

# *THE INTERFACE OF A MUSEUM: TEXT, CONTEXT AND HYPERTEXT IN A PERFORMANCE SETTING*

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## ABSTRACT

The purpose is to have a look at the role of textual communication in a setting of a complex communication situation, where spaces of many kinds play an important role. I suggest that the text in a museum interface can be looked at as an element in a stage performance. In computerized media, the role of text has been pushed in the background, to emphasize graphics of all kinds. It is argued, with the French philosopher Gaston Bachelard, that text, especially poetic text and hypertext, can have qualities that go beyond the literal message. A distinction is also proposed between the structural space, i.e. the structure of the medium itself and the presentational space, i.e. the space intended to be communicated. The structural space is a part of the context for the museum presentation. The problems of contextual relations are further elaborated with the further complexity of structural and presentational space in mind. One conclusion made is that text plays a very important role in the design of interfaces. Text, when put into computers, is all too often treated as a literal message and not as literature. On the other hand literature is all too often regarded as of no concern for informational purposes. It is of great importance to consider both those views and to include a concern for literary qualities in the interfaces we design. The design of interfaces has often been described as an art. A final conclusion is that if it is so, it should then also make use of the knowledge of the disciplines of art.

## KEYWORDS

interface design, text as a media, literacy and information

## INTRODUCTION

### *BACKGROUND*

Imagine that a typical regional museum starts its own Web server. To start with, typical Web pages are created, with a short presentation, some overview photos, perhaps a rough map, some information about when it is open to the public and some coming events, etc. But the aim is higher. A next attempt could then be to put out some pictures of pieces of the collections together with some informative text and connect the whole thing with hypertext links. Combined with other pictures of people, landscape, work, etc. and with a bit of artistry and engineering this could be a kind of interesting journey based on some theme.

A further step is to create a searchable database, available on the net. It would need a very good search engine, to be of use to those not familiar with museum registration standards, but this is not an overwhelming obstacle. With some imagination and good technology this is not too hard to solve, at least in part. Another enhancement is to establish communication channels, email, bulletin boards and other ways to electronically keep the contact with an audience. As technology develops, only imagination will set the limits for what is going to be.

All together, I would like to call this the "interface of the museum", implying that I'm here only concerned with the computerized and especially the Internet based interface. By "interface", I do not mean just the layout of the screen, symbols and controls used and the size of text to name some examples. By interface I mean the whole set of means used to establish a computerized, interactive medium between the museum and the "electronic visitor". This indicates also that I do not see the interface as a one sided presentation directed at some user. The interface is a two sided artifact, connecting two parties to each other.

A museum is a very space-oriented enterprise. The museum itself resides in one or more buildings. The most common kinds of collections contain spatial things or photos depicting space. Many museums also have an environment which in itself is an exhibition of buildings and architecture, in a mockup of an original village, town or rural landscape. Another aspect of museum space is inherent in the collected information. Placement in time and space is among the most frequent and important data that go with items in the collections.

A computerized interface for a museum should be much concerned with those different kinds of spatiality, whether it is a home page, a simple search engine or a more elaborated multimedia presentation. This is all the more important as the medium, the "cyberspatial" Web, raises a number of important questions about spatiality.

#### *PROBLEM AND PURPOSE*

The museum interaction situation is much similar to that of a performer with an audience. The performance contains, and is contained in, a variety of spaces, with the possibilities to use a variety of media. Lately a lot of interest, concerning communication of spatial content has been focused on advanced graphics and virtual reality. Still a lot of the spatial information in the museum is purely textual. One thing often forgotten is that most museums are places of literature. The exhibitions of artifacts are easily brought into focus, but a basic part of the work in a museum is documentation in text.

This sets the question of how text relates to other media for communication, especially when the interface is looked at as a performance, where the totality of the work, how the pieces of the play are put together and reinforce each other, is what foremost constitutes its quality.

The purpose of this paper is to have a look at the role of textual communication in a setting of a complex communication situation, where space of many kinds play an important role. I will do this in relation to the contextual setting that is indicated by the performance metaphor.

#### *OUTLINE*

First I shall outline some aspects of the museum, to make the reader more acquainted with the field of investigation. Following that, I will argue that text still is a medium with great capacity, even for conveying spatiality. I will then survey some aspects of the hypertextual medium of the Web. The paper ends in a discussion of text, hypertext and context, followed by some conclusive remarks.

### THE MUSEUM

#### *THE TEXTUAL MUSEUM*

A museum is thought of by many people as a place where collections of all kinds of things are stored

and displayed (covered with dust). True is that most museums collect various kinds of items and also display them. But, in my own experience from work with museum people, the activity perceived as most important is the collecting of words. The fundamental worth of a thing in a museum is what it can tell of time, place and persons. Things are illustrations of culture and history.

Any new item in the collection brings forth a wealth of questions regarding who, when, where, why, how. Almost every artifact there is accompanied by a text, often formalized in some way, describing the thing, stating its maker and owner, the place it stems from, the time of its making and use and various other data. Often there is a lot more; spoken information written down and collected documents of all kinds. Also there are a lot of written text produced by the museum staff, books, magazines, reports and diverse kinds of papers.

When displaying things, they are nearly always escorted by words, either written or spoken, by guides or recorded, sometimes in combination with other media, as videofilms or computerized multimedia. The words give the things their context and if it is a good exhibition, words, things, pictures and other media form a whole which tells a history, where each part of the presentation is as essential as the other.

The museum is not much without all its collected text. The only people who would get any substantial value from only looking at the things are those already familiar with them (not regarding the possible aesthetic qualities). They already have the context, an experience to which they can relate what they see. But an often outspoken aim for a museum is to preserve and pass on a culture. Just displaying things with no text seldom passes anything on. Culture lives very much in words and only by the help of words can collected things pass culture on to those not yet acquainted.

#### *MUSEUM DATABASES*

The above said is also the foundation for the need of museum databases. A museum database is not in the first place an inventory file, although that function can also be a part of it. The first aim of the museum database is to contain the basic textual description of any item in store. It also serves as an

index to more text, mainly in stored documents or in various kinds of publications.

Museum databases also often contains pictures. As long as we are talking about data of physical things the picture is secondary to the text. It serves as an identification and to give a first impression, for recognition and recollection.

Another kind of picture database is where the pictures themselves are the items collected. There the picture is at the center of interest and one can say that the collected things are residing inside the database, at least as a true copy. The original picture is mostly a physical photograph, stored in the vaults. The digital copy is as near as possible a true representation (overlooking technical and copyright issues that hold quality down), intended to give the same impression on screen as when looking at a paper copy of the original. Still, this does not diminish the importance of text. Text can be even more important, as many pictures contain much, in terms of what there is to see, but tell little of their connections to situations, location and persons.

The demands on a public search engine for a museum database are high. It should always give some kind of intelligible answer, even if the question posed does not conform to any technical or museal standards. It should be very helpful to the user, and very forgiving in terms of what can be entered as search words. Lately an interest has arisen to bring such search possibilities out on the Internet. Still most museum presentations on the Web are some kind of ready-made displays, sometimes called "Webmuseums".

#### *WEBMUSEUMS*

Today we can see many examples of "Web museums", especially art museums, where the presentation usually consists of a number of pages, each with one or more photographs of paintings or other work of art and, in best cases, some intelligent text telling something of the exposed. In many cases they are outright boring, some are good, and most are of no interest if one does not share the preferences of some person who put the pages together. It is far from a good physical museum, where almost anyone can stroll around and find something of interest. Of course there are many bad examples of physical museums also, but there is always the chance of

finding something surprising, getting to ask questions and getting involved.

Some museums give their Web site audience advanced multimedia presentations, which only those with a really fast connection can enjoy. All others fall asleep downloading. Here we certainly have one important aspect of why so many museum pages are that boring. Information technology (IT) as it is manifested on the Internet is still a very limited medium, regarding communication capacity. What one person can take in directly in seconds in a real museum, would take ages to transfer over the net. Also the presentation interface is limited to a two-dimensional screen. (I consider true virtual reality over the net still only possible as an experimental tool).<sup>1</sup> Earlier it was stated in this paper that the museum interface can and should be viewed as a kind of performance where all kinds of media play an important role. The Internet has some properties that favor higher attention than the text medium. This also brings in focus the relation between text and graphics.

#### TEXT, HYPERTEXT AND CONTEXT

##### *TEXT ON INTERNET*

One property of computer communication, that seems to have been a bit forgotten, is that it is a very fast and expedient medium for transferring text. It seems that the only thing that is there is the overloaded graphical pages of the Web. This overshadows that Internet has existed for many years as a mainly textual communication. Email, news and gopher were until recently the main services used. The main service for non-text transfer was ftp, with which any kind of stored information can be transferred. Even the http protocol, the foundation for the Web was in the beginning a pure text tool. In the last two years or so we have seen a tremendous shift from text to graphical ways of expression. Two years ago most Web pages would load in seconds, today there are often hundreds of kilobytes of pictures. Also, if one did not choose to load the pictures, most pages a while ago were comprehensible or at least possible to use for further navigating. Now many pages lack textual links. You will sometimes not even get a comprehensible heading, as it is embedded in a graphic picture.

Of course text has not disappeared. There is still lots of good text to be found and the purely textual media has not gone down the drain. It is interesting to compare with the common broadcasting media. As I remember there were many "experts" in the sixties that foresaw the decline and eventual passing away of radio with the rapid growth of television. The radio still holds its position well in this competition. This gives no evidence for what will happen on the Web, but it can at least be seen as a hopeful reminder.

### *PICTURE, TEXT AND CONTEXT*

A common saying is: "A picture tells more than a thousand words." This I believe to be a truth with many reservations. A more true statement I think would be: "Most pictures tell nothing if not accompanied by words." It is true that there are pictures which speak for themselves but consider even works of fine art which are not meant to speak in other ways than by their appearance. Those really interested want to know more of the artist, the history of the times when the picture was made, its techniques of making, who owned it and so on. Only for brief moments does pictures exist separate from context. Mankind is a curious breed and when something gets a hold of our interest we soon want to know more.

The pictures that do best without text are pictures of what we already are familiar with. The family photos, the pictures in papers and magazines of politicians, buildings, landscapes and everything that is a part of our well known world; those we can often look at and disregard any textual information.

The way a picture can tell us what words cannot is as a continuation where words are not enough. In good journalism, pictures and text accompany each other so that they mutually give context to each other.

It seems to me that the basic way of human communication is by word, written or spoken. When two people together look at something, a picture or a physical phenomenon, they seldom keep quiet. The communication does not take place by looking, the essence of communication comes from the words spoken. To look at something is only communication if the words are already said. We can communicate by pictures when the context is there

to be understood by both sender and receiver. This takes place when we know each other or share some experience spoken or written that gives us the clue to what is said by the picture.

On the other hand pictures can serve as illustrations to text. Illustrations of the kind which give context to a text are often of an archetypical kind. To direct the readers mind in a certain direction is done by pictures resembling what is well known. A lot of examples can be found every night on the TV-news, where archetypical illustrations are used very frequently. The illustrations are there often used to give some contextual space for events. We have all seen a lot of pictures of streets, buildings, landscapes, etc., not directly connected to the news item but serving as a contextual setting, a typical environment.

Though it is often the case, it is in no way necessary to use pictures to communicate a sense of space. Text in itself can be a spatial medium, which is what is to be pursued next.

### *TEXT AND SPACE*

The French philosopher Gaston Bachelard points out to us that text, in the form of poems, is a very efficient way to recreate the phenomenon of space in a person. The poetic text has an imaginative force, which brings the readers experience of well known space to life. As Bachelard explains it, this is not a metaphorical deliberately interpreted meaning in the text, it is an immediate phenomenological quality by which the poem in itself contains the image of space.<sup>2</sup> Basically, I think this poetic quality is a foundation for any communication, which goes further than just conveying a factual message. We all know the special quality of good writing, how a good book can bring places, persons and events to life as if they had actually existed or, if they really have, as if we had known them well.

To build an interface which brings space into the readers reality should then not necessitate any virtual reality, not even a picture. The needed thing is a quality in text. But, one important argument against this is that reading text on a computer screen is much more difficult than reading on paper. But why does text have to be long and tedious to read? Poems are more often short, putting the world into a nutshell, by exact wording and an intangible quality.

Does this then suggest that interface designers should be poets or that museum people gathering and writing texts should be? I do not think that, not in the sense that all have to be great authors to be able to design. I think, however, that artistic skill must be much more valued than it is. The texts used in communication do not need to be poetic masterpieces. They just need to be true expressions of human experience.

The imagination of space is not foremost a question of geometrical representation in pictures or more fancy ways to present it. The imagination of space resides in content, in artistic and human ways of expressing experience. And, experience is what is stored in a museum. All things, texts, pictures and the connection between them represent cultural experience of people. The museum business is to convey to the living audience the culture and frozen memories of other people, living or dead, and to bring this to life for the beholder.

What is achieved by good communication between people is reality. Reality in a pragmatic and phenomenological sense is lived and relived experience. Reality is not to be put outside the human being, reality is that which is experienced<sup>3</sup>. By communicating we recreate reality in each other, even without any virtual reality tools. Those are just one way of communicating space, and are mainly used to create a space that was never there to be experienced without the computer.

#### *THE SPATIAL HYPERTEXT*

A view conformant with that of Bachelard is presented by John Tolva<sup>4</sup>. The temporal/verbal arts are characterized by the succession of signs, Tolva states. The spatial/visual arts are characterized by the simultaneity of signs. Text is mainly temporal while pictorial art is spatial. But text can approach spatiality. One way lies in how it functions in poetry. "The expressive potential of poetry aspires to the condition of painting, that is to the condition of unmediated representation of the natural world."<sup>5</sup> This search for what Tolva calls the "natural sign", is recognized in the "current cultural craze for virtual realities and other hyperreal forms of delusion."<sup>6</sup> But this is also the drive behind poetic expression, a wish to create a non temporal image, a visual moment like looking at a painting.

Tolva shows how certain kinds of poetry can achieve the effect of spatiality by skilled use of word positioning and iteration of motifs, thus "freezing" the moment. This, he means, is also the case with hypertext. "The generous possibilities for linking in hypertext fiction and poetry create all the more opportunity for the reader to engage in this sense of extra-dimensional reading."<sup>7</sup> But here, I think, caution is needed. When we talk about the space of hypertext, especially concerning the Web, there can be several different interpretations. The computerized international networks have been named "cyberspace". The concept can be seen as an abstraction of the structural properties of the medium, where movement and location do not refer to physical distances or speed. Still this space can be as concrete as any building or geographic region, namely as a mental construction in the mind of the "reader". I will refer to this kind of space as *structural*.

But in any text, or hypertext, there are also the images of physical space, created in the mind of the reader from the intentions of the author, whether it is by minute description or by poetic, metaphorical language. This I will refer to as *presentational* space.

Tolva states that space in hypertext is imaginational and Bachelard talks about the spatiality of poetic image. The question is: Are those spaces the same. There is no doubt that Bachelard talks about intended images of physical space, even if imagined. It also seems as if this is what Tolva means. The structural properties of hypertext are means for the artist to create "allusions, parallellisms, and juxtapositions that contribute to the sense of textual space".<sup>8</sup> But he also tells us: "The graphical manipulation of lexicas and the iconic depiction of structural features, of course, adds to the reader's sense of spatial prescense as well."<sup>9</sup> It is not my aim here to go into what distinctions John Tolva makes or makes not, but to stress the point that we are dealing with more than one kind of space.

The distinction between structural space and presentational space, I believe, is one of crucial importance when thinking of interfaces. An interface for a museum presentation is to be very good at conveying presentational space. The elements used, text, pictures, moving graphics, sound, etc., all contributes to recreate a feeling of spatiality in connection with the museum, the things in the museum and the

spatial relation those have in terms of location, connections to buildings, etc.

Structural space can also be used to create spatial presentation. In the museum case we can use hypertext structure to represent rooms, floors, buildings and other physical locations, either as a representation of actual layout of the museum building, or as a newly constructed fictional space. This must be clearly distinguished from the use of spatial images as some kind of general navigation tool for large amounts of information.

Examples of the latter are Mackinlay, et al<sup>10</sup> and Waterworth<sup>11</sup>. Mackinlay, et al, uses a three-dimensional image of a kind of wall, the "perspective wall" to visualize relations between documents. Waterworth uses a more "life like" kind of images, where islands and buildings are representing various groups or types of information. Relying on the conventional HCI terminology, those attempts can be accurately described as tools for navigation. These and other tools of the kind are not in the first place meant to communicate spatiality from an author to a reader. The purpose is to visualize structural space in order to facilitate navigation.

The structural space is a part of the context for the museum presentation. But what is meant by context and what is it that makes certain elements central and others contextual?

#### *TEXT AND CONTEXT REVISITED*

Text, say Brown and Duguid, seems to be more context-independent than any other object of design<sup>12</sup>. Brown and Duguid speak of context dependency in terms of the distinction between center and periphery and to illustrate this use the example of publishing text. The argument is that if even texts can be shown to be context-dependent, the generality of their statements seems likely. Between center and periphery there is a border region. It is distinct from the center, because "its connection to the center areas conceptually contingent rather than necessary."<sup>13</sup> It is "distinguishable from the rest of the periphery if it plays a socially recognized role in the artifact's use."<sup>14</sup> The authors language indicates that the border region belongs to the periphery but is distinguishable as a specific part of it.

Brown and Duguid want to show some important things concerning design of artifacts. Border resources lie beyond what is commonly thought of as the artifact, and are consequently often not considered in design. Border resources and their meaning are developed over time in connection with the use of artifacts. However, the example of publishing takes on a double meaning in relation to the topic of this paper. The role of context has already been mentioned in connection with the mutual dependence of picture and text. This relation can be thought of as an example of center and periphery, where what is center and what is periphery is dependent on the circumstances. The other side of this is that the example itself points to how important the form for published text is. The cover of a book serves as a means to convey the genre of the book to the potential reader<sup>15</sup>. Type, layout, decoration and illustration are other examples of border resources. Those kind of resources, accompanying the central artifact, the content of the text, are called "a portable, public context to orient readers and engage a particular reading."<sup>16</sup>

Now, this is of course a very important matter for the design of a museum interface. Normally the physical museum serves as a context, where various properties of buildings, rooms, exhibitions and other features are border resources. The physical setting of the Internet user lacks presumably those resources. To give context to what is presented in the interface, it must be provided as a portable context.

An immediate reflection is that a portable context could be some kind of graphic representation of a physical museum, whether actual or imagined. To bring that thought to its conclusion we need a perfect virtual reality engine, where the physical surrounding can be recreated in living detail. First I believe this not to be technically feasible for many years yet. Secondly and more important, it remains to be proven that this is desirable. Why should the computerized interface not be looked at in terms of its own virtues instead of using it to recreate what can probably be better viewed in direct physical reality? The answer given could of course be that of giving access to many people that have no possibilities to travel to the museum location.

Be that as it may, while we are waiting for the living reality transferred by computer cable, there is a lot to be done in the ordinary 2D interfaces. It seems self evident that what is displayed in text or graphics needs context to be meaningful. Something not so obvious is the possibility to get center and periphery all mixed up.

This points back to my initial proposition of using performance as a metaphor, or rather like a kind of model for how the interface should be viewed. A stage performance is strongly dependent upon all ingredients working together to form a whole. Is the scenography peripheral? Are the sound effects border resources? Is the text central? There are no definite answers. It is not even possible to conventionally say that everything is of the same importance. To design a performance demands knowledge of the media used, the audience, the technical workings and the performers abilities. Everything is in a way contextual to everything else.

A hypothesis worth considering is that the Internet medium itself can have profound effects on what is considered central and peripheral. Take the example of a small peripheral picture which, while loading, attracts attention and gives arehension for what is to come. The bottom edge of the picture frame slowly moves down, revealing more and more, while the onlooker waits and attention is drawn from other parts of the presentation.

With this hypothesis in mind one can also think of the structural and presentational spaces. The hypertext with all its links seems to be able to attract attention in itself in a way that pushes the content in the background. The sheer possibility of jumping becomes the main attraction, the navigation in cyberspace its own goal and the structural space the reality to explore. And, if the structural space is constructed out of some structural properties of presentational space, what is then its role in terms of text and context?

## CONCLUSIONS

One conclusion already made is that text plays a very important role for the design of interfaces. Text, when put into computers is all too often treated as a literal message and not as literature. On the other hand literature is all too often regarded as of no con-

cern for informational purposes. I think it is of great importance to consider both those views and to include a concern for literary qualities in the interfaces we design. The notion of literature is one step on the way to think of an interface as a kind of show, where text often is among the important elements.

The apparent blurring of the distinctions between content and context, or center and periphery is something closely connected to the notion of interface as performance. In any performance all parts are of fundamental importance. In many kinds of plays the focus of attention can shift between elements of the show. How this is brought about and how it succeeds to convey something from the authors and actors to the audience is in its own right a discipline of theory and practice.

The design of interfaces has often been described as an art. A final conclusion is that if it is so it should then also make use of the knowledge of the disciplines of art. Even if it is not an art, but becomes a strict discipline of science and construction, I believe that there are much of worth to be collected from the artistic field. Fiction, poetry and the performing arts are all dedicated to tell people stories, to invoke feelings, to provoke to entertain, to enforce new ways of thinking, and also to make statements of the world. Is this not what the interface of a museum is all about?

## NOTES

1. An overview of the efforts to make museum material publicly accessible is Mannoni 1996, where the situation in France is discussed. Here is also found the URL's to some museums and related services.
2. Bachelard, 1969, chapter 1
3. This position I owe to the American pragmatism, a philosophy which I see as an important platform for my epistemological and ontological standpoints. This will however not be discussed further in this paper. See e.g. James, 1907 and Lewis, 1956 for some important works that have inspired me.
4. Tolva, 1996
5. Ibid p 67

6. Ibid
7. Ibid, p 68
8. Ibid, p 69
9. Ibid
10. Mackinlay, et al, 1991
11. Waterworth, 1991
12. Brown & Duguid, 1994, p 11
13. Ibid, p 8
14. Ibid
15. Ibid, p 12
16. Ibid, p 13

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