



## Alire: A Relentless Literary Investigation



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**Abstract:** This article was written by Philippe Bootz for the 10th anniversary of the launch of the magazine *Alire*, one of the longest-standing multimedia journals in Europe and the publishing platform of the LAIRE group, specialising in researching the creative possibilities of new computer technologies. *Alire* has become, over the years, a landmark in any discussion of digital poetry, as it has enabled us to know numerous works of poetry written and designed to be read on a computer. The position Bootz takes in the article is that digital literature is literature, too. The *Alire* experience thus shows us that we can conceive a literature that is closely linked to the characteristics of the computer.

### 1. Alire: the beginnings

The web-based literary journal *Alire* was created in January 1989 by the Parisian group [L.A.I.R.E.](#) (Lecture, Art, Innovation, Recherche, Écriture) -which included Philippe Bootz, Frédéric Develay, Jean-Marie Dutey, Claude Maillard and Tibor Papp. *Alire* is known as the oldest multimedia journal in Europe, and certainly one of the oldest in the West. Before the arrival of CD-ROMs, before the Internet explosion, the journal was already publishing poetry written for and intended to be read through computers. Its tenth anniversary was the occasion to return to several of the pathways located at the heart of the journal, and this project was realized by publishing a critical edition of our back issues alongside *Alire* 11 on CD-ROM. But here, one could offer an initial statement about the past years, a statement which will complete an earlier French article published in 1994 as "Poésies en machinations" (*Revue Larousse* #96), and which was reprinted in English as "Poetic Machinations" (*Visible Language* 30.2, 1996). Though the journal has always been a site for perfectly out-of-the-ordinary, independent creation circulated instantly everywhere, one could nonetheless single out the following characteristics of the *Alire* enterprise.

### 2. Characteristics of the journal : computerized literature

Historically, the journal corresponds to the establishment of a "third stream" in computerized literature, if one acknowledges that hypertext and earlier software texts (*générateurs automatiques*) made up the first two. This third stream being that of animated literature, to which the five authors from L.A.I.R.E. came from backgrounds in aural and visual poetry. The three developments in computerized literature were in fact close contemporaries, the first works in these genres having been written "underground" between 1978 and 1985. One could say several things about these forms, the first being that none of them were inventions of computerized literature in the first place: one finds the kernels of the three new literary genres in forms such as books or videotapes (in the case of animated literature) or visual poetry settings. But it's the sudden arrival of microcomputers on the scene that enables one to exploit virtual texts and prepare them for circulation. As the reader will soon see, computerization not only encouraged the creation and wide publication of these works, it profoundly modified its own capacity to perform. Is this to say, however, that there isn't any other "computerized literature", that the computer can only act as an amplifier and multiplier of possibilities? Those of us at L.A.I.R.E. simply think that the "digital" version of literature isn't limited to a particular literary form, nor should it be given the upper hand in conceptualizing the work. The idea is that digitality encroached upon literature, not in order to kill it, but to transform it.

But first, to introduce animated literature, which makes up the distinctive hallmark of *Alire*. This recent genre brings about a temporal irruption within "the written object" and brings "multimedia" literature



closer to the contemporary arts. This irruption in temporality from within writing introduces characteristics of oral literature to a resolutely non-oral object. To borrow a term from Robert Escarpit, it transforms the written text from being a document to a semi-document (like a film). What's more, it imposes the irruption of an *act* within the space of linguistic signs, imposing a poetic function for action on the poetic function of language. Borrowing from Jakobson's famous formula, one could say that animated literature plots the constructed axis of sequential reading onto the plane of equivalence in written representation. Therein lies a complete poetic universe which offers us a rich, nonlinear glimpse of the text as it changes from the performance of an author by way of an intermediating machine (a conception of the text found in Castellin, for example), to a semantic textual animation which deconstructs the popular notion of writing as a continuous "transformative state of information in perpetual becoming" (Bootz and Papp, for example), to a displacement of words which establishes a supplementary polysemy by playing with synchronies, discrepancies, and collisions between various multimedia levels (Augusto de Campos and Dos Santos, for example). The recent intrusion of animation into the arts is likely to instigate an era as fecund as that of Gutenberg. The area to explore is extremely rich and a researcher will find it easy to remain there. From such conditions, *Alire* will emerge as a journal of "multimedia writing", defining in this way a new space for something like a metapoetic constraint literature, since it uses reading from within as its constraint. But this is nothing new; *Alire* defines itself as the journal of "writing from the electronic source", examining the content of its expression, or, more precisely, examining its expression through its contents.

*Alire* has, for the first time in France, proclaimed loud and clear that computerized literature is literary and not a linguistic tool, as suggested by the programming and software camps who dominate Europe at this time. The first task for *Alire* was to affirm that literature was not "assisted by" the computer, contrary to the ideas of A.L.A.M.O. ([Atelier de Littérature Assistée par la Mathématique et les Ordinateurs](#), [Literature Workshop Assisted by Mathematics and Computers]), but that there exists a literature tied intimately to computer technology. This is why the journal was initially designed to foster a complementarity between printed and digital media (through floppy disks, then through CD-ROM). In each of its first ten issues, everything that had been published in print came in chapbooks accompanying the disks, containing static illustrations and theoretical articles. Soon, the journal radicalized itself and the illustrations disappeared, leaving only the theory articles. Until now, even with software texts, no print publication existed which could also deliver programs or edited hypertexts to the public. By 1995, however, the growing popularity of multimedia technology and a greater public understanding of this kind of literature made it pointless to develop a stand-alone means of publishing computerized work. Hence, the reason for the two CD-ROMs we've published most recently: *Le Salon de Lecture Électronique* [The Electronic Reading Room] (which compiled the first nine issues in their order of publication) and the CD-ROM of *Alire*10 (co-produced with the journal *DOC(K)S*).

In the case of hypertexts and software programs, the approach *Alire* supports inverts classical conceptions. Traditional thinking always conceives of the text as an object. More precisely, it thinks of the text as an object accessible to reading - what we would call a "finished text" [*un "texte-à-voir"*]. Such a text is created by way of a particular reading practice performed by someone reading a hypertext or any text in general. This classical notion prevailed in Europe throughout the 80's — a time when the software text established itself as the dominant meeting ground between the two following perspectives on textuality: simulation and conversion. Out of the algebraic style established by transformational grammar, programming constituted a tool drawn from the study and simulation of language, a possible means for automated translation. This perspective, which appeared brilliantly at the 1985 Cerisy conference (the proceedings of which were published in 1991 by the Presses Universitaires de Vincennes as *L'imagination informatique de la littérature*), considered the program itself as an extension of the author.

The second, more literary perspective retained neither the algebraic structure nor the combinatory approach; rather, it turned software texts into an extension of the strong Oulipo movement in France. This was the thrust of A.L.A.M.O.'s approach. Here, the machine is perceived as a textual automaton, a simulation of combinatorial paroxysms that sends the notion of constraint-literature into the realm of wizardry and nonsense, transforming the act of writing texts (an act understood as the instant of literature's creation) into an endless series of Pavlovian reflexes. The most significant example of this tendency is the CNAC Georges Pompidou's decision to produce electronic versions of all their catalogues and other publications since the exhibition "Les Immatériaux" in 1985. The CNAC has only produced copies and has destroyed the process for making originals. This catastrophic project poses



some rather embarrassing questions surrounding the traditional conception of "text" conceived as a "finished text" (in this case, copies), and more generally, questions the idea of literature as a production of objects: these are the same questions regarding authors and texts which were set aside along with the role of reading.

It is interesting to note how "classic" authors responded to questions raised by this catastrophe. In general, they were against the possibility of a new genre of literature, arguing that the actual state of computer-generated literature showed a marked literary inferiority, if not an outright artistic poverty, in comparison to the real creation of a real author. One will find a full — if not overly caricatured — discussion of the issue by various "texte généré" authors and readers in *Action Poétique*, issue 129/130 (Avon, 1992). The claim that texte généré is "weak" writing seems to me to be as fallacious as the argument that a machine could never play a game of chess. One could reasonably estimate that several million dollars in development funding will push the limits between simulation and genius to far reaches discernible only by genius itself.

But in light of this dilemma, which replays the early psychodramas surrounding cybernetics, *Alire* took the part of cutting into the Gordian knot, redirecting the question into more humanistic streams. The entire debate rests on the existence, and, what's more, on the longevity of texte généré. This supposition only works if there exists an object — which we'll call "text" — that has the characteristics of writing and remains accessible to the manner of reading applicable to written documents. Furthermore, it is pledged to a notion of literature as a producer of objects (or of linguistic or semiotic structures independent of their mode of production) called "texts". In passing, we note that this idea also prevailed in the classical understanding of hypertext, where the "text" is nothing other than the object accessible to the reader (the "finished text" in our wording). It is curious to note that the version of computerized literature we seek to counter, which I've described as the first generation, carries out an apparent inversion of the chronologies between writing and reading. It seems that the text does not preexist its reading, and yet that which characterizes a writing is that which is "destined" for reading, its effective reading is an operation independent of its existence and consecutive with itself. The suppression of this condition, from the immanence of creating the textual object (I am not speaking of reproduction as in a video) to its realized reading on the screen, simultaneously eliminates both the notion of literature founded on the predominance of linguistic or semiotic structures and the independent identity which the text assumes in order to free itself from the act of reading. The latter point, which *Alire* tries to assert, corresponds to the second generation version of computerized literature, the one which appears to prevail today in Europe. One could consider it as a *mise-en-conformité*, something like a rewrite, in the Chomskian sense of the term, of the printed version of a text généré: this version annuls the particular function of a software-text maker and positions the text généré like a conventional text, reducing the finished text to the status of an object. And yet *Alire* fights vigorously against such finished text objects or closed, functional "histories". In so doing, the journal defines literature as a computer-based process and not as a creation or result. This immanence resembles the immanence integral to an animated text or video between the moments of its construction and its reading: one that sets itself up while creating several confusions (which we will speak of below), but does so without confusing the rendering and the reading. Highlighting the importance of function without necessarily confusing the acts of rendering and reading, *Alire* treats software texts, hypertext, and animated literature as equivalents, all of them being forms or simply possible declinations of literature conceived of as a process, and certainly not the only possibilities — as evidenced by the emergence of new forms like the single-reading poem and the Locked Work (l'Oeuvre Verrouillée).

Otherwise, from a pragmatic point of view, this equivalence is largely manifested at the level of programming: one only has to use a sophisticated and rather specialized language like C++, Toolbook, or Hypercard, and one very quickly eliminates the borders around these genres (the single-reading poem, developed in *Alire* 10, is a striking example: it's only a matter of a program developing a hypertextual pathway in the shape of an animation). The most visible sign of this profound unity, which in my opinion establishes the true identity of a computerized literature, can be found in the fact that all of the realizations of this process, as published in *Alire*, situate themselves within the space of the screen and the duration of one reading. Other particularities, less noticeable, demonstrate the new aspects of this identity. These particularities are relative to two independent characteristics which I call "inferred givens" ("les données induites") and "the context-of-reading" ("le contexte-de-lecture").

Inferred givens correspond to the collection of materials created during the act of reading but not



destined to be read by the reader. The nature and role of this material could take very diverse forms which I won't expound upon here. They are always tied to an interactivity, even if such interactivity is minimal. The first interactivity, which could operate as such, is simply the launching of the textual process; the selection of the text's "on/off" switch. Many works (one could cite as an example the work of Dutey and Jane Sautière in *Alire* 10 and *Prolix* by Christophe Petchanatz in *Alire* 6) utilize this basic interactivity in which the first function — before all the artistry — is to best situate the procedural behavior (the how-to) of this literature. In functioning, the textual process creates data which will, of course, be utilized by the process itself in order to manage that which will be read subsequently (sometimes even irrevocably), but this data itself is not destined for reading. It doesn't become part of the finished text. This is certainly the first time in literature a part of the work is not destined to be read. In my opinion, it's an important indication (though not exclusively literary) of the displacement of the notion of a work. We've touched on the emergence of this type of literature only being possible if a system for publication and distribution exists which enables access to the work and sufficiently allows for a "private" reading. This is not the least of *Alire*'s merits — favoring the emergence of a computerized literature anchored in the traditional intimacy of literature and avoiding the public space of the gallery or exposition. The arguments we've developed in this paragraph and the one following are only to be understood if one takes into account the particularity of this private reading which authorizes rereading and emphasizes the diachronic function of the work. The particularities of computerized literature — with regard only to other forms of literature, mechanized or not — appear (not manifesting themselves but simply being discernible) only in this diachronic dimension. As we will see below, in the most radical conception of computerized literature, the "functional point of view" (the notion that even the work cannot be thought of as independent from the scene of reading), the work creates its particular reading condition like/as the real situation of reading diverts the work; reading is not an operation "applied onto" a text. The inferred givens are without a doubt the least contestable proof of the existence of a true computerized literature.

The context-of-reading is a more controversial proof which, perhaps, does the most to show what is at stake. Appropriately, its importance to animated texts is *apparent*. It's also the contemporary subject that, in my opinion, causes the greatest confusion. The context-of-reading corresponds, from a technical point of view, to the difference that external constraints (uncommon and even more often unknown) enact upon the machines of creating and reading. There are two opposing views on the method of taking account of these constraints; the debate between Tibor Papp and myself presented in the booklet accompanying *Alire* 3 in 1994 stages it perfectly. The first, oldest approach which Papp defends denies the existence and significance of context-of-reading, casting it aside like a noise disrupting the author's work. This point of view rejoins in fact the conception of the text as an object, an object perfectly mastered by its author and placing the animated finished text within the tradition of visual and aural poetry. Such a view considers this object like the seat of a process (either animated or interactive) and takes into account "the rest" of the data constituted by interactivity and chance (by way of video). Literature, in this case, is procedural only "in part" — more specifically, the literary work is conceived of as an "object of procedural reading," which is to say that reading can only be realized without realizing itself to be simultaneously a process *within* the text. This view is no more tied to computers than those conventional conceptions of hypertext and the software text. This type of literature, which relies on there being a process *within* a textual object, is possible without the use of a computer, even without the use of another kind of machine. It is in this way that a friend, in the '80's, realized a book-object which contained photosensitive paper, so much so that the text modified itself irreversibly over the course of a reading. In this sense, computers preserve the same qualities as more celebrated hypertexts and software programs: they facilitate the handling and multiplication of their own possibilities, and raise to the rank of literary technique that which, before, was only an effect. Computers play the role of a calculator.

I call this point of view "mimetic" because it supposes that, following the example of a "good" medium, the machine only creates data and faithfully reproduces the process which the author envisioned at the time of programming; the result which the reader accesses on his reading screen comes to be identical to the one realized by the author through his computer (the author's textual process "mimics" the textual process realized by the author's machine). This point of view doesn't accord any particular literary or artistic value to the execution of the program at the time of reading. And yet this conception is only viable if the program's execution *strictly* corresponds to the author's decoding of the program, and more so, to the characteristics which were themselves realized at the moment of the program's creation. In other words, the process of communication which establishes itself between the author and the reader



comes to inscribe itself within a strict paradigmatic frame, following the example of artistic processes used in other media (notably the book, video, film, and audio CD). Unfortunately, the computer is too complex a machine for this unwieldy project. Numerous actors have sought to intervene in what happens at the moment of reading — in the unfolding of the textual process at the moment of reading — just as at the time of writing the program, the author (being in that case a particular reader) assumes the role of an author in order to validate his work, his writing. These actors are the author, by way of the intermediary program he has written, the program's developer, the processor's manufacturer, the operating system's inventor, and also the reader by way of the total material configuration of the machine (and the software application used for reading) acting as an intermediary. In all of these intervenors, who don't communicate between themselves, there's too much unsaid (*non dit*) in the hopes that a programmed work will, at the moment of reading, mimic or actualize the original process, right down to the letter. In this way, the program contains a large default capacity, with parameters defined by people other than the author. Is this to say that the "mimetic" point of view is utopian? One could say it comes close. The program developer notably, for a large sum of money, could favor this approach, at the cost of scaling back the number of possible ways it could operate. In effect, most of the differences experienced in the process created by the author and the reader's encounter of it could be understood as problems of information flow. From this angle, one should take precautions to write a code performing for the flow demanded by the particular program which would be compatible with the one that is possible on the host machine at the time of reading. This is often done at a loss to graphic quality in the display or in sound quality — the very techniques which define a video piece (its flow being expressed in the number of images per second). This approach is imperfect, and often needs a programming architecture specific to the reader, though the risks of "incompatibility" are not excluded, contrary to a more tangible medium like video. Certain applications, like Macromedia Director, enter into this logic and seem to give very satisfying results. But this approach isn't the only possibility. It is even bound to fail in the case of programmed literature, as we realized when the time came to reprogram the entirety of issues 1-6 of *Alire* in 1994.

Another point of view is quite pertinent here: the "functional" point of view which takes into account the functioning of the program at the time of its execution, even raising it, here as well under an ideal asymptotic form, to the rank of a predominant literary technique. It is not the process of the finished text which creates the work's literariness; rather, it is the managing of the program's execution. One quickly learns not to treat the context-of-reading merely as background noise, since no programming guru is able to guarantee a general and effective encoding for every type of product. This is the stuff of public expositions: when the author wants a particular result in exposition, he must bring the machine, he must reprogram one part of the work on the host machine, he must content himself with what he sees. In every case, a public presentation without a prior test is made "at the risk and peril of the organizer". The functional point of view stipulates that the reader will read the real functioning of the program on the machine, and not a "desired" or "hoped for" functioning by a third person. Clearly the functional point of view established the principle forbidding failed attempts at reading: "all that could be read is read". It also frees the author to rely on a technician who "will understand it" and "will be able to program it for you so that it works". In other words, it announces the existence of a creative act in the present, especially at the levels of conception and of reading, possibly following the example of every free act. One realizes in *Alire* that this position has profound consequences on the writing and work of the author. In the first case, the journal favours the readability of the finished text at the eventual detriment of the project remaining faithful to the author's vision. In the same constraint, the work of an author is no longer a creation, but rather the management of his project's fragments: writing isn't produced, but generates the machine's incapacity to produce.

Must the writer then become a frustrated pessimist? No. Must the writer become handicapped? Alienated within his creativity by an opaque cretin of a machine? No. This position presents the advantage of positing a diachronic function for the work "which will arrive" (or very nearly) and this simple possibility is a victory for creativity. Without creativity, every programmed work, capable of evading the ideological limits of specific program developers, will only be a performance of the machine, a duration of life more restricted than the human life keeping count of the speed of the evolution of computers. It imposes a reflection more than sacrifices.



### 3. Conclusions

First, as one has seen, some tools permit and maintain what the author hopes for in a setting satisfactory to a mimetic point of view. And the democratization of these tools certainly explains the important increase in computerized-literature authors. It follows that the functional point of view implies that every act of creation mixes itself up with an act of translation and of museum-like conservation. The author is obliged to know exactly what he wants to save in his project, to hierarchize the desired characteristics in the finished text, to think finally the textual process within the whole and not simply within the detail. One could even envisage, from this point of view, the creation of textual processes which "are realizable on no machine and yet readable on all of them", which is to say: create a process that produces readable finished texts on all machines, even if not one of them contains all of the characteristics wanted in the complete project. One could even conceive of projects producing finished texts possessing an infinity of characteristics that bring programs of programs into being.

This is an extremely ambitious project, but possible because the functional point of view doesn't tackle literature in terms of a limited flow of information, but in terms of the subjection of a textual structure to flow and adaptation. The treatment of flow is not managed at the source (the writing), but reported at the destination and ruled at the time of reading. These are the stakes of "adaptive programming", and only the future can tell us if it realizes this ideal. For now, we simply notice that the introduction of various "adaptive" rules permits the execution of modern animation programs on the 8086 in all modern PC's, or permits one to play a work programmed on a fast machine, like "les Stances à Hélène" (in *Alire* 11), on slower machines (Macintoshes equipped with a PC emulator). In each case the finished text realized on a slow machine differs from one realized on a fast machine (actually, it differs from one machine to another), and this difference is linked to the differences of constraints which appear on the machines, not through some other interactivity. It is clear that for this type of work the structures which manage and execute programs, as emphasized by the author, are of tremendous importance to the forms of finished texts. I would now affirm that they are a part of the author's style, and could perhaps even be articulated in literary forms, forms inaccessible to reading since only the result of the process that uses them would be accessible to the reader. In this literature of textual objects, the finished text (but also the program) loses its prominent position. It is the collection of processes of writing-generation-reading which constitutes the work and must be thought of as such by the author. A reading today does not guarantee to the reader the reproducibility of the viewed-text tomorrow, even if the text in question is not interactive, of the sort which "no one could affirm with certitude having read the work". It is perhaps the social reader, resulting from indirect communications and discourses between individual readers of the work, who will guarantee the objectivity of reading in the diachronic evolution of statistical characteristics of these finished texts. This question remains open.

In conclusion, an idea of literature not exclusively destined for reading preserves an intimacy between author and reader even within the work. Although still in the developmental stages, this literature is neither of the order of performance, nor of the order of the trace; it realizes a modification within a permanence, instituting the immaterial and determined particularity as the only object accessible to reading, and returns us to the idea of the work inherited from the 19th century: not as a permanent entity, but as an entity knowable because these are no longer the permanent characters of the work which remain accessible to the reading. The work is a sphere of influence ordained by a creative act of the author. Eliminate the sphere of influence, and order disappears with it.

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[Published on: April 2002]

**Recommended citation:**

BOOTZ, Philippe (2002). "Alire: a relentless literary investigation". *Digithum*, issue 4 [article online].  
DOI: <http://dx.doi.org/10.7238/d.v0i4.572>