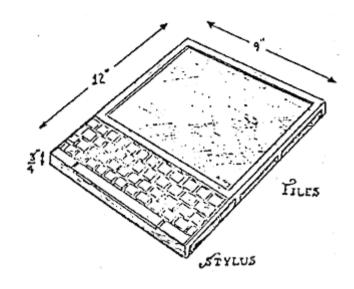
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# *Machines of Disquiet:* Textual Experience in the *LdoD Archive*

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#### ABSTRACT

The work *Machines of Disquiet* (http://mofd.dei.uc.pt) has been developed in the context of an ongoing research project whose goal is to create a dynamic digital archive of the *Book of Disquiet*, an unfinished work written by Fernando Pessoa between 1913 and 1935 (*LdoD Archive*, 2017, https://ldod.uc.pt/). This paper intends to show the workings of *Machines of Disquiet* in experiencing Fernando Pessoa's text as electronic literature. We start by showing the rationale of the *LdoD Archive*, followed by a discussion of the *Machines of Disquiet* as both electronic writing and gameplay experiment, before moving on to a demonstration of the various types of machines. We conclude by describing these textual experiments as an opening up of the *Book of Disquiet* to further acts of writing.

#### KEYWORDS

digital archive; electronic literature; textual machines; *LdoD Archive;* Fernando Pessoa.

#### RESUMO

A obra *Máquinas do Desassossego* (http://mofd.dei.uc.pt) foi desenvolvida no contexto de um projeto de investigação em curso cujo objetivo é criar um arquivo digital dinâmico do *Livro do Desassossego*, obra inacabada escrita por Fernando Pessoa entre 1913 e 1935 (*Arquivo LdoD*, 2017, https://ldod.uc.pt/). Este artigo pretende mostrar o funcionamento das *Máquinas do Desassossego* ao experimentar o texto de Fernando Pessoa como literatura eletrónica. Começamos por apresentar a justificação metodológica do *Arquivo LdoD*, seguida de uma reflexão sobre as *Máquinas do Desassossego* enquanto escrita eletrónica e experiência de jogabilidade, antes de passar a uma demonstração dos vários tipos de máquinas. Concluímos com uma descrição destas experiências textuais como abertura do *Livro do Desassossego* a novos atos de escrita.

#### PALAVRAS-CHAVE

arquivo digital; literatura eletrónica; máquinas textuais; *Arquivo LdoD;* Fernando Pessoa.

#### I.INTRODUCTION

The work Machines of Disquiet<sup>1</sup> has been developed in the context of an ongoing research project whose goal is to create a dynamic digital archive of the Book of Disquiet [Livro do Desassossego – LdoD], an unfinished work written by Fernando Pessoa between 1913 and 1935. Besides the usual search, retrieval and display interactions, the dynamic functions programmed in the LdoD Archive<sup>2</sup> enable users to perform textual interventions that change the content of the virtual dimension of the archive. In our model of the reconfigurative iterability of the work's genetic and editorial archive, Pessoa's book project can be virtualized according to four functions: reader-function, editor-function, book-function, and author-function. Through interaction between textual representation and textual transformation, the LdoD Archive becomes an engine for the experimental simulation of literary processes (Portela and Silva, 2015 and 2016).

The project's web 2.0 approach explores current writing and annotation software, but also electronic literature tools in order to enable user-authors to create extensions and variations based on Pessoa's texts. Those textual variations can be published within the virtual layer of the archive. While at the level of the editor-function, user-editors are able to construct new virtual editions of Pessoa's text, at the level of the author-function, the *Book of Disquiet* becomes a textual database and textual instrument for the networked collaborative writing of further texts. Each fragment from the *Book* can be appropriated for new writing acts that extend the original, turning the *LdoD Archive* into a writing experiment. The series *Machines of Disquiet* is thus an iteration of the author-function in the *LdoD Archive*.

This paper intends to show the workings of *Machines of Disquiet* [*Máquinas do Desassossego*] in experiencing Fernando Pessoa's text as electronic literature. We start by showing the rationale of the *LdoD Archive* (section 2), followed by a discussion of the *Machines of Disquiet* as both electronic writing (section 3) and gameplay experiment (section 4), before moving on to a demonstration of the various types of *Machines of Disquiet* (section 5). We conclude by describing these textual experiments as an opening up of the *Book of Disquiet* to further acts of writing.

<sup>1</sup> http://mofd.dei.uc.pt.

<sup>2</sup> https://ldod.uc.pt/.

## II.LDOD ARCHIVE AS A READING, EDITING AND WRITING MACHINE

The current description of the LdoD Archive reads as follows:

The *LdoD Archive* is a collaborative digital archive of the *Book of Disquiet* by Fernando Pessoa. It contains images of the autograph documents, new transcriptions of those documents and also transcriptions of four editions of the work. In addition to reading and comparing transcriptions, the *LdoD Archive* enables users to collaborate in creating virtual editions of the *Book of Disquiet*. It also includes a writing module which, in the future, will allow users to write variations based on fragments of the Book. Thus the *LdoD Archive* combines a representational principle with a simulation principle: the first is expressed through the representation of the history and processes of writing and editing the *Book*; the second is embodied in the fact that users are given the possibility of playing various roles in the literary process (reading, editing, writing), using the flexibility of the digital medium for experimenting with the *Book of Disquiet* as a literary machine. (Portela and Silva: 2017)<sup>3</sup>

As you can see, the simulation function has been explicitly articulated as one of the guiding principles of the *LdoD Archive*. By developing an infrastructure and a set of programming principles that enable the reorganization and rewriting of the text, the *LdoD Archive* defines a set of possibilities for manipulation and intervention that go beyond a representational logic, virtualizing the work itself as a living potentiality. The bibliographic imagination (understood here as the creative energy contained in the idea of the book as the material and conceptual horizon of writing that has driven author and editors in their search for form) can be observed not only as remediation of the past textual archive, but it can also be experienced as the future production of the archive. Thus, in its current socialized and dynamic instantiation, the *LdoD Archive* would be more accurately described as a textual collaborative environment, where reading, writing, editing, and publishing are theoretically and functionally integrated.

Given its material and conceptual nature, the *Book of Disquiet* is the ideal textual artifact for an experience of this kind. Materialized as a modular set of several hundred texts (i.e., texts that are relatively independent of one another), but also as a set of fragments in varying degrees of completion, it makes possible to observe their textual emergent nature as writing acts (Portela and Giménez, 2015). Because many texts thematize self-consciousness and use writing actions to intensify processes of conscious perception and sensation, showing them as extended in the scene of writing — from the fragmentary and preliminary annotation to the clean typewritten final draft —, the *Book of Disquiet* allows us to think about acts of writing as performative actions, that is, as *acts that do what they write* and thus show writing as a form of action (Portela, 2016 and 2017). Considered as an unfinished and fragmentary work, whose text has to be edited and

3 https://ldod.uc.pt/about/archive.

organized, the *Book of Disquiet* further shows us the editorial process as an element in the construction of a book. In working with the concept and horizon of the book as an imaginary operator for ordering the narrator's existential awareness, the *Book of Disquiet* makes it possible to perceive the book-function as yet another operator in the production of the literary — a point of convergence between the acts of writing, editing and reading.

## III.*MACHINES OF DISQUIET* AS AN ELECTRONIC WRITING EXPERIMENT

Machines of Disquiet is the name chosen for a number of experimental applications for mobile devices (iOS and Android) and web that aim to provide reading and aesthetic experiences based on the text of the *Book of Disquiet*. Every application is an attempt to find a new setting for experiencing the *Book of Disquiet* as sensitive matter (i.e. matter experienced in different modalities — text, drawing, sound, image, motion). The use of the word "machine" to name this series of experimental applications is intended as a reference to the machinic mediation that defines the creation, coding and enjoyment of digital objects. In a more poetical phrasing, we have allowed ourselves to think of these experimental applications as "feeling machines," "sense-making machines" and "imagining machines" — in sum, as tools for enabling an aesthetic experience and for opening up the virtuality of Pessoa's text at the level of writing.<sup>4</sup>

Different motivations have led us to choose mobile applications as a development platform, beyond personal interest in learning and exploring this type of technology. On the one hand, we are interested in exploring the expressive potential of this type of devices, particularly in terms of interface (e.g. multitouch interactions, motion sensors, etc.). On the other hand, since this project is concerned with the technological mediation of experience more generally, we are interested in exploring the symbolic nature of these devices as the embodiment of the current technological innovation paradigm. Furthermore, we should mention the personal and individual character of mobile devices, which, somehow, are in line with certain aesthetic concerns and thematic motifs of *Book of Disquiet*, namely in regard to self-reflection on the human condition, and on individual experience and sensations.

Life is an experimental journey that we make involuntarily. It is a journey of the mind through matter, and since it is the mind that journeys, that is where we live. And so there are contemplative souls who have lived more intensely, more widely and more

<sup>4</sup> Earlier versions of the Machines of Disquiet were presented at the following exhibitions: "Textual Machines" (April 17-18, 2015, Willson Center Digital Humanities Lab, University of Georgia, Athens, USA); "Language and the Interface" (May 14-15, 2015, School of Arts and Humanities, University of Coimbra, Portugal); and "P2P: Polish-Portuguese e-lit" (August 6-8, 2015, Gallery 3.14, Bergen, Norway). A new iteration with 12 different machines was recently shown during the "Criatek: Criativida de Digital e Tecnologia" (Aveiro, Teatro Aveirense, May 30-June 2, 2018). A similar version was displayed in the ELO 2018 "Attention à la marche! / Mind the Gap!" exhibition (Gallerie du Centre de Design, Université du Québec à Montréal, August 13-17, 2018).

turbulently than those who live externally. The end result is what counts. What was felt is what was lived.

[fragment 353, Fernando Pessoa, Book of Disquiet, transl. Richard Zenith]

Travel? One need only exist to travel. (...) What more do I do when I travel? Only extreme poverty of the imagination justifies having to travel to feel. [fragment 451, Fernando Pessoa, *Book of Disquiet*, transl. Richard Zenith]

The intensity of my sensations has always been less than the intensity of my awareness of them. I've always suffered more from my consciousness that I was suffering than from the suffering of which I was conscious. [fragment 93, Fernando Pessoa, *Book of Disquiet*, transl. Richard Zenith]

In this twilight of spiritual disciplines, with beliefs dying out and the old cults gathering dust, our sensations are the only reality we have left. The only scruples we have at this point, and the only science that satisfies, are those of our sensations. ['The Sensationist', Fernando Pessoa, *Book of Disquiet*, transl. Richard Zenith]

We consider the *Book of Disquiet* especially interesting as a basis for experimentation in creating digital objects due to its formal characteristics. As an unfinished book written in fragments, it is consistent both with the modular nature of the digital medium and with the open exploration of its reading possibilities. In this sense, *Machines of Disquiet* are mediating tools that give the reader-player different levels of participation in the fruition of sensitive matter recreated from the *Book of Disquiet*. The different levels of participation supported by experimental applications arise mainly from two aspects of design. One aspect results from the possibility of continuous reconfiguration and recoding of the digital medium, through transmediation and combination of text with other media. Another aspect is its interactive affordances, and consequently the field of possibilities for gameplaying with different kinds of sensitive matter.

#### IV.FROM TEXTUAL EXPERIENCE TO GAMEPLAY EXPERIENCE

An aspect that seems relevant to address in this project is the relation between literary experience and gameplay experience — in particular, the relation between the acts of reading, editing and writing underlying the literary process associated with the *Book of Disquiet*, and the design process focused on the experimentation with digital artefacts, considering videogames, created from, or inspired by this text. We think that the combined analysis of literary experience with gameplay experience can originate novel conceptual and theoretical insights, relevant both for the reflection on digitally mediated literary processes, and for creative and poetic approaches to digital artefacts in general.

From a perspective of the material qualities of the digital artefact, we understand the *Machines of Disquiet* as videogames, and as such we propose to design the interactive experience they potentiate. In this context, we understand videogames in a broad sense, not confined to the idea of a formal ludic system of goals, rules and constraints. Instead we think of videogames as an expressive medium which is also a digital object that can be a vehicle for aesthetic fruition.

We conceptualize game design as the creation of a context for participation, where the elements configuring play promote or inhibit particular forms of engagement and participation (Roque, 2005). By proposing to think of the videogame as a participatory context, we are interested in synthesizing a conceptual basis that helps us understand the nature of the elements that compose those contexts and promote different ways of participation. To support the analysis and design of the videogame medium in a simple, yet ample, way, we have proposed design instruments focused on the idea of participation in context — the way players take part in gameplay activity and experience the game (Pereira and Roque, 2012 and 2013).

Our conceptual proposal aims to address the question of how to rethink the design of a videogame from the perspective of players' participation. This proposal is intended to have a prescriptive role, assisting the designer in considering how the player takes part in the game. To achieve that we consider six perspectives on participation: Playfulness, Challenge, Embodiment, Sociability, Sensemaking, and Sensoriality (Pereira and Roque, 2012 and 2013).

These dimensions seek to assist the designer in thinking, in a comprehensive manner, about the range of possibilities at her disposal to define or give a certain character to a game. In the case of *Machines of Disquiet* [*MofD*], we aim to explore how diverse textual configurations coupled with ways of reading (i.e., of perceiving and interacting with the text) can enable diverse forms of participation and, consequently, new experiences and forms of relating to the text. In the following section, we describe nine examples with accompanying contextualization which illustrate the range of designed interactions.

#### V.NINE MACHINES

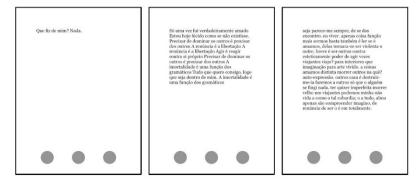


Figure 1. MofD I.

*MofD I* lets you explore the text of *LdoD* in different experiences. Firstly, it allows a random reading of fragments, expanding the idea of an unordered book. Secondly, it allows you to read blocks of randomly generated text from different fragments of the *Book of Disquiet*. With this experiment we intend to explore the combination of thematic clusters in the *Book of Disquiet* in order to enable a recontextualized reading of sub-fragments. In a third experiment, the machine provides the experience of reading text blocks that are randomly generated word by word (from the *Book of Disquiet*) without any grammatical constraint. Here the intention is to generate a chaotic writing that challenges conventional reading, allowing new phrases to emerge based on words from the *Book of Disquiet*, which can be more or less interpretable. Overall, the *MofD I* supports a playful reading experience, exploring the combinatorial generation of text at different scales — fragment, sub-fragment, and word. The user is given the possibility of generating a new text block, making it impossible to access any previously generated text block.

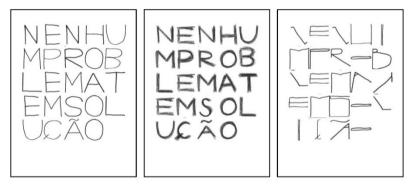


Figure 2. MofD II.

*MofD II* provides an experience centered on the design of typography. This experiment is based on the idea of writing as a drawing act and on reading as an interpretation and fruition of the drawing. For this purpose, several sets of hand-drawn designs for letters which vary in form and expressiveness are presented. The aim is to enable an experience that oscillates between making sense of the letter (and subsequent word) and the purely sensorial and aesthetic pleasure of perceiving its drawing as an abstract form. The user is given the possibility of changing the shape of each of the letters.

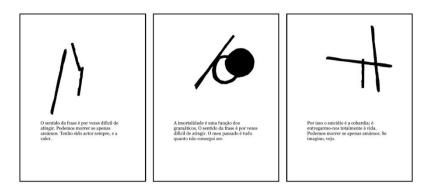


Figure 3. MofD III.

*MofD III* provides an experience based on the combination of text with an abstract illustration. In this case, both the text block and the illustration are randomly generated from predetermined elements (sentences and graphical figures). The basic idea for this experiment is to explore contextualization and association in sense making, playing with the effect that text has on the illustration, and with the effect that illustration has on the text. In order to strengthen the relationship between text and illustration, the user is given the possibility of changing each of the graphical elements to a new random form, resulting in a new recombination of the text block.



Figure 4. MofD IV.

*MofD IV* provides an experience based on the combination of text and photographic image, according to the same rationale of *MofD III*. The basic idea for this experiment is to explore contextualization in sense making and in sensorial enjoyment, playing with the effect that text has on the photographic image, and with the effect that photographic image has on the text. Each of the elements, text and image, can be randomly changed by the user, enhancing a new reading of the text-image instantiation.

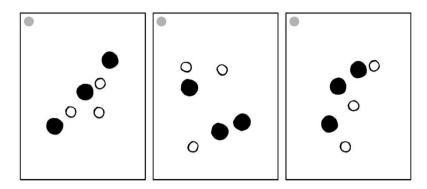


Figure 5. MofD V.

*MofD V* provides an experience based on the sound captured from an automated computer reading (using *google translate*) of text from *Book of Disquiet*. The basic idea for this experiment is the sound enjoyment of the text. The fact that it consists of a machine reading reinforces the idea of technological mediation. The application acts as a box of randomly selected sounds taken from pre-recorded sentences. In each interface (in which the position of elements is also random) it is possible to reproduce three different sounds resulting from an automated reading of the text and three other synthetically generated sounds, allowing the recombination of sounds of distinct nature. The ability to repeatedly reproduce sounds in a loop enables the user (who assumes the role of *performer*) to operate a sound space that may vary from the concrete to the abstract.

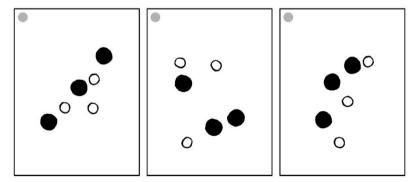


Figure 6. MofD VI.

*MofD VI* provides an experience based on the idea of reading as a physical activity and bodily performance. This experiment aims to explore the embodied dimension of reading, based on motion sensors in mobile devices. Metaphorically, the text is randomly spread around the user in a virtually endless spiral.

In order to read the text, the user has to turn around himself/herself. This experience with the text thus takes on a spatial dimension, in which the user assumes the role of an explorer of the space surrounding him/her as s/he reads the text. At the same time, the rhetorical trope of the *Book of Disquiet* as a textual labyrinth is given a proprioceptive incarnation which calls attention to the embodied dimension of symbolic production.

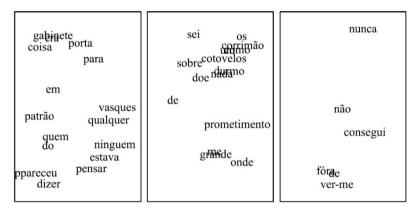


Figure 7. MofD VII.

*MofD VII* provides an experience based on the free exploration of textual composition. This experience aims to allow playing with words, repositioning them in different places, exploring possible interpretations within a closed set of words. By allowing the replacement of each word, this experience re-enacts the recursive process involved in the act of writing, whether at a more literal level, exploring a specific sequence of words, or in terms of visual form, exploring the graphic dimension of words. The reconfiguration of words, from which new possibilities of interpretation and enjoyment emerge, is realized through direct manipulation on the screen.

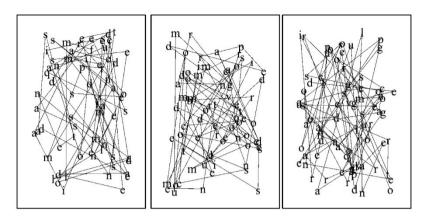


Figure 8. MofD VIII.

*MofD VIII* proposes an experience based on the challenge of reading a sentence that is configured in the form of a puzzle as shown in the previous figure. This experience aims to reflect on the challenge of the reading act as a complex cognitive process. Since the presentation of the sentence is connected by a network of superimposed lines, omitting spaces, the challenge is presented both in the ordering of the letters and in the identification of the words. Ordering the letters through direct manipulation on the screen performs the resolution of the puzzle.

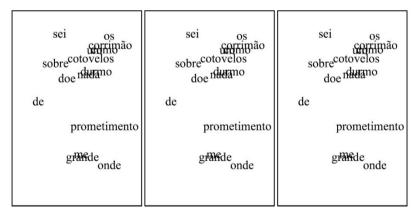


Figure 9. MofD IX.

*MofD IX* proposes an experience similar to the experience proposed by *MofD VII* but with an added social dimension. This experience allows a free exploration of textual composition with multiple users. Actually, all the performed text ma-

nipulations are reflected on all connected devices. This experiment aims to reflect on the collaborative dimension of the writing process and the potential semiotic and semantic flexibility of the same body of text. By allowing a free exploitation of textual composition, there is the additional possibility of social dynamics, according to variable patterns of both cooperation and competition. The occurrence of different social dynamics is enhanced by the fact that there is no other form of communication, except the actual textual reconfiguration.

#### VI.CONCLUSION

In conclusion, the Machines of Disquiet are a series of experiments about the manipulation of media materialities and textual forms that explore the free play of signifiers. They use the Book of Disquiet as a modular textual database for a series of applications that engage digital modalities (text, image, sound, animation) and interactions through programmed permutations at different scales (from letter to word to sentence). When considered as a game experiment, the Machines of Disguiet allow us to define contexts for participation that model gameplay as a range of interactions with digital objects. When considered as a textual experiment, the Machines of Disguiet are about the disguiet of experience and imagination, and about the possibility of purely aesthetic enjoyment and the creation of meaning. We are interested, above all, in the expansion of the field of possibilities that digital media allow, enhanced by previous methods. In the expansion of that field of possibilities, we are particularly interested in testing the generation of new perceptual spaces, such as when a drawing is situated between an abstraction and a letter, or when an image gets a new reading resulting from a random description, or when a sound becomes a concept, or when a textual operation highlights the cognitive nature of reading. Machines of Disquiet instantiate the simulation rationale of the LdoD Archive. As an instance of the author-function in the LdoD Archive, the Machines of Disguiet contribute to opening up the textual experience of the Book of Disquiet to acts of writing and rewriting.

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