Digital Literature in France

by Serge Bouchardon

In this paper, I first retrace the filiations and the history of digital literature in France, emphasizing the various literary and aesthetic tendencies and the corresponding structures (groups, reviews). Then I focus on French digital literature communities. I notably give an account of a study that I did in 2004-2007 for the Centre Pompidou in Paris: I analyzed a socio-technical device (discussion list and website) called e-critures, dedicated to digital literature, with the hypothesis of the co-construction of a socio-technical device, a field and a community. I conclude on the possible characteristics of digital literature in France.

Introduction

1. Filiations and History of Digital Literature in France
2. The Constitution of a Community? The Example of the e-critures Device
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Introduction

French writers recognized as print writers, such as the 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 (cf. Bouchardon et al.). 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[2]. Its authors aim at conceiving and realizing works which are specific for the computer and the digital medium, by trying to exploit their characteristics: hypertext technology, multimedia dimension, interactivity...

In this paper, I shall focus on the development and on the characteristics of digital literature in France, from a double perspective: a literary and aesthetic perspective, but also a sociological one. I shall first point out the filiations, the history and the significant reviews of digital literature in France. Then I shall focus on the constitution of communities around digital literature by analyzing one community in particular (e-critures). I shall conclude on the possible characteristics of digital literature in France.

1. Filiations and History of Digital Literature in France

Let us try to describe in broad outline the filiations of digital literature in France[3].

1.1. Filiations

The productions of digital literature were 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.

Combinatorial Writing and Constrained Writing[4]

From I Ching[5] to the OuLiPo, including the art of the cento—a technique which goes back to Antiquity and which consists in building texts by collage of quotations taken from other texts—combinatorics has been influencing textual practices for a long time.
On the Web, Bernardo Schiavetta proposes Raphél. Raphél is a multilingual cento, a collage poem of quotations in various languages, which is to be read as the endless commentary of a sentence from the Divine Comedy, an asenmantic sentence attributed by Dante to Nimrod, the builder of the Tower of Babel. The basic form of Raphél is a cyclic stanza of ten lines which can reproduce itself infinitely if the reader clicks on one of its ten linear links and/or ten interlinear links: A click on a line in the left column gives access to its source. A click (precise) on a line spacing gives access to the corresponding stanza at the next level. Raphél is thus a poetic hypertext whose very form relies on the hyperlink. As far as Raphél develops a formal process of proliferation of lines based on the principle of the cento and the crown of sonnets, this "unlimited babelic hyperpoem" is structurally a never ending text.

The fantasy of the infinite book is actually analyzed by Jean Clément, as one of the fantasies of combinatorial writing. Jean Clément, a French theorist specialized in hypertextual literature, reminds us that Jorge Luis Borges succeeded in staging this fantasy of the infinite book in his short story entitled The Book of sand (El libro de arena, 1975). This fable, notes Jean Clément, could illustrate the notion of hypertext as its pioneers conceived it: a text without a beginning or an end, a text which we enter and which we exit just like we enter or exit a city.

Working on another approach of combinatorics, Raymond Roussel took a particular interest in writing instructions. By doing so, he paved the way for Oulipian constrained writing. This filiation of constrained writing and the OuLiPo is emphasized by numerous theoreticians (cf. Vuillemin). Nevertheless, other theoreticians underline the profound difference between literature under constraint and programmed literature, pointing out that literature under constraint may not be a necessarily legitimate filiation for digital literature:

"Literature with a program, programmed literature, literature under constraint": the terminology is rather vague and programmed literature is often considered as Oulipian-type constrained literature. . . . However, even if these approaches share some common points, particularly on an ideological level, they also differ: the conceptions of literariness. . . . However, even if these approaches share some common points, particularly on an ideological level, they also differ: the conceptions of literariness as well as the literary "effects" on which they are based are very different. The engrammation processes used to produce texts have indeed nothing in common; now these processes mainly define the specificities of literariness."

(Balpe, "Règles")

**Fragmentary Writing**

To a certain extent, the textual fragment can be considered as a literary genre: proverbs, aphorisms, maxims . . .

The brief genres can be considered as kinds of fragments in a particular sense: they do not form the parts of a whole, but can constitute a collection. The fragment is not the sign of an absence, it is completely self-sufficient. However, except for oral literature proverbs or advertising slogans, fragments are generally published as a whole (The Maxims by La Rochefoucauld, The 353 fragments of the Gay science by Nietzsche, the psalters of Christian liturgy, the verses from the Koran, the Little Red Book of Maoists). In these collections, the question of "order" becomes an issue. (Clément, "Hypertexte")

In the history of modern European literature, the Romantics were the first to consider the fragment as a genre per se. Blütenstaub by Novalis, a set of poetic and philosophical fragments, is a good example. Jean Clément reminds us that the XXth century adopted "the fragment as the sign of a refusal of established views, ideologies, philosophical treatments and the constitution of a definitive meaning": Aesthetics of the fragment emerged between flux and fractality, as Jean Clément explains:

"The collage or the cut-up deconstructs speech and thought, creating a clash between words and images. Flux is a characteristic of combinatorics and automatic text generation. The works engendered by a device are only instantiations of a virtual work for ever inaccessible as a whole. They are caught in a process, a generative flow. Fractality is a way of reinstating the fragment in a whole. In the hypertext, for example, the whole is accessible neither simultaneously, nor sequentially. A glimpse of it can only be caught in the fragments themselves. In some cases it is accessible through a "mise en abyme".

Hypertextual writing finds its place in the history of fragmentary writing. The question of the fragment and of the link between the fragments is indeed central to the concept of hypertext
and to hypertextual narratives. The fragment is indeed caught in a fascicule of links. Its position is unstable and changes with the user’s readings and itineraries.

In France, the Nouveau Roman—in which fragmentary writing can be also found—had an influence on the writing of hypertextual narratives. With the Nouveau Roman, the designation of fiction as such becomes more important than the narrative contents. What the Nouveau Roman rejects, is first the objective truth brought forward by 19th century authors; then it refuses the characters as they were characterized in the 19th century, as well as the plot, which it says cannot render the experience of the passing of time. Things are described in an impersonal but meticulous, even obsessive way. The reader does not know who speaks, everything is enigmatic: absence of chronology in the narrative, confusion between flashback and flash-forward, fragmentation. The reader is constantly destabilized, and meaning escapes him/her as s/he reads. The “narrative on trial”, which is a characteristic of Nouveau Roman according to Jean Ricardou, is also the basis of many hypertextual narratives.

Visual and Sound Writing

From the tradition of “figurative writings” in the Middle Ages, to the Coup de dé by Mallarmé and Apollinaire’s calligrams, literature has sometimes privileged the material dimension of linguistic signs, in particular in poetic creation. Many authors of digital literature place their work in this tradition of visual and sound writing. Which filiations can be identified?

- Concrete poetry: the words themselves become part of the poetry, rather than just unseen vehicles for ideas. Spatialist, visual and animated poetry derive from this tradition (e.g. Tibor Papp’s “dynamic visual poems”).
- Lettrist poetry, promoted by Isidore Isou, breaks the word to keep only the letter which becomes a sound entity (Alexandre Gherban in particular is inspired by this tradition).
- Sound poetry becomes action poetry, then performance poetry (we could think here of the works of Julien d’Abrigeon and of Philippe Boisnard).

These various filiations are obvious in the poetic works of digital literature, but also in kinetic interactive narratives (e.g. Anonymes).

1.2. History

Although filiations for digital literature can be traced, this literature also has a history of its own. This history is itself an object of debate and positioning within a field. Let us try to give an overview of the history of digital literature, particularly in France.

Combinatorial Experiments

The first permutational experiments go back to Theo Lutz’s works in Germany and to Brion Gysin’s in the United States in 1959. In these works, the computer is used as a tool assisting the creation process; the author eventually intervenes on the resulting work to sort it out or to modify it. The final version of the work corresponds to the production of the computer: Theo Lutz’s texts were printed, those by Brion Gysin were recited then recorded on an audio tape. These works were followed in the 60s and 70s by other combinatorial works in the United States and in Europe. In France, we can mention La machine à écrire (The typewriter) by Jean Baudot in 1964. This work is a good illustration of the notion of “computer-assisted literature” (“littérature assistée par ordinateur”): Jean Baudot realized a combinatorial program, then gathered the generated texts in a book (La machine à écrire). In these examples, the computer was used to prolong previous literary approaches. In this experimental period, the output remained the printed or recited text.

Automatic Text Generation

The awareness of a specificity of computerized algorithmics (compared to algorithmics entirely written on paper) emerged gradually. At the end of the 70s in Portugal, Pedro Barbosa conceived combinatorial works especially for the computer. THE ALAMO (L’Atelier de Littérature Assistée par la Mathématique et les Ordinateurs), created in 1981, explicitly proclaimed the existence of computing literariness, asserting that combinatorial works were literary productions. After this, combinatorics could not be the only algorithmic approach any more. The development of the algorithmic description of a sentence, then of a text, of a
narrative, together with the growing calculation power of computers, has led to a more scientific algorithmic approach: it results in the automatic text generation developed by Jean-Pierre Balpe, and based on his research work on the automatic synthesis of natural languages. This approach is specific for computers and not possible on print media. Alain Vuillemin pointed out that at the time, “the poetry generated exclusively by computer remains a European phenomenon, and more specifically French” ("Informatique et poésie").

Fig. 3. An example of text generation by Jean-Pierre Balpe: Labylogue (2000), in collaboration with Maurice Benayoun and Jean-Baptiste Bernard.

Hypertextual Narratives

Some years later the first hypertextual narratives were published in the United States, following Afternoon, a story by Michael Joyce (1987). This hypertext, realized with the Storyspace software program heralded the spectacular development of the American hypertext, which would eventually reach Europe. It was not until 1996 that the first two works of hypertextual fiction published in French were available on CD-ROM: 20% d’amour en plus by François Coulon and Sale Temps by Frank Dufour. Following 20% d’amour en plus, François Coulon was the author of another CD-ROM, Pause, in a collection entitled "Interactive Fictions" published by Kaona Publisher. These pieces are hypertextual narratives with an important graphic dimension.

Following this, many hypertextual narratives in French appeared on the Web: let us mention in particular the Belgian author Anne-Cécile Brandenbourger’s Apparitions inquiétantes. This hypertext was in a second phase published in print under the title of La édiction du parasol. Another example could be the Non-roman by Lucie de Boutiny.

Fig. 4. The hypertextual narrative Non-roman, by Lucie de Boutiny (1997-2000).

Animated Poetry

During the same period (the 90s), in France in particular, but not only, the group L.A.I.R.E. (Lecture, Art, Innovation, Recherche, Ecriture) was founded in October 1988 by Philippe Bootz, Frédérique Develay, Jean-Marie Dutey, Claude Maillard, and Tibor Papp and the alire review (edited by Philippe Bootz) were to play a significant role in the diffusion of "poésie animée" ("animated poetry"): “La poésie numérique animée est née en France en 1985. Elle introduit la temporalité au sein même de l’écrit.” ("Animated poetry was born in France in 1985. It introduces temporality within the writing") (Bootz, "Littérature numérique"). Philippe Bootz then developed a theory of what he calls the "esthétique de la frustration" ("aesthetics of frustration"), illustrated by his work Passage.
Online Collective Works

Finally, because of the role played by the Internet network in the practices - in particular with the appearance of collective works - and because of the influence of graphic arts and digital arts, we now have participative digital literary works (e.g. *Le Livre des Morts* (The Book of the Death), participative in its versions until 2008) by Malbreil and Dalmon) or also contributive: e.g. *Nos Vies* (Our Lives, Nisic) or *Mes Mots* (My Words, Bouchardon), these two works are not produced by a specific community of writers, but they are open to any contributor.

Also online, many authors coming from print literature and represented notably by François Bon give life to what could be called blog literature (cf. Bon’s *le tiers livre*) on the border of digital literature and traditional literature.

Today

At present, two main tendencies are vivid in France:

1. Performances of programmed and generated literature[11], which address the question of live digital writing (which is received as it is being written). The performance of *Flog* (a combination of flux and blog), by Luc Dall’Armellina, emphasizes our alienation due to the speed of televisual or RSS news flux.

2. Online animated hypermedia pieces, conceived for a "private reading" (the expression «lecture privée» comes from Philippe Bootz). These works exploit at the same time the dynamic display of the text and the multimedia dimension. They emphasize the interactivity with a reader. In *Loss of Grasp*, by Serge Bouchardon and Vincent Volckaert, the play on grasp and loss of grasp mirrors the reader’s experience of an interactive digital work. In *Sous terre*, Grégory Chatonsky proposes an interactive staging of interpersonal relationships in the Parisian underground.

1.3. Significant Reviews
This history was punctuated with reviews which played a key role, both in terms of circulation and in terms of the movements which were often linked to those reviews. Several reviews stand out in the history of digital literature in France. Here is a short list which does not claim to be exhaustive.

**Art-Access: A Telematic Review**

In 1985 the first issue of the *Art Access review* was published, the first art review on Minitel[12]. 80 artists participated in this issue, for 1500 Minitel pages. Text animation was already very present thanks to authors like Philippe Bootz, Frédéric Develay, Claude Faure, Guillaume Loizillon, Tibor Papp. At the time, all of them were in the sphere of visual and sound poetry Art Access review stopped after three years.

**Fig. 8. Le Minitel en 1982.**

*alire*

Art Access indirectly facilitated the development of French animated poetry and the creation of the first digital poetry review, *alire*, which we have already mentioned.

Philippe Bootz met the poet Tibor Papp in 1988; from this meeting came the idea to create an electronic review on floppy disks, and to group together authors working on electronic text. The L.A.I.R.E. collective (Lecture Art Innovation Recherche Ecriture) was created in October, 1988. It included, besides Philippe Bootz and Tibor Papp, Claude Maillard, Frédéric Develay and Jean-Marie Dutey, poets who were experimenting with the digital medium.

Its first action was the effective realization of the *alire* review. The very first issue (0.1) was created for the inauguration of the review in the Pompidou Center in 1989. This number is an object which contains programmed poems on diskettes, printed works on paper and a work of sound poetry on a video cassette. It was with the n°1 issue (March 1989) that the specificity of the review became clearer: diskettes came with a notebook which contained only theoretical thoughts (there was no more video cassette nor printed work). This was the first clear assertion in France that digital literature existed and that its only medium was the computer.

The review was identified in 1990 as the oldest review in the world which effectively diffused the programs of the works. It published the animated poetry created by the authors of L.A.I.R.E until 1992, then it opened up, from *alire*6, to the works of digital literature of all genres created by French authors. It published foreign authors from *alire*8 (1994). It was the only review on digital poetry until 1996. In the 90s, *Alire* is particularly representative of the diverse approaches in digital poetry before the Web.

**Fig. 9. The alire review on diskettes.**

In the 2000s, the adventure of *Alire* coincided with that of a collective, *Transitoire Observable*. As the years went by, the authors of *alire* acquired the conviction that programming was at the center of digital literature and that it was essential to look more closely at the new forms, specifically programmed ones, which it could produce. Following Alexandre Gherban’s initiative, a digital and plastic poet, the *Transitoire Observable* collective was created, based on the assertion that all the components of the device (screen, machine, program) were interdependent in the work. The founding act was a manifesto signed in February 2003 by Alexandre Gherban, Philippe Bootz and Tibor Papp[13]. This collective opposed itself to videopoetry, which considers programming as a mere tool used for the production of a fixed multimedia object, totally observable and considered as the work. It also differentiates itself from software art, which asserts that the code of the program is the work. For the actors of the *Transitoire Observable* collective, the
multimedia event accessible to the reading, the only legible part of the work, the observable transitory, is only a passing and observable event of an active programmed process, its forms being produced by deeper programmed forms, sometimes even

In 2004, the 12th issue of Alire was dedicated to the Observatoire collective (dissolved in 2007). The latest volume (N°14) of Alire was published in 2010, but it was only intended for libraries and institutions, and not for the general public. According to the Alire publisher, Philippe Bootz, the review might continue, but not in a CD-ROM format.

**DOC(K)S**

The DOC(K)S review, created in 1976 by Julien Blaine and directed by AKENATON (Philippe Castellin and Jean Torregrosa) since 1990, a reference in the field of sound and visual poetry, undertook in 1997 a survey on the use of diverse media in poetry. It started with an issue on CD-ROM (alire10 / DOC(K)S series 3, n°14/15/16), in association with the alire review, then continued with an issue dedicated to the sound (DOC(K)S series 3, n°17/18/19/20, 1998), another dedicated to the Web (DOC(K)S series 3, n° 21/22/23/24, 1999) and a last one dedicated to the DVD (DOC(K)S series 3, n°34/35/36/37, 2004/2005). Some works were computerized to be presented on a digital medium. These publications also contained programmed works.

![Fig. 10. Doc(k)s review Website](image)

**T.A.P.I.N.**

In France, the young generation influenced by Bernard Heidsieck's sound poetry migrated also partially on the Internet, where Julien d’Abrigeon created the online Tapin review. Tapin is the BoxoN collective website. This review offers sound, visual and digital poems. Created in 1999, it is still active in 2012.

![Fig. 11. Website T.A.P.I.N.](image)


Along with online reviews, numerous authors today have their personal website where they present their works. Among the oldest, in France, we can mention Annie Abrahams’s website (even if its author is originally from the Netherlands), which articulates digital literature, performance and net art. Or the website of the artist Mouchette, who presents works inbetween literature and net art.

Throughout the history of digital literature, these reviews—even though short-lived and unstable—as well as their actors played a federative role for the different communities in the field.

**2. The Constitution of a Community? The Example of the e-critures**
Device

After this focus on the filiations and the history of digital literature in France, let us focus on the question of the communities of this digital literature.

In 2004, I answered a call from the "Studies and Research" Service of the Public Information Library ("Bibliothèque Publique d’Information") of the Georges Pompidou Center in Paris. I then associated three researcher (Franck Ghitalla (COSTECH lab.), Evelyne Brodux (Paragraphe), and Oriane Deseilligny (CRIS/SERIES)) with this research contract. Following this study, a book entitled _Un laboratoire de littératures_ ("A laboratory of literatures–Digital literature and the Internet" only in French) was published in 2007.

Our project was to analyze an online review dedicated to digital literature as well as online literary reviews dealing with print literature. The point was not to set traditional literature against digital literature, both of which are actually closely linked online, but to study socio-technical devices which are centered on digital literature. This seemed relevant to us since the medium used by the actors is also the medium which is used by the authors of the works discussed. I analyzed in particular the online device _e-critures_, which includes a mailing list and a website. By focusing on such a device, I was able to observe an emerging field in which the various actors try to position themselves. I managed to watch and study the process of the co-constitution of a technical device, a field and a community.

2.1. The _e-critures_ Socio-Technical Device

The online device called _e-critures_ consists of a mailing list (discussion list) and of a website. The discussion list, created in November 1999, came first (it has at present around 160 members and more than 5000 messages have been posted since its creation). Here is the presentation text for this list:

"Liste de diffusion dédiée à la littérature informatique. Elle regroupe des auteurs., des universitaires et de simples lecteurs." ('Discussion list dedicated to digital literature. It groups together authors, scholars and simple readers').

Nobody can join without being accepted by the moderator (whose role afterwards is however restricted since messages are freely posted). The diffusion of messages is always one-sided: from one to all the members of the list. The feeling of being a member of the list is directly related to the feeling of belonging to a group of trailblazers who choose to fight or not to fight for its own visibility.

The first version of the website, created in January 2001, made it possible for the authors to present their works ("individual creations") but also to intervene in a common space ("collective creations"). In order to enrich the contents of the exchanges with the visitors of the site, to create a community of digital literature creation and to reference all the works of its members, a new version of the website was launched in November 2003, following Gérard Dalmon's initiative. The latest version, whose interface is more straightforward and sober, dates back to January 2008.

Fig. 12. _e-critures_.org in 2010.

A Monographic Study: The _e-critures_ Device

From a methodological point of view, the study of the _e-critures_ device consisted in an in-depth qualitative study with participation. By many aspects, the field of digital literature is still emerging. I considered that it was necessary to be part of a device which is a constituent part of the field, to really understand what was happening. As a result, I was of course aware of being also an actor of the field and of participating in its constitution. Such a methodological choice consequently involved describing of my own practices.

The monographic study with participating observation of _e-critures_ allowed me to analyze the actors' discourse. The methodological interest of such a device lies in its reflexive dimension: the actors of _e-critures_ constantly question who they are and what they create. In return, the continuous evolution of the device constituted a difficulty for the study.

2.2. A Comparative Approach


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A Comparative Approach: e-critures and Ecrits...vains?

The study of the e-critures device, of its specificities and its representativeness of a field of practices, also relied on the comparative study of another on-line device, Ecrits...vains?, dedicated to more "traditional" literary forms of publishing. Even though the ecrits-vains.com website is not necessarily representative of all the on-line literary reviews, its hybrid dimension (a literary review, a newsgroup and a writing workshop) seemed to be emblematic of a set of online collective practices.

The comparison between the two devices, e-critures and Ecrits...vains?, gave us thoughts about the possible differences between the upholders of a "classic" editorial practice (Ecrits...vains?) and actors who intend to build their editorial strategy as well as the literary domain they belong to (e-critures).

In the course of the study, the place of Ecrits...vains? became more significant: it seemed indeed important to us to understand the functioning of such a device to highlight the possible specificities of e-critures. Thus we exploited Ecrits...vains? (in its triple dimension of review, publishing site and forum) to try to bring to light by contrast what is going on specifically in digital literature.

In the course which leads him/her to the recognition as an author within his/her community, what differentiates an actor of E-critures from an actor of Ecrits...vains? A first answer lies in the editorial device set up by Ecrits...vains?, which contrasts with the profusion of personal publication sites of the E-critures members. This difference allows us to distinguish two different functions of the devices: whereas the first one looks for readers through a rigorous selection process of texts, the second aims to fit into a community of practices, a network of creators, a community of digital literature initiates.

Technical and Editorial Choices

The comparison of the technical and the editorial choices of both devices reveals the following differences (cf. Bouchardon et al.).

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Ecrits-vains?</th>
<th>E-critur (digital literature)</th>
</tr>
</thead>
<tbody>
<tr>
<td>nature of the site</td>
<td>literary review and publishing site</td>
<td>referencing site</td>
</tr>
<tr>
<td>interface</td>
<td>abundant</td>
<td>sober, functional</td>
</tr>
<tr>
<td>content</td>
<td>static content (HTML)</td>
<td>dynamic content (database)</td>
</tr>
<tr>
<td>interaction</td>
<td>newsgroup (a priori moderation)</td>
<td>discussion list (no moderation)</td>
</tr>
<tr>
<td>work and text selection</td>
<td>anonymisation</td>
<td>opacity on the selection criteria</td>
</tr>
<tr>
<td>audience</td>
<td>&quot;authors and readers&quot;</td>
<td>&quot;members&quot;, &quot;community&quot; (cf. screen shot below)</td>
</tr>
</tbody>
</table>

Fig. 13. ecrits-vains.com in 2010.

We can ask ourselves the following question: can the content and the layout of the documents and messages on the one hand and the features of the technical devices on the other hand, be the signature of a community of practice? What would be the signature of a community of practice dedicated to digital literature?

2.3. New Literary Forms?

Let us return to the e-critures device. To what extent may the constitution of such a community have influenced the creative practices, and even the literary forms?

A Laboratory of Works

On the e-critures list, the collective can play a role in the elaboration of the works. A work was even realized collectively: it is presented on the e-critures.org site (WC Field, following Gérard Dalmon's initiative, appears below).
Other works, individual creations, were elaborated and finalized with the support of the list. Certain authors acknowledge on the list what their writing owes to the very list. It is for example the case of Xavier Malbreil who posted extracts of his last print novel on e-critures, Je ne me souviens pas très bien (‘I do not remember very well’):

"For those who might be interested, here is how I used the current debate on the list (interactivity) in the writing of my novel. Please note that the passage reproduced here, beginning chapter 8, page 160 or so, can be found a third of the way through the book" (on November 16th, 2001).

The list plays here the role of a breeding ground for the writing process. Often, the original idea of work is actually born on the list:

"I do not believe that your piece is the quotation of a quotation. A semi-fixed form, is probably what it is. It makes me feel like creating one also, and if others do likewise, we are very likely to achieve something which will look like a fixed shape at a certain moment of the history of our literature" (Patrick Burgaud on November 3rd, 2004).

Afterward, the testing and evaluation of the work constitute its birth certificate on the list. An author might take other members’ remarks into account and rewrite part of his work. Sometimes, it may involve technical corrections:

"For the attention of the testers, please note that I did some “cleaning” in the database and sorted out the problems here and there" (Frédéric Madre about his "Polyptique", on November 22nd, 2004).

"Well thanks to Jerome we’ve solved the problem of refusal of certain images" (Frédéric Madre on November 27th, 2004).

… but also basic problems. E-criturians can then follow the evolution of the work as the months go by:

"The game of the life" interfaced to Excel is a first stage towards the development of a software program designed for the study of a cellular automaton. Eventually, it should be useful to me for the regulation of my automatons in poetry, in particular by helping me visualizing the internal disturbances caused by the actions of a reader on the automato" (Eric Serandour, on December 15th, 2002).

Some works are sometimes strongly criticized and as a result authors are forced to clarify their approach. Some authors actually enjoy these criticisms. It is the case of Luc Dall’Armellina about QQA3:

"In fact, I am rather satisfied that my piece does not agree with everyone, that it keeps evading reception. It is not a game, nor a "simple" text either. It is a dialogue, in a rather poorly interactive setting, whose goal is to criticize the dialogue form and play with this criticism" (message, 29 Oct. 2004).

To sum up, the original idea of a work can be born on the list, the exchanges can inspire its author as for the contents, the comments can entail an evolution of the work. Finally, the explanations of the author’s approach on the list can then offer a paratext for the work. So, the message of final justification sent by Luc Dall’Armellina to the list then becomes the paratext of his “dialogical Pong” on his personal site. Luc actually mentions on his site how grateful he is to the e-critures list:

"With many thanks to the members of the “e-critures” collective for their criticisms. They drove me to write this short text” (Pong).

Finally when the author considers that his work is finished, s/he can ask for it to be referenced on the e-critures.org site: it is the case for previously mentioned QQA3 by Luc Dall’Armellina. It is in this sense that we can use the term “laboratory”, even “factory of works” to account for the role of the e-critures device (cf. Bouchardon et al.). It is not strictly speaking a case of collective creation of a work, but rather a case of the influence of the collective on an individual creation.

The case of Xavier Malbreil is particularly enlightening. Not only does he acknowledge how much he owes the list for the content of one of his novels (entitled I do not remember very well), but in his critical essay (cf. “Eloge”), he also cites several texts which, in a first
version, were messages sent to the list, within the framework of an ongoing discussion.

A Laboratory of Genres

The actors of the e-critures list are not only interested in the works, but also in the issue of the genres. But to what extent is the notion of genre itself addressed? To answer this question, let us first examine the features which define the genres in traditional literature. Let us take the example of the "autobiographical genre". According to Philippe Lejeune, the autobiography is a relatively recent genre (from the 18th century) which he defines in the following terms: "Autobiography: a retrospective prose narrative produced by a real person concerning his own existence, focusing on the individual life, in particular on the development of his personality" (193).

Gérard Genette notes that the genre is defined by a combination of:

- The thematic features (fate of a real individuality);
- Modal features (autodiegetic flashback narration);
- Formal features (in prose).

On the e-critures list, the question of a typology of the works is recurring. The difficulty with such a typology lies with the differentiation criteria. When the actors of the e-critures device present works or comment on them, they insist on:

- The reference to a generic dichotomy of the poetic / narrative type;
- The semiotic forms used in the work (text, image, sound, video);
- The actions potentially available to the reader (activating of hypertext links, manipulating objects on the screen, typing text on the keyboard);
- The type of algorithms at work (adaptive algorithms, generation of text);
- The software programs, the languages and the formats used to produce and edit (HTML, Javascript, Flash, Director…).

These criteria remain informal in the discussions.

In the way these works are characterized, do we find the thematic, modal and formal features of the autobiographical genre?

Which thematic aspects?

In the reference to a fundamental generic dichotomy (for example poetic / narrative), poetics is to be understood here in the sense of play on the signifying. We can observe a shift from the theme to the semiotics. The speeches words of the actors only rarely concern the contents of the work. Avant-garde movements often consider the thematic aspect of secondary importance: working on the form itself is the most important. The same semiotic dimension is to be found when the emphasis is laid on the semiotic forms: text, image, sound, video.

Which modal features?

Should the description of the actions made possible to the interactor be considered as modal features? If so, there is a shift from a definition based on enunciation principles to a definition based on interaction principles.

Which formal features?

The formal features concern above all the type of algorithms and software which are used. Until now, the formal features were used to identify the genres. Concerning digital works, it would seem that the formal features are first defined by the software (choosing to write in HTML with Dreamweaver or in ActionScript with Flash gives works which are formally very different). There seems to be a shift from formal criteria to technical criteria.

However one formal feature seems recognizable in certain works: the hypertext link. The hypertextual narrative or the hyperfiction already has a long history (not to mention previous print pieces), with a founding work (Afternoon, a story by Michael Joyce in 1987), and numerous theoretical texts (George Landow, Stuart Moulthrop, Jean Clément). But to this day few attempts have been made to establish a rhetoric of the hypertext link (cf. Bernstein, "Structural Patterns"), attempts which could lay the foundations of reading and writing conventions of a hypertextual fiction.

So, the works of digital literature do not seem to be defined by their actors according to modal, thematic and formal features. Or rather, there seems to be a shift from these features to other features. The defining features of the genres under construction could be the following ones:

- semiotic forms;
- actions of the interactor;
- technical formats.

Here are the observed shifts:

- semantics (theme) = > semiotics;
- enunciation = > interaction (actions of the interactor);
- forms (formal features) = > formats (technical).

It is because of this shifting of the defining features of the genre that the authors of e-critures can be said to challenge the notion of literary genre.
The variety in the characterization of the works by the actors raises an issue: if there is no common definition shared by the various actors (authors, researchers and readers), there cannot be any conventions for the genre. Nevertheless, even if the conventions of writing and reading of the various forms (hypertextual fiction, animated and kinetic poetry, generative and combinatorial works, collective writing) are not stabilized, they are debated within the framework of the list. The e-critures list can thus appear as a laboratory of forms, which may one day give birth to genres.

This laboratory is a heuristic tool within the framework of a theory of the pragmatics of the constitution of a field. The actors of e-critures have been attempting to categorize the works in order to structure and delimit the field of digital literature. The traditionally defining features of the genres under construction seem to be discarded in favour of new features by the authors themselves, hereby challenging the very notion of literary genre. In the characterization of the works, the notion of genre seems to be replaced by the notion of format. But at the same time, the importance granted to the format in digital literature could force the emergence of genres.

The Construction of Digital Literary Criticism

The discussion list also attempted to build a new criticism specific to the works of digital literature, in particular by examining the question of the criteria of evaluation of such works.

The field of digital literature has difficulties forming itself. We can undoubtedly assume that the absence of a specific criticism hinders the constitution of this field. Indeed, the criticism participates in the constitution of a field in so far as it contributes to formalizing a principle of hierarchical organization coupled with reputation establishing authorities.

To what extent can a device such as e-critures contribute to the construction of a criticism of digital literature? Albert Thibaudet distinguishes three families of criticism: academic, journalistic and authorial. If the e-critures list is first of all an authors' list, it also hosts journalists and academics. Traces of these three families of criticism can be found in the messages and it is to be noted that they fuel each other.

The criticism-oriented exchanges which take place on the e-critures list refer to criteria from an inherited aesthetic tradition, but also bring in new techno-semiotic criteria which are particularly connected to the functioning of the work. A work will first and foremost be evaluated on the way it uses the digital medium (programmed, multimedia and interactive writing, network dimension) as well as the whole device.

On the discussion list e-critures, there is a kind of, if not construction, at least collective discussion of evaluation criteria, standards, conventions of writing and reading. The presence on the list, not only of authors and readers, but also of researchers and journalists, plays a role in this construction. We could even speak of a co-construction of a specific criticism and of the works.

Thus e-critures shows a will to build a specific criticism, with specific tools of evaluation. However for this criticism to participate fully in the construction of a field, it will have to rely on external legitimizing authorities, largely yet to be founded.

2.4. The Emergence of a Field?

In France (but this might of course be true for other countries), the domain of digital literature first built itself in a phase of hybridization on the margins of the traditional literary field. Then it tended to find its own autonomy by constituting a field with its own institutions and networks of legitimation. Indeed, the literary field formed itself around the book and is consequently reluctant to incorporate digital literature. This non-recognition by the literary field contributes to the separation between the field of digital literature and the literary field.

Besides, we can observe that the field of electronic or digital arts, the field of the digital creation in general seek to incorporate digital literature. The proportion of members of e-critures coming from the digital arts is higher and higher. The non-recognition by the literary field on the one side, and the offer from the field of the digital arts on the other, contribute to the separation of digital literature and traditional literature.

Why is the field of the plastic arts so interested in digital arts and why does it seem to be able to value them, while we do not notice the same interest concerning the literary field and digital arts? P. Thibaudet's answer may lie in the fact that the literary field, due to the nature of the digital arts can be shown, displayed; it is much more difficult to present the experimental works of digital literature in a museum or in an exhibition. This difference accounts for the fact that the digital plastic works have been integrated into the field of the plastic arts, while the digital, atopic literature, has difficulties being recognized by the literary field.

With regard to the literary field, we can wonder if we are going to see the birth of a new field, or if digital literature is an experimental fraction of the literary field. If we make the hypothesis that it is an emerging field, the e-critures device contributes to building it and to drawing its borders in two ways:

- by addressing the issue of the terminology and by trying to theorize about the process
- by positioning this field with regard to the other fields.

Now, we can wonder if Pierre Bourdieu's theory remains valid to study an emerging field. It would probably be necessary to refer to more emergentists approaches such as those of Michel Callon and Bruno Latour - in particular the ANT, the actor-network-theory - to account for what is currently taking place in digital literature. However, such an analysis exceeds the frame of the present research.
Besides, Pierre Bourdieu analyzes the process of empowerment of the literary field in the XIXth century with regard to the political and economic powers. He explains in particular that the demand of “the art for art's sake” must be understood as the right to write without any particular political commitment nor commercial necessity. But can the analysis of Bourdieu apply to the process of empowerment of the field of digital literature with regard to the literary very field?

We propose here to refer to a constituting field as an experimental field. This notion emphasizes the way a field appears: by experimenting. This notion allows us to rely on Pierre Bourdieu’s analyses and at the same time to distance ourselves from them so as to account for the still unstabilized tensions in terms of conventions.

2.5. E-critures: A Reflexive Device

As we have seen, the difficulty but also the methodological interest of the e-critures device, is that it is above all a reflexive device. In their discourse—whether they are e-mails on the discussion list or critical and theoretical texts on the website—the members of e-critures reflect upon about their status and their practices. The reflection concerns the demarcation and the registration in a field, but also the constitution of a criticism, the emergence of genres or the literary status of the works produced.

So e-critures questions digital literature, but also literature in general.

- It questions the emerging field of digital literature by playing with its borders.
- It questions the notion of criticism by operating a displacement from a criticism of the text to a criticism of the technical device.
- It questions the notion of genre not only by redefining the criteria of a genre but also by operating a shift from the notion of genre to that of format.
- It questions literature as the “aesthetic use of the written language” by facilitating a movement towards an aesthetics of materiality (“Littérature: usage esthétique du langage écrit”). (Definition by the Trésor de la langue française).

The various shifts observed (from a criticism of the text to a criticism of the device, from the genre to the format, from the aesthetic use of the written language to an aesthetics of materiality), emphasize the medium and the technical dimension.

3. Conclusion

I would like to conclude by reverting to certain points which characterize digital literature in France, even though they may not always be specific to France.

Communities

As the example of e-critures shows, communities are emerging and are therefore often quite fragile. However they play a key role in the building of the field insofar as they have to lay their own theoretical and cultural foundations.

Originally enough, communities of digital literature readers have appeared alongside the communities of practitioners. For instance, at the beginning of 2011 a community of digital poetry readers was formed in a multimedia library in Clermont-Ferrand. In April 2011, this group of readers has about 15 members who regularly share their views in meetings and in an online discussion group that is restricted to its users.

Influences

Among the many influences, let us underline here:

- the importance of sound, visual and concrete poetry before the computer era (Docikke, Tibor Papp, Philippe Bootz…);
- the importance of linguistics (the Alamo group, Jean-Pierre Balpe);
- the role of the writing workshops (writing under Oulipo constraints but not only).

Another element also played a significant role in France: the introduction of computer science at school in the 80s. At the beginning of the 80s, computer science was indeed introduced notably in primary schools. The objective was not to learn thanks to computers, but to understand the computer’s principles and to teach the basics of programming with the LOGO language. This language was like a construction game based on the manipulation of objects. This came along with structural linguistics and the notions of manipulation, permutation, transformation of linguistic units. The computer appeared as a means to create and transform texts, as explained in the issue "Writing and Computer" of the TEM review in 84 (cf. fig. 12).
Current Trends for the Works

According to Philippe Bootz, "toute œuvre littéraire numérique, aujourd'hui, a tendance à être hypertextuelle, générative et animée" ('every digital literary work, today, tends to be hypertextual, generative and animated', "La littérature numérique"). We may even say that the emphasis is now more on the animated dimension than on the hypertextual or generative dimension. This literature, which emphasizes multimedia animation and interactive manipulations by the reader, constitutes at present a major trend in digital literature in France, but also in Quebec. This trend concerns the works intended for "private reading" ('lecture privée;'), in particular for the Web.

The other trend is that of performances (for example HP process, XLR Project, Annie Abrahams or Luc Dall'Armellina) inspired by contemporary, visual and sound poetry. Thus, the national Center of the writings for the stage at Villeneuves lez Avignon (The Chartreuse) regularly organizes "les sondes" probes on the relationship between digital literature and writings for the stage (cf. fig. 13).

Theory and Creation

The influence of the theorists of digital literature, Balpe for text generation, Bootz for animated poetry or Clément for hyperfiction (following the American theorists), has been significant in the creations.

Theoretically, we have in France a tension between two approaches of digital literature, corresponding to two different kinds of works.

- A surface approach:
  This approach focuses on what appears on the surface of the screen and analyzes the interactions of the reader with this surface. This corresponds to a literature of "une littérature des "écrits d’écran" (‘screen writings’, cf. Jeanneret).

- A socio-technical device approach:
  This approach is based on a certain conception, well theorized by Philippe Bootz, of the way the digital medium is used as well as the role of the program, "considered as integral part of the work" (cf. "The Unsatisfied Reading"). This corresponds to "une littérature des formes programmées") (‘a literature of programmed forms’, cf. Bootz, "La littérature numérique").

This second approach is maybe the most original one. This conception considers digital literature as a literature of frustration and failure, notably with Jean-Pierre Balpe and...
Philippe Bootz.

The failure is seen as the genuine material of digital literature and concerns two dimensions.

- The reader’s failure
  This failure is based notably on the competition between the temporality of animations and the temporality of the perception/interpretation process.

- The author’s failure
  The bug and the obsolescence are two expressions of the loss of grasp of the digital author. The author is in fact only the coauthor of the program which is running.

As far as the works are concerned, I don’t think we can speak of a French School of digital literature, considering the great variety of creations. Undoubtedly the theoretical approach could be the distinctive characteristic of digital literature in France.

This paper focused on digital literature in France. The same exercise has been or could be done for every country. Philippe Bootz notices for example that hypertext fiction was mainly developed in the US and text generation in France, and that digital poetry in Brazil is particularly concerned with intersemiotic relationships between text, image and sound (“The Unsatisfied Reading”). Digital literature is based on each country’s own conception of literariness, of the digital medium, as well as on the relation between the two. So the following question remains open: is digital literature a coherent international field or a mere collection of cultural specificities?

Annex: Online Reviews, Personal Websites and Research Groups in France

Online Reviews

Akenaton/DOC(K): http://www.sitec.fr/users/akenatondocks/
Alire: http://motsvoir.free.fr/
Chaoid: http://www.chaoid.com/
Ecrits...vains ?: http://ecrits-vains.com/
Périphéries: http://www.peripheries.net/
Pleut-il ?: http://pleutil.net/
Remue.net: http://www.remue.net/
Sitaudis.com: http://www.sitaudis.com/
T.A.P.I.N.-BoXoN: http://tapin.free.fr/

Personal Websites

Abrahams Annie: http://www.bram.org/
Bon François: http://www.tierslivre.net/
BlueScreen: http://www.b-t-u-e-s-c-r-e-s-n.com/
Boisnard Philippe: http://databaz.org/xtmr-art/
Bouchardon Serge: http://www.sergebouchardon.com
Burgaud Patrick-Henri: http://www.aguisarime.net/
Côtres (collective): http://www.cotres.net/
Coulon François: http://www.totonium.com/
Dall’Armellina Luc: http://lucdall.free.fr/
Depétris Jean-Pierre: http://jdepetris.free.fr/
HP Process: http://databaz.org/hp-process/
Jonckheere, dePhilippe: http://www.desordre.net/
Leton Xavier: http://www.confettis.org/
Lièvre de Mars (le): http://www.le-terrier.net/
Lipsyc Carole: http://www.3espaces.com/
Maltreil Xavier: www.0m1.com
Meunier Albertine: http://www.albertinemuenier.net/
Saemmer Alexandra and Scoccimaro Bruno: http://www.mandelbrot.fr/
Sérandour Éric: http://www.entropy.org/

Mailing Lists
E-critures (digital literature): http://fr.groups.yahoo.com/group/e-critures/

Litor (LITtérature et Ordinateur, dedicated to research in literature with computers): http://www.cavi.univ-paris3.fr/phalese/litor1.htm


Research Groups

Fabula: http://www.fabula.org/

Hubert de Phalèse: http://www.cavi.univ-paris3.fr/phalese/

Hypertexte: http://www.hypertexte.org/blog/

A Small (subjective) Selection of 20 Works


Coulon François, 20% d’amour en plus, CD-Rom, Kaona, 1996.


Notes

[1] François Bon (born in 1953) qualifies his work entitled Tumulte as “laboratoire fiction” (fiction laboratory).

[2] In this paper, I chose the expression “digital literature” insofar as it refers explicitly to the digital medium.


[4] Concerning combinatorial and constrained writing, the CD-ROM Machines à écrire (cf. Antoine and Bernard) proposes the transposition of Raymond Queneau’s works (Cent mille milliards de poèmes and Un conte à votre façon), and Georges Perec’s works (243 cartes postales en couleurs véritables).

[5] The Yi King is a divinatory combinatorial corpus of antique China composed of 64 signs.

[6] The cento (“centon” in French) is a pastiche or literary amalgam composed entirely or almost entirely of fragments from earlier works in such a way that the fragments take on meanings different from those of the original sources.

[7] Raymond Roussel was an early 20th century French writer who wrote about some of the compositional methods he used in the writing of his books. For instance he explained that he proceeded by mental associations starting from the different definitions of a word or from homonyms. He thus paved the way for works in which the text itself derives from operations
carried out on the language itself.

[8] One can of course think of the famous cut-up by William Burroughs.

[9] Authors such as Alain Robbe-Grillet, Nathalie Sarraute, or Claude Simon.


[12] The Minitel is a Videotex online service accessible through the telephone lines, and is considered one of the world's most successful pre-World Wide Web online services. It was launched in France in 1982 by the PTT (Poste, Téléphone et Télécommunications). (Wikipedia).


[14] The word “device” is here not restricted to the technical device but corresponds to the French word “dispositif” (cf. Michel Foucault and Gilles Deleuze).

[15] However, some tokens of recognition have appeared, such as the “multimedia prize” or the thematic seminars on digital literature organized by the Society of literary authors (SGDL, Société des gens de lettres).

Works Cited


Coulon, François. 20% d’amour en plus. CD-ROM. La Roque d’Anthéron: Kaona, 1996.


Torregro.


