On-line cultural resources: Search for info	rmation on museums in Spain, France, Italy, Germany and the United Kingdom
hipertext.net	San Mille
links ا	Home Publication Alert Laboratory About us
 Versión española English version Home Number 5, May 2007 Metarepresentation Search engines 	On-line cultural resources: Search for information on museums in Spain, France, Italy, Germany and the United Kingdom Author: Ricard Monistrol Location in hierarchy: <u>Home</u> -> <u>Number 5, May 2007</u> -> Cultural Resouces URL of this page: http://www.hipertext.net/english/pag1024.htm Citation: Ricard Monistrol. <i>On-line cultural resources: Search for information on museums in</i> <i>Spain, France, Italy, Germany and the United Kingdom</i> [on line]. "Hipertext.net", num. 5, 2007. <http: www.hipertext.net=""> [Consulted: 10/05/2007]. ISSN 1695-5498</http:>
Internal Searc Healthcare Web	Sumario
□ Cultural	✓ 1. Introduction
Resouces	✓ 2. Methodology
□ Accessibility	
Number 4, May 2006	2.2. Positioning
Museums	2.3. Usability
Positioning Usability	
□ Health	\bigtriangledown 3.1. Positioning of the resources
Number 3, May 2005	
Text retrieval Visual elements	\bigtriangledown 4. Analysis of the resources
 Ontology 	
Thesaurus DigiDocMap	✓ 4.2. Germany and France
	✓ 4.3. Italy
XML Open source	✓ 4.4. United Kingdom
□ Alert	✓ 5. Conclusions
Laboratory About us	✓ 6. References
	7. Acknowledgments
	▲ 1. Introduction

The concept of *cultural tourism* is part of a new and relatively unexploited project (the idea first appeared in the seventies) that has been promoted by institutions such as ICOM (International Council of Museums) and UNESCO. According to UNESCO, the idea consists of directing tourism towards the knowledge of cultural diversity and thus raising cultural dialogue. All of this without forgetting that the development oftourist infrastructures should respect sustainability on an environmental level as well as in the use of energetic resources.

In this sense, one of the reasons, perhaps the main one, of cultural tourism is patrimony: either architectural, monumental, landscape, technical, artistic or archaeological... Therefore, it is necessary to keep in mind that the visit's aim should be based on evaluation, interpretation and diffusion. Only through this process, tourism as a platform for dialogue and exchange of values will be made possible. Nonetheless, there can not be accessible cultural patrimony if its conservation has not been promoted beforehand, just as ICOMOS affirms (International Council on Monuments and Sites).

But what are the suitable channels for promoting patrimony? Most certainly the media, travel agencies, tourism offices, consulates, but, *mainly the Internet* ... This last source is attracting a potential tourist public with cultural interests. Clear examples are the investments carried out in new technology by European tourist companies, just as Joan Mayans states. Nevertheless, the Web is not an element that is accessible to everyone.

It is more than evident that Web access is centralized in an area labelled as "western" (at least as a social-economic concept, not a geographical concept). For example, a study in 2005 carried out by Morgan Stanley regarding 1,000 million users reflected the following distribution of Internet users: 36% was located in the Asia – Pacific area, 24% in Europe and 23% in America.

Without any doubt, this total figure of virtual navigators will double in a few years, or even triple, according to some forecasts. We should not forget that in January of 2007 and according to the China Internet Network Information Centre, (CINIC), this huge country already accumulated 137 million users. However, as a contrast to the mentioned areas we find Africa. According to a study carried out by BMI - TechKnowledge, a South African market research company, in February of 2007, only 1% of African citizens had quality Internet access .

Certainly, Asia is a referent that is becoming more and more important within the Web business, without ignoring a parallel take off of its economy. This includes India, China and South Korea Their ever growing wealth per capita increases the number of people that enter the possible intercontinental travelling population with access to quality Internet. All this, without overlooking, but with relatively less importance, the European Union and America.

Likewise, as previously mentioned, any promotion needs publicity and dissemination. Although we may rely on travel agencies and tourism offices, the importance of the Internet is appreciated in the important investments that emblematic museums have made on an international level. For example the <u>Tate</u> <u>Museums Network</u> in the United Kingdom or the French <u>Louvre</u> ...

But... to what extent are the rest of the museums of the city, region or country known? In this sense we should suppose that the Ministries of Culture of countries with a strong cultural patrimony, such as Spain, France, Italy, Germany or the United Kingdom, possess the appropriate Web resources, with good usability and an outstanding positioning.

Or maybe not? This is precisely the reason for this analysis. To what extent are the online public resources on museums appropriate? Are they usable for a tourist whose only second language is English? Do they provide the appropriate information on the museums...?

△ 2. Methodology

△ 2.1. Scenario

For our analysis we outline a feasible scenario that consists of the elements that we shall point out next. In first place, we consider the characteristic profile of a user that uses the Web for cultural tourism purposes. This type of user, as we say, "traveller that practices cultural tourism," usually resides in geographical

environments that dispose of certain infrastructures of Internet access of a certain quality regarding band width.

Also, the profile of this type of tourist indicates that s/he resides relatively near international airport infrastructures. S/he is also accustomed to using the Web to find information and/or to shop. Their level of studies may be middle to upper and s/ he speaks English or can use the English language with certain ease. Also, s/he usually travels to other countries for vacations and is interested in cultural activities.

For this scenario, we suppose that the user is thinking about taking a trip to Europe and wants to know which museums s/he can visit in the countries that s/he plans to travel to, and for our analysis' purposes we will suppose these countries are:

- 1. Germany
- 2. Spain
- 3. France
- 4. Italy
- 5. United Kingdom

Besides knowing the type of museums the user will be able to visit, in our scenario, the user wants to know the following information:

- 1. Permanently accessible public resources
- 2. Schedule, price, museum thematic, geographical location, parking, possibility of public transportation for arrival, accessibility, guide service, telephone and contact e-mail, restaurant and shops.

With the purpose of finding the information on the Internet, the statistics of Web use show us that the user will normally use Google. We suppose that s/he decides to use particularly these key words (the search date is 13.03.2007):

- 1. Culture , plus the name of the country in English.
- 2. *Museums*, plus the name of the country in English.

In any case, through Google's language translation tools, s/he will use the same key words in each one of the native languages of the countries s/he decides to visit. Always keeping in mind that s/he only understands English:

- 1. Germany (kultur, museen, Deutschland)
- 2. Spain (Cultura, museos, España)
- 3. France (Culture, musées, France)
- 4. Italy (Culture, musei, Italia)
- 5. United Kingdom (Culture, museums, United Kingdom)

△ 2.2. Positioning

Once the key words are established, these will be introduced in Google's search engine (in this case we have used the version in Spanish). All the results shown as far as the third page will be taken in consideration and preferably the registered ones with domains from a country, government, Ministry or related with Culture and Museums. The causes of such positioning will not be analyzed. We will only keep in mind their position on the search engine's results page.

🛆 2.3. Usability

We will keep in mind the usability of the following analysis criteria (Marcos et al, Nielsen and Krug):

In the case of the resources, including directories, search engines or databases:

- 1. Navigation: easiness to get from the home/initial page to the resource.
- 2. Functionality: what the resource offers
- 3. The user's control: for example, what possibilities does the user have to interact with the results?
- 4. Language and content: can you change the language of the server? Is the function comprehensible?
- 5. Online help
- 6. System information: Are the different elements of the search process clearly indicated?
- 7. Accessibility: For example, is there any possibility to increase the size of the font or to present the results in text format?
- 8. Clear presentation of the results: are the results clearly identified? Is access to further information offered?
- 9. Quality of the information of the resources based on the different necessities: Do the results adjust to the information requirements of the profiled user?
- 10. Coherence: Is the same design criteria (colours, disposition of elements, etc.) maintained throughout the entire search process?

△ 3. Results of the search

△ 3.1. Positioning of the resources

The search of resources, by means of key words, was carried out on 13.03.2007. According to that, we sought to identify public resources that through their connection with the specific cultural area or directly, offered search resources or museum directories.

Spain:

1. *Cultura España* : In first place we find Spain's Ministry of Culture website: <u>http://www.mcu.es</u>

- 1. *Culture Spain* : It is strange to find Spain's Ministry of Education and Science in first place. The English version of the Ministry of Culture's website appears in the sixth position.
- Museos España : In first place we find a museum resource called "Virtual Library: Museums en España": <u>http://vlmp.museophile.org/spain.html</u>, bilingual and with support of the ICOM. In second place the museums webpage of the Ministry of Culture: <u>http://www.mcu.es/museos/</u>
- 3. *Museums Spain* : In first place we find the previously mentioned resource "Virtual Library." No public or official institution appears until the 11 th position: SEGITUR, the State Society of Tourist Information Administration: <u>http://www.spain.info/TourSpain/Arte+i+Cultura/Museos /? Language=en</u>

Germany:

- Kultur Deutschland : In second place we find the official page of German Culture, with an exception, it is only presented in German: <u>http://www. kulturportal-deutschland.de</u>. Although in third position, yet another public site appears on culture in different languages: <u>http://www.deutschland.de/ hauptrubrik.php?lang=1&categori1=1</u>.
- 2. Culture Germany: It is interesting that with these key words, until the eleventh position a public organism doesn't come out. Even though in this case, the entity is the Library of Congress of the USA: <u>http://www.loc.gov/rr/international/european/germani/resources/de-culture.html</u>. A little further down, two positions below in the Google results, we find the Website on culture of the German Embassy in the USA: <u>http://www.germani.info/relaunch/culture/arts/visual_arts/museums.html</u>.
- 3. *Museen Deutschland* : The number one spot belongs to a public resource on museums, entirely in German: <u>http://www.deutsche-museen.de/</u> .
- 4. *Museums Germany* : In the first three pages of search results only one public resource on museums appears, in second place the German section of ICOM: <u>http://icom.museum/vlmp/germani.html</u>. There were not any other public resource on museums found in English.

France:

- 1. *Culture France:* In this case the graphics of the key words coincide in French as well as in English. The first position belongs to the official site on culture of the French Government: <u>www.culture.fr</u>; in various languages, contrary to the website of the Ministry of Culture of France, only in French: <u>http://www.culture.gouv.fr/</u>.
- Musées France: It is shocking that the first website on French museums turns out to be an online shop of the organism that gathers all the museums in the country, also the link goes directly to the English version: <u>http://www.</u> <u>museesdefrance.com/</u>. It is not until the fifth position that we find a public resource on museums, <u>http://museofile.culture.fr/</u>, offered in only one language: French.
- 3. Museums France: In this search we have encountered several curious

situations. For example, in third place a directory of museums of Paris, with an English version: <u>http://www.paris.org/Musees/</u>. One position below, a public website that gathers all the museums and organisms with modern and contemporary art: <u>http://www.videomuseum.fr/indexEn.php</u>. No other public or official resources on French museums appear in the first three search result pages.

Italy:

- 1. *Culture Italia* : In fourth position we find the official site on Italian Culture, in varoius languages: <u>www.italianculture.Web</u>.
- 2. *Culture Italy:* The fifth position is for the Ministry of Culture of Italy, although it only offers a single language, Italian: <u>http://www.beniculturali.it/</u>.
- 3. Musei Italia: Found in first the position we find an official website that offers a search engine, only in Italian, of the entire group of museums in Italy, 3000 museums according to the site: www.museionline.it . Three positions below, the government organism of tourism appears, with more than one language, specialized in museums: http://www.enit.it/musei.asp?Lang=IT .
- 4. *Museums Italy* : In third place, we again find the English version of the on tourism website.

United Kingdom:

- 1. *Culture United Kingdom* : In second position, the website of the Ministry of Culture of the United Kingdom: <u>http://www.culture.gov.uk/</u>.
- Museums United Kingdom: In second position a website of a private entity that offers a search engine and information on all the English museums: <u>http://www.museums.co.uk/</u>. Although the official guide of museums and galleries of the United Kingdom is: <u>http://www.24hourmuseum.org.uk/</u>; this site appears in the fifth position.

△ 3.2. Resources

Once the public or official resources available in English have been found, the next step will be to screen if they offer information about the museums, and the type of resource offered, for example: directory, search engine, database, museum selection, etc.

- 1. Spain: Even considering that the Website of the Ministry of Culture allows access directly to the Web of National Museums that depend on the Ministry, the directory of museums is in Spanish.For this, the most interesting resource is the Website for SEGITUR, the governmental entity of tourism of Spain, which offers a database on museums through a direct search, an interactive map or a search engine by city, town and type of museums...
- 2. Germany: This country harbours 3,000 museums—quite a number. But there aren't any resources available in English, such as a directory or database. Nonetheless, we may find data on its website about information on Germany in many languages. Specifically, in the Museums and Galleries section. In any case, an added problem to the offered links is not indicating that some are only in German. Also, we have considered US German Embassy website more interesting for a possible cultural tourist. In the museum section, a very good

description of what may be found is offered, for example, in Berlin, with links in English.

- 3. France: France's cultural website is in Spanish and English. But the translation is limited to simply the main titles of the different areas that make up the website. The rest of the explanations are entirely in French, including the search resources on museums. In this sense we can affirm that the website of the Spain's Ministry of Culture offers much more information in other languages. Although we have found a contradictory exception in the Ministry of Culture's website, which is entirely in French, in the section on imaginary museums there are resources in English, for example, different proposals patrimony itineraries. Even so, the problem is that its access route is in French.
- 4. Italy: Their site on Italian culture offers, in many languages, a directory of museums by areas of specialization. It is also possible to access another resource, in this case a service by search engine as well as by regions and cities of the governmental tourism entity.
- 5. United Kingdom: In this case, English being the official language, there are not any language problems. Although, it is also necessary to point out that none of the resources on museums offer any other language other than English. In this case we have two resources, one coming from a private entity that offers a search engine service and the official website on museums of the United Kingdom, a website that offers all type of information on museums, directories by search engine, by map, by cities, and by theme, apart from diversified resources based on user needs.

▲ 4. Analysis of the resources

🛆 4.1. Spain

The link to the SEGITUR search engine can be found directly on the Google search result pages. Besides, the page is also very clear because of the elements layout the page offers: to the left the option menu, in the centre, diverse news on the world of museums and to the right, the search engine service.

The search engine's interface offers several options for the user. First of all, you can enter the name of the museum, an approximation or exactly. A little lower, we find the possibility to look for the museums through an interactive map (this option is very important, now we will see why). Later, through menus that unfold, you can select an Autonomic Community or a province or island; without overlooking the possibility to directly enter the name of the city.

	Search 🔍	
	Search for Museums [Name] (exact word)	
	Find on map [Autonomous Region] Catalonia Catalonia [Province / Island] Barcelona [City / Town] Barcelona (Select city or town)	
Fig. 1. Details o	of the search section of the SEC	GITUR website.
difficult to understand, s/he interactive map of Spain ap	se possibilities interests the us can select a city or town, or h pears. The results of such actic case, it is expected that the us	elp. In both cases, the ons appear automatically
	Barcelona	
Select the city or to	Cities and tow	ns



Fig. 2. Details of the interactive map, its function also includes helping the user

Once the search requirements are established, we proceed to see the results. The location and number of links or results that coincide with the search pattern is

indicated clearly. The page always maintains cohesion with the structure of the main page. Without a doubt, the intention of maintaining that same structure is key in allowing the tourist access to any of the services that are offered (for example the online reservation of a hotel).

Even so, the site's homepage, as well as the search results page, does not offer any access tool. The lack of this possibility does not work in its favour, because it belongs to a governmental entity. The possibility to change language is not possible, neither with the museums page or the results page. When choosing another language, a new window is opened up along with the general homepage.

Each one of the links offers, in principle, the name, contact telephone number and mail. It also offers the possibility to access a printable version of the page to send the page via e-mail.

Once inside the link we can have the chance to go back, to look for another museum and to access the location map and the best route to take on foot. The information provides us the address, its website, a brief summary on the thematic, the museum's owners, the schedules, and the prices for different people and some of its services. Even so, it doesn't indicate if their facilities are adapted for physically disabled people, or if they provide audio-guides. For this one must visit the museum's website.

△ 4.2. Germany and France

Together with France, these two countries possess a good on-line service of resources on museums of the entire country in its native language (see positioning of resources). Although at this point, we should point out that the German government allows certain information in other languages on its official culture website as well as on the US embassy website. A matter that is not ever resolved by the French government is that you need to know French.

🛆 4.3. Italy

For Italy, we find ourselves with two resources on museums in several languages, both governmental ones.

The first one is the Italian Site on Culture that out of everything it offers, it allows us to access a directory, not very large, on museums. In the page on museums one can read an explanation about their organization, mission and objectives. In the menu on the right you can select a thematic area.

In our analysis we have chosen the artistic area. Once you click on that option, a small window (pop-up) appears on the upper left part of the screen with some museums. If you select any of them, information appears within the same window.

Museo del Duomo di Milano Milano Palazzo Reale, p.zza Duomo, 14 Tel. 02860358 aperto 10-13.15 e 15-18 ingresso E. 6,20 intero, E. 3 ridotto Galleria Nazionale Parma Palazzo della Pilotta, p.zza della Pilotta, 5 Tel. 0521233617
Fig. 3. Details of the information contained in the Pop-up
The Information is extremely basic, since it only offers an address, telephone number, schedule and prices. On the other hand the accessibility is null, because to offer the information in a reduced format is already a problem even for a normal user. There is no type of help offered, nor the possibility to broaden the information. Also, it always appears in Italian.
The other service belongs to the Italian government's tourism department. It offers greater interactivity. Located on the home page on Art and Museums in Italy, we can find two search engines and a directory by regions.
There are two types of search engines, one called "quick," which simply offers the possibility of entering the exact name. The other one, called "simple," offers the user the possibility of checking in a city from the directory in order to place it in the section of the same name or to place the museum's name (there is no previous list available to chose from) and finally select from a menu about the thematic.
Descent in every village. In this journey into Italian art, we wish to grossible a guide not only to its museums, but also to its cathedrals, ch monasteries and convents, its villas, palaces and castles spread throu inchaeological sites and the monuments that adorn small towns and big purney into culture and beauty.
Simple search Fast search
insert at least one keyword
Town: Modena Museum or
monument name :
Type: Art museums
amo, <u>Pescara, Chieti</u> <u>Campobasso</u> , <u>Isernia</u>
era <u>Torino, Asti, Cuneo, Novara, Verce</u> Biella, <u>Alessandria</u> ,
Fig. 4. Details of the simple search on the Italian tourism site, below we can see part of the directory by county and cities.

In our analyses we have used the city of Modena and chose art museums as the theme. The following screen maintains coherence with the initial page (on the left part, where the page is found on the site) and upper part, the coherence with the home page). This is not the same case with the right side, where a number of dialogues appear that indicate, on one hand, the possible important monuments and museums in cities near Modena, all this with negative results. Farther down, the counties with relevant museums or monuments within the town belonging to Modena are specified, a total of 21 links of information.

Even though this information is interesting, the way it is brought together in the composition of the website does not read easily.

In the central part, the search information appears and it is clearly identified, indicating its number and how many pages they occupy. The basic information is the address, though there might be some sort of description that is in Italian, but this is rare. For further information: the file associated to the link. For example, the *Galleria de la Provincia* only provides a telephone number—nothing else.

△ 4.4. United Kingdom

The analysis will be centred on the official website: *24 hour museum*. The other search engine is not included; the reasons are not based on its function, but on the quantity of resources that are being offered to the user in the official site.

At first glance, it's not very easy to figure out where to go. Maybe this is their flaw, the abundance of options that in principle don't provide direct information on museums. But after browsing we have find ourselves in the advanced search and in the search map, located in the lower part of the page, not exactly visible, unless we move the cursor down.

	Advanced Search					
	Fill in as many or as few of the fields as you require. Giving more information before the search will cut down the number of results. For example, if you know place, date and subject you are looking for, then enter all three. For a more general search enter only one or two terms. If looking for an event, don't forget to specify a time period when you are searching.					
	Keyword					
	Museum or Gallery Name					
	Town/City London					
	From 💙 🌱					
	To 💙 🌱					
	today next 7 days next 2 weeks next 4 weeks					
	Collection Type Fine Art					
	Event Type Guided tour					
	 All events 					
	Age Range O Especially for children					
	◯ Family friendly					
	Shop 🗌 Visual disability facilities					
	Food Hearing disability facilities					
	Baby changing Wheelchair access					
	Parking Library					
	Guided tours Study area					
	GO					
Fig. 5. /	Advanced search engine of the site on British museums. All the options ar shown	e				
allows fil children's containe	nplex" search is very complete, although relatively complicated because it ltering the search for certain events, physical and sensorial handicaps, s events, etc. In this case, the only help found is in the explanation d in the first paragraph and it is not uncommon that the user may have to t the search several times before obtaining the desired results.					

Once the search is carried out (in our example, London, collection of fine arts, shop, food and guided visits) the result offers a listing of articles. All though it is relatively not very important in this example, for the difference between "Very relevant" and "related" museums or galleries, they provide the same links.

It is probably easier to use the map of the United Kingdom, we only have to select the type of collection through the menu, in this case *fine arts,* and choose one of the regions on the map, *Greater London*. In this case there is no data filtering, in total 159 items found. Filtering is a possibility that is offered (as an advanced search) together with the presentation of the results. Though it is necessary to keep in mind that the advanced search begins from zero, no previous input is considered.



Fi g. 6. Details of the interactive search map by regions

In any case, the information links are excellent. All the data that they offer cover the needs of any type of user perfectly. Also, design and navigation coherence is maintained at all times; without forgetting to mention that this was only website that offers accessibility options with a text-only version.

▲ 5. Conclusions

In almost all the searches on the key word "museums," the first places in the search results belonged to museums of the same nationality. This situation denotes that it is easier for a tourist to find one or several museums of a certain country, by country, than to find a directory or detailed search engine of all of them.

A serious matter for Germany, who is proud of having more than a thousand museums, is that it does not have any resource in English on that matter. The same goes for France, who like Germany, does not offer any of its resources in English.

On the other hand, we find in first place, the United Kingdom. Their situation is privileged, because its language is at the moment the most used language world wide, especially by Asian countries. Without a doubt, the site on information on museums has good accessibility, offers many resources and excellent information to any type of user, regardless of his/her level of needs.

Even though usability is not its strength, because it demands the user a certain amount of concentration either to use the advanced search engine or to find the search map, it still does not offer many possibilities to filter the search results. For example, by specialization or type of institution. All though if the user decides to do so, the site always remits to the advanced search, where a new search must be entered, without the possibility to recover the previous one.

In fact, still keeping in mind the small interest for accessibility, usability is the strong point of the Spanish resource SEGITUR, because it offers support and interactive help during the search and good quality in the data of their information.

Lastly, the Italian tourism site ENIT. Although it has good usability, the information contained in the links does not cover our user's needs; without overlooking the fact that the information's language is always in Italian.

△ 6. References

ICOM . Website on cultural tourism: <u>http://icom.museum/cultural_tourism.html</u> .

Krug, Steve (2006). Second Edition: *Don't Make Him Think! A common sense approach to Web usability. Berkeley*. New Riders.

Marcos, Mari-Carmen et al. (2006): *Evaluación de la usabilidad en sistemas de información terminológicos online* [on line]. "Hipertext.Web", núm. 4 < <u>http://www.hipertext.Web</u> > [19/03/2007].

Mayans y Planells, Joan (2006): *Internet i el turisme de qualitat. Urgències i reptes per a la competitivitat i la innovació.* Observatorio de la Cibersociedad: <u>http://www.cibersociedad.Web/recursos/art_div.php?id=155</u>. [19.03.2007]

Monistrol, Ricard; Rovira, Cristòfol; Codina, Lluís. *Sitios Web de museos de Cataluña: Análisis y propuesta de evaluación* [on line]. "Hipertext.Web", num. 4, 2006. <http://www.hipertext.Web> [Consultation: 31/05/2006]. ISSN 1695-5498. http://www.hipertext.Web/pag266.htm

Monistrol, Ricard. *Treball de Recerca* (2005): *Difusió Cultural i Webs de Museus: Estat de la Qüestió*. Descarregar *Full-Text* (*Pdf*): <u>Treball de recerca monistrol.pdf</u>

Morgan Stanley, Consultora . (2005): Study on the Web presented in November 2005: <u>http://www.morganstanlei.com/institutional/techresearch/pdfs/GSB112005</u>. <u>pdf</u>

Nielsen, Jakob . (2000): Usabilidad: diseño de sitios Web . Madrid. Prentice Hall

UNESCO . Website about cultural tourism: <u>http://portal.unesco.org/culture/es/ev.</u> <u>php-URL_ID=11408&URL_DO=DO_TOPIC&URL_SECTION=201.html</u> . [14/03/2007] On-line cultural resources: Search for information on museums in Spain, France, Italy, Germany and the United Kingdom



This project has been financed by the *Ministerio de Educación y Ciencia* (Spain) as part of the HUM2004-03162/FILO project.

versión para <u>imprimir</u> versión mínima para <u>imprimir</u> o guardar

Home Publication Alert Laboratory About us

© Copyright 2005 UPF All rights reserved. WebMaster

Edited by the Scientific Area of Document Sciences, Department of Journalism and Audiovisual Communication, University Pompeu y Fabra · Legal deposit B-49106-2002 · ISSN 1695-5498