

## **eLiterature: Literature in the Digital Era.**

### **Definition, Concept and Status.**

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#### **Abstract**

In this paper we deal with the concept of eLiterature and its digital status. We consider the relationship between literature and eLiterature and analyze the main peculiarities of the latter. Passing through the concepts of paper-under-glass, digital born, hybridity, mutagenicity, ergodicity, agency and digital textuality, we offer a definition of electronic literature.

What is eLiterature? If the answer seems plain, it is not. The definition of a phenomenon as wide and changeable as Electronic Literature<sup>1</sup> is a demanding work, even though there is a constant which can be found in eLiterature works, that of the *digital born*. Generally, the concept of eLiterature does not include *non-digital born* literary works, including those printed works subsequently digitized to be used with digital devices, the so-called *paper-under-glass* (Bell et al., Hayles, *Electronic* 30-9). This is a point of view shared, among others, by Dan Waber, who maintains that a “Kindle version of a print book doesn’t qualify as electronic literature” (Waber) and by Noah Wardrip-Fruin who maintains that this kind of digitized work “is not digital literature

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<sup>1</sup> This cultural phenomenon is characterized by several terms and expressions such as eLiterature, e-Literature, Electronic Literature, Digital Literature and New Media Writing. Furthermore, the phenomenon of eLiterature overlaps with neighboring cultural systems such as Net Art, Game Theory and Computer Science.

[...] it is simply media distributed and/or experienced using a computer, rather than digital media” (Wardrip-Fruin). In this view an e-Book, in the general conception of “digital transposition of a printed work”, is not and could not be considered eLiterature; rather it is a widespread practice of textual digitalization whose product is distributed and used by means of digital devices. Rather, eLiterature in the strict sense of the work includes works that embody or hide inside themselves the so-called *mark of the digital* that represents the main peculiarity of eLiterature works<sup>2</sup>.

The Electronic Literature Organization (ELO) has assembled a scientific committee of scholars and artists to offer a definition of the eLiterature phenomenon and its features. The committee has defined a work of eLiterature as a “work with an important literary aspect that takes advantage of the capabilities and contexts provided by the stand-alone or networked computer” (2005), so lingering on the technological nature offered by computers and networks and on the modalities with which these capabilities can be used in certain contexts to give a work an important literary aspect. This definition, even though it is rather laconic and tautological (Hayles, *Electronic* 3), underlines an important relationship between present and past, between man and machine, between digital technologies and literary tradition. Indeed, if it is true that conceiving eLiterature *only* through the traditional print-centric conception means risking completely misreading the concept, it is equally true that eLiterature can only be understood if it is *not completely untied* from

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<sup>2</sup> It is useful to clarify that if traditional printed works are available in electronic versions (a practice of digitalization that does not produce works of digital literature itself), on the contrary there are printed works not digitalized and non digital-born that represent the precursors of this cultural phenomenon, since they embody some of the typical features of electronic literature, such as multi-linear narrative, enhanced interactivity or several semiotic systems. Some of these examples are *El Libro de Arena* by Jorge Luis Borges, the latest *Elevator* by Robert Coover, and *House of Leaves* by Mark Danielewsky. Furthermore, it is necessary to specify that some works are suitable for both electronic and printed versions, although with different expressive results. Some of these examples are *V:Wave Son.Nets/Losing l’Una* (printed book) and *V:Vniverse* (web based work) both by Stephanie Strickland, the avant-pop novel *10.01* by Lance Olsen and Tim Guthrie, and the interactive novel *253* by Geoff Ryman.

its past literary tradition, since new technologies have drawn from this literary tradition to redefine the concept of literature itself, thereby creating a new digital form: hybrid, mutagen and ergodic.

*Hybridity* and *mutagenicity* are the two main features of this cultural phenomenon which underlie the interesting issue of the eLiterature nature. In eLiterature the steady hybridization occurring among different semiotic systems (e.g. textual, graphic, iconic, sound, music) and the ceaseless mutation of expressive forms (e.g. *3D Literature*, *Code Works*, *Generative Literature*, *Locative Narrative*) and digital technologies (e.g. *virtual reality*, *artificial intelligence*, *n-grams models*) question, without necessarily confuting it, the historical literature conception essentially based on a text-centric expressive system, static in interaction and passive in use.

Thus, it is certainly necessary to conceive of eLiterature first by recovering from the classical definition of Literature. Beginning from the etymology of the word, “literature” derives from the Latin word *litteratura*, which in turn derives from *littĕra e littĕrae*, according to the Greek model of *γραμματική*; proper attention to the graphemes that constitute the word to which is given meaning by our cognitive system through the phases of subvocalization, verbalization, and semantic decoding. Otherwise, it is also necessary to consider eLiterature in a wider system mediated by the new digital technologies, where it still subsists the verbal feature, inheritance of the traditional definition, but it also insists an etymological creolization offered by the “e” which indicates that something new has powerfully entered the literature universe driven by the digital evolution in a cultural system historically defined by precise rules and boundaries.

But what is this novelty? It is certainly the medium on which eLiterature is essentially and functionally based, but it is not only this. This something new is a modality to conceive literature in a different way. A new way of poiesis and use, a new way of diffusion and storage, new artistic perspectives and new educational potentialities (Landow 69-320, Joyce 173-84). The concept of *reading* itself has changed especially, since eLiterature works cannot be read in a conventional way, as approaching them in the traditional way reduces or even nullifies the surplus value this new media writing can offer. This is a significant change which deeply affects the reader and makes him

fast, as the eLiterature does not allow a *culinary reading* (Ensslin 43), a concept borrowed from the dramaturgist Bertolt Brecht who describes culinary reading as a reading experience which promotes a simple and lazy “mental digestion” of a work’s content. On the contrary, reading works of eLiterature requires an additional nontrivial effort to traverse the text, an effort Espen Aarseth defines as *ergodic* (Aarseth 1-2). It is exactly this ergodicity that is one of the main features that fundamentally defines the concept of eLiterature.

Ergodicity, a term suggested by the Norwegian scholar as a variant of the over-exploited term of interactivity (Landow 41), is central to really understanding Electronic Literature and the complex dynamics of intermediation between cultures, as well as the close relationship between man and machine which together give eLiterature its own nature.

To clarify the concept, it is useful to consider the theory of *intermediation dynamics* (Hayles, *Electronic* 43-86). Drawing on the *revitalization theory* of Anthony Wallace, anthropologist Nicholas Gessler maintains that culture is a product of individuals, artifacts<sup>3</sup> and their cognitive interaction (Gessler 1). In an age characterized by digital technologies this interaction occurs between analogic entities<sup>4</sup> and digital artifacts<sup>5</sup> which interact with one another to produce a different result from one that can be produced by the two entities separately. The result is a synaesthesia that takes advantages of both the analogic features – the poietic capacity, the metamorphosis, the adaptation – and the digital ones – the synthesis, the precision, the computation,

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<sup>3</sup> The word “artifact” is composed of the words “art-“ and “fact-“ whose etymologies derive from the Latin words “artis” and “factum.” The meaning then suggests “an effect of art,” where for “art” one understands a mixed capability of means, methods, and norms that refer to an activity. The other part of the word, “fact-“ suggests the effect and influence of setting “art” in action, contextualized and circumscribed, with the intent to change the perception and representation of the world.

<sup>4</sup> The expression “analogic entity” refers to individuals.

<sup>5</sup> The expression “digital artifacts” refers to all the artifacts that meet the modern sense of the word “digital,” which etymologically derives from the Latin word “digitus,” from the root “digit,” which refers to everything that is represented by numbers or can operate manipulating numbers.

the reproducibility – a result plainly disclosed by digital literature. Man and machine become partners in a complex interaction in which man builds artifacts and uses the resulting technologies which reshape man and his world once they become part of the daily routine. This is quite an ancient process if we consider that since the age of the first inventions of artifacts (e.g. the spear, the wheel) man has been deeply affected by the resulting technologies (Ambrose 1748). This is a very relevant observation in an age in which man is completely surrounded by and even deeply dependant on digital technologies.

To clarify the concept, it is useful to compare the reading process of a traditional text with the one of a digital text. On the one hand, a traditional book is like a digital work: in both cases one has a technology designed to change the perceptive and cognitive status of the reader (Vipond, Hunt 261-77, Van Dijk 143-59). On the other hand, the difference lies in the degree with which the two technologies can be perceived as cognitive agents. In both cases the traditional book as well as the digital work serve as a container of the writer's intellectual talent, which is stored in the medium until the reader activates it by reading. At this point a process of knowledge transmission happens between the writer and the reader. In the first case the process is mediated by the specifications of the traditional book as material medium, in the second case it is mediated by the specifications of the eLiterature work as digital medium. It is exactly in this process that the difference between a traditional book and a digital work is revealed. Indeed, the former as static and unmodifiable material medium does not provide any (or minimum) possibilities of agency to the reader; the latter, to the contrary, can mediate and can be mediated by the user. Hence, a digital work can be modified by the reader or it can modify itself on its own: it can adapt itself during the reading process or it can even generate itself during this process, giving the reader a feeling of dynamism and fluidity which provides a higher degree of agency compared to the traditional book.

The two concepts just considered help us to understand why eLiterature is not a totally new literary form, but rather the result of an intermediation between cultures which produces a literary active form. Indeed, whenever a literary evolution takes over (as it happened from the manuscripts

to the print, and in our case from the print text to the digital one) the previously accumulated knowledge is not purged, but it is implemented within the new medium through dynamics of intermediation. This process sees at the beginning the new medium working by emulating the features of the old one through its own features (this is the case of the first generation of hypertext narrative, text-based and page-like) and afterwards it sees the medium hybridizes itself with the new languages provided by the digital evolution (so becoming multimedia-based and game-like), giving form to a cultural expression with its own status.

On the contrary, the agency is the main feature that underlies the gap between traditional and digital textuality, taking Bakhtin's assumption "a human act is a potential text" (Bakhtin 107) to invert it (Pellizzi 1-4). Indeed, if the Russian philosopher maintains that a human act can potentially be a text, so then vice versa with digital textuality: every text can produce a human act. It could not be otherwise if we consider that just reading a work of hypertext fiction needs a nontrivial effort by the reader to traverse the text. Thus, digital textuality shows a text which is not only the collection of signifieds and signifiers, but rather a collection of these elements and a range of acts and reactions (*feedback loop*). Furthermore, considering textuality from this point of view does not disrupt the concept of text; rather the concept has been expanded, showing the potentialities offered by digitality, a point of view also shared by Espen Aarseth (with respect to the concept of cybertext) who argues that "[c]ybertext is a *perspective* on all forms of textuality, a way to expand the scope of literary studies" (Aarseth 18).

In this digital active configuration, the text always keeps its communicative function which regulates the transmission of units of meaning and goes even further: it also maintains its materiality, although this statement remains frequently misunderstood. Indeed, the digital text is not an abstract entity, but it is rather the actual product of accurate physical dynamics with which the digital text is literally marked out on a surface (as a pen traces an ink mark out on the paper). This surface is the magnetic layers of the hard disk, and it occurs through the purely physical electromagnetism process (the head which writes the ferromagnetic surface of the hard disk).

Extending the concept of materiality to the relationship between the text and its medium, Katherine Hayles goes further, considering the two elements (text and medium) parts of a single material system which includes the interaction among text, machine and human being (Hayles, *Writing*).

Therefore, digital textuality, *ergo* eLiterature, inherits features of the traditional text but it also expands its frontiers once the reader enters the text and becomes an active user starting a process that sees the text configure itself according to the choices made by the reader. Along with materiality and semanticity, this *active action* becomes part of the digital text and provides a completely new dimension to the traditional textuality. It is exactly this new dimension offered by digitality that paves the way for literary experiments otherwise unattainable, giving the electronic literature its own digital status.

It is at this point that we begin to discern more clearly what eLiterature is and how to define it. It is when we try to put it into the literary historical context that it is clear how rarely in literary history there has been such an evolutionary leap (probably comparable only to what happened with the transition from the oral tradition to the Gutenberg Galaxy). When one realizes that eLiterature cannot be simply defined as Literature, one realizes that an epistemological mutation has occurred. When one understands that this mutation has taken place through the mediation of new technologies and new media, that one realizes to face a hybrid form that needs a new model of interpretation. When one realizes that the inner dynamics of poesis and reading of a literary work have deeply changed, that one realizes to face an ergodic literature that demands more effort to be enjoyed. When one analyzes *ad libitum* this cultural phenomenon, that one realizes as the relationship between man (cognitive processes) and machine (sub-cognitive processes) is of vital importance to understand eLiterature. It is at this point that it is clear what eLiterature is: an artistic-computational expression, closely related to the machine, that continuously tests literary boundaries, using and subverting the literary canon, becoming ergodic and changing shape once new technologies make

room for new experiments, that is to say, a literary phenomenon that completely redefines what literature is in the digital age.<sup>6</sup>

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<sup>6</sup> This definition comes from the research *eLiterature. Critical analysis, interpretative guidance, potentialities and application possibilities* (<http://eliteratures.wordpress.com/research>). The research has realized and used tools for the collection and analysis of qualitative and quantitative data to analyze the eLiterature phenomenon and to develop a definition and a classification. The research has also analyzed eLiterature status, and it has considered eLiterature potentialities in a pedagogical environment. Some of the material is available on the web sites *eLiterature & Electronic Literature* (<http://eliteratures.wordpress.com>) and *eLiterature & Net Art* (<http://eliterature.forumattivo.com>).

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