

LIBRARIES AND VIRTUAL LIBRARIES: RESCUING DIFFERENCES

The concept that we are going to be dealing with is “virtuality”. I will try to clarify the meaning of “virtual”, in order to establish the way in which it affects the word “library” in “virtual library”. I will try to answer the question about what sets the term virtual library apart from library, a word that is generally understood whereas the understanding of virtual is implied.

An informal definition of library in a strict sense could be that of a place where information is stored and kept in an organized manner for further use. However, what kind of library is one that is virtual? The answer to this will not be clarified until the meaning of virtual is known.

Virtual is force, is potency.¹ According to French philosopher Pierre Lévy, scholastic philosophy used this term to refer to what is or exists potentially. By potential it can be understood, following Aristotle in his metaphysics, as what is capable of being or what is possible to happen. Something that potentially exists is something that is latent, something that can happen. It may appear, actualize and realize its full existence. Something that is potential is something that is capable of being or becoming something, something else; or that has the power over something to change it (Aristoteles 1994).

We speak about potential and actual to refer to a way of existing. For instance, it is said that a seed is a potential tree. The seed’s “being a potential tree” will no longer be potential when it is actualized and the seed becomes a tree. Then the seed will no longer be a potential tree, and we will be able to speak about the realization of the potency, of its actualization.

¹ On the Latin origin of the word “virtual”, see Pierre Lévy’s work *Qu’es-ce que le virtuel?* Éditions de la Découverte, Paris. 1995.

Virtual, then, is not opposed to what is existent, such as a common prejudice would make us believe. Virtual must be understood as potential. Likewise, virtualization must be understood as potentialization, and it is opposed to or distinguished from the notion of actual. As Lévy wrote: “virtualization may be defined as the inverse movement of actualization” (Lévy 1999: 19).

What is actual is distinguished from what is potential in that what is actual is the result of the realization of the potency. Potency becomes an act and thus fully realizes itself. The inverse movement, that is turning an act into potency, is what we call virtualization. This is what happens when a text is digitalized and turned into hipertext.

Hipertext is a relatively recent term. However, it had already been mentioned, although not with the same word. Some of the authors who already characterized hipertexts are literary theoretician Roland Barthes in *S/Z* and French philosopher Michel Foucault in his *Archaeology of Knowledge and the discourse on language*.

According to George P. Landow in *Hipertext. The convergence of contemporary critical theory and technology*, the origin of the expression hipertext can be attributed to Theodor H. Nelson. However, for many, among them senior M.I.T. researcher Janeth H. Murray, the pioneer of hipertext theory is mathematician Vannevar Bush in “*As we may think*”, an article published in the *Atlantic Monthly* in July of 1945 and who set a milestone in the development of this type of narrative (Murray 2000).

A hipertext is a set of documents of any kind: written text, images, sounds or videos that are connected to each other through links. Each one of the units that is linked to another is called lexia². Each lexia may contain several links, or none. Hipertexts in data processors allow interconnecting documents, any kind of document, to each other. This breaks with the traditional “linearity” of written texts.

² The word lexia was used by Roland Barthes to refer to the units that comprise a text the way he proposed in *S/Z*.

However, the most inherent quality of hipertext is what relates it directly to the notion of virtual. A hipertext undergoes an inversion. It is not actualized, as it happens in common reading. On the contrary, a hipertext produces a kind of textual reserve, where as it is read, it is also unread. More and more links to other texts appear (text understood as “*elaborate discourse or deliberate purpose*” (Levy 1999: 37), unlike as the set of words that comprise a document). The text becomes mobile and its meaning is multiplied. This transforms the experience and the nature itself of what is read. When a reader navigates a text and chooses to follow or not certain links, he edits what he reads. He has the power to determine the final structure of the document. Furthermore, the navigator may even create links (given that he has the means), connect images to written texts and these to other texts, which brings him closer to the activity of the author and sets him apart from the traditional role of the reader.

It could be argued that in the traditional model of reading, references to other texts or works are fairly common, and that there is no such linearity, if one takes into account references to other documents, such as the case of quotes or footnotes. Precisely, this is an incipient case of hipertext. However, unlike hipertexts, the work is finished. Its beginning and end are clear and unique. Although this has its exceptions. One could think of *Hopscotch* (CORTAZAR Julio 1963), with two beginnings and two structures that turn this work into two different works, or of *The crying of lot 49* (PYNCHON Thomas 1965) as well, whose end is before the ending of the story. But the truth is that literature in general (as an expanded concept) has a linear structure, and obeys the traditional Aristotelian structure of a beginning, crux and ending explained by Aristotle in *Poetics*.³

In a hipertext the experience is more like reading-writing; the reader is author; he is reader; he is both; he is one and then the other, just as if he was moving on a Möebius strip, another essential element for the concept of virtual.

³ Which does not mean that a hypertext is not linear, how could it not be? It would be more fitting to talk about multiple lines, about the multi-linearity of a hipertext.

In mathematics, the idea of the Möebius strip is used to illustrate the concept of infinity. In our case, we shall use it to express that continuous transition from the interior to the exterior, from author to reader. In virtuality, the exterior-interior border is permanently mobile.

As it has been said, in a virtual document the difference between author and reader fades, and the reader is continuously the author of the text he reads. In virtuality another identity is acquired. This facilitates simulation in the network environment. For all of us, it has always been advantageous and even exciting to be able to hide behind the mask of a fictitious name in any space of virtual conversation (*chat*), in the anonymity of words expressed in a forum, or even an e-mail under fictitious data. On the web we can be anyone. Although for many this is an obstacle to give credibility to sources coming from electronic media, say the case of journalism; it is an irrefutable fact that knowing who is who on the Internet is even more complicated than when we are facing people.

Continuing with the issue of the Möebius strip and the reader-author distinction, in a traditional reading exercise, the one who reads must reach into the text as something already given, already finished. In a hipertext, the participation of the reader also takes place in a realm that is reserved solely for the author. As I mentioned before, the navigator defines the structure of the text that he reads, as if he could define its characteristics from within. Continuously he travels from reader to author and vice versa, and the division line that defines the distinction between these two entities is hardly visible. More accurately stated:

“Thus, writing and reading exchange roles. He who participates in the structuring of a hipertext, in the punctilious sketch of possible folds in the meaning, is already a reader, as well as he who updates a path or manifests this or that aspect of the provisions of the document contributes to composing the text, momentarily finishes an endless written text (Lévy 1999: 44)”.

Clarifying the concept of virtual leads us to revise a pretty common preconception of the term. On many occasions, virtual is understood as something nonexistent, for not being there. However, not being able to assign a

place to something does not necessarily mean it cannot exist (Lévy 1999). The truth is that the virtual exists although in a very particular way.

The virtual is ubiquitous. In fact, that which is virtual cannot be assigned a place. The virtual is in the middle, among things. It is nomadic; it travels. Deterritorialized, the virtual is in a different way when it is. The virtual, like a piece in the oriental game of *go* “tries to distribute itself in an open space, tries to occupy the space, to keep the possibility of appearing at any point.” (Deleuze et al. 2000: 361).

Certainly, the “location” of an Internet file is an URL, but where is it when it is seen on the screen? Where when the same file is seen by two people at two different places? Where if it is not in the middle, deterritorialized and not there.

Now, not only one geographic ubiquity is given. A virtual document is anywhere at any time. This is why the Internet has no time or space restrictions, and this is precisely why cybersites may be as local as one wishes.

An example of this localization and delocalization process is the yahoo.com website. The people who visit it may “localize” themselves by choosing the geographic location of the place where they are. In this way, they may know about the weather, museums schedules, movies and local news, among other things. Nevertheless, they can meet with strangers at the games section and play a game of chess, even if the opponent is hundreds or thousands of miles away.

In the same way, and connecting again with the characterization of virtual libraries, they will neither have a schedule, nor a place. A virtual library may be located anyhow and anywhere, a condition that a traditional library cannot beat.

The notion of hipertext could go much further in order to achieve a clear idea of what is virtual. More could be said about matters such as the broader concept of text, the erosion of personality, the linearity of narration and the “non linear”

notion of reading. However, I prefer not to delve into these problems and rather work on a fundamental definition.

A primordial notion must be added to define virtual: the idea of uncentering.

When a reader accesses a digital text that is connected to other texts through links, the text that he is reading has the priority or is the center. However, as soon as he jumps to another text, thanks to the available links, the center is another. The reader assigns the center of his reading as he reads, according to his interest.

In the model of traditional reading, let us call it linear, the reader is subjected to an organizing axis. The focus is given, whereas in a hipertext the center is temporary and it is the reader who assigns it. He centers, uncenters and centers again; he moves or modifies what he reads, shaping it according to his interest.

This sense of active reader can be related to interactivity. For Janet H. Murray virtual environments, regarding interactivity, behave in two ways: they are participatory and procedural.

Procedural because they have the capability of executing certain rules step by step, like an engine or a machine. Participatory because the procedural behavior may be initiated by the reader or visitor. When we talk about participation, we assume there is a virtual answer to an order imposed from outside. For Murray: "This is what is most often meant when we say that computers are interactive. We mean they create an environment that is both procedural and participatory." (Murray 2000: 74).

The possibility of a hipertextual connection in a network, with interconnected texts, allows the reader to relate one topic to another with the speed of thought. Vannevar Bush already mentioned it in his legendary article *As we may think*. Association is more related to the mind than indexes are. For him, the human

mind takes instant leaps by suggestion of ideas. As similar systems, hipertext and the human brain work analogously (Bush 1945).

There lies another difference between a library and a virtual library. When we talk about uncentering as one of the characteristics which is inherent to the virtual, a big gap opens up between them.

There is an immediate relation between a reader and the resources that he consults. It breaks away from the usual chain at the traditional library: consulting, ordering and obtaining the material.

Likewise, this possibility of uncentering a text which has been accessed through a virtual library, activates the thematic relationships among lexias, invoking a fairly deep resemblance with the human mind. This uncentering becomes a useful tool in the field of association of ideas.

Once one accesses a virtual library the limit becomes sensible. In the realm of what is actual, in the realm of a traditional library, there are sharp differences. Nothing can be altered. The inside and the outside are as clear as the presence of the book in one's hands. In spite of the possible efforts to bring the library close to the reader "without him leaving home", the temporal and geographic limitations clearly set its limits and limitations; something that does not take place with one that is virtual. The strange presence of a virtual library, the lack of a place and a local time, multiply and establish a set of unedited possibilities.

Even though the topic of the classification of resources is an essential matter for any library, whatever its nature is, a virtual library does not end there. For any collection it is vital that the elements that compose it can be easily recoverable, regardless of the resources involved.

It is clear that the nature of the resources that comprise a collection is necessary to establish the way they must be classified. A library and a virtual library share the need to classify, obtain and preserve resources, but it is

essential to find the differences; the similarities fit our prejudices easily. The differences are what must be rescued, for they are capable of shaking our thoughts, beliefs and opinions, and the difference in this case is given by the word “virtual”.

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2002

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