Preface

Why a paper on digital (or electronic) literature?

Writers who are recognized as print writers, such as the French novelist François Bon,¹ have been experimenting new literary forms on the Internet. In some respects, the Internet appears as an artistic laboratory or as a vast creative workshop.² However, literary creation with and for the computer was not born with the Internet; it has been around for several decades. “Digital literature”, “electronic literature”, or even “cyberliterature”: the terminology is not fixed.³ Its authors aim at conceiving and realizing works which are specific to the computer and the digital medium by trying to exploit their characteristics: hypertext technology, multimedia dimension, interactivity... The productions of digital literature were of course not born ex nihilo. Genealogy lines can be traced which are acknowledged by the authors themselves: combinatorial writing and constrained writing, fragmentary writing, sound and visual writing.

Digital literature and print literature are closely linked. How do they position themselves in relation to each other? Is it even relevant to distinguish one from the other?

Why is it important to try to define digital literature?

We believe that this positioning attempt, which aims for a better understanding of digital literature

¹François Bon (born in 1953) qualifies his online work (http://www.tierslivre.net/) of “fiction laboratory” (“laboratoire fiction”).


³In this paper, I chose the expression “digital literature” insofar as it refers explicitly to the digital medium.
and its specificities, first requires a definition of digital literature. This attempt at a definition should allow us to get a finer grasp of the objects, in order not to categorize, but to provide analytical insights. Trying to give a restrictive definition of digital literature leads to the question of the specificities of the different media.

**Why a definition in terms of tension?**

This paper leans towards a tension-based definition of digital literature. The idea is indeed that digital literature can be approached in terms of tension. The field is not static but constantly changing. It seems that the tensions that make this field dynamic provide a good point of entry to approach the objects and build them as research objects.

The word “tension” is based on double filiation. There is the filiation of Derrida, who deconstructs opposites. Compared to Plato who separates and organizes a hierarchy (e.g. sensitive / intelligible), Derrida positions himself in between terms and deconstructs oppositions. There is also the filiation of the “bricolage” by Lévi-Strauss: the objective is to reconcile opposites, to *negotiate* them with the “bricolage.” Between the deconstruction and the “bricolage”/reconciliation of opposites, there is space for thought and practice to discuss the experimental field of digital literature and to think its emergence and dynamic in terms of *creative tensions*.

It appears that these creative tensions in digital literature reveal tensions that exist in print-based reading environments, but are a central consideration in digital environments.

**Why can it be relevant for creative writing?**

To identify these tensions, I rely on my research activity, but also on my own experience as a creative author. Likewise, the borderline test case that I chose for this paper by Jerome Fletcher is also the work of someone who is both a researcher and a creative author (and performer). This test case makes it possible to observe how aesthetics is *revealed through the reader's performance*. There is a form of self-consciousness in Jerome Fletcher’s work that stems from his scholarship of performance and creative writing.

The scholarship of creative writing could bridge gaps between digital/print and creative/scholarly (Hergenrader, Clarke, M.D. & Rein, 2015). Building such bridges is likely to uncover new insights about reading and writing that print-only or digital-only cannot. This horizon is also that of this paper.

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4Editor’s note: Serge Bouchardon modestly demurs from noting the extent of his creative writing achievement. *His Loss of Grasp* won the 2011 New Media Prize and has inspired international scholarly attention to the playful ways the text invites human interaction with the machine as a form of reading. *Loss of Grasp*, the first installation of a triptych, is a witty story of middle age angst told in six vignettes. [http://lossofgrasp.com/](http://lossofgrasp.com/). All of Bouchardon’s creative writing playfully explores new frontiers.
How can digital literature⁵ be defined? The first criterion for defining digital literature, which the majority of researchers agree on, is that of “digital born literature” (Hayles, 2008). A piece of digital literature is created with and for the digital medium. It is intended to be read/acted on a digital medium and it could not be printed. This criterion distinguishes digitized and digital literature: the former refers to creations that could also be printed, the latter features works that would stop making sense on paper (due to their multimedia, animated or interactive dimension).

Nevertheless the line is not always as clear at it seems. Thus tablets or e-readers make it possible to empower the reader of a text of traditional literature, not only by offering a digital version, but by offering reading/writing functionalities (hyperlinks, full text search, collaborative annotations...) that are not possible on paper. However, this instrumentation of reading does not constitute the raison d’être of the work, to quote Jean Clément (Clement, 2007: 14). A novel by Victor Hugo, digitized and instrumented on an e-reader, can still be printed without losing its “raison d’être,” but a generative novel by Jean-Pierre Balpe cannot (the computation of the digital medium can generate other pages of the novel ad libitum, whereas the print medium would fail to generate these pages).⁶

We can retain the idea that the mere fact of being produced on a computer is not enough to characterize digital literature. Digital literature uses the affordances of the computer to dynamically render the story. If an e-reader simply displays text in the way a printed book displays text – the only difference being that to advance the text one scrolls rather than turns a page – this is not “digital literature.” It is printed work digitized for optimal display in a portable computational environment. Digital literature is algorithmic. It changes as the reader engages it. The concept of digital computation is emphasized in Reading Moving Letters. Noah Wardrip-Fruin defines a work of digital literature as “a literary work that requires the digital computation performed by [...] computers” (Wardrip-Fruin, 2010). Robert Simanowski states that “the condition of ‘digital computation’ is not fulfilled by the banal way of being created on a computer” (Simanowski, 2010).

So, to define digital literature, we often rely on this distinction between digital-born literature and digitized literature, although the line is not always clear. But how can we go further in defining the features of digital literature?

Digital literature is based on tensions that contribute to establishing its specificity: tension on the media, on the semiotic forms, on the programmed writing and on the aesthetic experience. The word

⁵In this paper, we use the expression “digital literature” rather than “electronic literature,” because it emphasizes the role of the digital medium.

⁶In Un roman inachevé by Jean-Pierre Balpe (1995 for the first version on disks, 2015 for the web version, http://www.balpe.name/Un-Roman-Inacheve), the button “Une autre page d’Un Roman inachevé” allows the reader to generate as many pages as he/she wants.
tension does not necessarily mean conflict, but rather suggests the deconstruction of the obvious; it can in fact be a creative tension.

Insofar as I aim to define digital literature by problematizing it, let us focus on an example that is a borderline case in order to identify some tensions which underlie and fertilize digital literature.

**AN EMBLEMATIC EXAMPLE**

In 2009, Jerome Fletcher created a piece entitled …*Ha perdut la veu*. In a first phase, this creation took the form of an installation in a museum in Barcelona (in the frame of the *e-poetry* conference and festival), then it took the form of a transmittable object released on DVD, and at the end the form of an online creation.7

The principle of this creation is as follows. The reader, while leaving the mouse button pressed and moving the mouse, can make a text appear gradually. An interface is provided to the reader, which allows him/her to choose another “layer” next layer in the interface corresponding to another text. The text is in fact organized in layers and the user may at any time choose to make the text of an upper layer appear above the previous one (in the manner of a palimpsest). The author Jerome Fletcher uses the term overlaying to describe the process. In fact, when the user moves the mouse, the reading experience can be both the erasure (giving the reader the impression of revealing the contents of a lower layer) and the overlay.

![Figure 1. ...Ha perdut la veu, by Jerome Fletcher (2009).](https://www.youtube.com/watch?v=gUaAxiKJ8Mk)
The textual fragments that appear address the issues of voice and loss of voice, language and identity. These fragments are alternatively in Catalan and in English. The Catalan fragments come from a children’s story written by Fletcher and translated into Catalan, in which animals lose their voices (hence the title of the creation, which means in Catalan “has lost his voice”). This story has a political dimension, referring to the attempts by the dictator Franco to erase Catalan, to replace Catalan by Castilian (Spanish), particularly in the context of education. Texts in English come from a translation of a text by Deleuze and Guattari called “Kafka: toward a minor literature.” The language alternation corresponds also to an alternation between narrative and theoretical text.

Without going into detail, the author draws a parallel between three situations of minorities: children’s literature compared to adult literature, Catalan compared to Castilian, and digital literature in relation to the printed literature. The author summarizes these issues in a theoretical article that explains his approach based on the table below.

1. A minor lit. 2. Children’s literature 3. Catalan e-literature
4. B major lit. Adult literature Castilian page-based literature

*Figure 2. Table from “…Ha perdut la veu - Some Reflections on the Composition of E-literature as a Minor Literature” by Jerome Fletcher.*

Although this very brief description of the principle of the creation does not fully give account of the reading experience, I would like to emphasize that this creation reveals certain tensions. This creation is indeed emblematic of certain tensions that feed digital literature, even though by itself it is not representative of the diversity of digital literature creations.

**TENSION ON THE MEDIA**

The piece by Jerome Fletcher is based on a tension between the printed medium and the digital medium. Clearly, Jerome Fletcher’s creation cannot be printed without losing its *raison d’être*. It is indeed digital and not digitized literature. But is it that simple? In this creation, unlike other creations of digital literature, text fragments are not generated but are pre-written; they exist as image files (.jpg). We could imagine printing all the image files and superimposing them, thus accounting for all the texts, even if it doesn’t render the experience of gestural reading.

This creation stresses the tension between the cultural, literary and artistic forms inherited from the printed world (here including palimpsest and collage). The forms born with digital, such as the particular mode of appearance on screen depending on the gesture of the reader, are unique to
computational art. The tension on the media is also due to the deeply intermediatic dimension of any digital production. 8

The tension regarding the media does not only refer to the tension between the digital medium and the printed medium, but also to the tension between the various devices used to render the work. The creation Ha perdut la veu is at the same time a contextualized installation (“a site-specific piece, or at least a context-sensitive-piece”) and an autonomous creation, a transmittable offline object (DVD) and an online creation (on the Web). The tension between a unique object exhibited in a museum in Barcelona and a reproducible object corresponds in some way to a tension between artistic creation and literary creation. This raises the question of the positioning of digital literature in relation to digital arts.

This tension also raises issues regarding preservation. A digital literary work is indeed not an object, but in most cases it isn’t either a simple event limited in time, like a performance or a digital installation. In fact, digital literature partakes of both aspects: it is a transmittable object but it is also fundamentally a process that can only exist in an actualization. Preserving a whole digital creation means preserving the ability to manipulate it, not simply for the sake of storing data, but in order to reinvent it, to read it. Thus preservation of digital literature should adopt an organic vision of memory, in which the content evolves, changes, adapts to be maintained and preserved (Bouchardon & Heckman, 2012; Bouchardon & Bachimont, 2013). Many in the digital literature community believe that preservation begins with saving the code, source files and operating systems on which a piece runs. Digital literature preservation is much more entailed than preserving a book.

**TENSION ON THE SEMIOTIC FORMS**

In our example, there is a tension between linguistic text and image. Through the action of the reader, bits of letters are given to see as an image before gradually composing words to interpret. The author plays on the boundary between the visible and the readable. This tension is not specific to digital creations. Nevertheless we can notice that the different sentences progressively revealed by the gesture of the reader are in fact images, at least from a technical point of view (files with a .jpg extension).

The relationship and hybridization between different semiotic forms (linguistic text, image, sound, video) did not appear with the digital medium. But digital writing makes it possible to play on the tension between the technical and the semiotic dimensions in a specific way. Technically, thanks to the digital, all semiotic forms (linguistic text, image, sound, video) are encoded in the same way, i.e. in binary form. But from a semiotic point of view, they retain properties inherited from cultural traditions.

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8Editor’s note: Intermediation describes the relationship between the reader and the computer. Readers of digital literature observe patterns, and make navigational and interpretive choices based on those patterns. The reader’s choices send the computer program in a different direction. See N. Katherine Hayles in *Electronic Literature: New Horizons of the Literary* pp. 57-8.
(Manovich, 2001). Thus a tension arises between the technical potentialities made possible by the digital and the semiotic properties of these different semiotic forms. For instance, a video is a matter of flow. A video sequence cannot be manipulated without losing its meaning. We can say that there is a form of resistance or inertia of the video semiotic form when it is manipulated.

The tension on the semiotic forms refers to the tension between the technical potentialities of the digital and the semiotic properties (inertia proper to each form), as well as to the way these forms make sense together and are transformed by this inter-semiotisation. Thus this tension on the semiotic forms also raises the question of the positioning of digital literature in relation to digital arts. Roberto Simanowski asks, “What is the literary element in digital literature?” (Simanowski, 2007: 50). Is the mere presence of text (in the sense of a linguistic text) enough to refer to a digital creation as digital literature, or is it determined by the quantity of text? It is clear that the quantitative factor cannot be a discriminating factor. According to Simanowski, it is the role played by the text that will determine whether a digital creation can be referred to as digital literature or not. Let us take the example of Text Rain, by Camille Utterback and Romy Achituv. According to its creators, “Text Rain is an interactive installation in which participants use the familiar instrument of their bodies to do what seems magical—to lift and play with falling letters that do not really exist.”

“Insofar as the installation does not aim at the reading of the text, it acts rather as digital art than as literature. Therefore my suggestion of differentiation is not so much based on proportionality but on the role played by the text as a whole.” (Simanowski, 2007: 53). If the text is considered in the creation as a linguistic phenomenon to interpret, one can speak of digital literature. If the text becomes a visual object of interaction (as in the installation Text Rain), it is more digital art. The tension on the semiotic

![Figure 3. Text Rain, by Camille Utterback and Romy Achituv (1999).](http://camilleutterback.com/projects/text-rain/)
forms also indicates the difficulty of positioning digital literature clearly in relation to digital arts, for we cannot separate form from content: the entire interface of a work imparts the literary work’s meaning just as much as the literary “content” it renders then displays on the screen.

**TENSION ON THE PROGRAMMED WRITING**

The creation by Jerome Fletcher is both a written and a programmed object. The tension between program and writing raises the question of forms (the tension between the formal requirements of programming and the cultural and literary forms of writing), but also the question of meaning.

On the one hand, a program makes it possible to define in advance the manipulation of units that will be executed automatically. On the other hand, writing can be defined as a system of expression that reflects thinking. One can thus identify a tension between the program (which is an automatic manipulation of symbolic inscriptions) and writing (which is a device used to externalize memory and thinking). On the one side a form of closure, on the other the possibility of the expression of meaning. The challenge is to create space for new meaning from an initial impossibility. There is thus a tension between programming and writing (even though programming is also of course a form of writing), which is a creative tension.

In this creation by Fletcher, the tension on the programmed writing raises the question of “architextual writing” (Jeanneret & Souchier, 1999). Jeanneret and Souchier refer to certain software programs as “architexts” (after Genette), meaning that we are writing with forms already written by others. A piece of software like Microsoft Word or Powerpoint invites the user to write with written forms (“écriture d’écriture”). “We name architects (from archè, origin and command), the tools that make possible the existence of the writing on the screen and which, not only represent the structure of the text, but also command its execution and implementation. In other words, the text springs from an architext which shapes its writing” (Jeanneret et Souchier, 1999). Indeed, in …*Ha perdut la veu*, the interface of the creation is similar to that of a piece of software. Actually, the author used this interface and the functionalities it provides three times for three different creations, which are therefore like variants of the same work: *Pentimento* (2003), *Reusement* (2007), *Ha perdut la veu* (2009). The creation itself appears as both a singular piece of work and as a piece situated in a series of variants using the same device. In fact, it is to be seen as both a software development and as a unique creation. The author was

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10“Nous nommons architextes (de archè, origine et commandement), les outils qui permettent l’existence de l’écrit à l’écran et qui, non contents de représenter la structure du texte, en commandent l’exécution et la réalisation. Autrement dit, le texte naît de l’architex qui en balise l’écriture [We name architects (from archè, origin and command), the tools that make possible the existence of the writing on the screen and which, not only represent the structure of the text, but also command its execution and implementation. In other words, the text springs from an architext which shapes its writing]” (Jeanneret et Souchier, 1999).

11[http://www.poetrybeyondtext.org/fletcher.html](http://www.poetrybeyondtext.org/fletcher.html)
led to conceive (with the support of a programmer) his own *architext* for his creation.

The use by Fletcher of the same software brings to mind the CMS (*content management systems* like Wordpress, SPIP, Drupal), these automated tools which have given digital writing a new industrial dimension. These tools have thus established a tension between the industrialization of forms and the individualization of writings. We have the automatic content generation on one side and the singularity of self-expression on the other. Digital writing could be characterized by what could be called “singu-
larized generation” (“génération singularisante”, cf. Bouchardon, 2014). To what extent can the digital be used to support a singularity, in the sense of a singular writing?

More generally, what is at stake in the tension on the programmed writing is the creation of “meaning-

Variability is primarily the variability of the computer code, based on *variables* in the programs.

Variability is also that of the displaying of the content on the screen. It may be noted that the evolu-
tion of the architectures and languages used to develop websites leads to the complete versatility of a Web page. What is displayed on the screen is the result of continuous processing of information and is never exactly the same from one viewing to another or from one user to another. In music, a *variation* is a method of composition which results in the transformation of a musical element. Likewise, it could be argued that the digital, which makes possible the transformation of content, offers dynamic variations in content display. Etienne Candel, Valérie Jeanne-Perrier and Emmanuel Souchier have shown that “small forms”, such as the search field, the tag cloud or the list of links, are stable formal elements. These “small forms” can be seen as frames for the composition and generation of the content of a Web page, as well as for the variation of content from one Web page to another (Candel, Jeanne-Perrier and Souchier, 2012).

Finally, variability is variability of content in time (caused by the evolution and obsolescence of tech-
nical devices), which prompts continuous re-inventing and re-writing of *variants*. It is a phenomenon that is well known by writers of digital literature (Bouchardon & Bachimont, 2013).

These three dimensions of variability are related: insofar as the code comprises elements which can be assigned different values (*variables*), writing is designed to be able to organize variations (as a method of composition) and is indeed subject to time variations (*variants*).

What is at stake in digital writing is thus the creation of “meaningful variability”; this tension is high-
lighted by pieces of digital literature, in particular …*Ha perdut la veu* by Jerome Fletcher.

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12Lev Manovich already emphasized variability as an important characteristic of new media (Manovich, 2001).
In our example, the tension on the programmed writing finally raises the question of performance. Jerome Fletcher talks about “writing for performance and writing as performance.” As we said, a piece of digital literature is a transmittable object but it is also fundamentally a process that can only exist in an actualization through the gesture of the reader. In …*Ha perdut la veu*, there is a tension between textual fragments already written (and recorded under the form of image files) and the gesture of the reader which makes the texts exist in an always different way. A tension between text to read and text to act. For the reader, this is an “improvised performance” (Fletcher, 2011) insofar as it progressively uncovers the texts but also its location on the screen. Is it possible to program improvisation?

**TENSION ON THE AESTHETIC EXPERIENCE**

In …*Ha perdut la veu*, through the words that appear and disappear because of his/her gesture, through the phenomena of composition and decomposition, the reader is led to experience a physical relation to language. There is a tension here between the materiality of the object and the revelation of meaning, between materiality and transcendence, which is the characteristic of the aesthetic experience (Olivesi, 2012).

There is a tension between the contemplation of the revealing of meaning and the physical action which is required for this revealing. Indeed the creations of digital literature often rely on devices in which the reader acts, composes, constructs. Is this experience, which is based on gestural activity, compatible with an aesthetic experience - or even an aesthetic *revelation*? The creative tension here is between the openness to meaning which requires the reader to be ready and available, and the closure of the device which requires him/her to be busy, active, engaged. The creation has to entail an aesthetic experience, which cannot only be based on “doing”. This raises the question of the gesture and more largely of the engagement of the body in this literature.

Gestural manipulation is certainly inherent in writing and reading devices; however, the digital results in a passage to the limit by introducing computation into the very principle of manipulation. What can happen when the user makes the gesture of typing a letter on the keyboard? Another letter may be displayed instead,13 or the typed letter may leave the input field and fly away,14 or that gesture can generate a sound, run a query in a search engine, or even turn the computer off—all examples to be found in digital literature)...

From this simple gesture, the realm of possibilities exceeds the anticipation inherent in the gesture. Because of the arbitrariness and opacity of computation, the digital introduces a gap between the user’s expectations based on his/her gestures and the realm of possibilities offered.

There is indeed a tension between material actions and revelation of meaning, i.e. tension on the aesthetic experience. The tension on the aesthetic experience becomes a tension on the literary experience

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13Cf. the last scene of *Loss of Grasp*: http://www.lossofgrasp.com/
14Cf. the first scene of *Anonymes v.1*: http://www.anonymes.net/anonymes.html
in the manipulation of words; the pieces invite the author and the reader to work on the materiality and the meaning of words, questioning not only the language but also literature itself.

“Literature deconstructs or decomposes the natural language in which it is written, that is, it invents a new language through syntactic creation,” Fletcher observes.

One can note the reflexive dimension of ...Ha perdut la veu, which positions digital literature itself as “minor literature.” “How to tear a minor literature away from its own language, allowing it to challenge the language and making it follow a sober revolutionary path?” He asks.

This self-proclaimed characterization of digital literature as “minor literature” lies also on its experimental dimension built on the tensions analyzed above.

**CONCLUSION**

Digital literature is based on tensions that contribute to establishing its specificity: tension on the media, on the semiotic forms, on the programmed writing, and on the aesthetic experience. These tensions highlight the role of the digital medium, of the multimedia dimension, of the program and of gestures and interactivity. Let us note that we do not necessarily find these tensions in all the creations of digital literature and that these tensions are not exhaustive.

We could mention other tensions, such as the tension on authorship; indeed a digital piece can be at the same time an author's work and a collaborative work, or at the same time an original writing and a remix. But let us stick for the moment to the tensions emphasized so far:

- **Tension on the media:** between digital literature and digitized literature, but also between contextual installation or performance and transmissible or online available object;
- **Tension on the semiotic forms:** between the technical potentialities of the Digital and the semiotic properties (inertia proper to each form);
- **Tension on the programmed writing:** between a form of closure with the program and the opening to meaning;
- **Tension on the aesthetic experience:** between the revealing of meaning and the physical action which is necessary for this revealing.

All of these tensions did not necessarily appear with digital literature, but they are probably raised anew. It is on the basis of these creative tensions that digital literature can build its identity and consider new perspectives.

Most definitions of digital literature rely on the presence of two components: 1) an exploitation of the
specificities of the digital medium, in terms of computation, hyperlinks, multimedia; 2) an exploration of the literary component: language, words, text, narrative or poetic form.

The tensions between these two components are what builds digital literature, not simply their co-presence.\textsuperscript{15}

I therefore propose the following definition of digital literature: “all the creations that are based on a tension between literariness and digital media specificities.”

\textbf{Bibliography}


\textsuperscript{15}In digital literature, exploitation of the digital medium and literariness are co-built by their relationship. Contrary to the definition of the Electronic Literature Organization (ELO) that seems to distinguish these two elements (“works with important literary aspects that take advantage of the capabilities and contexts provided by the stand-alone or networked computer”), we have to think their interaction.


