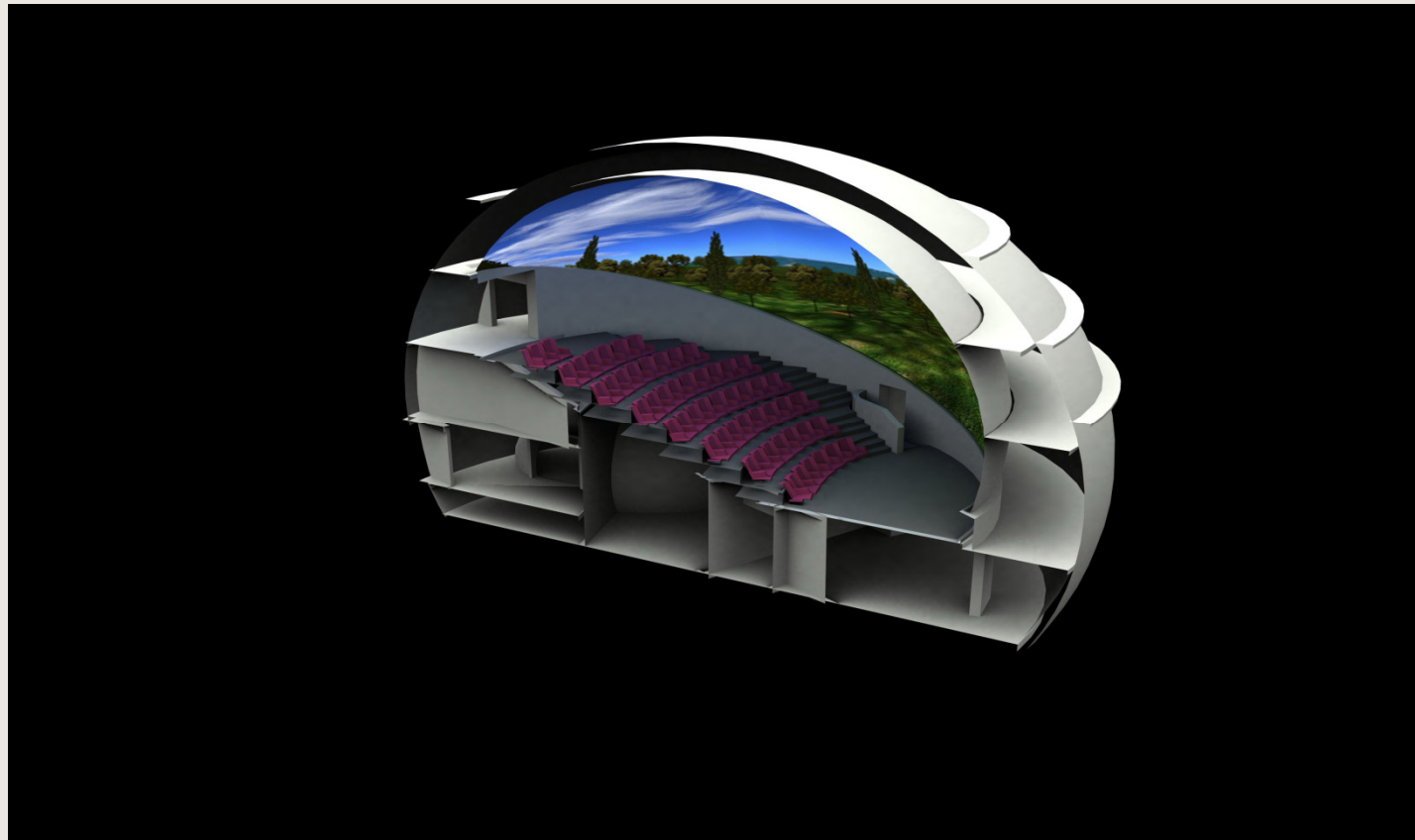


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Foundation for Hellenic World

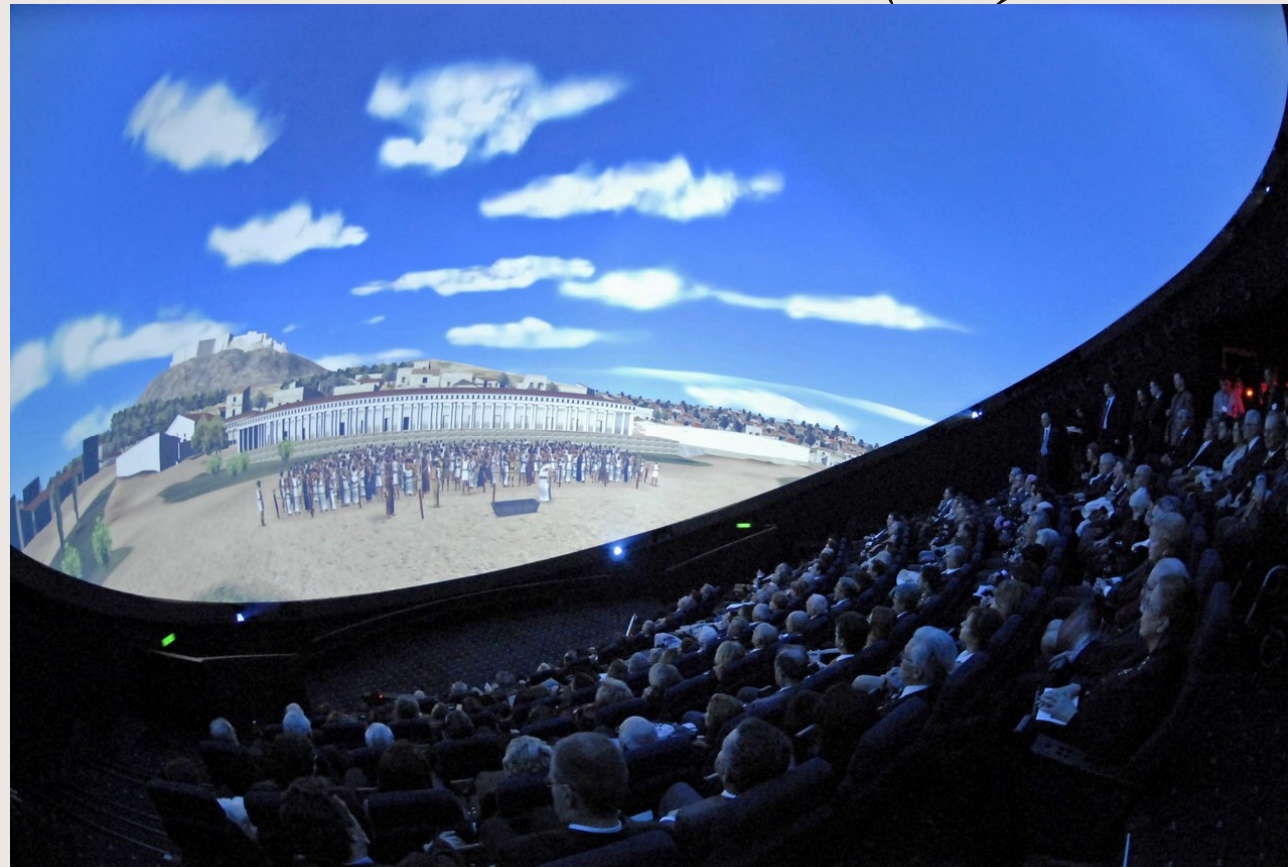
Virtual Theatre (II)



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Foundation for Hellenic World Virtual Theatre (III)



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Market Trends in ITC

- “Merger mania” (mergers, acquisitions, partnerships, strategic alliances of IT providers);
- A clear dominance of few database management systems(Oracle, Microsoft SQL Server, IBM DB2);
- Increased usage of Internet and web technologies
- “IT/Software as a service” (ITaaS.SaaS) model; Example:
 - <http://msdn.microsoft.com/en-us/library/aa905332>
- Exhaustive services for Project management are available
 - <http://www.projectperfect.com.au>

New Business Models

- Characteristics of new knowledge:
 - Absence of frontiers
 - High perishability
 - High risks and possible malicious activities
- *Knowledge industry* [F. Machlup of Harvard University], *Knowledge work/worker* [P. Drucker], *Information and The Society of Conscience* [M. Draganescu]
- Characteristics:
 - *Unisex jobs (ex. Maria Montessori vs Florence Nightingale)*
 - New paradigms of enterprise (extended, virtual, networked...)
 - **Noble domains (education, health, culture) become lucrative**
- Culture in a *broad sense*: social and scientific [Draganescu]

Human Factor

- Increase of the life duration & ageing of the active population [P. Drucker]
 - Activity up to the age of 70
 - Decline of the model “one job & work: from 8 hrs. to 18 hrs.”
 - Changing job several times during lifetime
- Change in knowledge dissemination: corporate training gains ground
- Increased mobility
- Multicultural societies and “networked” people
- Attenuation of loyalty towards the company
- Personnel fluctuations
- *New capitalists*: owners of advanced knowledge

E-Society

- **Advantages**

- More effective time usage
- Facilitation of communication between people placed in different contexts
- More comfortable work conditions
- Good ecological impact

- **Debatable impacts**

- Uniformization of human behaviour
- Limiting direct human contacts
- Laziness tendencies
- High risks of manipulation
- Functional opacity
- High vulnerability of private life

A Question

- Is there a change in the paradigm of European behavior based on individualism?
 - Is the bus replacing the automobile ?
 - Again centralization of computer power ??
 - Individual user vs “Networked“ user
 - PC vs “Thin client“ ?

Forerunners of Digital Library (I)

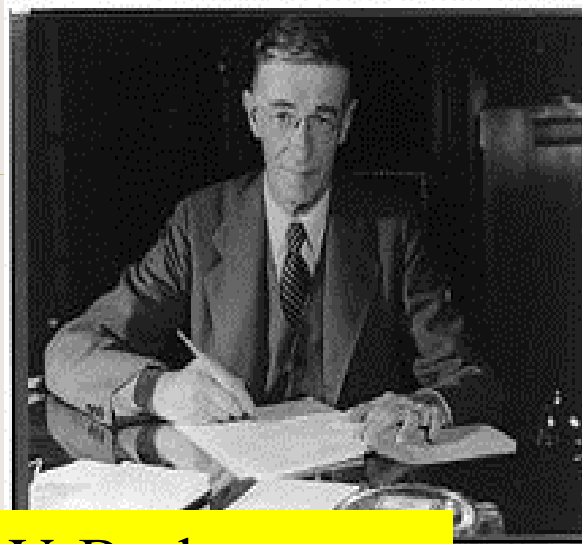
- H. G. Wells “World Brain” (1937)”...to create a sort of mental clearing house for the mind, a depot where knowledge and ideas are received, sorted, summarized digested, clarified and compared, accessible to everybody" and reproduced "exactly and fully", in a distributed fashion "in several locations all over the world".

Forerunners of DL (II)

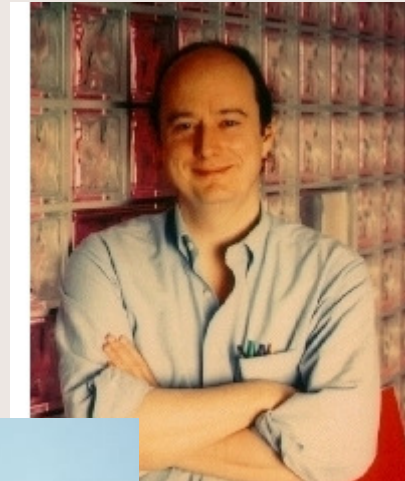
- Vannevar Bush (1945): "Memex", a system for creating and retrieving information based on microfilm technology and the analogy with the way the humans make associations
- J.C. R. Licklider (1965): "Libraries of the Future"
- Clifford Linch : "Where Do We Go from Here? The Next Decade for Digital Libraries"
- R. Kan & V. Cerf : "The Digital Library Project; volume 1; the World of Knowbots"



H. G. Wells



V. Bush



C. Linch



8/2 J. C. Licklider



F. G. Rupp V. Cerf

Evolutions: Early Times

- The academic world :
 - an attempt to democratize the access to knowledge
 - an effort for preservation of the original cultural goods
- Business sector: “ *For Europe cultural goods are similar to what oil means to Arab countries*” (De Michelis, EVA Conference , Florence, 1996)
- Government initiatives
 - NSF/DARP/NAS Research in Digital Libraries
 - Bangemann Report & Content Industry (1996).
 - G7 Pilot projects: #3”Education and learning in the Global Information Society”, #4”Electronic Library”

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Subsequent Evolutions: Initiatives

- DARPA/LOC/NASA/NEH “Digital Libraries II”(1998)
- EU Initiatives:
 - *e-Europe* (Fereira, 2000)
 - *e-Europe* + (2005):
 - “to stimulate the development and dissemination of the digital content; to support the exploitation of the information to be found in the public and private sectors; to set up European collections of key data bases”
 - “to facilitate the access to the digitized cultural heritage”
 - i 2010 (2005), FP7 (challenge 5)

European Digital Library Initiative-DLI

“The technology enables us to find and work with information in many forms. Information about Leonardo da Vinci can exist in the form of his work, books about him, documents with drawings, films, etc. in different Member States. The challenge is to create a European Digital Library that combines these sources “

http://ec.europa.eu/information_society/activities/digital_libraries/index_en.htm

DLI

- “The initiative aims at making Europe's diverse **cultural and scientific heritage** (books, films, maps, photographs, music, etc.) easier and more interesting to use online for work, leisure and/or study. It builds on Europe's rich heritage combining multicultural and multilingual environments with technological advances and new business models.
- It consists of two strands:
 - **Cultural heritage**: to build a **common European Digital Library** which would serve as a multilingual internet access point to cultural collections from all Member States. ([Communication](#) “i2010: Digital Libraries”, September 30, 2005).
 - **Scientific heritage**: to ensure current and future access for research and innovation purposes. ([Communication on access to scientific information in the digital age](#) (14 February 2007)).

DL Federation: Definition

- "DL are organizations that provide the resources including the specialized staff to select, structure, offer intellectual access to interpret, distribute, preserve the integrity and ensure the persistence over time of collections of digital works, so that they are readily and economically available for use by a defined community or set of communities"

• <http://www.diglib.org/about/dldefinition.htm>

Recent Evolutions: Public-Private Partnerships

- Virtual Library "Miguel de Cervantes"
- Bibliothèque Nationale de France – French publishers partnership
- British Library – Thomson Gale Partnership around "Historical Newspapers"
- University of Michigan - Google
- The case of Broadcast and Audiovisual Archives: Ina's experience
- The Canada Project: Library and Archives Canada
- Open Content Alliance

http://ec.europa.eu/information_society/activities/digital_libraries/index_en.htm

Recent Evolutions: New Concepts:

- Librarians “sans frontières”
- Library 2.0 [M. Casey, 2005]
 - Reader centric & Technology is of a secondary importance
 - Analogy with “web 2.0”
- Digital convergencies [Culture in the Digital Age:
http://ec.europa.eu/information_society/tl/soccul/cult/index_en.htm]
- Setting up Digital Library (DL) Federation
<http://www.diglib.org>

Recent Evolutions: Several European Projects and Networks

- eContentplus Programme (2005-2008) => ICT-PSP(“Policy Support Programme”), a part of IST CIP(Communications Technologies Policy Support Programme 2007-2013).
- Europeana <http://www.europeana.eu/portal/>
- MinervaEC: a Thematic Network in the area of cultural, scientific information and scholarly content <http://www.minervaeurope.org/about/minervaec.htm>
- ATHENA (<http://www.athenaeurope.org/>) and ATHENA PLUS
- DC-NET: Digital Cultural heritage NET <http://www.dc-net.org/>
- MICHAEL –Multilingual Inventory of cultural heritage in Europe <http://www.michael-culture.org/>
- Dacoromanica–biblioteca digitala a Romaniei <http://www.dacoromanica.ro/detalii-articol.aspx?articleId=637>

Four Generations in DL Evolution

- **G#1:** the traditional library
- **G#2:** computerisation of the library system
 - Manual card system becomes digital;
 - Collections are indexed and searched via library software
 - OPAC: On-line Public Access Catalogue software
 - ANSI/ISO Z39.50 for access to distributed and heterogeneous resources via a standard interface (1995)
- **G#3:** resources go digital
 - New roles : a) data-providers –to create and collect data sets for well defined user classes, b) data consumers, c) data managers (librarians)
- **G#4 :** enables indexing and retrieval of resources beyond alphanumeric data (video, audio, multimedia..) [Teng et al , p. 362]

What DL and Virtual Museums Can Do

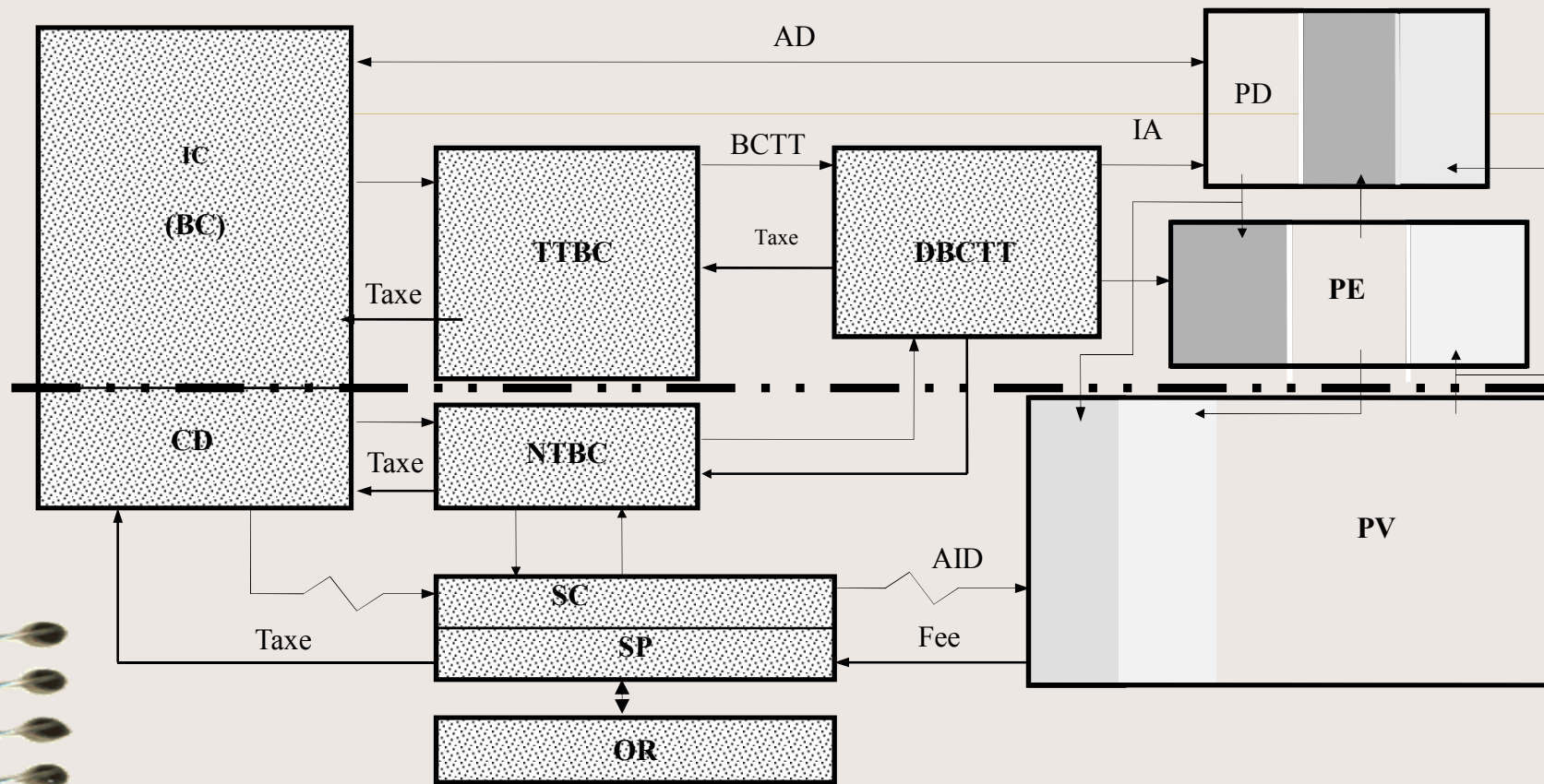
- Display virtual objects in case there is not enough space for physical objects;
- Enable setting up large collections of digital copies of the objects placed in different locations
- Ensure an “any-time”, “any place” access;
- Can stimulate the interest for the genuine culture and for visiting actual cultural institutions;
- Create the premises for preservation of rare and high value cultural objects;
- Minimize the displaying costs (Filip, 1996).

What DL and Virtual Museum Cannot Do

- You cannot touch and feel the scent of a rare book or choose the place from which admire a painting or a carving;
- One cannot share the same emotion with the visitors /readers in the same hall/reading room;
- You can be easily manipulated through the selection of the objects and /or by visual effects on the screen;
- Are sensitive to fast change of the technology for storing digital objects.

Convergences

- **Interacting factors:**
 - Cultural institutions (IC), holders of cultural goods (BC): libraries, museums, archives;
 - Traditional and new transformers of the cultural goods (TTBC and NTBC), which produce albums, films, CD ROM...
 - Distributers of transformed cultural goods (BCT): bookshops, kiosks
 - Service providers (SP)
 - Governments
- **Impact on several domains**
 - Education (more attractive and effective)
 - Tourism (more diversified services offered)
 - Direct electronic commerce [of digital content]
 - Appliance industry.....



LEGEND. IC-cultural institution; PD- direct visitors; BC-: AD-direct access;; IA -indirect access; CD-digital content; PE-extended number of visitors; SC- server of content; AID-remote indirect access; TTBC- traditional transformers of BC; PV: number of virtual visitors; BCTT-traditionally transformed BC; NTBC-new transformers of BC; DBCTT-distributors of DCTT; FS-service providers; OR- network operators

$$x_1(k+1) = \sum_{\tau=1}^{\theta_{11}} a_{11}^{\tau} x_1(k-\tau) + \sum_{\tau=0}^{\theta_{12}} a_{12} x_2(k-\tau) + \sum_{\tau=1}^{\theta_{13}} a_{13}^{\tau} x_3(k-\tau) + w_1(k)$$

$$x_2(k+1) = \sum_{\tau=0}^{\theta_{21}} a_{21}^{\tau} x_1(k-\tau) + \sum_{\tau=1}^{\omega_{21}} b_{21}^{\tau} u_1(k-\tau) + w_2(k)$$

$$x_3(k+1) = a_{31}x_1(k) + a_{32}x_2(k) + w_3(k)$$

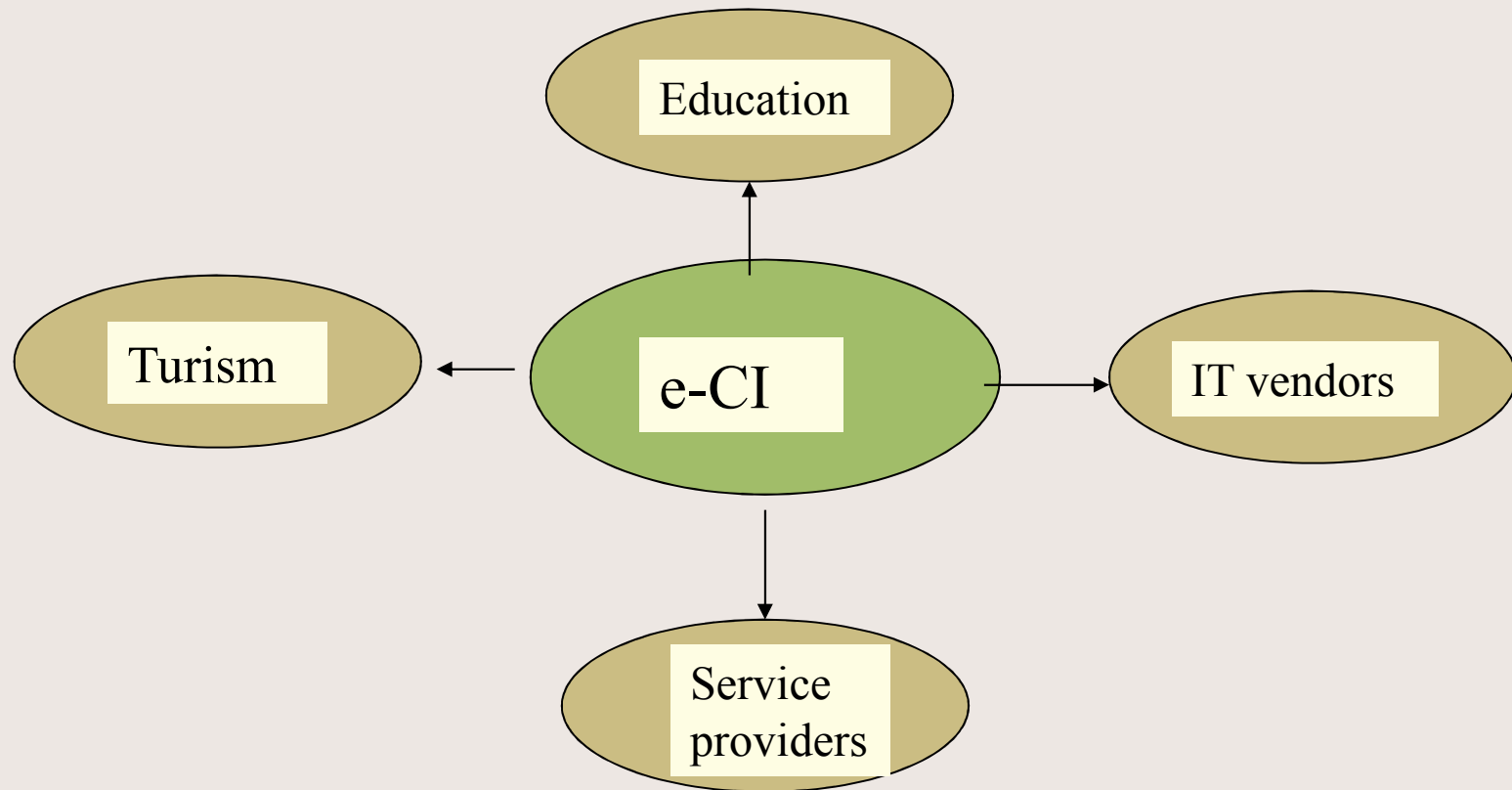
$$x_4(k+1) = a_{42}x_2(k) - u_1(k)$$

Legend: k – month; x_1 – number of direct visitors; x_2 – number of buyers of de BCTT; x_3 – monthly income of IC; x_4 – monthly profit of TTBC; u_1 – production cost of BCTT; a_{11} – proportion of those who visit the IC again; a_{12} – proportion of buyers of BCTT which are stimulated to visit the IC again; a_{13} – proportion of IC income spent to improve the quality of cultural services; a_{21} – proportion of direct visitors who buy BCTT as souvenirs; b_{21} – the influence of the new editions of BCTT on BCTT sales; a_{31} – visit fee; a_{32} – royalties; a_{42} – mean price of BCTT; w – season influence.

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Influences



Legend: e-CI = e-Cultural Institutions

Concluding Remarks

- Virtual access to cultural goods can add a touch of humanism meant to counterbalance the effects of uniformisation and depersonalization induced by e-activities and globalization;
- Improving access and valorizing the cultural heritage are already under way by using new ITC technologies and tools ;
- A fair collaboration of various factors is necessary; so far the effort is mostly financially supported by public authorities;
- New Business models are needed !!!

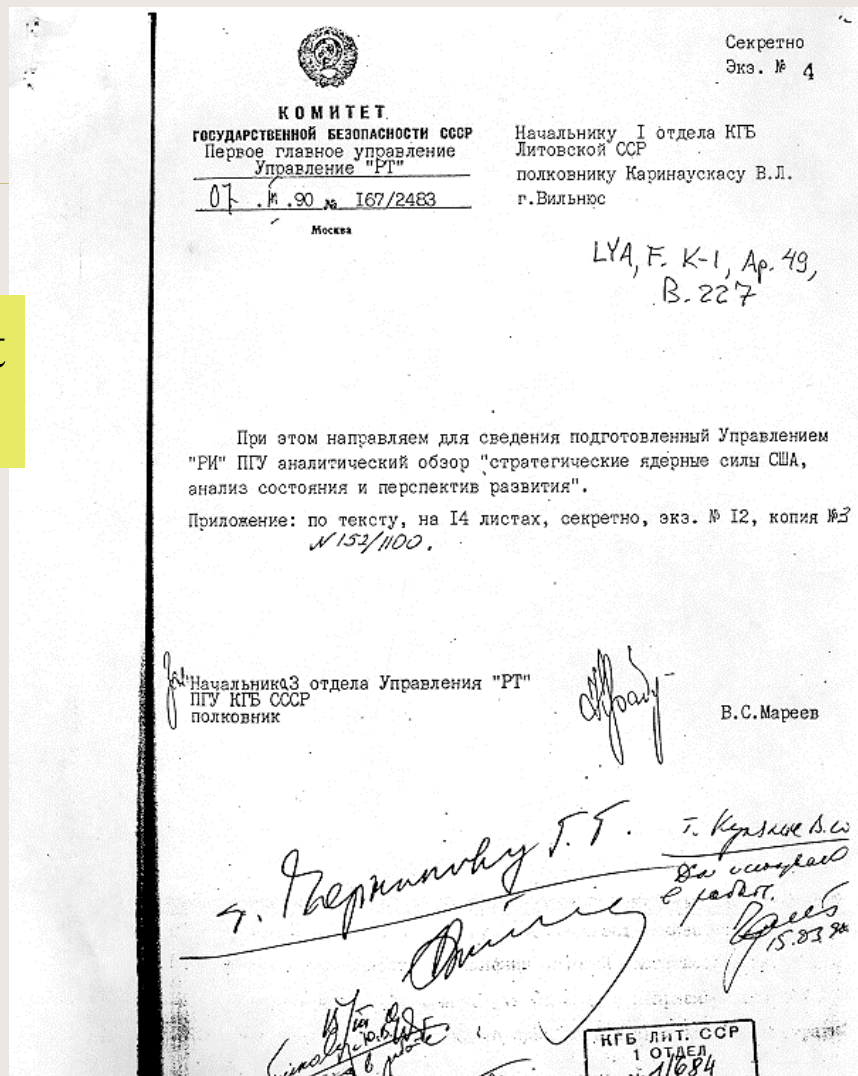
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- E-Culture : a newsletter on cultural content and digital heritage(ftp://ftp.cordis.europa.eu/pub/ist/docs/digicult/newsletter_8_01.pdf)

KGB Archives at Harvard Univ.



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Bibles-British Library (BL)



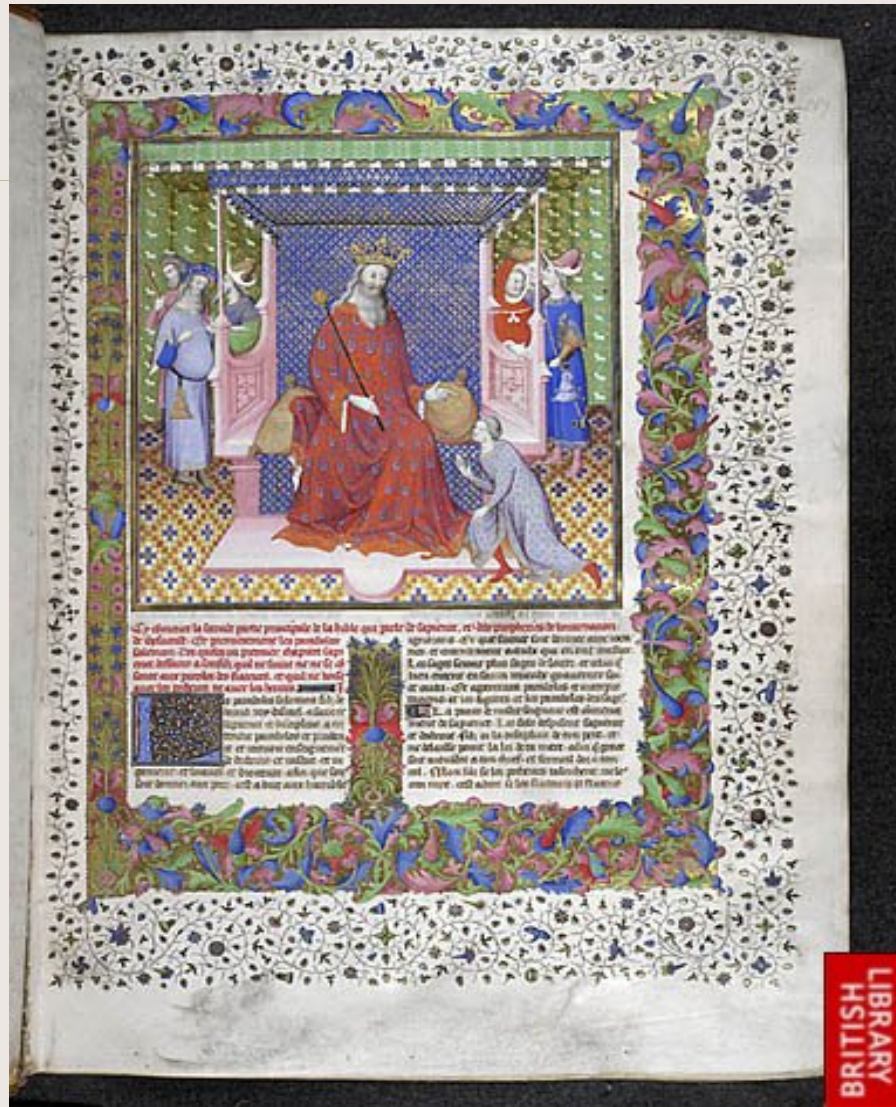
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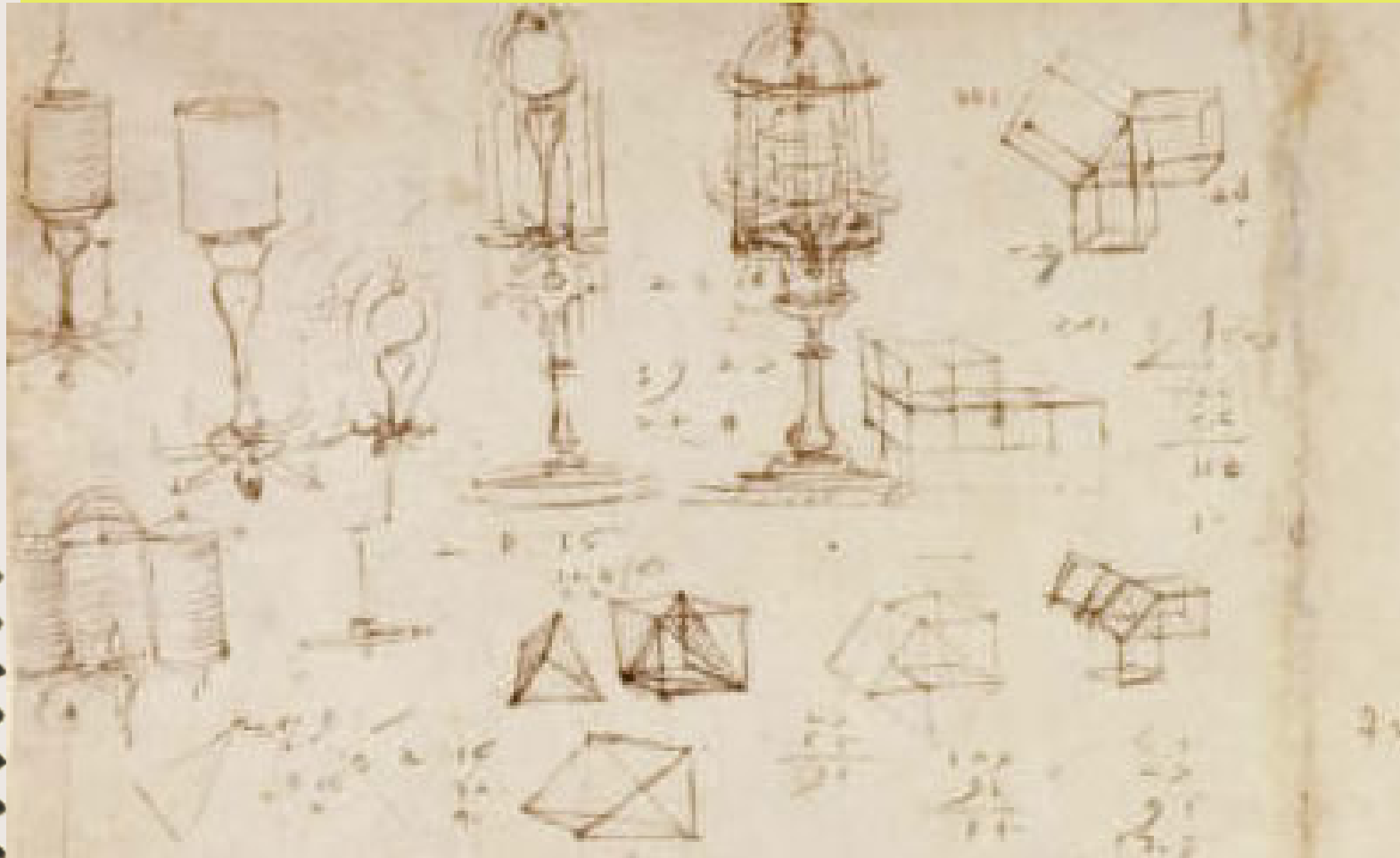


LIBRARY
HSLIBRB

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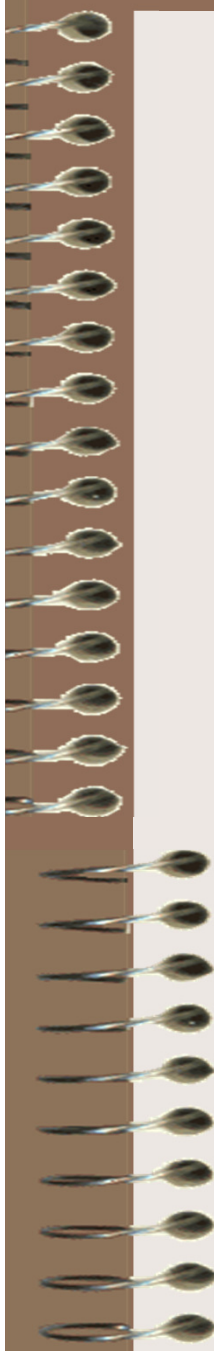
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Drawings by Leonardo (BL)



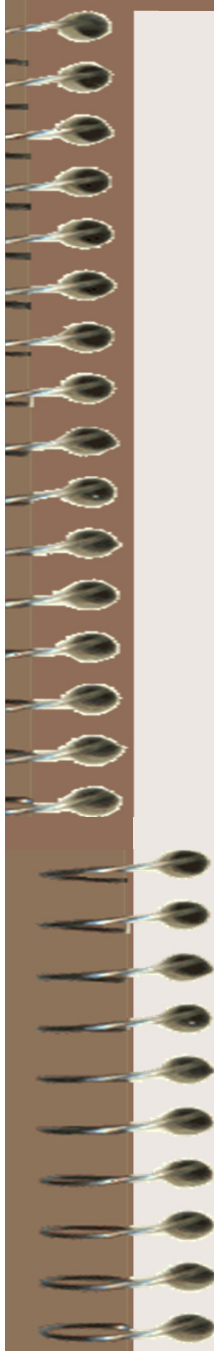
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The Library of the Romanian Academy (I): General Info.

- ***Founded*** on August the 6th, 1867, one year after the foundation of the Romanian Academic Society,
- ***Mission*** : gathering and preserving the national fund of manuscripts and printed documents illustrating the Romanian and universal history, culture, and civilization,
- ***Characteristic feature*** :
 - An encyclopaedic library (model: BNF);
 - Beneficiary of the Legal Deposit since 1885,
 - Legal Status : a national library



The Library of the Romanian Academy (II): the Collections

-
- *BAR shelters over 14 million library units*
 - 10,000 volumes of manuscripts, over 500,000 correspondence and archive records,
 - 138,000 engravings and drawings,
 - about 300,000 photographs,
 - 53,112 cartographic documents,
 - 190,000 coins, medals, and engraved stones , and 40,000 stamps,
 - 55, 000 musical scores, 20,775 AV items,
 - 5,3 million monographs
 - almost 7 million serials

The Library of the Romanian Academy (III): The New Building



The Library of the Romanian Academy (IV):

- The Library in the *Information Society* era
Access facilitated for everybody, from any place of the world, at any time since 1992 through the website (www.biblacad.ro) ;
The most recent projects are
 1. „Europeana Libraries” (<http://www.europeana-libraries.eu/>)
 2. “ ATHENA PLUS” (starting in 2013)

Several images from the website of the Library follow

Images from Roumanian Academy Library



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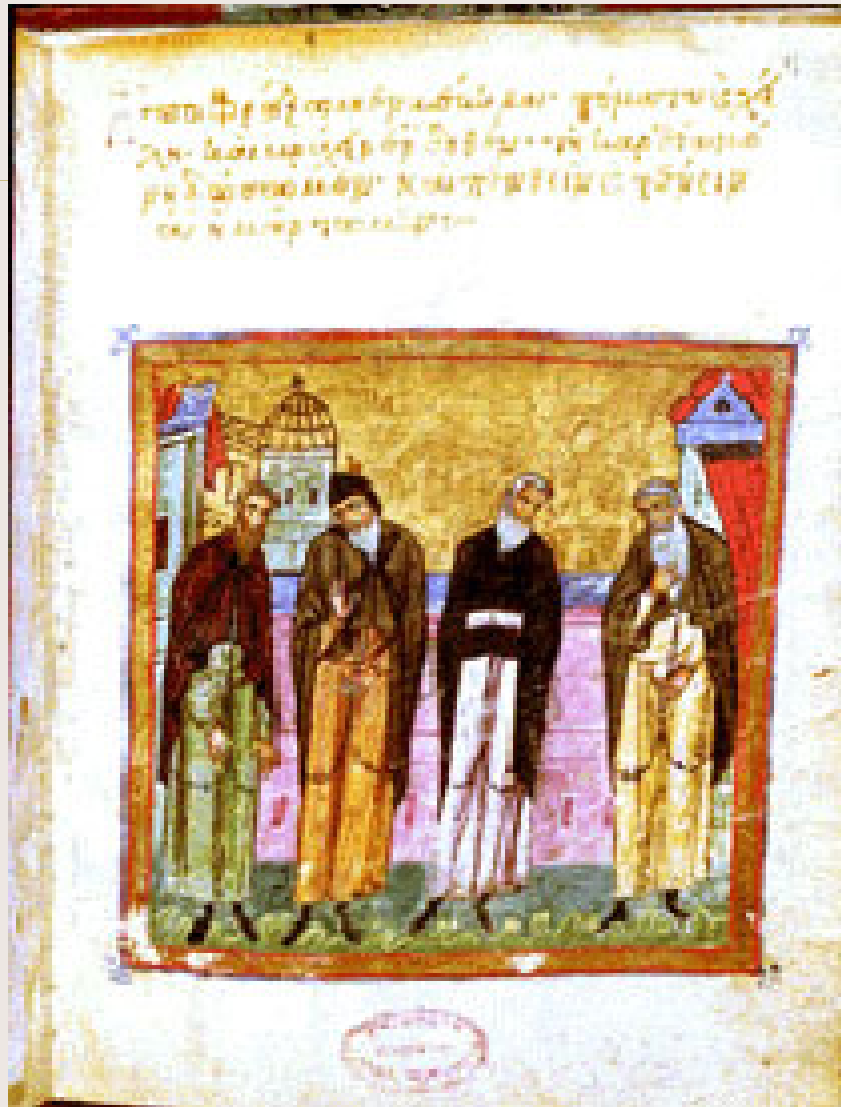
Ortelius' Map Book (14th century)



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Canon of
Penitence
after John
Sinaites
(12th
century)



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G.
Enescu's
score



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G. Rossini's score

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Legendă Vespertină

El se născu în 'a paroli
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M. Eminescu's Legend of the Evening Star

8/25

Filip

V. Hugo

Staurville hoar —
20 avril
J'ai lu, cher père, avec émotion
et reconnaissance, vos deux articles
sur les Travailleurs de la mer,
deux courts pages, mais bien pleins
et bien profonds. Vous êtes un
critique paragon d'un très grand artiste.
De là ce haut sentiment de l'idéal
qui caractérise et illumine toute
la genèse de votre œuvre. Vous êtes en
de compte parmi les philosophes
de l'art. Je suis en désaccord avec
vous sur quelques points, mais
qu'importe. Par la racine avec vous
soudés, par le fruit nous le différencions,
je suis comme vous un français
prou. J'ai comme vous la resplen-
dissante intuition de l'origine,
toute en acceptant le bon sens
de la septième. Cette œuvre est autre
bonne œuvre dans l'art moderne,
la simplicité son originalité profonde
d'être connue, à travers son grand caractère
développé et sonne par la résurrection

130
CXLVII
sans l'œil antique sans mission
la forme moderne: les choses, et
bien d'autres, dans la compréhension
et dans la ditte comme dans les
compréhension, admirablement, mais
est bien bon de romme comme
vos maîtres deux ou trois critiques
qui s'agiraient beaucoup à se faire
des créations. Enseignez-les, je le
peux, l'idéal. La critique, comme
la poésie, qui n'a pas le sentiment
ou l'idéal n'a pas le sentiment
du réel. quand vous en faites la
seule-elle comprend? En
attention, continuez, faites de
bons poèmes, songez de haute,
lisez, l'esthétique de l'art,
soyez un génie de ceux qui ont
habitué esprit.
Je suis avec moi plus cordialement
Shaké-hani.
Victor Hugo
Ou en être. Dans un M. Lacroix
c'est le bon sens de l'art et de l'art
du mouvement intellectuel de 1860

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A. Dürer



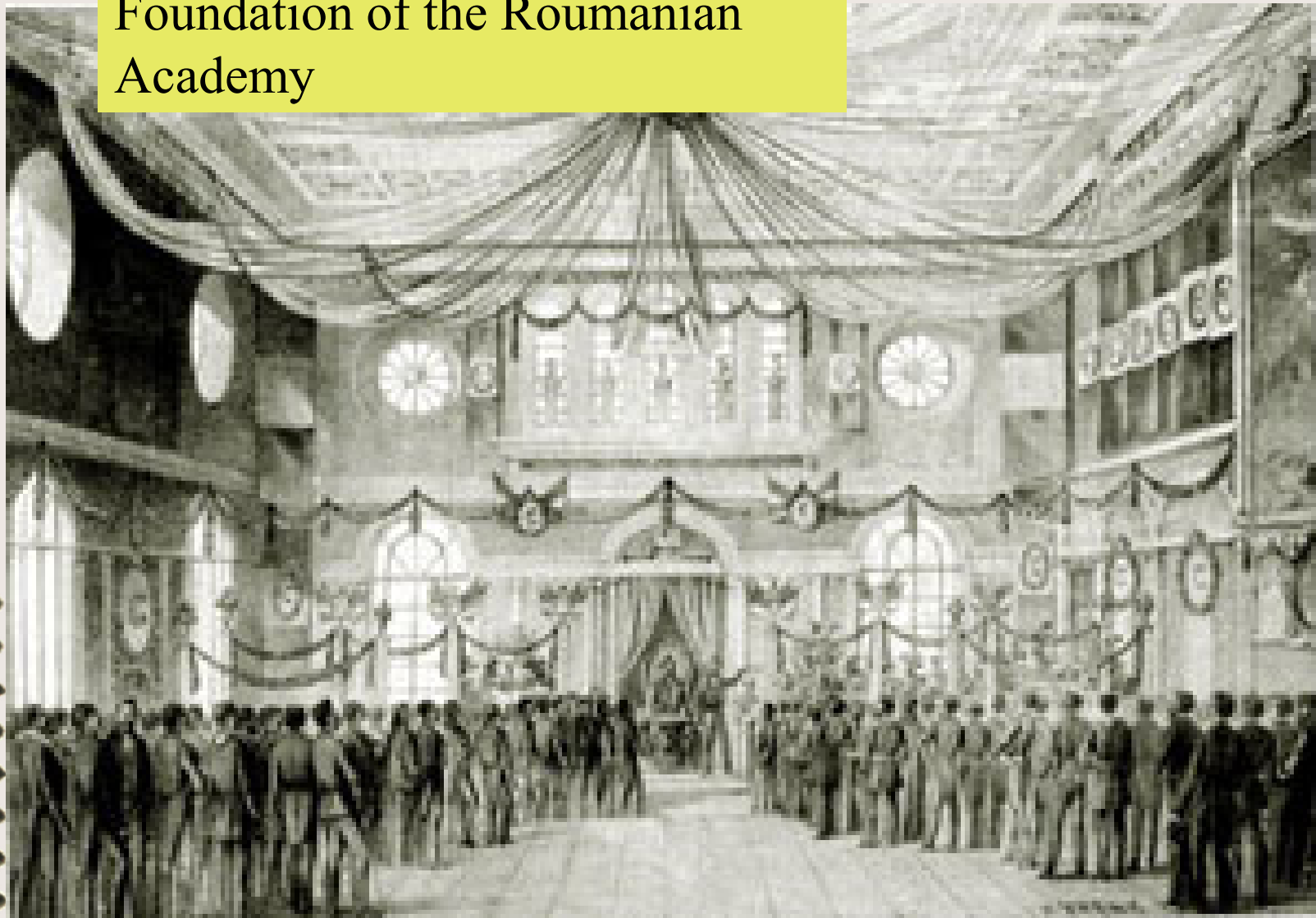
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Pablo Picasso : Lola



Foundation of the Roumanian Academy



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Bucharest
1930



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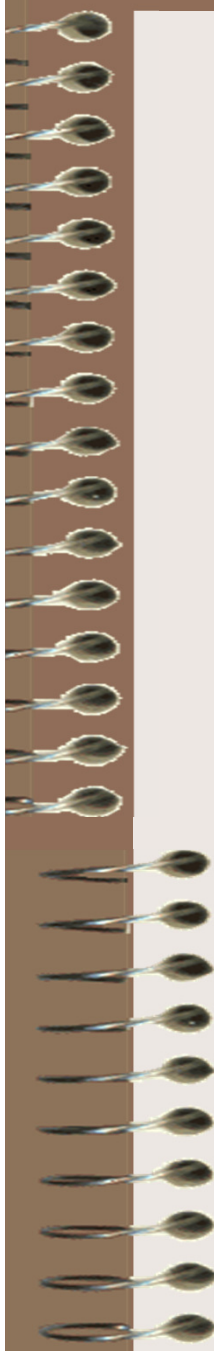
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UNIFICATION

- Techies,
- Mind your prescriptions for the world.
- Humies,
- Tone down your fears for techno-change.
- Step outside your precious castles
- Look within before the split
- Fill the space that makes you whole
- Enjoy the sunset
- And the wheel.

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- 
- Argue from logic
 - And emotion.
 - Technology is humanity's child
 - As is your quest for human purpose.
 - To love them is to love ourselves.
 - There are no differences .
 - Only labels.

Michael Dertouzos

What It Will Be. How the New World of Information
Will Change Our Lives (1997)

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Thank you for your attention

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