The Citizens' Europe: the challenges of gaining access to and preserving culture.

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0. Introduction

Access to culture by citizens has been one of the most remarkable democratic conquests of the 20th century. Activities, institutions and products whose use was limited to a selected minority have spread to the population as a whole. This is one of the defining elements of modernity and of the new forms of collective communication introduced after World War II. The movement to disseminate and stimulate cultural participation had been in place through intensive measures to eradicate illiteracy and to spread schooling. However, what is really innovative is the fact that culture starts being part of governments' official policies and it becomes an inalienable right of all citizens, like the rest of the rights considered as fundamental. They develop policies that essentially promote access to all cultural benefits and services, through a distributive policiy based on the principles of equality and social need. Public action is based on the elimination of a collective historical deficit and on the reduction of cultural inequalities. The creation of the first Ministries of Culture is no coincidence. They are associated to the emergence and consolidation of important technological changes in communication systems, particularly the birth of television, which represents, after the invention of the printing press, the first revolution, structurally speaking, of the means of production and the distribution of messages. Culture migrates from the periphery to the centre of social values, bringing about what Lamo de Espinosa has called Culture Societies (Lamo, 1996). Culture, its agents and its products, becomes the symptom, the diagnosis and the fruit of the changes experienced by society since then.

Culture represents one of the main values to face the challenges of modernity , by multiplying its channels of expression and spreading its extent to all sorts of fruits of human creativity. Its central role in the sphere of the symbolic capital of groups and individuals will acquire a territorial dimension: it becomes an essential element of national, regional or local identities and it becomes increasingly important as an element of social integration. All these characteristics are embodied in the strong economic dimension of an increasingly thriving productive sector, linked to a society where leisure and cultural consumption are inseparably intertwined. Cultural industries represent an outstanding economic segment for some economies, both for domestic use and for exports. The concentration trends associated with them and the intrinsic colonising and absorbing characteristic of their development, particularly in the film industry, have been considered as a threat to cultural diversity of certain countries or territories which, unable to combat the strength and power of the big communication trusts, have introduced protectionist policies to preserve indigenous artistic creations. This is one example of the enormous development of an activity which was limited in the past to minority and elitist social circles and that has become a field of general and intensive involvement.

In the past 40 years, a majority of European population has achieved a considerable level of knowledge, due, above all, to the efforts made by public institutions to spread cultural practices to the society as a whole and to improve educational systems. Nevertheless, this does not mean that these objectives have been achieved. On the contrary, we can see several

phenomena which follow trends against these democratizing processes. First of all, States' action has been decreasing little by little due to the reduction of public cultural expenditure in their budgets. They encourage investments in immediate-yield policies instead of creating infrastructures. Secondly, information technologies ever more complex and sophisticated have increased the gap between "cultivated" people and those who have structurally precarious levels, without access to or use of new devices and products. In this sense, the digital gap, brought about by Internet and its related communication systems, increases both internally and externally. As a result of all this, culture is becoming an essentially economic space which, in a world where international relations are defined at a global scale, is subject to the concentration and internationalization trends like any other commodity. The meeting of the World Trade Organization and its directive on... goes in this direction.

In this context, the problem faced by the citizens' Europe and by European citizens has two dimensions. Firstly, to confront homogenization and also acculturation processes, developed by the internationalization and globalization brought about by information and communication technologies, through intrinsic elements and distinctive features that can be opposed to those that arrive from outside. In this context, the initiative to create a European search engine to break Google's hegemony, the creation of a European Digital Library or the adoption of the domain "eu" for the Union's web pages are measures in the right direction.

But ensuring access to your own cultural heritage, and to that of the others, has no sense unless heritage preservation policies are developed. The fruits of creation and multifaceted activity represent the cultural and historical memory of nations and are the legacy that present generations bequeath future generations. It is so much so that culture cannot be understood without this double dimension: synchronic and diachronic. Discourse, creative, intellectual and cultural systems only make sense when they are seen, read, listened to and subject to consultation by citizens of today and tomorrow, when they form a legacy that allows them to examine a tradition or test a form and its variations.

1. Preservation of cultural heritage

All societies through history have designed methods to ensure the preservation of their records, particularly when these increased considerable and it made it increasingly difficult to identify and control them. With different names, rules appear since the 17th century, but above all in the 20th, that compel different people involved in the communication process, and particularly publishers and printers, to deposit a number of copies of any published work. These provisiones are the principal means to ensure the preservation of books and documents production in any country.

Problems arise when there are discrepancies between the rules and the documental reality they are supposed to reflect. These discrepancies brought with them the succesive adjustments between legislation and the documents' environment every time a new medium is developed (CORDÓN, 1997, 2002). The French example can illustrate this. When the Legal Deposit is created in 1537 by the Montpellier Ordinance, it only refers to printed books. In 1672 it also covers engravings and pictures, in 1745 to printed music, and the great change in 1925, encompasses photographic, cinematographic and sound documents. The 1943 law includes any type of works, and it is completed in 1975 by a decree applicable to audiovisual and multimedia documents. In 1992, databases, software, expert systems and other products of artificial intelligence are added. Now the discussion refers to whether electronic production, particularly the one that circulate via Internet, should also be included. This example shows that every step in the technical evolution of information media has been followed by its inclusion in the legal deposit sooner or later after its general use in society.

Therefore, it is logical that, since every country wishes to preserve its historical memory by preserving its documents' production, a special attention is paid to the core sources. No doubt, Internet is currently one of the main production and information systems. So national bibliographic control systems should give them the same level of response that they have been giving in the past to the different document and communication types that have been developed. The Declaration about the preservation of cultural digital heritage recently adopted by UNESCO General Conference (October 2003) has placed digital documents at the same level as those published in traditional media, stating the need to preserve them so as to keep them accessible through time. The UNESCO Declaration endorses an obvious need, that has been tackled in the past few years with different experiences and results. The results are consistent with two of the main problems posed by this new medium:

- Firstly, the extreme volatility of its contents. 70% of the Web pages last for less than three months. This feature in itself is a huge challenge for the institutions in charge of the legal deposit
- Secondly, even assuming the need to keep and preserve what we could call "digital memory", in Internet this poses a paradox, not to say an insoluble contradiction: on the one hand, there exists a completely deregulated information system, subject to very few control mechanisms, and on the other there is a series of State institutions whose legitimacy derives from law and whose aim is to establish a relevant and limited document basis.

In any case, awareness about our digital heritage is quite recent: it only goes bak to the last years of the 20th century, when initiatives such as Steve Baldwin with the Ghost Sites project, warn about the dangers of a huge documents' loss. Thanks to this initiative and other similar ones, the possibility of losing the digital heritage becomes clear. After Baldwin's

initiatives, numerous projects have been launched to preserve materials at risk of disappearing, such as: from videogames, with the Undergog site –a museum to preserve the memory of PC-videogames which were commercially discontinued- to the disappearance of software capable of reading formats no longer available. Hundreds of internauts hang on the Web obsolete software with its manuals, some from out-of- the- market manufacturers, which can be freely downloaded. Applications for photography, operating systems, etc. can be found. Even more important than this movement is the fact that in the last ten years different States have become "officially" aware of this problem

2. Some initiatives to preserve digital heritage.

The pioneering countries in recording Web materials were Canada and Australia. In 1994 the Canadian National Library launched the Electronic Publication Pilot Project (EPPP). The Australian Pandora project to collect electronic documents started in 1996. They have both opted for a documents' selective policy. The same year, the project kulturarw[3] was initiated in Sweden. The Kungl. Bibliotek gives regularly an image of the whole Swedish Web. In 2005, 12 snapshots were made, with 305 million files. In 1997, the first snapshot collected 6,8 million.

Sweep	Start	Stop	Files (million)	Gbytes
total			**305,85**	**9 895**
1	1997-03-24	1997-08-26	6,80	161
2	1997-09-25	1998-01-12	10,80	191
3	1998-04-02	1998-06-15	11,61	196
4	1998-08-25	1998-10-31	11,77	199
5	1998-12-22	1999-03-25	14,58	258
6	1999-07-09	1999-12-13	17,67	556
7	2000-03-23	2000-11-24	30,80	773
8	2001-05-02	2001-10-18	29,98	1 132
9	2001-11-28	2002-01-22	12,87	496
10	2002-08-07	2003-06-04	56,87	2 195
11	2003-06-18	2003-12-19	56,27	2 088
12	2004-09-07	2005-01-10	45,84	1 650

The type of extensions recorded shows the frequency of their occurrences.

Web sites

Sweep	Total	.se	.com	.org	.net	.edu	.nu	suecana	ip-addr	Others
1	15 675	15 675							109	97
2	26 411	21 947	3 576	400	476			10	96	645
3	33 596	26 342	5 464	618	720	3	506	16	141	5 692
4	49 650	28 747	7 902	837	1 043	8	11 069	44	222	3 663
5	52 514	32 325	11 290	1 024	1 450	14	6 857	54	241	5 822
6	67 106	38 061	12 474	1 152	1 681	21	13 615	102	263	7 081
7	87 600	48 528	19 700	1 908	2 535	38	14 811	80	275	8 932
8	125 595	56 598	41 949	6 484	5 279	53	15 152	80	324	7 206
9	100 736	60 928	23 626	5 045	2 889	39	8 148	61	194	3 497
10	136 752	70 341	38 987	3 683	4 860	37	18 751	93	288	12 615
11	135 708	76 948	26 516	3 047	3 334	43	25 664	146	277	12 615
12	232 603	151 045	39 109	4 418	5 770	47	32 056	158	276	32 520
totalt	**347 642**	**200 070**	**63 836**	**12 647**	**8 705**	**78**	**61 988**	**318**	**1 675**	**83 951**

As to the type of files it is also significant their frequencies distribution (see: http://www.kb.se/kw3/ENG/Statistics.htm)

Data quantity. Number of files (URL's) assorted by type
(thousands if not otherwise specified)

Sweep	text (million)	image (million)	audio	application	video	multipart	message	appl/x	Others	Type missing
totalt	166,8	126,6	1 737	9 263	452,7	118,7	2,32	25,99	76,79	762,9
1	4,81	1,75	44,6	170,6	2,74	0,352		1,51	1,71	8,70
2	6,60	3,76	99,1	312,2	5,34	0,668		2,82	2,89	15,20
3	7,28	3,83	91,6	370,1	5,25	0,372		1,53	1,73	3,28
4	6,92	4,38	89,1	349,6	6,68	0,470	0,007	2,51	3,86	1,76
5	7,16	6,91	134,6	335,5	14,69	0,285		2,94	5,19	1,30
6	9,14	7,83	118,1	561,1	10,52	0,582	0,011	1,48	2,50	2,73
7	17,00	12,47	223,8	952,4	19,76	14,68	0,144	6,25	13,88	4,90
8	15,94	12,66	195,8	1 019,0	20,36	24,56	0,166	5,70	15,64	4,95
9	6,47	5.65	58,2	572,4	10,93	17,26	0,050	0,105	2,67	27,78
10	31,41	22,88	309,4	1 869,6	35,35	22,10	1,083	0,691	9,29	77,44
11	28,16	25,90	243,8	1 701,6	32,30	28,08	516	0,238	12,10	98,20
12	25,89	18,59	129,6	1 048,9	288,8	9,33	0,344	0,218	5,33	135,2

In the Kulturarw3 collection more than 800 types of files are recorded. A majority of them are text and image files. The most frequent are Text/plain, Text/html, Text/html and apl./pdf. As regards images, those with gig and jpeg extensions are the most frequent ones.

In 1998, Denmark makes important amendments in its legislation with a view to include Web documents, although very selectively.
Similarly, the national libraries of Sweden, Norway, Finland, Denmark and Iceland have gone into partnership in the framework of Nordunet2, the Nordic Internet development programme. At the same time, the national libraries have gone into partnership in the Nordic Web Archive (NWA), a project aimed at sharing experiencies from participating countries in matters related to recording and preservation and at proposing a shared access to each country's files.

It is interesting to note the theoretical foundations of the project in order to understand its scope:
"It is obvious that currently, and increasingly in the future, a large and significant part of our culture will exist on the Internet only. If the traditional axiom of the Legal Deposit laws and other collection activity hold true it is therefore an absolute necessity to extend this concept to the Web of the Internet. If this is not addressed now, an important part of our culture, together with most documentation of the cultural change involved, will be lost. It is therefore proposed that through the Nordic National Libraries' joint efforts on technology development, techniques and methods, the Web space of the Nordic countries shall be preserved for the future in an Archive to allow research and public access both today and for the generations to come. Access shall be based on technology wide spread among the users at the time of access." (HALLGRINSSON, 2003)

The United States have opted for a different approach. The Library of Congress is based on its cooperation with the non governmental organisation Internet Archive (http://www.archive.org/about/about.php#4). This NGO works thanks to the subsidies from big specialized companies sucha as IBM or Alexa, a branch of Amazon, international public funds and private donations. In the statement of purpose of its founding manifesto, it says that one of its aims is to preserve Internet materials for futre uses.

France, even if it was a pioneer in introducing new technologies in its Legal Deposit legislation, has not adopted similar initiatives as refers Web resources. Several commissions have been working since 1998 to try and reach the necessary technical solutions to adapt on-line resources to the Legal Deposit legislation, but this effort has not been translated into an amendment of current legislation. The Council of Ministers adopted draft legislation on June 13th, 2001 on information society, but the change of government in 2002 has slowed down the process. This does not mean that interesting theoretical contributions have not been made on the conditions required to carry out that change (BEAUDIQUEZ, 2003).

Italy and the United Kingdom are recent cases. Italy approves new Legal Deposit legislation on April 27th, 2004.
In article 1, it provides that, "in order to preserve the memory of Italian cultura and social life, it will be compulsory to proceed to legal deposit with all documents aimed at public use and accessible through reading, listening or viewing, irrespective of the technical process of their production, publication or dissemination..." [our own translation]
Besides, it provides that the aim of the legal deposit is to establish the national and regional archive of publishers' production, as well as to fulfil the objectives of the national bibliographic information service and to give access to documents subject to legal deposit. According to paragraph 3 of article one, those documents shoudl be produced totally or partially in Italy, be offered for sale or distributed and they should not be limited to an exclusively private dissemination.

In the United Kingdom, there is interim legislation from October 2003 (The legal Deposit Libraries Act 2003), in which revision is being made of the procurement processes of materials which are not included in previous legal deposit regulations. At present, electronic materials are being deposited only on a voluntary basis.

The main problem we encounter in all these reflections and experiences regarding the preservation of on-line materials is the magnitude of the technical and human resources required for such an endeavour. Besides the huge amount of documents involved, the innovative nature of media and of their peculiarities requires the establishment of a new document processing chain. How can the collection of those documentes be organised? How can long-term storage and availability of those documentes to the public be ensured? What documents should be kept? As Beaudiquez says, if universal bibliographic control is based on the principle of national responsibility in matters of collection and description, how can that nationality principle be transferred from Internet, where dissemination has no borders and where the country domains do not represent all the resources originated in the country? How to respond to the exhaustivity principle, equally prescriptive in the CBU framework? In a National Library of Australia Report (National Library of Australia, 2003), other aspects for an urgent solution to preserve digital documents are mentioned:

- Copyright
- Preservation requirements
- Public access
- Scope of the coverage
- Collection system
- Protection of publishers' rights
- Implementation of legal revisions

3. From analogue to digital: a leap into the void?

The premise to be considered from the outset when tackling the issue of preserving electronic publications is that, due to their great variety, we face a reality that requires an totally different interpretive approach from the one we apply to conventional media. A great deal of circulating materials are not produced to be published but simply to communicate. In the electronic environment, the notion of publication, although significant in the invisible or deep Web, is not as important as the notion of dissemination. There is a business segment which may be more or less interested in preservation –an easily identifiable group through the intellectual property register-, but in the majority of cases what we have is a series of individuals or associations which are not interested at all in the legal elements that can be applied to or required from the system. This is a system which by its nature is against any type of regulation. As a result, the idea of obligation should be perceived from the perspective of a voluntary basis, or from that of external collection or harvesting, as can be seen in the working document about the recent Italian legal deposit legislation: "*oggi le biblioteche nazionali indicano nell'harvesting-ossia nella racollta delle pagine web efecttuata tramite un software (crawler)- la modalita piu efficiente e sostenibile di deposito...in pratica chi pubblica siti web liberamente accesibili in rete no debe "depositare" absolutamente niente: sara el crawler gestito dall'instituzione depositaria che provvedera a "racogliere" el sito web*" (AIB, 2004).

The national basis of current legislations also contradicts the transnational nature of the Web. When States have been aware of the risk of losing a block of information and documents which is essential for their historical memory, they have applied the existing system to the new digital reality. The problem then is how to adapt a system designed for an analogue documental context to a digital one. The principle of territoriality clashes with the prevailing logic in Internet. The power and the innovation in Internet are based, inter alia, in a dynamism which comes from hypertext links, so that any search for information means surfing non-stop from one page to another. Millions of documents have no sense without the links they have. Preserving documents on a strictly national basis, disregarding the points of reference beyond the national borders, would mutilate their contents. That is why only a project of international scope can ensure the preservation of on-line resources. In this case, there is no use in extrapolating the National Bibliographic Control approach, whereby if every contry guarantees the bibliographic control of its domestic products we could arrive at a global bibliographic control. That system has not worked to full satisfaction –at least according to its original assumptions- even with conventional documents, with the exception of books, periodicals, maps, music and some other types of documents. Then it is unthinkable to apply that national approach to documents that circulate in the Web, unless –as it happens in Canada- it is applied to those which are extensions of printed publications or other traditional types of doucments.

The result of this evidence has been possibly the establishment in May 2004 of the International Internet Preservation Consortium, which is a consortium between important national libraries and Internet Archive. Its members are the National Library of France, the National Library of Florence, the Library of Congress, the British Library, the National Library of Australia and the National Library of Canada. The national libraries of Sweden, Finland, Norway, Denmark and Iceland contribute to the consortium with their experience of harvesting the national web space of the Nordic Web Archive.

The aim of this cosortium is to:

✍✍ Ensure the preservation of Internet contents from the whole world.
✍✍ Promote the development and the use of tools, techniques and standards devised for the establishments of international archives.
✍✍ And to support national libraries which Intend to take care of the Internet archive.

Besides we need to solve important legal problems derived from the link that exists between the principles of preservation and those of dissemination and access to the contents of registered documents.

At the time of harvesting there is a difference with traditional preservation, where there is a transfer of property over the medium without affecting the rights over the works as such. Preserving Web sites implies an action of reproduction in terms of copyright legislations. A waiver should be introduced regarding the exclusive rights or authors to authorise or prevent those actions. In this context, a provision in European Parliament Directive 2001/29/EC on harmonisation of certain aspects of authors' right and related rights in information society authorises Member States to provide an exception in the reproduction rights when the reprodcution action is carried out by libraries accessible to the public, education institutions, museums or achives which have no direct or indirect commercial or economic goals.

Besides, preserving Web documents entails a tranfer of contents to the servers which will host them. The tandem file format/associated software to be preserved has a date of expiry. In order to have permanent access to that content new associations will have to be created. Those new reproduction actions will also have to be explicitly authorised. For example, article 30.1 of the 1999 Canadian copyright Act allows the reproduction by a library on a different medium when the original is outdated or when it requires a technical solution which is not available. Similarly the 1998 Digital Millenium Copyright Act authorises the production of three copies if the existing medium in which the work has been stored has become obsolete (GAME, 2004). So it should be provided that an author cannot prevent repository bodies from reproducing a work which is necessary for preservation or reference purposes.
Obviously, preservation is one thing and communication related to the reference sought is something different.

Article 5.3.n in 2001 Directive authorises Member States to provide an exception to the right of reproduction and communication to the public, when the use, either by communication or by availability, and with the aims of search or research, through specialised terminals and in the premises provided in par. 2.c., is referred to works and other protected objects which are part of their collections and are not subject to conditions in matters of purchase or license. In a certain way, there is a contradiction between the fact of allowing all the necessary means for the harvesting and preservation of the Web and to force researches to go to the premises or repository libraries in order to look up the contents. But a wider communication would always require the previous authorisation by the right holders.

These are problems of a technical, legal and documental nature that can prove an insurmountable barrier to the aims of cultural democratisation, of public access to culture by

all citizens, through space, but also through time, and they materialise according to the evolution of developments. What matters in this situation is not property but access (Rifkin, 2004). It is a time when information technologies are altering the order of :

-discourse: break in the relation between types of objects –categories of texts- types of use and reading, revolution in three orders: reproduction techniques, media and uses, changes in intellectual categories, in perception and in gestures;

- properties: the ability to recognise the author's identity disappears, the text is no longer a singular creation, copyright blows in the air, as well as the sense of authorshp and the nature or soundness of texts; and

-reasons: reasoning is articulated openly and via relations, not in a linear or deductive mode, deep transformation of the building ability and of the modalities to prove the discourse of knowledge.

In this context, the access to culture by society, the shaping of a citizens' Europe needs to articulate its own systems to preserve culture, particularly in its digital aspect, which, in our present circumstances, is bound to become a huge black hole for future generations.

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