

## Voices: A Virtual Exhibition as Alternative Model to the Forum 2004

Cèsar Carreras Monfort

*Department of Humanities  
Universitat Oberta de Catalunya, Spain  
E-mail: ccarreras@uoc.edu*

### ABSTRACT

As a part of the cultural offer of the Forum of Cultures, held in Barcelona in summer 2004, the organisers designed an exhibition called Voices focused on diversity, one of the thematic axis of the Forum. The central objective of Voices was to celebrate the fact of human communication and linguistic and cultural diversity. Apart from the presential exhibition, and taken advantage of the use of media as one of the themes, a virtual version of the exhibition Voices was created. This work is the result of an agreement between the exhibition organizers of the Fourm of Cultures, and the group Òliba (Dept. Humanities of the Universitat Oberta de Catalunya (UOC) with the collaboration of the Multimedia Studies of the same University.

**Keywords:** Exhibition, virtual reality, multimedia, online, education.

### 1. INTRODUCTION

As part of the cultural offer of the Forum of Cultures held in Barcelona in 2004, the organisers designed an exhibition called Voices dedicated to world diversity in languages. The main aim of the exhibition Voices was to celebrate human communication and linguistic and cultural diversity.

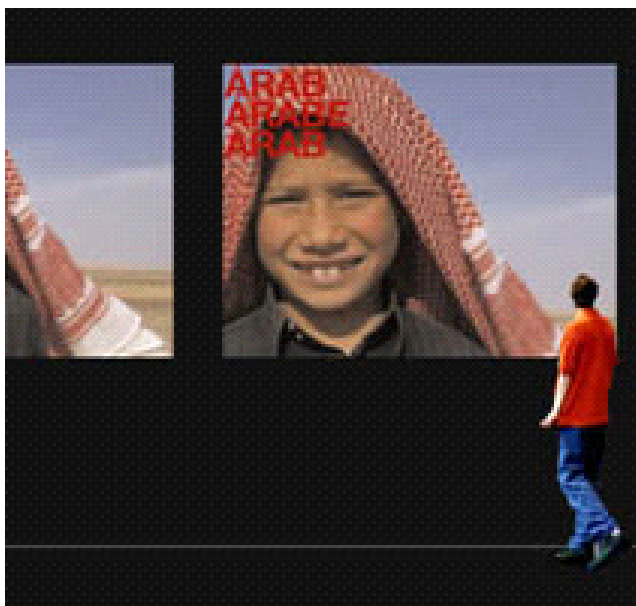
Likewise, the exhibition wanted to reflect conditions of individual and collective freedom, which are the basis of the needed dialogues amongst cultures. Reflection should allow us to ask for compromise and individual responsibility in order to make possible communication from equality and plurality. Consequently, it is thought as a laudatory of any form of freedom of expression and pluralism: languages, cultures, viewpoints, media, ideologies, and geographic areas... plurality of voices.

The exhibition was an own production of the Forum 2004. Voices exhibition is a bid for knowledge

of the world linguistic diversity, whose organizer was Vicenç Villatoro and was designed by the New York studio of Ralph Appelbaum.

Apart from the presential exhibition, and taking advantage of the subject of media use, it was thought to include a virtual side of the exhibition Voices. This work is the result of a agreement between organizers of the presential exhibition as part of the Cultures Forum 2004 and group Òliba (Open University of Catalonia (UOC), <http://oliba.uoc.edu>) with the collaboration of Multimedia Degree (GMMD, UOC, <http://www.uoc.edu/mosaic>).

The project definition started in May 2003, with the initial aim to include all ideas generated by organisers and advisors (Jesús Tusón, Enric Marín, Carme Junyent), with a different treatment from the presential. The first structure of contents consisted of three spheres: Signs, focusing on non-verbal communication forms; Voices, showing language diversity and evolution; and Networks, analysing



**Figure 1. Videos of the presential exhibition that reproduce some world languages.**

importance of media. This conceptual structure of contents should have been maintained in the museographic design of presential exhibition, whose original venue was the Forum Building. Unfortunately, the venue shifted to the Convention Centre, so the whole museographic project had to change and reduced the three spheres to only one, Voices.

Despite this change, the virtual exhibition maintained the initial exhibition structure with three spheres, and they were developed in small pieces as content capsules. Every capsule contains basic concepts and ideas developed by organiser and advisors. This means that despite coming from the same conceptual structure, both presential and virtual exhibitions presented different versions and were complementary to each other.

On the other hand, the presential exhibition was dominated by audio-visual, so public was not expected to invest much time in reading texts and looking at graphic contents and interactives. Part of this content was employed in the virtual exhibition. Therefore, the philosophy of virtual space was to complement the presential exhibition the best as possible.

## 2. WEB OBJECTIVES

As was mentioned, the main aim of the virtual exhibition website was complementing information of presential exhibit, including all the textual and image documentation. On the other hand, it takes advantage of multimedia to create environments

and interactives which were difficult to reproduce in the real life, and favour itineraries to different kind of people.

If the presential visit calculates an average of 15 to 60 minutes, the virtual exhibit can last for hours. Normally, it is a space to come back since information cannot be only accessed in one virtual visit. It requires participation, in other words active learning through interaction (manual, mental and emotional) in diverse content capsules in which website is organised. Such possibility to deepen in contents through interaction has become one of the main aims of the virtual exhibit, since physical space did not allow it.

On the other hand, the presential exhibit played with formal resources, chiefly audio-visuals and creating atmospheres. The central point of the exhibit was a semi sphere of 28 curved screens, playing a video of 12 minutes in coordination. Besides, there were 60 screens surrounding the whole exhibit playing videos of people saying hello in 60 languages. Also, the venue included 20 interactive tables for automatic translation or watching TV programmes from all over the world. One of this interactive table included the section Voices in its virtual version.

Another main objective of the virtual exhibit was attracting people to the presential exhibit. That



**Figure 2. Main video of the exhibition in a semi sphere of 12 m.**

is why it was thought to open the website few months before the opening of the Forum on the 9th May 2004. As the time went by, organisers decided to postpone the website presentation in order to keep some kind of surprise. Therefore, the opportunity was lost to prepare public with the website contents to the presential visit. Moreover, there were apprehensions that the virtual exhibit could compete with the presential exhibit, though both were complementary.

Exhibitions websites are still threatening for Spanish museologists, who are afraid that public will not come to presential exhibits if there is a virtual alternative. On the contrary, experience suggests that virtual exhibitions magnify presential ones and make available complementary documentation for a better comprehension. Unfortunately, we could not test this hypothesis with the exhibition Voices since the opening coincided with the presential one.

Another aim of the website was facilitating the understanding of language diversity for students and undergraduates through technology and in a funny way. That is why; there is a good selection of interactive games to learn by playing some topics from the exhibit. Besides, these content capsules were recreated in a comic environment to make contents closer to this group of age. Organisers have not always thought about secondary schools students and undergraduates, so content not language make exhibit suitable for younger people.

As always a virtual resource is created in Internet, this fact favours dissemination to places and in times in which normally it is difficult to do it. Breaking time and space variables supposes a potential to reach international public from anywhere, who may not be able to access the presential exhibit. That is why the website was translated to four languages (Catalan, Spanish, French and English), with an aim of making it as available as possible.

### 3. QUESTIONS OF DESIGN AND TECHNIQUES

Since the conceptual structure was based on three ambits and a total of 64 particular concepts, each of them was described in a multimedia content capsule. Contents of each capsule rather depend on material available.

Therefore, each content capsule had an explicit aim and provided contents (textual, graphic, video, audio), to which a script gave a coherent story. With those elements, a series of interactive were created to represent content capsules. All of them

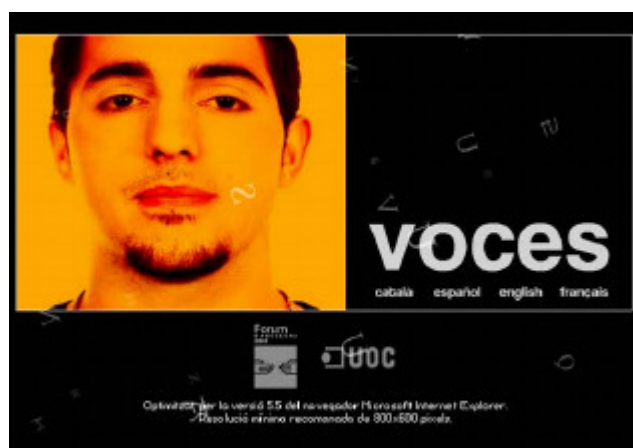


Figure. 3 Presentation in Flash of the exhibit website.

are very heterogeneous in form and contents, so they appear in a new open window. The only way to keep homogeneity was common style norms (colours, font, backgrounds and icons).

The virtual exhibition was an excellent chance to work together with students from the Multimedia degree, who had created 15 out of 64 stops. Some of the spectacular ones were created by those students. It was attempted to keep some balance so there are light capsules of content with only images and textual quotes, as diaporamas.

The use of a good number of animations (in either Flash or DHTML) makes exhibition available in Explorer 5.5 (the most common browser in 2004 in 95 per cent cases) with a standard screen of 800x600, common at that time. Despite this effort, it was realised that it is not accessible to everyone, and do not fulfill basic WAI norms of accessibility. Script conditions that included animations and the lack of resources made impossible follow WAI norms and make a space for universal accessibility.

There are some outstanding content capsules for their animations such as Dance (Signs), Enriching (Voices) or Public opinion (Networks). In other cases, students have worked with comic images in order to explain an idea such as the case of Borrowings (Voices), Compromise (Voices) and one language (Voices).

In other cases, content capsules showed videos of some linguistic practices, recovering of languages such as Heritage (Voices), Language wood (Voices), Minorities (Voices) or Oral Library (Signs). Videos were available online in swf format of Flash that allows partial download of files while they are played (streaming). In some other cases audio files (mpg) were employed such as Dialects and languages

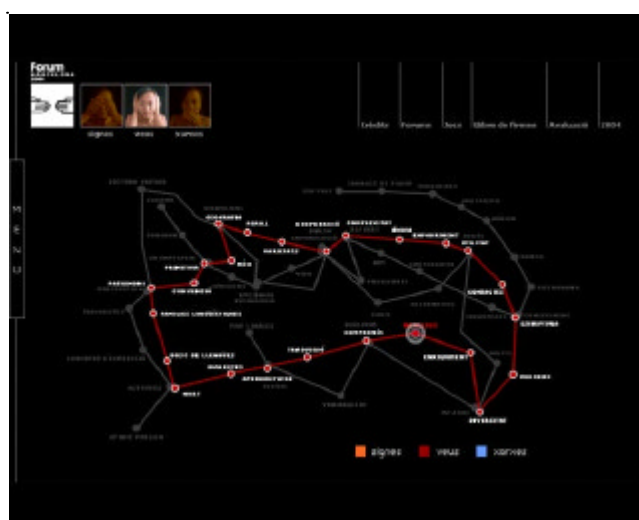
(Voices). Today all these troubles would have been solved with applications such as YouTube with streaming servers for video also in Adobe Flash.

As it is said earlier, the whole virtual exhibit was organised according to three thematic axes (Signs, Voices and Networks). However, this made exhibit even more difficult since there were three alternative menus to access the same 64 content capsules. To some extent, such three menus reflect the way each of us relates concepts and ideas. Everyone should be identified according to its way to navigate. Thereby, people who navigate in a connected way linking between lines and capsules may choose the menu Itineraries, which represents a transport network. Other people navigate as if they were in a galaxy with different planets that act as satellites and follow orbits around others, may choose the menu Universe. Finally, the ones who prefer structured ways will probably choose the menu Index.

Apart from the three main menus, a series of complementary spaces exist such as Games, Credits, Forums, Guestbook, Evaluation and 2004.

The space Games gathers all funny resources created for kids and appears in diverse capsules of content. Doing so, an individualised itinerary was defined for a particular visitor profile. The title Credits include all the people involved in the creation of these virtual spaces and resources employed.

In the section Forums, it was planned to include open discussions organised on the basis of previous readings and with help of moderators. For a qualitative evaluation of the virtual exhibit, two transversal



**Figure 4. Navigation menu reproducing a transport network to access any capsules of content.**

spaces were created: a guestbook where anyone could leave their opinion and an Evaluation with an open questionnaire for virtual visitors. Finally, there is a space called 2004, kept for including other resources related to the presential exhibit before its closure on the 26th September 2004.

#### 4. AN ALTERNATIVE MODEL

At conceptual level, the virtual exhibition of Voices supposes a new way of working from the starting ideas of exhibition organizers. Most proposals cannot go forward by economic reasons, space or others. However, virtual exhibition can overcome such problems since they inhabit a flexible space.

To some extent, both exhibitions steam from the same origin, though they take different way or paths at a very early stage. Such common origin provides some coherence to the museographic discourse, though there are clear differences in between.

Every original idea of organisers and advisors became a group of virtual objects and narrative that represent them. In the presential exhibit, those ideas were reproduced in audio-visuals, some of them in excellent quality. For instance, the central audio-visual of 12 min displayed in 28 screens forming a semi sphere of 12 m high can be difficult to reproduce in the virtual world [Deloche defended that art means to show sensitivity through artifacts, and distinguishes a relationship between the aesthetic sphere (object—sensitive thing and the sensitive process), museality (object—showing thing and process of showing) and virtual (object—artifact and process of substitution)]<sup>1</sup>. However, its effect is difficult to reproduce in other venue, so Voices could not be a temporary exhibit visiting other cities.

This core idea of diversity appears all over the virtual exhibit with capsules that include linguistic maps, alphabets or symbols. Therefore, the message is the same at heart between both exhibits, but objects chosen and means of communication are completely different.

Besides, the presential exhibit has some interactive such as an automatic translator, but most elements are audio-visuals and graphics. On the contrary, the virtual exhibition is based on interactive animations and dioparamas that expect an active visitor, i.e. Borrowing or Enriching [Playing with manual Interaction, in other words experimenting with the object properties or phenomena, and the mental one, bringing about intellectual reflection facing particular situations



Figure 5. Representation of a content capsule of Borrowings.

(i.e. memory, decision taking ...)]<sup>2</sup>. Furthermore, we looked for more participation of youngsters by using games and comic images.

Due to the high flexibility of this medium, the virtual exhibition allowed us to incorporate other resources already created in Internet, so visitors could follow navigation on subjects such as human communication and linguistic and cultural diversity. There are examples of a Braille translator online or questions about gesture language.

For all those people who enjoyed both exhibitions, and also expressed their opinion in our questionnaires and guestbook, combination of presential and virtual exhibits was suitable. On the one hand, the presential exhibit is a sensorial experience, in which people do not invest much time (an average of 20-30 minutes), and do not take advantage of all the contents available in the interactives. The presential exhibition appeal visual and audio senses, and does not care much about interaction and reflection. Such two aspects, interaction and reflection, are fostered by the virtual space, that is why visiting the website is recommended before and after the presential visit.

## 5. SELECTIVE AND GENERAL DISSEMINATION OF THE SPACE

If the initial idea was opening the virtual exhibit in February 2004 in order to facilitate awareness about the presential exhibit, organisers decided to make the opening of both exhibits at the same time. Thereby, the first opening of the virtual was on the 9th May 2004.

To favour access by search engines, a series of meta tags were defined identifying all the sections and content capsules from the website. It was realised

that some terms were so wide that it was difficult to put them at the top of the search engines. Effectiveness of such words was tested previously also without much success<sup>2</sup>. Once, meta tags were defined, a systematic dissemination with the help of the program Addweb 6.0 was carried out.

Advancing some of the evaluation results, one of the searching words to reach this website was pictogram, though it does not turn up amongst the first 10 sites in Google. Both the title of the exhibit "Voices" and Forum is widely used term in Internet, so it was difficult to position this website in the network.

With the aim of broadening dissemination, the press cabinet from the Universitat Oberta de Catalunya and Forum 2004 send some press notes. The first news about the website appeared in the newspapers or virtual spaces such as Monografias.com—the first virtual community in Spanish. The press notes appeared in the portals of the University (<http://www.uoc.edu>) and the Forum 2004 (<http://veus.barcelona2004.org>) also. As always happens in these cases, during the time that website appeared on the media, accesses to website increased a lot (EuropaPress, Agenda cultural de la Generalitat, El Diari de Barcelona, El Punt, LaMalla.Net, Yahoo, BarcelonaActiva).

In August (summer time) 2004 there was a complete coverage of the virtual exhibit in the University portal (<http://www.uoc.edu>). However, the University community is normally on holidays at that time, so such advert did not make much influence in the dissemination.

Together with such strategy of dissemination, a selective dissemination to institutions that were believed could be interested in this kind of resources such as Voices was carried out. Support of Internet portals of museum such as musealia (<http://www.musealia.com>), educative portals such as Aprendemas (<http://www.aprendemas.com>) or Educar (<http://www.educ.ar>) or solidarity portals (<http://www.canalsolidario.com>) was immediately received. Besides, it was also sent to the regional educative portal (<http://www.xtec.es>) since this resource was basically aimed to attract local students. After 15 days of dissemination through different media, the virtual visitors were basically local public (logins from Spain.es) using Spanish and Catalan as main languages. Probably, dissemination on local media was responsible for that. On the contrary, there were a few French and English visitors, probably due to scarce awareness of the Forum 2004 abroad.



A serious drawback for dissemination was that the opening of the virtual exhibit coincided with the end of the school and University courses. On 16th May the information was sent to the regional network of education (Xarxa Telemàtica Educativa de Catalunya –(XTEC), though they could not update their portal until the 27th May, at the end of primary and secondary school courses. Some teachers were interested in the virtual Voices, so asked if they could access the following course. Adapting the virtual exhibit opening to the educational public should have increased the resource potential and use, so it is highly recommended to adapt virtual opening to the education calendar<sup>2</sup>.

Following Bellido's words<sup>3</sup> is not a question that the virtual visit could substitute the real one in the classroom, but improving it. Therefore, there is no competition between presential and virtual exhibits, only a complementary and alternative way to access information following a particular narrative.

As is said before, part of the content of the virtual exhibition was undertaken by Multimedia Degree students, who have done their own dissemination amongst classmates and professionals. Besides, the own digital journal of the Multimedia Department called Mosaic (<http://www.uoc.edu/mosaic/entrevistas/gmmd0604.html>) conducted a series of interviews with students who took part in the experience [in the same journal was an interview with one of the organisers of the presential exhibition and coordinator of the virtual one, Teresa Ferriz (<http://www.uoc.edu/mosaic/entrevistas/teresa0604.html>)].

## 6. VIRTUAL PUBLIC TO THE EXHIBIT AND WEBSITE EVALUATION

Before starting discussing accesses to the virtual resource, it must be pointed out that timing was not the best one for dissemination and virtual access since it coincided with summer holidays. It has been detected in all our virtual projects that number of virtual visitors decrease in holiday periods (June to September in Spain) when leisure activities outside increases instead<sup>4</sup>.

According to the Spanish AIMC (Research Association of Media) in May 2004, most Internet users in Spain access Internet from their jobs (31, 7 per cent), Universities or schools (20,1 per cent) or home (10,6,3 per cent). In summer time, when educational and working centers are close, and people move from their homes, Internet access becomes more complicated through cyber cafes or alternative places. Therefore, there is a drop in activity in the network.

Such low activity is reflected in some statistics of logins to the Voices virtual exhibit, obtained from the program AWStats and WebAlizer. In terms of number of virtual visitors, the exhibit received 2551 visitors in May, 2797 in June, 1271 in July, 1638 in August and 1016 in September 2004. AWStats records this drop of accesses from the opening in May to the closure of the Forum in September 2004, coinciding with the summer season. With regards to the number of pages visited (Table 1) numbers go from 14,915 in May to 2,820 in September 2004 from Spanish visitors.

The visitors origin also refers to the web dissemination, since it only had a national dissemination. That was a general critic made to the Forum 2004, where the event was hardly known outside our frontiers despite attempting to be a universal fair (only 7, 4 per cent of visitors were foreigners). The low percentage of foreign visitors to the presential exhibition as well as the access to the website is strange as the Table 1 shows. Compare to other experiences<sup>4</sup>, the low percentage of American visitors is striking who normally accounts for 10-20 per cent of the logins in our projects. In this case, we believe that the Forum calendar as well as the dissemination market could have much better.

Digital resources online have a long life. Therefore, we expected that such virtual exhibition could have more visitors afterwards. The same happened to our other projects such as the exhibition Aureum Opus (<http://oliba.uoc.edu/aureum>) or the Boi valley portal<sup>2</sup>.

Figure 6 gives a general idea of access to the virtual exhibition from visitors of the 12 main countries. Early visitors were basically Spanish, but as soon as the exhibit was known there were access from foreign countries such as Germany, France, Great Britain (our typical tourist in summer), South American countries (Mexico, Argentina, Uruguay, Brazil, Colombia, Venezuela), and USA.

Besides, this access distribution is also confirmed by logins since most access use Spanish or Catalan as main language (90 per cent approximately), even visitors from USA. In May 2004, most virtual visitors were in Spanish language (47 per cent) followed by Catalan (43 per cent), English (5 per cent) and French (3 per cent). In September, results were similar, though main community were Catalan speakers (52 per cent) ahead of Spanish speakers (37 per cent), English (9 per cent) and French (1 per cent). Taking into account the number of speakers of every language in the world, it is obvious that our virtual

**Table 1. Sample of the number of pages accessed during May-September 2004 from the exhibit VOICES (AWStats statistics)**

Countries	May	June	July	August	September
Spain	14915	13178	9577	4675	2820
Germany	1020	320	221	242	83
Mexico	531	108	125	104	226
Great Britain	517	134	98	345	32
Argentina	409	66	157	154	42
USA	393	425	250	181	110
Uruguay	330	323	142	340	94
France	225	153	132	190	16
Brasil	160	121	116	243	101
Colombia	128	64	8	409	25
Portugal	120	226	418	126	119
Venezuela	113	45	62	101	4
Switzerland	74	15	74	19	2
Chile	67	78	90	147	215
Slovenia	0	166	0	1	0
Andorra	60	132	0	1	16
Netherlands	49	113	28	85	28
Italy	53	87	40	41	391
Canada	5	0	81	27	0
Sweden	16	25	52	79	841
Ireland	1	0	14	215	0
Perú	0	65	4	104	0
Belgium	32	4	4	4	190

exhibit had a very local dissemination in 2004. Therefore, we did not take advantage of a global media such as Internet.

It has been argued the Forum 2004 portal (<http://www.barcelona2004.org/>) did not help much to disseminate the virtual exhibit, which was hidden and without any care about crawlers and robots [in our test of usability none could find our website through the Forum portal, what was a terrible design (<http://www.barcelona2004.org/cat/eventos/exposiciones/ficha.cfm?IdEvento=129&IdTipoPest=1>)]. Only few visitors could reach by clicking to a gif that read Virtual exhibition. Again the coordination with the presential organisers has not been as good as expected. Another potential reason for the lack of foreign virtual visitors was the quality of translations in English and French carried out by the Forum 2004, some virtual visitors had complained in their messages as recorded by Vicente<sup>5</sup>.

Vicente has been the person responsible for evaluating the website and comparing it to the presential

one. She has employed qualitative and quantitative methods by analysing data from presential visitors and logins with statistical packages such as Webalizer and AWStats. Besides, evaluation has been completed with a virtual questionnaire with a low participation (0,1 per cent of virtual visitors) something normal in Internet. Opinions are also recorded in the guestbook (<http://oliba.uoc.edu/forum2004/ca/guestbook/index.php>) of the own website.

One of the most outstanding facts is that more than 54 per cent of the virtual visitors had already visited the presential exhibit. Therefore, it means that both versions are complementary, and the virtual visitors were people who mostly have enjoyed the real version. In some cases, the virtual visitors rather preferred the virtual versions as it is said in the guestbook: *"...exhibition in the Forum appeared me poor, however the website is quite interesting, you have done a good job, congratulations"* (11/07/2004, M.A.). Anyway, there has been normal coincidence in assessing both exhibits with similar values."

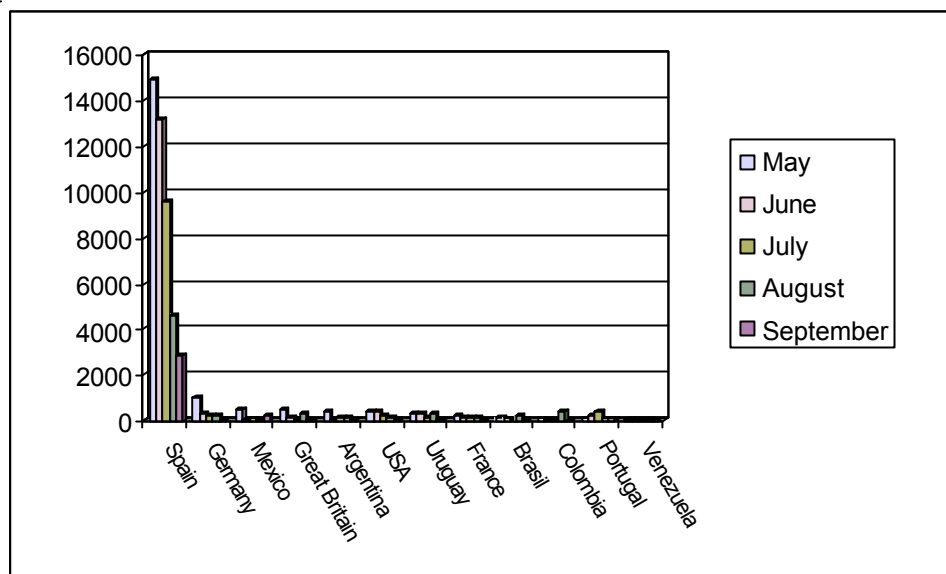


Figure 6. Graphic with number of page accesses according to country in 2004 (AWStats).

For instance, a virtual questionnaire made for the presential exhibit *Voices* (<http://www.barcelona2004.org/cat/eventos/exposiciones/ficha.cfm?IdEvento=129&IdTipoPest=3>) with rates between 1 to 4 for a total of 236 people, the exhibit reaches a rate of 3,3. Sixty-seven per cent of the people who answered the questionnaire gave it the maximum rate 4 [amongst ranking of events valued in the interviews, the presential exhibit *Voices* is not one of the top 30. Most valued events are music concerts, theatre performances or cuisine. Only one exhibition, *Living in the World*, is the choice: 18th (rating 3,57 with 793 votes)]<sup>6</sup>. Similar to this result is the rate of the virtual exhibition in which 63,23 per cent say that the virtual resource is good or very good (35 per cent consider very good). With regards to critics, they concentrate in formal aspects such as orthographic errors and translations in French and English.

The visitors to the virtual exhibit were basically students and tourists. They reached the virtual exhibition by navigating through Internet (39,7 per cent), only 16 per cent by media and 4,41 per cent by search engines (basically Google). They could hardly find information from the virtual exhibit in the presential one, so it did not help to disseminate it<sup>5</sup>.

With regards to number of visitors, presential exhibition received more than 800.000 people. It must be born in mind that buying a ticket for the Forum 2004 included a series of free events, such as four exhibits: *Quiang warriors*, *Living in the World*, *Corners* and *Voices*. All four received around one million one-hundred thousand visitors<sup>6</sup>. The virtual exhibit only received 8.000 visitors in the same

time, since September 2004 up to now has received around 100.000 visitors.

As was mentioned, virtual exhibitions enjoyed long lives. For instance, the website received 30.000 visitors in 2006, and the main accesses came from countries such as USA, South Korea or Arab Emirates, while Spanish visitors were the fourth group. Therefore, the website has become more international over the time, and visitors normally come through searching engines. Some of the visits are very short in time, as if they were only searching for particular information and not browsing all over the resource. We believe it has become a virtual archive of the world linguistic diversity existing in 2004.

The data of 2007 is quite similar to the previous years, though there is a decline in the numbers of virtual visitors. Perhaps it is the end of its virtual cycle...

## 7. CONCLUSION

The virtual exhibition *Voices* is a good example of advantages and disadvantages of virtual exhibits. Any virtual application in heritage should complement real activities or infrastructures, because this is a key point for success. Competition between real and virtual exhibits generates more problems than real advantages. Timing of opening and dissemination is also a key issue that affects potential public and results in online exhibits. Finally, it must be borne in mind that virtual exhibits enjoy a long life depending on the quality of contents and the way it is designed, despite possible changes in technology.



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## About the Author



**Cèsar Carreras** is currently a Junior Lecturer in the Department of Humanities of the Universitat Oberta de Catalunya (UOC), Spain. He holds a PhD in Ancient History (1995) from the University of Barcelona (Spain), another PhD in Archaeology (1994) from the University of Southampton (UK) and MSc in Archaeological Computing (1991) from the University of Southampton (UK). Nowadays, he is lecturing computer applications in the Department of Humanities and Ancient History in the University. Besides, he is co-director of the research group Òliba (<http://oliba.uoc.edu>), whose main aim is the evaluation of applications of ICT to cultural heritage. He is coordinating and taking part in different European projects such as COINE (Cultural Objects in Networked Environments) and Project SEE Arch-Web (an interactive web-based presentation of Southeastern European Archaeology).