

# Cultural dissemination and interactive audiovisual communication

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## Abstract

Interactive electronic systems are generating specific ways of knowledge transmission. As always, when a new medium appears some of these ways come from pre-existing ones, while others are original. In this article we will sum up our view of this process and apply it to several examples of interactive applications both off-line and on-line so as to have a first idea of what of what interactive audiovisual communication in general and web connectivity in particular, can add to knowledge transmission processes.

## Key words

Interactive design, cultural dissemination, animation, stimulus design.

## Cultural dissemination by means of interactives

The field in which we will focus our interest in this paper is what we will call cultural dissemination by means of interactives. We will thus be dealing with hypertext or hypermedia applications developed with the specific aim of transmitting a whole set of knowledge. We can thus apply the well-known theory of hypertext, with its basic parameters: nodes, links and anchors. Remember that, in principle, fragmentation of content into nodes is associated to the semantics implicit in the contents to be discussed and, therefore, if this is consolidated it will seem apparently obvious or, at least, reached by consensus, while the choice of links and anchors implicitly carries authors' decisions which will give place to several approaches to cultural dissemination, some of which we will analyse.

All interactive applications for transmission of knowledge have a more or less evident educational aim. The concept of cultural dissemination we refer to will exclude applications with an explicit educa-

tional aim. The reason for this is that this aim tends to introduce such a strong systematisation that it can hide some of the communication characteristics we are interested in. To define this field of interest more specifically, we will refer to the well-known distinction, elaborated by Coombs and Ahmed and picked up by Trilla,<sup>1</sup> among the several fields in which there can be a development of a person's education, considered as an integrated process.

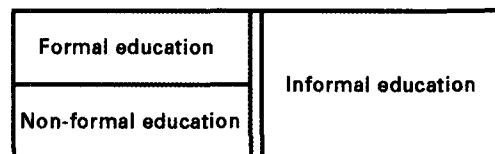


Figure 1. The three fields of education.

*Formal* and *non-formal* education correspond to all systematic activities and even institutional ones which follow a specific curriculum which is more or less exhaustive. *Informal* education, also known as disseminated education, is an ensemble of permanent processes by which people acquire knowledge, abilities, attitudes and discerning methods by means of daily experience and their relation to their environment.

We will place cultural dissemination in this latter field of informal education together with, for example, television or cinema documentaries and books, magazines or educational television programmes. Although, obviously, the borders are not always clear, we will analyse products characterised by an absence of an explicitly educational intention, to systemise the process from the didactic point of view and to look for intrinsic intentions in the receiver, that is, not motivated by anything other than personal interest.

## Efficiency and stimulus: two routes for design of interactives

One quite useful and usual way of understanding the difficulties faced when trying to make knowledge accessible by means of an interactive application is to sum them up in a couple of classic problems of the process of navigation for content, already usual in line media, but which a badly designed non-linearity can increase significantly: disorientation or getting lost in hyperspace

<sup>1</sup> TRILLA, J. (1998). *La educación fuera de la escuela. Ámbitos no formales y educación social*. (3rd ed.). Barcelona: Ariel.

and cognitive overload.<sup>2</sup> Disorientation in a hypertext consists of the problem where, even though one has followed all associative processes understandable among understandable concepts, one does not clearly understand the current state of the system and its potential in relation to other parts of the web, or not being able to find specific information even when one knows that it exists in the system.

Cognitive overload is a consequence of limited human capacity for processing information: assigning resources to reading, memorising routed links or making decisions on the route to follow, can distance us from the comprehension process. The latter and navigation compete for users' cognitive resources.

In a previous work<sup>3</sup> in which we analysed extensively all the issues summarised in this introduction, we identified two main lines, often complementary, to face these problems. On the one hand there is the ensemble of direct solutions, which seek to improve efficiency of navigation by hypertext and, on the other, indirect solutions addressed to mechanisms of implication and stimulus to the person who interacts.

Direct solutions include tools to aid navigation (visualisers and navigators, global/local transition, aids to local navigation, guided routes, pre-set searchers and filters, etc.) which are discussed in another article in this magazine. The well-known and unattainable design guides, justified with more or less precision or based on experience, according to each case, are a model of the will to collect and put in order all design specificities which improve navigation efficiency. They also have a space in this magazine.

It is in indirect solutions –which play at catching, keeping and increasing user interest while the process of knowledge transmission takes place– that we can find the most innovating proposals from the point of view of interactive audiovisual communication. Many of these ideas often come from areas in which reader or «audience» reaction is vital. The proximity, thus, to classic narrative, theatre or traditional audiovisual is substantial.

These alternatives tend to try to profit positively from those aspects which are, in principle, negative: disorientation and overload. For example, as mystery authors know very well, disorienting the reader is a possible use for constructing meaning. In interactive narrative, where the readers' active role makes this game of complicity with the author even more important, these resources take on a decisive importance. As Mark Bernstein, one of the authors who is contributing most to theory and

practice of this new genre, says, «...disorientation is not inherently wrong; indeed, a degree of disorientation, deliberately introduced and thoughtfully controlled and guided, can be a powerful tool for writers».<sup>4</sup>

Also, in interactive applications for transmitting knowledge, a controlled degree of disorientation which forces users to discover or even create a part of the sub-jacent structure in the material transmitted, can become a stimulating resource for keeping up and increasing attention and, by provoking a certain parallelism with their mental construction processes and continuous model modification, significantly improves understanding.<sup>5</sup>

As to the second «problem of navigation in a hypertext», there is a general consensus in which the learning needed for new functions of hypertext systems poses extra mental effort which increases, especially at the beginning, the cognitive overload of those who navigate in hypertext. What is not so clear, and is a much more basic issue, is if the freedom to choose the routes inherent to non-linearity also have a negative influence on the efficiency of knowledge transmission. There are opinions regarding both senses such as Bernstein, already mentioned, and Thuring.<sup>6</sup> But we can positively break this dialectics by converting the disjunction into a challenge set up as a question: what strategies of interaction design can efficiently reduce cognitive overload in an interactive application?

## Navigation by structure and navigation by concepts

A solution to this challenge which opens up a great many possibilities, is designing the interactive applica-

<sup>2</sup> CONKLIN, J. (1987). «Hypertext: An introduction and survey». *IEEE Computer*, 20, 9, September, pp. 17-40.

<sup>3</sup> RIBAS, J. I. (2000). *Caracterització dels interactius multimèdia de difusió cultural. Aproximació a un tractament específic, els «assaigs interactius»*. Research paper for Doctorate in Audiovisual Communication. Barcelona: Universitat Pompeu Fabra.

<sup>4</sup> BERNSTEIN, M. (1991). «The Navigation Problem Reconsidered». At: BERK, E.; *Hypertext / Hypermedia handbook*. New York: Inter-text Publications / McGraw-Hill.

<sup>5</sup> MAYES, T.; KIBBY, M.; ANDERSON, T. (1990). «Learning about Learning from Hypertext». At: *Designing Hypermedia for Learning*, NATO ASI Series, vol. F67, Springer Verlag. Version used in <<http://led.gcal.ac.uk/clti/papers/TMPaper3.html>>.

<sup>6</sup> THURING, M.; HANNEMANN, J.; HAAKE, J. (1995). «Hypermedia and Cognition: Designing for Comprehension». *Communications of the ACM*, 38, 8. New York: ACM, pp. 57-66.

tion integrating navigation by structure and navigation by content, that is, trying to construct a unique semantics beginning with those belonging to nodes and links. This way, moving through the structure or the content becomes one process and the question of whether the responsibility of choosing increases cognitive overload no longer has any meaning. Consequently, there may also be a decrease in the overload due to the process of learning navigation. If this integration is subtle enough, learning to navigate is learning contents and even the first contact phases with the system are profitable for the process of transmission of knowledge.

On the other hand, the proximity of content and structure makes complicity between author and reader, based on the game of controlled disorientation and its mechanisms of surprise and discovery we mentioned before, also contribute naturally to promoting learning.

Within the limits of this discussion on interactives for cultural dissemination we can probably find the most innovating ideas, those which best begin to use the specific characteristics offered by the new interactive audiovisual medium. Naturally, this incipient discussion coexists with others that are more consolidated and easily detectable that come from the direct transposition from traditional to new media: most interactives for cultural dissemination are catalogues –more or less direct extensions of paper media–, visits or simulations –with their real referent quite close– or interactive games –graphic adventures with cultural components.

The ways to achieve this integration between structure and content are currently open to the imagination of those designing interactives for cultural dissemination. The closest references, although not the only ones, come from the application of narrative principles, patterns, promotion and overlap of diverse languages coming from several multimedia.

## Narrative and audiovisual language resources. Examples in off-line interactives

In the last few years, the technical capacity of personal computers has allowed the CD-ROM to become a reasonably adequate support for experimenting treatments capable of integrating several audiovisual media quickly. A model of this is the process by which we

have moved from programmes executed in any window of the operating system to programmes that control the screen altogether—and the speakers—to immerse us in a narrative space somewhat like the cinema.

In this paragraph, we will summarily and partially describe three or four CD-ROMs for cultural dissemination to show some of the more interesting ways to put into practice the integration of structure and content.



Figure 2. Cézanne's workshop.

In the CD-ROM *Moi, Paul Cézanne*,<sup>7</sup> the main process is discovery. Words spoken over a black background introduce Cézanne to us speaking in first person singular. Right away, a musical fragment over one of his works leads us to a carbon drawing of a room full of objects and paintings. The sound of footsteps on a wooden floor can be heard as we move. We explore the space naturally; there are colourful objects which clearly stand out from the background which the pointer helps us to identify. We immediately note that we are in Cézanne's studio. Most of the objects give us information on the painter's context: historical facts, his contemporaries, his fancies... A few colours lead us out of his studio and take us to an animation with paintings and Cézanne's voice explaining an idea. The animation stops in the middle and asks us, in order to continue, to carry out an activity related to the theme of the animation. Once this second part is over, we then appear in a different space –also a carbon drawing–. We are in the Louvre a hundred years ago. We can go on exploring...

<sup>7</sup> INDEX +; TÉLÉRAMA; RÉUNION DES MUSÉES NATIONAUX (1995). *Moi, Paul Cézanne* [CD-ROM]. Paris.

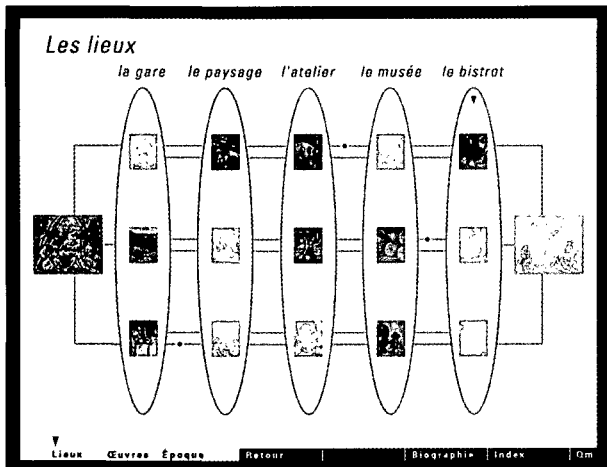


Figure 3. The Navigator: structure, space and places that have been visited.

The alternatives to navigation for discovery are always accessible in the lower part of the screen, separated from the space of the Cézanne audiovisual and integrated within the edges of black screen. A Navigator option is offered directly and takes us to a map of the interactive. This navigator allows us to move quickly through the contents and also to catch the intimate way content and structure have been integrated in this interactive. Cézanne's life and work are divided into 5 spaces chosen with a clear conceptual intention: the Studio, the museum, the taverns, the station, the landscape. The exploratory movement inside these spaces allows us to discover both the characteristics and the ideas the author offers us on Cézanne. The animations are like worm tunnels connecting these spaces and informing us from Cézanne's work and in his words. We can explore naturally like worms, or swoop down on any element like eagles.

*Makers of The 20th Century*<sup>8</sup> has been constructed on pre-existing material: biographies, based on texts, photographs and reproductions of news items, of the 200 most important people of the 20th century, first published in paper format by the Sunday Times Magazine in London. While maintaining this base material, the Israeli company Zappa Digital Arts constructed an interactive interface to access this material. This interface is structured in layers, each one offering progressively more complete indexes and information on the person in response to in-depth choice by the user. People are distributed in six worlds: Mind, Power, Body, Senses, Discovery and Design. The small icons giving access are animated when we go to them and hint at what is behind them.



Figure 4. The audiovisual animation corresponding to Pelé.

Each world has a visual, musical, and interactive process which is different depending on its theme. For example, the interface for the Body world is centred on an actress' body. According to the activity and the person we choose, it will carry out one activity or another: if we choose Pelé he plays with a ball, if we choose Coco Chanel, she walks down a catwalk...

The world of Discovery is a black screen. The pointer is the light from a flashlight, the music is rather muffled. The light uncovers small sound animations –Von Braun's V2, Neil Armstrong's footprint, for example. The first choice gives us the person's name, the second takes us there. The elements uncovered from the menu are not added: the screen is always black. The navigation tools –naturally– are to be found in the corners. In contrast, the world of Design is open and luminous, rooms folded on millimetre squared paper. As before, there is nothing anywhere, but a change of pointer makes us click on some spots. Indexes are small animations, usually of the most important object designed by the person. The animation «dances» until we choose it to go deeper into the person or until we choose another one. In this case, the object stops and is still. The difference from the previous world is that here –we construct the menu– by an accumulative process.

Similar ideas –showing complicities to readers to «reward» their advance– were used in our CD-ROM *Joan Miró. El color dels somnis* (The colour of Dre-

<sup>8</sup> ZAPPA DIGITAL ARTS (1996). *Makers of the 20th Century* [CD-ROM]. Leighton Buzzard (Great Britain): News Multimedia.

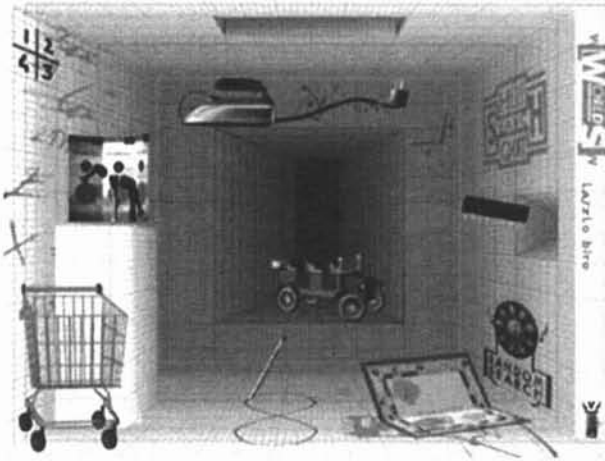


Figure 5. The world of design with a given menu.

ams).<sup>9</sup> The main access in this case consists of discovering elements in the same way Miró collected objects on the beach or in the country. In the diverse spaces there will appear, either in the space or time, a succession of objects which the user will collect by placing the pointer on them. That will uncover a first clue, in the form of a short animation which usually plays with small dynamic changes in the background being explored. A click on this active area will lead to a more defined information space constructed with audiovisual animations based on works and speech by Miró. A new click leads to an even more specific new level of information based on text, reproductions, painting catalogues, etc. A new in-depth consultation leads to a hypertext exploration of all the information contained on the CD.

*Opération Teddy Bear*<sup>10</sup> is a CD-ROM built upon an enormous data base of facts, events, places and

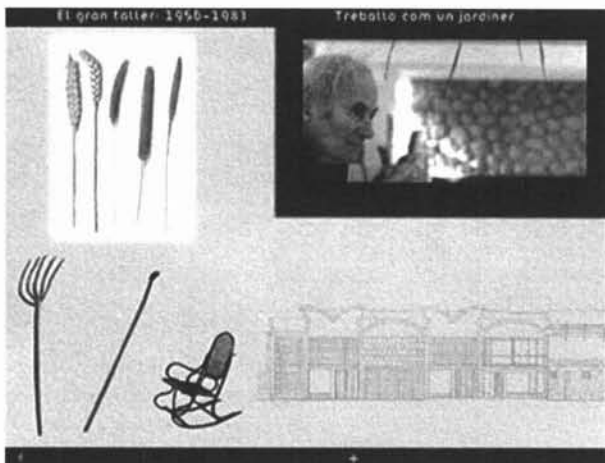


Figure 6. A disclosed element of "The Great Workshop".

people from the Second World War. The original process is centred on a story taking place in occupied France and narrated in a format derived from paper comics, which includes, however, a great many specific possibilities of the interactive multimedia.



Figure 8. The story on a simultaneous double plane.

The story –based on Nazi documents hidden in a Teddy bear– moves lineally. Some characters or objects move on their own or with others, text balloons appear, words, sounds and music are heard. Cinema references are clear, but sometimes media overlaps give us innovating results: we can see a sequence both in the foreground and in the background in two succeeding vignettes, etc. Every so often the action stops and we have to intervene, generally by clicking on a balloon, but also, by taking on the role of a protagonist, cleaning a window to see out into the next scene, or dragging someone into the next vignette so the action can continue, etc.

If we pass certain vignettes our attention is claimed by certain elements: a poster of a Vichy administration department, a collaborationist poster, a petro truck... They lead us to data base information on that specific theme. From here, we can either look further into the theme in question or go back to the story.

An important characteristic common to all these products for cultural dissemination by means of discovery is including alternative processes very evi-

<sup>9</sup> FUNDACIÓ JOAN MIRÓ; UNIVERSITAT POMPEU FABRA; CLUB D'INVESTISSEMENT MEDIA (1998). *Joan Miró. El color dels somnis* [CD-ROM]. Barcelona.

<sup>10</sup> INDEX +; FLAMMARION (1996). *Opération Teddy Bear* [CD-ROM]. Paris.

dently accessible for quick and efficient information access. All of them incorporate tools to aid navigation such as navigators or indexes, pre-set filters with theme or chronological access and even powerful data base search tools. The fact that the user can make joint dynamic use of these two opposing approaches –entertainment, enjoyment and learning along the routes to information or going as directly as possible to consultation of a specific concept– is one of the most powerful resources for training which characterises interactive applications.

## Computer animations and applications for cultural dissemination on the web

It would be a grave mistake to propose the design or analysis of an application for cultural dissemination by means of the current Internet web exclusively according to the parameters mentioned above for applications on CD-ROM. Two more or less circumstantial characteristics of the Internet are against this direct transposal: on the one hand, limitations on speed and regularity of the current web and on the other, presentation of applications in the environment of a navigator which incorporates decisive aspects of application control, including even the ease of definite exit.

Obviously, this second «limitation» reflects one of the essential characteristics of navigation in Internet: the capacity for access at any moment to information from any source. It is obvious that the design of a good application on the web ought to collect and know how to exploit this fact as far as possible, according to its ends. We will see some examples at the end of this article.

Current web technological limitations are a circumstance which still impedes free incorporation of audiovisual media considered to be more «heavy». We need only move a little within the web however to find excellent alternative solutions to this, both regarding technologie, design and concept of applications. The situation is no different from that of the CD-ROM –a slow format derived from the audio-CD, conceived to contain text data bases– when it was first «inflated» with interactive multimedia applications. The difficulties taht arose brought about the search for ingenious solutions. One of these solutions in particular, computer animations, often used to replace a fixed-image video

by fixed images with text or sound, has in fact become a new sub-genre in audiovisual communication with extraordinary expressive possibilities which we discover day by day in many of the new applications being developed.

Besides, due to the nature of narrative resources belonging to these animations, this sub-genre has developed mostly in the field of interactives for cultural dissemination we are discussing here. The earliest animations had a purely didactic purpose, often a mere extension of static graphics, such as those explaining the composition of a painting by lines, transparencies, overlaps, etc. synchronised with an informative voice-over such as the popular CD-ROM *Microsoft. Art Gallery* which Bill Gates' company published in 1994 but which had been developed in 1991 for the London National Gallery.<sup>11</sup>

These animated explanations became common in most cultural products in the mid-nineties. They were, for example, an important part of the explanation of Louvre paintings in the first edition of this famous CD-ROM.<sup>12</sup> In this product and others we were discovering new possibilities for explaining such as synchronising fragments of animation with details of a painting chosen by the user. But gradually animations went on from this subsidiary role usually linked to explaining a concept to another, often more decisive role in the audiovisual and interaction process of the whole application. Some examples are the bridging animations in *Moi, Paul Cézanne* we mentioned before or those which themselves make up a specific level of audiovisual access in *Joan Miró. El color dels somnis*.

In parallel, audiovisual and narrative forms of animations have become extraordinarily sophisticated. Even though their conceptual bases are referents to previous audiovisuals, they have taken on their own shape directly derived from the specific possibilities of computer media. For example the spectrum of different rhythms embraced, from the simple overlap of fixed images or simpler transitions to the pseudo-videographic dynamics characteristic of video digital editing programmes, which make «real» video applications superfluous. Or the integration of interactive elements in temporality of animations. Or the original application

<sup>11</sup> COGNITIVE APPLICATIONS (1994). *Microsoft. Art Gallery*. [CD-ROM]. Londres: Microsoft, National Gallery.

<sup>12</sup> MONTPARNASSE MULTIMEDIA (1994). *Le Louvre. El palacio y sus pinturas*. [CD-ROM]. Paris: Réunion des Musées Nationaux.

of technology thought up for other ends: for example in the CD-ROM *Orsay. Visite virtuelle*,<sup>13</sup> there is a use of QuickTime VR, devised to generate three-dimensional surroundings, to create animations/collages, that can be seen sequentially or be explored at will as if moving from right to left or up and down in an immense cylindrical «Panorama» dedicated to the theme of the animation.

Resources like these animations –also supported by specific technology such as Shockwave and Flash– allow the appearance of interactives for cultural dissemination on Internet with an audiovisual process almost as innovating as what can be found in off-line interactives. It is similar to the situation of these a few years ago. They make up a decisive element in the analysis of most of the different interactives on the web belonging to the next chapter.

## Narrative and audiovisual language resources. Examples in on-line interactives

The well-known characteristics of Internet have determined that, up until today, it is a medium dominated by applications based on text and fixed image. Most webs today are little more than printed brochures that have been placed onto the electronic screen. It is quite usual to find excellent examples of cultural dissemination insofar as content is concerned, but which must still take the first step towards integrating the different media. A good example is the application *Normandy* in the *Encyclopaedia Britannica*,<sup>14</sup> whose process is traditional, based on text, hypertext and photos. The video and the sound are processed the same as any text information, the access is by means of links in the side frame and appear in the surroundings belonging to the manufacturer of the decompression programme, without any kind of audiovisual integration.

But there are beginning to be many other applications with a clear will to draw the user in to their own world. A very interesting case along these lines is *On Board the Titanic* by Discovery Channel.<sup>15</sup>

It is a simulator of the famous first and only voyage of the Titanic. By means of the experiences of five different passengers we can get quite a complete view of the story of what happened. The introduction is, naturally, a text, taking maximum advantage of screen

dimensions. In this same place, we can select the passenger we wish to go on board with. A certain element of suspense goes along with us all the time: we will not know until the end if our chosen passenger will be one of those saved from the shipwreck. In fact, we must go on to the end so that the oval shows the image of our companion and we can know their complete biography.

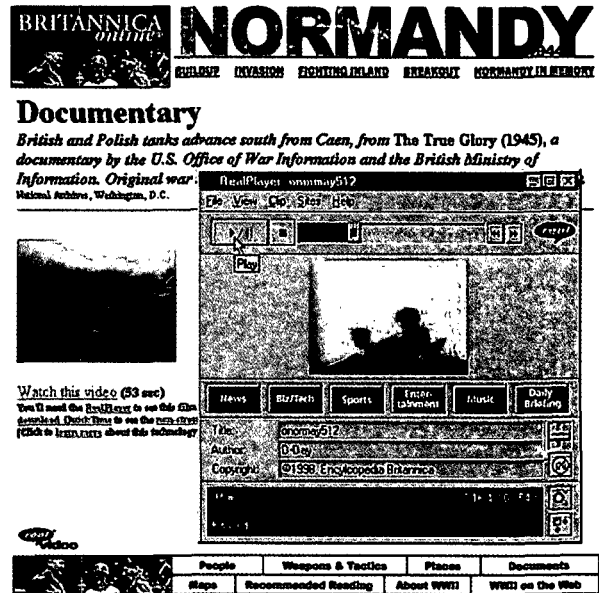


Figure 9. The video superposed onto the website

The simulated journey develops in a smaller panoramic window superimposed on the larger one. Needless to say, the user can move this window at will; however, the presence of a black background in unused parts and a conscious colour affinity achieve a fairly good integration of both parts and a certain immersion effect over and above the continuous computer references imposed by the navigator.

The passenger explains, in off, the events and impressions during the four days of the voyage. This documentary uses resources of computer animations we have mentioned: a succession of fixed images, panoramics over slightly larger images, text overprinting, transition effects synchronised with narration, etc. For example, the dialogue among several gentlemen in a

<sup>13</sup> MONT-PARNASSE MULTIMEDIA (1996). *Musée d'Orsay. Visite virtuelle* [CD-ROM]. Paris: Réunion des Musées Nationaux.

<sup>14</sup> BRITANNICA.COM (1999). *Normandy. 1944* [on-line]. <normandy.eb.com/>.

<sup>15</sup> DISCOVERY.COM (2000). *On Board the Titanic* [on-line]. <http://www.discovery.com/guides/history/titanic/Titanic/titanic.html?00000>.

*Titanic* lounge, seen in figure 10, is solved by slow panoramic shots which track down the person speaking, synchronising the printed phrases which fade in and out at the same linked rhythm.

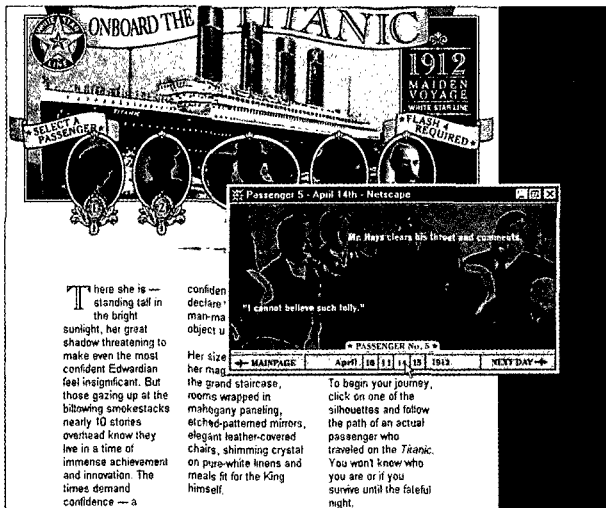


Figure 10. Memories of a traveller.

But this interactive, albeit interesting, is no more than an application with a very specific intention and small dimensions. It is difficult to find interactives on the web with a clear audiovisual vocation and which takes on a theme with in-depth intention which are common to current CD-ROM. The following product we will analyse also follows in this line; it is the interactive *American Photography. A Century of Images*<sup>16</sup> one of the excellent examples of this type from PBS (Public Broadcasting Service), a non-profit organisation which includes 348 public networks in American television.

As to most CD-ROMS for cultural dissemination, it even includes two complementary accesses, one

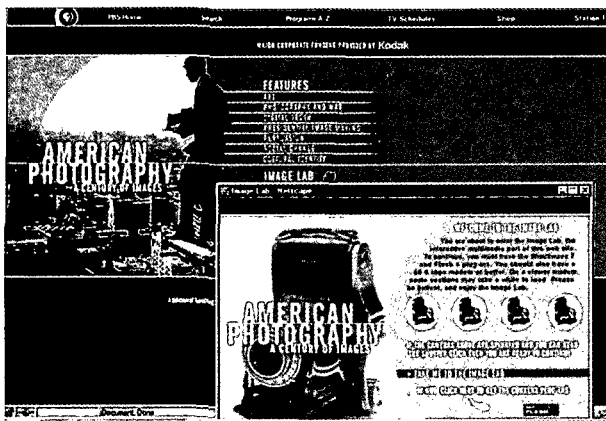


Figure 11. The main menu with two basic options.

markedly informative, *Features*, with an interface linked to efficiency, and another with a more didactic purpose, *Image Lab*, which makes quite extensive use of audiovisual and interactive possibilities. The main menu allows opening the window of this latter access or access to any of the former's seven options.

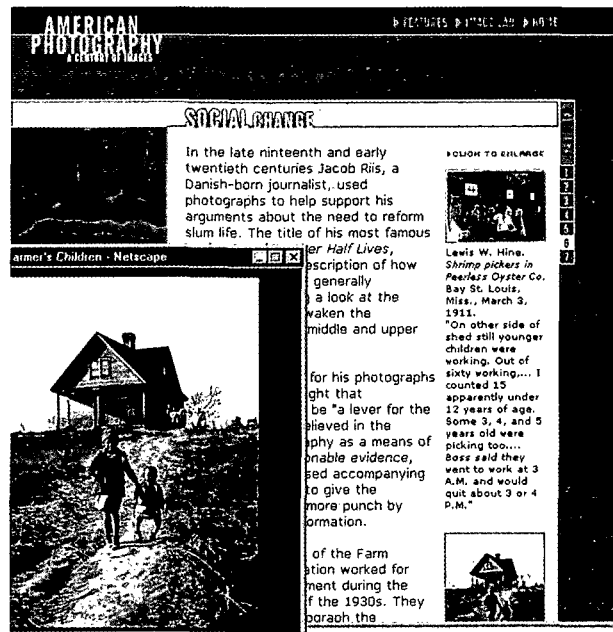


Figure 12. Features, web treatment.

The parts of *Features* have a treatment based on text, hypertext, photographs, blow-ups..., all usual on Internet, but in this case, quite adequate to the sort of information. The transition between different chapters and navigation in general is quick, simple and understandable. Other additional options, such as teacher guides, reinforce this purpose of efficiency and usefulness.

*Image Lab* is a container with three applications, *Virtual Photo Shoot*, *Digital Manipulation* and *At The Edge*, which allow didactic reflection on some specific aspects of photography. As in the case of the web on the *Titanic*, they all work inside a superposed window, visually integrated with the environment by colour and background.

*Virtual Photo Shoot* contains a documentary explanation of Dorothea Lange's photography based on computer animations. These lineal parts are reinforced with more interactive resources. For example, as we can see

<sup>16</sup> KTCAT/TWIN CITIES PUBLIC TELEVISION (2000). *American Photography. A Century of Images* [on-line]. PBS, <<http://www.pbs.org/ktcatamericanphotography/index.html>>.



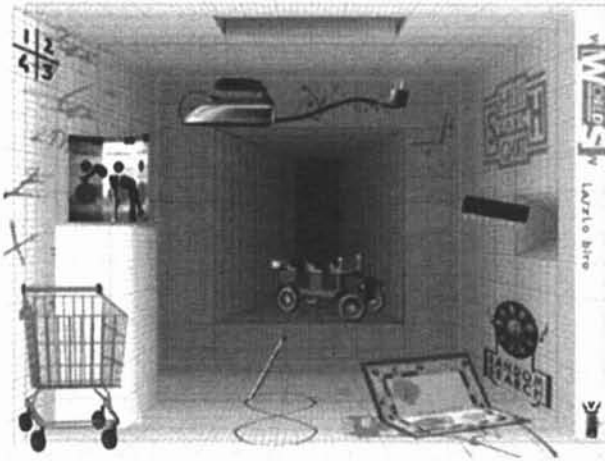


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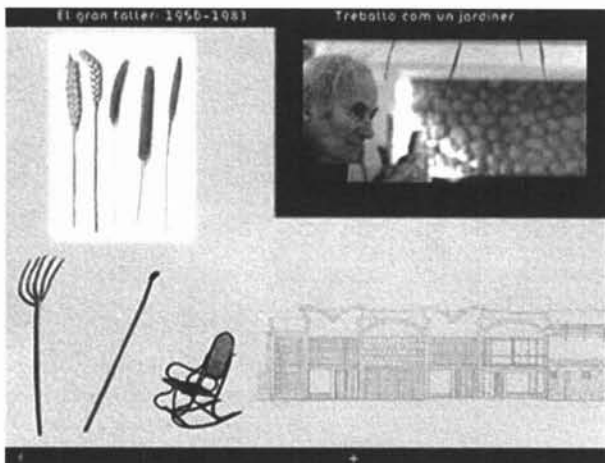


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<sup>10</sup> INDEX +; FLAMMARION (1996). *Opération Teddy Bear* [CD-ROM]. Paris.

in the figure, with a dialogue based on text and image to reflect on the characteristics of the famous photograph *Emigrant Mother*, we can find the cause of her great expressive force. The control of this dialogue is left in users' hands with help from step-to-step buttons.

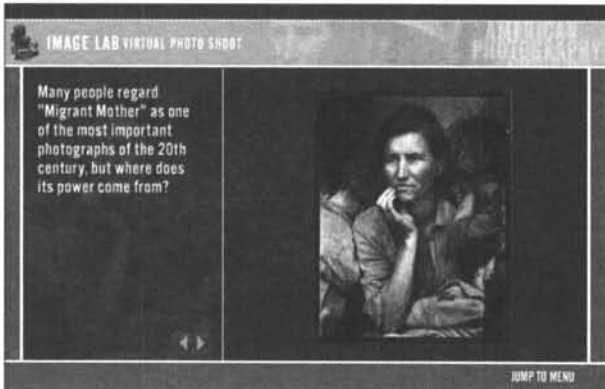


Figura 13. Questions posed on photography.

In *Digital Manipulation*, there is a reflection, also based on animations, on the possibilities of manipulating information which digital media have increased unceasingly. The thesis in the chapter is reinforced by a simple simulator for digital manipulation of electoral situations where, with a simple click on a candidate's face, hands, background, audience, or slogan we can alter the meaning of the message.

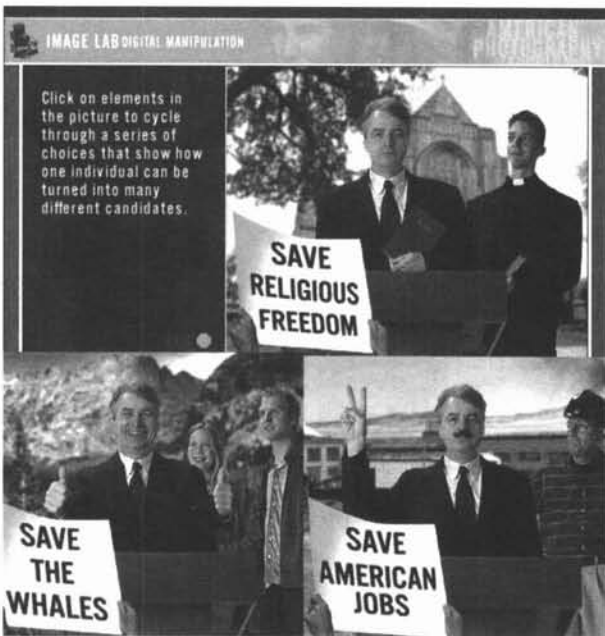


Figura 14. Good results obtained from simple resources.

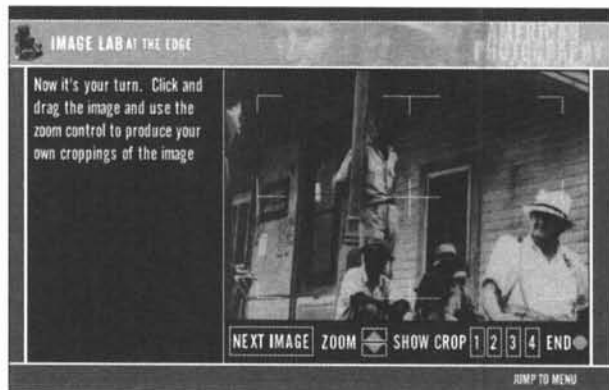


Figure 15. Trying out possibilities of framing.

Related to the former, *At The Edge* shows how radically the choice of frame can condition image meaning. In each of the example photographs we are shown, with comments, four different frames and then the application allows users, with a zoom and movements over the image, to experiment for themselves.

All three options are excellent examples of how good results can be achieved with a careful use of scarce resources, a situation rather like the beginnings of multimedia CD-ROMS and in which we can expect a similar development.

## Some ideas on specific web resources

Naturally, this web incorporates a list of links to other places related to the same theme: photography or related themes discussed. It would be absurd not to have them. The possibilities of connecting to the web are what really give innovating aspects in all sorts of applications in general and in those for cultural dissemination in particular. And any web on any theme incorporates its own list of related places, more or less classified and commented, more or less up to date. For any user this is one of the great attractions of the World Wide Web.

But the most innovating of web applications is the possibility for visitors to participate, not only as a spectator but modifying or increasing the contents. This will probably change author-reader relations, along with all the complicity games, which are the basis for any product which is disconnected, independent of its greater or lesser lineality or the material support. We are really at the true beginning of this change, and as yet we know very little of the possibilities it will offer

us and which, in the case of cultural dissemination, can even turn it into something else eventually, into a kind of rediscovered cultural animation.

Another aspect which is just beginning to be explored, sometimes urgently such as everything affecting new ways of commercialising digital music, is the capacity for promoting several media in their integration into Internet. Webs promoting traditional media products such as cinema or sound CDs are common. Not so common are applications playing on interrelations Internet can have with other media which are closer to it.

**RINGS of PASSION: 5 EMOTIONS**

LOVE ANGUISH  
JOY TRIUMPH FEAR

**INTRODUCTION — J. Carter Brown**

Step in front of a painting or sculpture: Your reaction is as individual as the place and time and circumstance of your birth.

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index  
resources  
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Figure 16. Five emotions to access art

We will now comment on a web incorporating some model ideas of these two previously mentioned aspects. *This is Rings of Passion*,<sup>17</sup> an application also included in the enormous and highly recommended American PBS.

The first thing that distinguishes this web is that it is part of a complex of different products, whose origin was an exhibition of almost 120 works of art from all world cultures at the High Museum of Art, Atlanta during the Olympic Games with J. Carter Brown as curator. The exhibition resulted in a print catalogue, a CD-ROM, a television programme and now this web. The motive of all these products was the organisation of the works in five human passions: Love, Fear, Anguish, Joy and Triumph, as we can see, an access highly stressing an author's intentions.

In the audiovisual and interactive ambit, the CD-ROM *Rings. Five Passions in World Art*, essentially developed by Jim Gasperini, one of the most original designers of interactives, together with Tennessee Rice

Dixon, with whom he set up Scrutiny Associates, is a very sophisticated product, in which music, poetry and discovery lead users along routes of pleasure and culture.

**Mary Cassatt**  
**MOTHER AND CHILD**

c. 1890, USA  
Oil on canvas  
35 1/2 x 25 3/8 in  
90.2 x 64.5 cm  
© Wichita Art Museum, Kansas,  
The Roland P. Murdock Collection.

**Painted around 1890 in the prime of Mary Cassatt's artistic career, this work represents what Cassatt did best....**

*The intertwining of the figures through line and color helps focus the viewer's attention on the intimacy between the mother and child.*

Painted around 1890 in the prime of Mary Cassatt's artistic career, this work represents what Cassatt did best — capturing in paint the subtle, psychological

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dialogs  
index  
resources  
welcome

Cassatt Detail 1

Figure 17. A catalogue of works.

Many of these possibilities are lost on the web. Inevitably, its structure is closer to a catalogue in which we approach works step by step, either by the main concept, human emotions, or by a quite operational index with filters by artist, title, date, country, etc. The idea, however, is to keep many of the multicultural traits which give personality to the ensemble. We can access recited poems or musical fragments, but after a choice by title and without the possibility of integration with all the rest of multimedia material so subtly exploited on the CD-ROM.

But where the web really overcomes the CD-ROM frontiers is, besides the well-known options of FAQs, debates, links, critiques, etc., the possibility open to any visitor for conceiving and broadcasting their own small sample. With some necessarily strict rules—choosing four works, commenting on them altogether or individual—

<sup>17</sup> LUCID DESIGN; MENSCH MEDIA (2000). *Rings of Passion: Five Emotions in World Art* [on-line]. PBS, <<http://www.pbs.org/ringsofpassion/>>.

ly— anyone can «hang» their choice in the public gallery. The people responsible for the web reserve the right to reject inappropriate proposals —because of language or content— to the spirit of *Rings* and give an annual prize at the «Museums and the Web» conference.

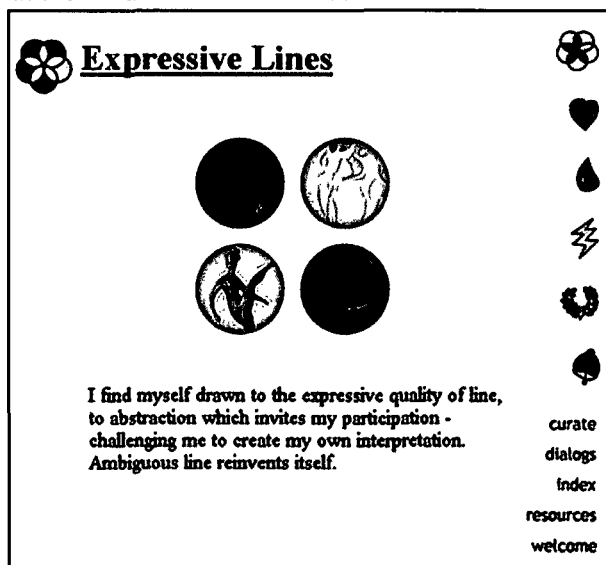


Figure 18. Entrance to a winning exhibition.

Naturally this, like many other examples we can find navigating in the web, are nothing more than the first babbling words of a new medium whose difficult birth we are privileged to watch. When the World Wide Web can complement these possibilities with narrative subtleties and audiovisual language we are beginning to glimpse in the more stable and quick interactives supports, it will have become a factor which will change the conditions in which cultural dissemination is produced forever.

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