

in eternal
in the same

~~database~~

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ABSTRACT

This paper is a theoretical essay on the installation **database. database** is an electronic reading device that deals with the inversed functionality of three technologies: a printer, a video-camera and a database. Consequently, it raises issues about the erasure of text, the act of reading in real time (i.e., listening to a printed text), and physical databases. We challenge the idea of databases as non-linear and digital structures, and printers as output devices as well as information recorders. The installation deals with the opposition between presence vs. absence, recording vs. erasure, memory vs. forgetfulness, present vs. continuous time, and reading vs. listening. These concepts are connected with the idea of present time as a time that is always passing by. ✕



1. database

This paper is a theoretical essay on the installation ~~database. database~~ is an electronic reading device that deals with the inversed functionality of three technologies: a printer, a video camera and a database. Consequently, it raises issues about the erasure of text, the act of reading in real time (i.e., listening to a printed text), and physical databases. It consists of four main interfaces:

1. A printer, with a video camera attached to the printer head. While the printer prints, it also films.
2. A projector connected to the video camera, which projects what the camera “reads” onto the wall.
3. Paper sheets completely filled with text, which function as physical databases.
4. A computer screen displaying a blank virtual page.

The initial screen interface consists of a white background. As soon as the user starts to move the mouse over parts of the screen the underlying elements become visible. These elements are either black rectangles or keywords from the database. Black rectangles are shown when the respective text in the database is not a part of one of the dialectical word-pairs (i.e. the keyword is shown when it references to some other word in the database). Examples of keywords are “forgetfulness”, “memory”, “present” and “past”. When the user moves away from the currently selected elements, either the words or the black rectangles fade away to white. However, when the user clicks on a black rectangle it remains black. After clicking a keyword, it is replaced by a black rectangle that stays, thus erasing the corresponding word.

After a few clicks, the screen is filled with black rectangles that are used as commands for the printer to navigate the camera. The black rectangles resulting from keyword clicks are important navigation instructions for the printer head to move the camera to the opposing term. This term becomes visible on the projection screen in the process of printing over the keyword.

The printer prints on the pre-printed page (physical database). Nevertheless, instead of printing, it erases (covers) the words that the user previously viewed on the screen. Simultaneously, the camera reads different words and projects them onto the wall. These words are antonyms of the words formerly seen on the computer screen. However, they are not exact antonyms. For instance, the user can read “perpetually” on the screen and “too fast” on the wall; or even “promise” on the screen and “past” on the wall.

This fact is the result of two decisions. First, we did not want to make a one-to-one translation of the words. Second, the computer screen is actually accessing a database of quotes that is on the paper. The quotes are from authors in Literature and Philosophy who have written about the topics we are dealing with: erasure and recording, presence and absence, actual and virtual, writing and oral. In this context, the paper functions as a database. However, instead of tables or categories, it is structured in the form of linear text. The process of reading then creates the deconstruction.

The words on the virtual paper (screen) are simultaneously commands to erase their corresponding word on the physical paper and to project their antonym onto the wall. While the printer is working, the camera attached to it “reads” the paper in a fraction of a second. This means that the camera allows the reading of text during the process of erasure.

2. Behind the database

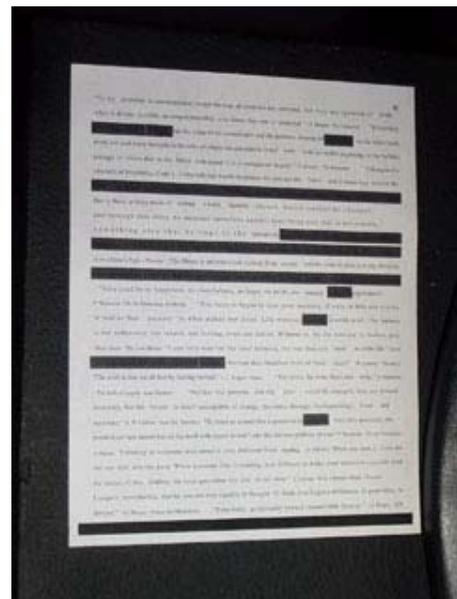
The concept of this project emerged from three main ideas.

- The physical database on a sheet of paper. Physical databases, which use paper as support, are set against digital databases, which use computers as support.
- The printer that reads while it prints. With the video camera, the printer — generally a mere output device — turns an input/output device. Furthermore, the video camera only allows the reading of text in real time.
- The erasure in the process of reading. The erasure of the text (i.e., covering the text with black ink) modifies the database, creating new meanings from the original text.

Our aim is to question the traditional meaning of computer interfaces. We achieved this by inverting their basic functionality.

2.1. Databases and Narratives – how we can access information that is outside the computer

Databases are the expression of our contemporary culture. According to Lev Manovich, they are the very representation of our world, which also “appears to us as an endless and unstructured



collection of images, texts, and other data records”.¹ It is interesting to think about databases as cultural forms, because their structure is based on fragmentation and non-linearity, which are strong concepts that help us to understand the environment in which we live. Nestor Garcia Canclini² affirms that we live in fragmented cities. He compares them with the aesthetics of video clips. Like video clips, the city is made of discontinuous images. Walking through the city is like mixing diverse narratives: following the ever changing images of churches from the 17th century, buildings from the 19th century, and from all of the decades of the 20th century, cut off by huge outdoor advertisements where one is able to see the body of models, new kinds of cars and recently released computers. Everything is dense and fragmented. Like videos, the city is made of images stolen from everywhere, in any order.

If cities — and also our lives — are organized in a database-like structure, how do we access this database? How can we narrate the city again? Extending the idea to the digital world, where computers can be viewed as database-machines, it is still more important to ask: how do we access data in computers? Computers have frequently been analyzed as story-telling machines³, meaning devices composed of large amounts of data, connected through meaningful associations — similar to Vannevar Bush’s Memex.

Bush, right after World War II, attempted to make sense of the large amount of information that was being produced. The main problem was not how to produce information (because information production was increasing very fast), but how to access it. Thus, connecting this information in a logical way would be much easier than listing items in an alphabetical order, as a traditional encyclopedia does. Nevertheless, in doing

¹ MANOVICH, L. 2001, p.219.

² CANCLINI, N. G. 1995.

this, Bush was also creating a new type of narrative: a narrative that had no previous order, which was created by the person who links the available information. This concept was coined by Ted Nelson in the sixties under the name of Hypertext.

Creating Memex, Bush was viewing the world as a database. The relationship with technology is always bi-directional. On the one hand, the vision of the world as a database influenced the organization of computers as database machines. On the other hand, our existence is influenced by computer structures, what lead us to organize our thoughts in a database-like structure. Hence, new technologies reflect our culture as well as our culture reflects new technologies.

Vannevar Bush's great contribution was creating a different model of interface to access the huge amount of existent data: an interface based more on our way of thinking than on a hierarchical encyclopedic structure. Without the proper interface, databases become meaningless. Manovich⁴ views the computer environment as a scenario constituted by two main characters: the interface and the database. The database is an assemblage of elements, subdivided into categories. The interface is a way of accessing the database and of rearranging its elements in a linear, human-like way. In this context, diverse interfaces can be created to access the same database, pointing to different "readings" of it. Therefore, the concept of interface is as important as the concept of the database, because one cannot work without the other.

Notwithstanding Manovich's point of view, we do not believe that the logic of the web is anti-narrative — it is fragmented. Digital narratives are types of narratives that use digital media as support, but need humans (and interfaces) to make sense of them.

³ Cf. MURRAY, J. 1999.

⁴ MANOVICH, L. 2001, p 37.

Furthermore, in questioning the traditional separation between narratives and databases, our installation creates a database that is already a narrative. It is structured in a linear way (and not in categories, as usual), but can only be accessed in a random way. On the sheet of paper, there are quotes in a linear text. However, the user only has access to it through the computer screen. Via the screen, parts of the database can be visualized, emphasizing the fragmented structure of the web as well as the hypertextual model — one can only access parts, never the whole. Similar to a folded map, from which the user can only access fragments, the projection just allows the visualization of certain sections of the database. Although these viewable sections are different from the ones initially selected, they are connected through inverse meaning. Moreover, when the user gets the final printed paper it is still not possible to access the whole database, because parts of it have been erased. Therefore, all interfaces are complimentary to each other. Only the three mediums together (monitor screen, video and paper) can represent the whole database.

In **database**, each interface (screen/printer, printer/video-camera and paper) is a different layer of meaning that allow the user to access data from different perspectives. For example, if the user sees one word on the screen, s/he reads its opposite on the wall, thus creating a tension between what is read on the computer screen and what is expected to be read on the projection. In addition, another tension is created in the moment the paper is printed, because everything that has been read before disappears — the words read on the screen because they are erased on the paper by the printer, the words in the projection because they are lost within the text. In the end of the process, the database is modified and takes on another meaning.

Another important opposition is the tension between physical and digital databases. By placing our database on a sheet of paper, we are inverting the common significance of databases as digital structures and looking back to the predecessors of today's databases: libraries and encyclopedias. But, unlike libraries and encyclopedias, which structure their data in a hierarchical tree-like way, our database is linear — it is narrative. This inversion is related to the comparison that Manovich creates between syntagm / paradigm and narratives / databases. According to Roland Barthes, “the syntagm is a combination of signs, which has space as a support.”⁵ If we take the example of written language, the syntagm represents all the elements that we choose to create a sentence, which are structured on a piece of paper. On the other hand, the paradigm represents all the virtual words that could be on the paper, but are not actually used. “Put differently, the database of choices from which the narrative is constructed (the paradigm) is implicit; while the actual narrative (the syntagm) is explicit.”⁶ Manovich affirms that new media inverts this relationship, because the database (the paradigm) is given material existence, while narrative (the syntagm) is dematerialized. Hence, paradigm is actual; syntagm, virtual. By placing our database on a sheet of paper, it actually has physical existence; the user can hold it in his/her own hands.

2.2. A printer that reads — real time and the relationship between the inside and the outside

⁵ BARTHES, R. apud MANOVICH, L. 2001, p.230.

⁶ MANOVICH, L. op. cit. p.231.



In addition to the installation's database⁷, the interfaces themselves are the elements that create new meanings to the work. The next two topics are closely related to the inversed functionality of technologies. The first one is related to the role of the printer as an input device and the act of listening/reading in real time. The second one deals with the erasure of writing.

As long as there is a video camera attached to the printer head, the printer also functions as a reading device. Consequently, instead of being exclusively used as an output device, it also works as an input device, similar to a scanner, but it does not store digital information. A scanner is an electronic device that reads and records information, digitizing analog documents. Generally a printer acts in the opposite way: it prints digital documents and records them on paper, creating analog files. Hence, it withdraws information from the computer — from the virtual realm to the physical world.

database's printer works with two basic oppositions:

1. The printer does not print text, but covers it.
2. The printer (or the camera) reads, but does not record.

Therefore, the existence of the text is ephemeral, because it disappears in seconds — as soon as the printer goes to another line of text.

Here we have the basic and most archaic opposition between reading and writing, or in another perspective, between speaking and writing. Writing was invented as a way of recording information. With the emergence of writing, it became possible to freeze ideas and words for later access. In this context, the interface⁸ used (that is, the physical

⁷ And our database is actually an interface as well.

⁸ Here we are referring to the expanded meaning of the word interface. This concept was born together with the computer culture to designate the mediator between humans and computers (that is, a way of allowing humans interacting with machines). Soon it had its meaning expanded into another kinds of mediation,

support used to write on) was critical for the permanence of writing. For example, books made of parchment were much more durable than other ones, which used papyrus as support. Also, writing on papyrus was better than writing on clay. The more durable the interface, the longer the information remained. In opposition to spoken words, which are ephemeral and exist only at the very moment they are spoken, writing has an “infinite” duration (depending on the interface upon which it is inscribed). Therefore, writing deals with time differently than speech does.

This issue becomes clear when we look towards the era before the invention of writing, that is, to oral cultures and their relationship with time. In oral cultures, all knowledge was transmitted by means of speech and story telling. Consequently, stories had to be repeated many times, from generation to generation, in order to be remembered. The connection between time, speech and memory is critical to the development of our work. Pierre Levy⁹, in *Les technologies de l'intelligence*, shows how memory has evolved from the oral period (where story telling determined society), passing through the writing period (where there was a linear understanding of time) to the digital age (where we have a “hypertextual” memory, that is, simultaneous times can coexist). In the oral period, time was circular and knowledge was transmitted by telling stories. Then, the act of telling a story had great importance, creating a collective memory, because culture was based on oral communication. It is important to stress the dual role of narrators and storytellers: they were the ones who transmitted and stored knowledge (information) as well as the ones who interpreted this information.

signifying almost everything that could mediate any communication relationship. In another words, the concept of interface can be understood as a way of re-representing information in order to connect two distinct instances.

⁹ LEVY, P. 1993.

When writing emerged, this relationship was destroyed, creating two separate instances: information storage devices (walls, clay tokens, papyrus) and people who read and interpreted information. Also, writing began to function as a memory device, to the point that writing on paper became a substitution for memorization. Consequently, it became possible to store a considerable amount of information and later retrieve it. Henceforth, information could be organized in a different way, leading to a more linear thinking, because stories no longer required repetition. Aristotle's definition of narrative as something that has a beginning, a middle and an end exemplifies this thought model. The linear reading not only changed our way of thinking, but also transformed the way people conceptualized time — from a circular time to a linear time. Linear thinking is a consequence of writing (especially Occidental writing) and it was strengthened with the advent of printing.

Many authors tried to challenge this linear organization of time by creating structures that dealt with multiple and simultaneous times. Gottfried Wilhelm Leibniz, in the 17th Century, writes about the concept of the virtual in philosophy, creating the theory of impossible worlds and divergence of series. He understood the world as an assemblage of different possible worlds. These worlds, although all of them were possible, were impossible with each other. Consequently they could coexist in the same world. If we consider Leibniz' concept of the possible as another way of saying virtual, we can say that there are lots of virtual worlds, but only one of them can be actualized at a time. In the very moment one world becomes actual, it automatically eliminates all other possibilities. Thus, time (or reality) consists of a series of one actualized possible world after another. Furthermore, Leibniz argued that though a series

of worlds was possible, the best sequence of all had been chosen and actualized by God. In the *Theodicy*, Leibniz explains: “Here are representations, not only of what happens, but also of everything that is possible. Jupiter reviewed them all before the beginning of the existing world, arranged the possibilities into worlds, and chose the best of them all.”¹⁰

In the tale “The Garden of Forking Paths”, Jorge Luis Borges radicalizes Leibniz’ theory. Instead of accepting the existence of one linear series of worlds, he constructs a model where all possibilities are actualized. Representing the world as a labyrinth in which one must choose a direction at each bifurcation, he suggests a forking in time, though not in space:

“In all fictional works, each time a man is confronted with several alternatives, he chooses one and eliminates the others; in the fiction of T’sui Pen, he chooses — simultaneously — all of them. He creates, in this way, diverse futures, diverse times which themselves also proliferate and fork.”¹¹

Hypertexts are often compared to labyrinths, due to their bifurcated and non-linear structure. If hypertextual reading happens by following a sequence of links, and actualizing each link at a time, Borges radicalizes this idea, actualizing all the possibilities at the same time. However, even though one can speak about non-linearity in a hypertextual reading it is evident that each one of us creates a particular linearity. The same goes for a database. The way we access a database may not be linear, but the associations made among the accessed items form a chain of information — just like the Memex worked.

¹⁰ LEIBNIZ, G. W. 1934, p.263.

¹¹ BORGES, J. L. *Labyrinths*. 1962, p.26

Returning once again to Lévy and the idea of demarcating eras according to the model of reading, we can say that the digital era has again transformed our way of reading: from a linear model to a connected model. In the digital context, telling a story assumes a different significance, because order is no longer determined by the author, but by the user, who decides which links to follow. This means that the role of the author (that is, the storyteller) has shifted. In contrast to the modern author, who writes a story from beginning to end, the hypertextual author is one who stores information that can be accessed (“read”) in a variety of ways. Similarities between this practice and the construction of a database are NOT coincidental. An interesting story that exemplifies the hypertextual narrative is told by Michael Joyce, who wrote the first electronic hypertext story, “Afternoon, a story”. He sent his novel to a friend and asked his opinion about it. His friend read and read, following one link after another, until it was almost one o’clock in the night. Finally, he stopped and called the writer, complaining that he was feeling very uncomfortable, because he had no idea when the story was going to end or even if it had an end at all. Then the author laughed and said that it was impossible to know if he had read everything because every time he read it, the text would take him into different directions. And, in fact, getting to the end did not even matter. In saying this, Michael Joyce was dislocating himself from the position of a traditional author. However, the friend’s concern is a real one, shared by many who are not accustomed to hypertext reading and who think in a linear way. This is not to say that hypertext is non-linear. It is, in fact, multi-linear. The crucial difference here is twofold: (1) the person who creates the linearity is the reader, not the author; (2) the hypertext narrative is open-ended.

Although we still do not know how these changes in the way of reading and understanding narrative are going to affect societies, cultures and ways of interacting with others, we can look at the historical impact of writing on western culture and perhaps imagine the future. Since the emergence of writing culture a new role was developed, that of the reader, in opposition to the narrator. According to Italo Calvino,

“**Listening** to someone read aloud is very different from **reading** in silence.

When you read, you can stop or skip sentences: you are the one who sets the pace.

When someone else is reading, it is difficult to make your attention coincide with the tempo of this reading: the voice goes **either too fast or too slow.**”¹²

In **database**, the video-camera plays the role of the one who narrates. It reads the text and projects it onto a wall. But the user is only able to read the words at the very moment they are projected. Thus a real time reading is created which is analogous to what happens when someone listens to a narrator. The “listener” is forced to follow the rhythm of the printer, because the user cannot really hold the text in his/her hands. Access is only possible through the printer. According to Calvino, “the text, when you are the reader, is something that is there, against which you are forced to clash; when someone translates it aloud to you, it is something that **is and is not** there, that you cannot manage to touch.”¹³ **database** combines the concreteness of a written text with the (immateriality) rhythm of an oral storytelling.

The immateriality of speech is identified by Jacques Derrida as the main event behind the emergence of Occidental society. He believes



¹² CALVINO, I. 1981. p.68.

¹³ Idem.

that speech is being replaced by writing, but for centuries spoken words have had a privileged position when it comes to the structure of language. Derrida is not alone in his assessment. Many authors, like Saussure and Hegel, demonstrate the privilege of sound in idealization, and in the production of concept. They affirm that sound is the very representation of thought. On the other hand, writing is considered to be a representation of sound. For this reason, it is a mediation of a mediation and a representation of the “exteriority” of meaning. In Derrida’s words: “There is therefore a good and a bad writing: the good and natural is the divine inscription in the heart and the soul (the speech); the perverse and artful is technique, exiled in the exteriority of the body (writing).”¹⁴ This perspective follows the thought of Aristotle, who believed that spoken words were the symbols of mental experience and written words were symbols of spoken words. Therefore, spoken words had an essential and immediate proximity with the mind, while written words were a less perfect representation of thought and feeling, what means that spoken words are related to an interior experience, while written words are purely exteriority.

This relationship between inside and outside, exterior and interior is also reflected in the role of the printer in **database**. The printer is simultaneously an output device — printing the written text, which is an exteriorizing process — *and* an input device — reading the text and projecting it onto the wall. As an input device, the printer plays the role of the narrator, displaying “spoken” (and ephemeral) words.

Derrida speaks of a continuing shift from phonetics (speech) to writing, that is, from the ephemeral to the permanent. With **database**, we are trying to subvert this situation by changing the role of the printer: from a recording to a reading device. Once

¹⁴ DERRIDA, J. 1976, p.16 (parentheses are from the authors of this text)

the printer “reads” the text and projects it onto a wall, it is as if the printer speaks, because one can only read the text at the very moment it is being projected. The printer’s role is analogous to that of a narrator reading aloud. Just as one must follow the rhythm of the storyteller when one listens to a tale, the user must follow the pace of the printer in this installation.

Hence, through **database** we want to call attention to the process of reading or more precisely to the process of listening to a written text. When reading a book, the reader determines the rhythm. When a text is read aloud, the listener must follow someone else’s rhythm. However, the installation works with writing rather than speech. There is no sound in the environment, except for the noise of the printer printing. **database** works with text and subverts its intended function, which is to store information. The main role of text has always been to conserve the spoken language and make it available for further access. Nevertheless, in **database**, instead of permanence, there is ephemerality. The piece emphasizes the spoken over the written, the fleeting nature of language over the recording of information. And, most of all, it stresses the basic difference between reading and listening. The act of listening, crucial to oral traditions, occurs in real time. By real time we mean the present, the moment, as opposed to past and future, and the duration of time. The present is a moment always slipping in two different directions: the past and the future.

Due to the ephemerality of the present, humans live in all times, but the present. “To breed an animal that is permitted to **promise** — isn’t this precisely the paradoxical task nature has set for itself with regard to man? isn’t this the true problem of man?”,

writes Friedrich Nietzsche in *The Genealogy of Morals*.¹⁵ It is the capacity of desiring that makes the human being withdraw from the present and project into the future. To desire is to want something that is located somewhere in the future. According to Daniel Dennett¹⁶, what distinguishes the human mind (Gregorian creatures) from other animals (Darwinian, Skinnerian and Popperian creatures) is both the capacity to import (mind) tools from the cultural environment as well as the ability to produce a future. Writing is the most important of these tools, exteriorizing our thoughts, and thus largely increasing our memory space. Similarly to Nietzsche, Dennett believes that producing future is the ability to desire, and to get oneself out of the present. He points out that

“an important step toward becoming a person was the step up from a *first-order* intentional system to a *second-order* intentional system. A first-order intentional system has beliefs and desires about many things, but *not* about beliefs and desires. A second order intentional system has beliefs and desires about beliefs and desires, its own or those of others. A third-order intentional system would be capable of such feats as *wanting* you to *believe* that it *wanted* something, while a fourth-order intentional system might *believe* you *wanted* it to *believe* that you *believed* something, and so forth.”¹⁷

It is this capacity to have desires and beliefs about desires and beliefs, that is, to produce a future, that distinguishes humans from other animals. Humans are animals that desire. In desiring, we wish and wait, we transgress time, creating a life in the future. The idea of the present time as a time that is always slipping into the past and into the future,

¹⁵ NIETZSCHE, F. 1998, p.35.

¹⁶ DENNETT, D. 1996.

¹⁷ Idem. p.121.

as something we cannot grab, is very well exemplified in the video *Nome*¹⁸ (Name) by the Brazilian poet and musician Arnaldo Antunes. *Nome* is a collection of video clips that work with the opposition between image and writing as well as its relationship to time. One of the video clips, *Agora* (Now), shows images flashing by on and off the screen very quickly in succession. There is text on them, but the speed does not let the viewer read a single word. At the same time, it is possible to hear a voice speaking “*já passou, passou, já passou*” (“gone, gone, gone”). The voice, as well as the images, is cut off producing an awkward feeling, because the viewer can neither hear the words, nor see the images. This feeling is produced by the sensation that time is running so fast that it is impossible to hold on to it — because the present is always gone.

The ability to perceive the future also turns humans into the only animals that are aware of their death. According to Foucault, humans are finite beings and other animals are infinite and immortal because they are not aware that they are going to die. Consequently, they live in the eternal present, since time does not matter. As soon as a human thinks, s/he “merely unveils himself to his own eyes in the form of a being who is already (...) in an irreducible anteriority, a living being, an instrument of production, a vehicle for words which exist before him.”¹⁹ Therefore, to Foucault, there are three instances through which humans can learn that they are finite: body, language and desire. All of them have a close relationship to time.

Knowing ourselves finite is essential to our survival as humans. It implies an awareness of death, the ability to believe and desire, and the construction of a life in the future. If we did not have one of these three elements in our lives, life would be

¹⁸ ANTUNES, A. *Nome*. 1993.

¹⁹ FOUCAULT, M. 1970. p.312.

insupportable. That is what Borges shows in the first tale of the *Aleph*, “The Immortal”.²⁰ The writer tells the story of a man in search of the City of Immortals. On his way, he finds a tribe of troglodytes, men who cannot speak, who do not sleep and who eat just enough to keep alive. They live in an eternal catatonic state, moving as little as possible, or not moving at all. The author, feeling a compassion for the poor troglodytes, decides to teach one of them how to speak. One day, however, he discovers that this man is none other than the Greek poet Homer, who is actually an immortal. Henceforth, everything else is clear: the Immortals for whom he was searching are in fact the troglodytes. But how are we to believe that a tribe of such disgusting creatures has exactly what everyone on Earth seems to desire: immortality? Borges explains that “to be immortal is commonplace; except for man, all creatures are immortal, for they are ignorant of death; what is divine, terrible, incomprehensible, is to **know** that one is immortal.”²¹ Having the awareness of one’s immortality implies that time no longer matters, because time becomes constant, absolute, infinite. Hence all immortals live in the present: an eternal present, without past or future. In order to exemplify this idea, he tells:

“I have mentioned the ancient quarries which broke the fields on the other bank; a man once fell headlong into the deepest of them; he could not hurt himself or die but he was burning with thirst; before they threw him a rope, seventy years went by.”²²

Immortality, thus, according to Borges, means living in the eternal present. For immortal beings, time is of no concern, and its awareness is crucial to making us what we are. The Immortals, in this sense, transform from humans into something else:

²⁰ BORGES, J. L. *Labyrinths*. 1962.

²¹ Idem. p.114. (bold is from the authors)

troglydotes, beings that do not eat, do not act, because they have the totality of time.

Consequently, they do not desire, because desiring is only possible if you know that time is dynamic. Desire is localized in the future, and the Immortals have just the present.

This situation implies a compression — or an extension — of all times into one: past, present and future become one and continuous. Hence, past becomes present.

Borges also describes the Immortals as motionless beings consumed by thought, petrified by their infinite memory. As a result, the Immortals are in an eternal deeply disturbed state of mind, because they cannot forget. They cannot erase the information they have received during their lengthy existence.

The erasure of information (in our case, the text) is another characteristic of the installation:

2.3. Erasing the writing — time and memory devices

In **database**, while the printer “reads” the text, it simultaneously erases it.

The same interface the user chooses to read the text (which is represented by black rectangles on the computer screen) is printed over the already printed page, erasing it. When the



user finally holds the paper sheet, s/he can read everything except for what s/he has previously read on the screen. This process emphasizes the necessity of reading in real time, instead of recording, erasing; instead of presence, absence. What is present in one

²² Idem. p. 115.

interface is absent in the other. As one reads a word on the screen, it is quickly erased from the paper. Simultaneously, if one reads a word on the projection, although it is possible to make a connection with the word previously read on the screen, it disappears on the paper. The first one disappears by absence, that is, it is literally covered by black ink. The second one disappears by presence: it is lost among all other words that constitute the text.

The process of erasure has always been critical to human survival. It is possible to talk about erasure from two different perspectives: the physical erasure of writing and the erasure of memory (regarding both writing and memory as ways of storing information). The first case is very well exemplified by the palimpsest. The word palimpsest originally referred to “a parchment that has been written upon or inscribed two or three times, the previous text or texts having been imperfectly erased and remaining, therefore, still partly visible.”²³ This practice was very common in the Middle Ages, where the parchment used for manuscripts was very expensive and then it became necessary to “recycle” the used material. What happened, however, was that sometimes the act of erasing was not perfect, leaving marks of the previous text under the new writing. This process could unintentionally create several layers of text on the same surface, generating many layers of meaning.

Generally, the palimpsest was created by three steps: writing, erasing and writing again. Nevertheless, in our installation, the last two processes are merged together, because the acts of erasing and writing over are the same — so that erasure is rewriting. In **database**, the erasure of the old text already acts as a new sort of writing because it erases by covering existing text, producing new meanings in the physical database. The

erasure of text involves both its presence and absence, because the text must be there in order to be erased. In addition, our device reads and erases simultaneously, creating a contradictory situation, since reading is the interpretation of writing and writing is a way of storing information. When one erases, reading is no longer possible, and there is no information left.

According to Daniel Dennett, what makes our brain more powerful than the brain of other animals is our capacity to extend our thought into the environment that surrounds us. It is

“our habit of *offloading* as much as possible of our cognitive tasks into the environment itself — extruding our minds into the surrounding world, where a host of peripheral devices we construct can store, process and re-represent our meanings. The widespread practice of off-loading releases us from the limitations of our animal brains.”²⁴

Of all the mind tools we acquire in the course of furnishing our brains from the stockpiles of culture, none are more important than words — first spoken, and then written. In this sense, writing was created as a way of extending our memory, and consequently, as a way of not forgetting (or erasing) information.

However, Jacques Derrida²⁵ has an opposite point of view. He affirms that writing is forgetting. According to him, to write is to free our memory from the task of remembering. Hence, it is the act of exteriorizing memory — erasing from memory and writing on paper — that sets it free in order to receive and to record more information.

²³ Webster’s New World Dictionary, 2001.

²⁴ DENNETT, D. 1996. p.134.

²⁵ DERRIDA, J. 1976.

That is exactly the point that Borges addresses in “Funes, the Memorious”. Funes was a boy who could remember everything. As long as he had an infinite memory, he was not able to forget. But could he indeed live? After all, “the truth is that we all live by leaving behind”²⁶, writes Borges. Everything was recorded in his mind: every detail, every moment. For this reason, Funes was perhaps not capable of thinking, because he was not able to abstract the world. Also, he probably did not have an awareness of time, because as long as everything was recorded in his mind, all times of the past were compressed in the same present time.

An infinite present leads to an infinite memory, because every experience is recorded and none is erased. Whereas memory has generally a positive value, an infinite memory is something negative. The accumulation of infinite memories is almost insupportable and mortals must forget in order to continue to live — or even to think.

The opposite to the idea of remembering everything is addressed by Oliver Sacks in *The Man Who Mistook his Wife for a Hat*.²⁷ In the chapter “Lost Mariner” he tells the story of a man, Jimmy, who cannot remember anything. Jimmy, in opposition to Funes, forgets everything. He, however, does not forget the past. His long-term memory is perfect and he is able to remember everything that had happened before 1945. Nevertheless, all events after this date are quickly erased from his memory. For instance, if he talks to someone, he forgets it five minutes later. Nothing can be registered in his memory. Although he believes he lives in the past (somewhere around 1945), he actually lives in the absolute present — a time without past and future. Without remembering, without wishing, he is condemned to NOW. Just like in Arnaldo Antunes’ video, at the

²⁶ BORGES, J. L. 1962. p.113.

²⁷ SACKS, O. 1987.

very moment events happen they are already gone. Just like our installation, at the very moment the user reads the words on the projection screen, they disappear on the paper, being lost among the innumerable words of the database.

We end up with Borges again, back to “The Immortal”. What constitutes us as humans is the possibility of living in two distinct times: future (by means of desire) and past (by means of memory). The Immortals live in the present, which is a time that does not exist for any human — for it is already gone. Furthermore, as they can remember everything and carry all their memories with them, remembering is also intolerable. During their infinite lives, they have the opportunity to do everything, to think about everything, to go everywhere. What means that if they can be anything, in fact, they are not. The radicalization of the presence is the complete absence.

“Like Cornelius Agrippa, *I am* god, I am hero, I am philosopher, I am demon and I am world, which is a tedious way of saying that *I am not*.”

J.L.Borges – “The Immortal”²⁸ ✕

²⁸ BORGES, J. L. *Labyrinths*, 1962. p. 115. (italics are from the authors)

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