

Digital Humanities in Praxis: Introducing The Brazilian Electronic Literature Collection

1. Prefatory Remarks and Disclaimers

The Digital Humanities are in. The trendy scholarly practice for the tech-savvy literati, the DH has generated manifestos, grievances, enthusiasm, grammatical controversy (plural or singular concord?), and conferences. Said to possess both a “dark side” and a utopian core, it is humanities plus media. Humanities *in* media – but have the humanities ever existed outside a medium of inscription?

While in its first “wave,” DH is said to have prompted a quantitative turn: i.e. the compilation and implementation of databases as well as the organization of information in elaborate arrays. The much anticipated “second wave” is to be “qualitative, interpretive, experimental, emotive, generative in character” (SCHNAPP & PRESNER, 2009). As curator of the Brazilian Electronic Literature Collection for the ELMCIP (Electronic Literature as a Model of Creativity and Innovation in Practice) Knowledge Base, I have been asked to partake in this second wave and offer a few conclusions about Brazilian electronic literary production. I am afraid I shall partially disappoint. Untrained in informatics and statistics, I will speak to you as a scholar of literary theory who happened to find herself compulsively imputing data in her country’s electronic literary production and in the process taking a peek into the inner workings of a collaborative database in the Digital Humanities. Evidently, the examples to follow are derived specifically from the Brazilian Collection featured in the ELMCIP Knowledge Base. My hope, however, is that the underlying questions will pertain to a larger realm, one which transcends or rather precedes nationality and instead addresses certain basic commonalities of the practice of electronic literature.

2. Brief Remarks on the DH

The Digital Humanities seeks to play an inaugural role with respect to a world in which, no longer the sole producers, stewards, and disseminators of knowledge or culture, universities are called upon to shape natively digital models of scholarly discourse for the newly emergent public spheres of the present era (the www, the blogosphere, digital libraries, etc.), to model excellence and innovation in these domains, and to facilitate the formation of networks of knowledge production, exchange, and dissemination that are, at once, global and local. (SCHNAPP & PRESNER, 2009).

A representative of the second wave in the DH, Stephen Ramsey elaborates on the notion of algorithmic criticism. Algorithmic criticism seeks to articulate computer-assisted analysis and literary criticism so as to arrive at a model wherein computer-based tools are deployed not to confirm or verify meaning, but rather to open interpretive horizons. In its essence algorithmic criticism is one that uses the findings of algorithmic text analysis—i.e. visualizations, word frequency counts, patterns, correlations, etc.—as points of departure to further hermeneutic practices.

With impressionistic criticism on one side of the hermeneutic spectrum and computer-assisted interpretation on the other, Ramsey absolves the technical media of its traditional role as nemesis to “pure” literary arts, thus repositioning the computer as a initiator of polysemy: “...not to constrain meaning, but to guarantee its multiplicity” (RAMSAY, 170). Following this logic, the opposite of impressionistic criticism would not be computer-based text analysis but rather a rich tradition of “non-scholarly interpretive methods” dating back to ancient times, including everything from the stochastic reading of the I-Ching to several forms of isopsephia such as those found in the Hebrew gematria (RAMSAY, 170).¹ Ramsey proceeds to note that “something much more unusual” happens when one places various interpretive methodologies on a scale of tractability: “ironically it is not the methods of the scholar that reveal themselves as ‘computational,’ but the methods of the gematrist and the soothsayers (...)” (Ibid). The cynic in me wants to voice her complete lack of surprise vis. such findings: I suspect that a great majority of us in “literary theory” have a natural predisposition to abstraction and have honed enough hermeneutical skills so as to become immune to objectivism. Computation just did not use to be our thing. How dare anybody wish to algorithmically transform Virginia Woolf into a set of mathematical formulas where characters become “tokens” and streams of consciousness lapse into inverse document frequency equations? Isn’t hermeneutic praxis, which is the core of humanistic scholarship, the last bastion of precisely those ineffable qualities which make the “human” distinct from the machine?

¹ In current literary theory, the mere mention of “impressionistic criticism” cannot occur without turmoil. Reader-response criticism and Reception theory have long abdicated the search for such problematic tropes as “authorial intentions” and textual stability, which impressionistic criticism doubtlessly presupposes. Literary meaning, we now understand, is an event, an emergence resulting from the relationship between readers, their expectations and projections, their negotiations with texts, and the latter, be they print-based or otherwise, are always dynamic in that they are actualized by reading.

Yet here we are engineers and poets bound together in the face of imminent datafication², and the time has come to ask what would constitute helpful “computational” interpretation. And what could be gained from forfeiting the “human” in the hermeneutic endeavor? I believe this is where the ELMCIP Electronic Literature Knowledge Base has something to contribute. For those unfamiliar with it, the Knowledge Base, or the KB, is an open-access, contributory, and relational database on the subject of electronic literature. ELMCIP KB users are able to generate, tag, and cross-reference immensely rich entries on creative works, authors, publishers, organizations, events, and pedagogic resources.

It would be plausible to argue that ELMCIP embodies such medium-specific hybridity as advocated by DH 2.0 enthusiasts who claim that digital technologies have permanently altered the paradigm in which the humanities operate: at the most fundamental level, this new paradigm mandates that hybrid modes of communication fully absorb printed records – the contributory aspect of the ELMCIP KB, particularly user-generated multimedia records constituting, to my mind, prime examples. At a less straightforward level, said paradigm shift would entail a significant change in interpretive practices, the much anticipated leap into the qualitative. With Moretti, one might subscribe to distant readings, where distance rather than closeness (as per the praxis of close-readings) becomes the precondition of knowledge (MORETTI, 2000, p. 2). By oscillating between micro-textual units and their extreme opposite, “the great unread,” which is to say the extra-canonical, Moretti claims to subvert the typical hermeneutic order. The result? Correlations, visualizations, maps, graphs, trees, and a general feeling of let-the-data-speak-for-itself. “(...) And if, between the very small and the very large, the text itself disappears, well, it is one of those cases when one can justifiably say, less is more” (Ibid.). Regardless of the critical wrath such radicalisms are sure to summon, one fact remains indisputable: once literary data is digitized and parsed into a thematic database—i.e. the ELMCIP Knowledge Base—all manner of narratives can be concatenated. And these can be as varied in scope, depth and nature as the queries prompting them.

² I borrow the term from Viktor Mayer-Schonberger and Keneth Cukier (IN *Big Data: A Revolution That Will Transform How We Live, Work and Think*).

3. Collecting Concrete in the Age of Digital

Renouncing the struggle for "absolute," Concrete Poetry remains in the magnetic field of perennial relativity. Chronomicro-metering of hazard. Control. Cybernetics. The poem as a mechanism regulating itself: feed-back. Faster communication (problems of functionality and structure implied) endows the poem with a positive value and guides its own making. Concrete Poetry: total responsibility before language. Thorough realism. Against a poetry of expression, subjective and hedonistic. To create precise problems and to solve them in terms of sensible language. A general art of the word. The poem-product: useful object (CAMPOS, H. & A. PIGNATTARI, D. "Plano Piloto Para Poesia Concreta," 1958).

The Brazilian Electronic Literature Collection is one of those possible narratives. One aspect of this narrative is Concrete Poetry. Concrete poems operate as self-referential blocks of text which mirror their semantic meaning through the manipulation of form. Quite schematically, Concrete poetry's emphasis on design and spatial grammar triggers two distinct (albeit inextricably conjoined) reception strategies, namely, those of "reading" and those of "viewing". This trope of optical fluctuation is particularly relevant in the Brazilian context because it happens to be that which Augusto de Campos and other co-members of the highly prominent Noigandres group of São Paulo (Décio Pignatari and Haroldo de Campos) have attempted to subsume under the heading of the "verbivocovisual" function – semantic and visual (formal) poetic constituents being synchronically deployed.³ While an analog poetics of space necessitates the analysis of strictly Concrete discursive strategies, a digital spatial poetics ought to encompass the direct effects of programmable language on what Katherine Hayles terms "material performances of the text" (HAYLES, 2006, p. 186).

Now, that no existing computer could possibly produce a critical paper on the influence of Concretism in contemporary Brazilian electronic poetry does not mean that no insight is to be gained from the compilation of a database that facilitates queries and provides cross-referencing of relevant data. But once the data is assembled, one should tread carefully. The commonplace contention is that it would be only natural for Brazilian electronic poetry to be framed against critical and theoretical biases of the Concrete movement. As theorist Giselle Beiguelman observes in her "The Reader, The Player and the Executable Poetics: Towards a Literature Beyond the Book," the influence exerted by the Noigandres group on "first-generation multimedia artists," such as Beiguelman herself, Lenora de Barros, Lucia Leão, Arnaldo Antunes, Andre Vallias, and many others, is not to be underestimated (BEIGUELMAN, 2010, p. 404).

³ The term *verbivocovisual* is itself borrowed from James Joyce's "verbivocovisual presentment" (Book II, Episode 3 of *Finnegans Wake*). In his "Versatile Vanguard Vectors," literary critic Charles A. Perrone stresses the function of the triple feature contained in the hyphenated version of term *verbivoco-visual* – i.e., "the triple feature [clarifies] the idea of the simultaneous presence of semantic, sonorous and optical elements. By the end of 1955, in any case, their published elucidations would utilize the amalgamated term" (PERRONE, 2007, p. 1).

However, to affirm that Brazilian electronic poetry recaptures some of the fundamental tropes and debates of Concretism is not to blindly subscribe to a simplistic model of literary historiography – one in which the “logic of affiliation,” to borrow Beiguelman’s term, is applied indiscriminately and causality tends to be ascribed to places where only chronology would make sense. Simply put, though it can be framed as an antecedent—particularly so in an academic exercise of a certain agenda in Brazilian literary historiography⁴—one should be cautious not to rush into facile conclusions, such as that Concrete poetry “caused” Brazilian electronic poetry. Though a quantitative study might reveal a strong correlation between Brazilian Electronic Literary production in São Paulo and, say, the Campos brothers, I believe such inferences ought to be derived analytically, by which I mean, through meticulous scholarly exercise, and never through the execution of a search command. Here the dangers of “distant readings”—where, per Moretti, “explanations of general structures” tend to precede, possibly even preempt, interpretation—become self-evident. The simple fact that the tag “antecedents” is attached to a number of entries obviously displays a teleological bias on the part of the ELMCIP Knowledge Base contributors, for only in a diachronic scheme of literary historiography would the logic of antecedents be valid.⁵

Perhaps the larger question to be posed is this: do literary databases inform us of otherwise undetectable patterns of literary history? Certainly, the quantitative approach to literature allows for quite stunning renditions of data. But, to paraphrase Moretti in the opening lines of his chapter “Maps”, what do these visualizations do that cannot be done with words, and what do they add to our knowledge of literature (Cf. MORETTI, 2005)? Granted, in “Maps” Moretti deals primarily in smaller units – i.e. elements abstracted from individual narratives and subsequently plotted as maps, such as the country walks contained in Mary Mitford’s *Our Village* published in five volumes between 1824 and 1832 in England. The bet is both simple and ambitious: that the results will amount to “more than the sum of their parts [and] possess emerging qualities, which were not visible at a lower level” (MORETTI, 2005, p. 53).

How could we transpose this logic to the ELMCIP and its current potentialities? One example is Scott Rettberg’s use of the modularity algorithm to identify network

⁴ As evidenced by statements such as Augusto de Campos’ commentary on Ricardo Araujo’s project *Poesia Visual—Video Poesia* (“*Visual Poetry—Videopoetry*”): “a prática tem demonstrado que as antecipações da poesia concreta encontram no computador o veículo adequado para suas novas proposições verbais” (“Practice has shown that the anticipations of concrete poetry find in the computer a naturally adequate vehicle for its new verbal performances”) (CAMPOS apud. BEIGUELMAN, 2010, p. 407). Evidently, and Beiguelman is keen to point this out, the contrary case can be argued: Wilton Azevedo’s and Philadelpho Menezes’ *Interpoetry* is a clear example of a work that seeks to refute the influence of Concretism in Brazilian poetry.

⁵ Incidentally, Christopher Funkhouser’s *Prehistoric Digital Poetry: An Archeology of Forms*, 1959–1995 is the first entry in the search results page for critical writings. In his introduction, Funkhouser has a subsection aptly entitled “Discussion of Prehistoric Theme” where he admits that the very designation of certain literary artifacts as “prehistoric” is to be taken as “an aesthetic suggestion rather than a literal or absolute theoretical assignation” (FUNKHOUSER, 5).

communities. (Cf. RETTBERG, 2013). Rettberg's visualizations display several clusters of data, each revealing closer relationships between certain networked records. As they pertain primarily to creative works, these clusters can be reflective of a variety of commonalities: genre, production year, language of the work, etc. The result? The ability to detect not only those categories we already intuit but to identify generic or thematic associations we would not have *seen* otherwise. (21). Though hard-core hermeneutists might frown at this close encounter with raw data, I believe the quantification trend in literary criticism is here to stay. We need to adjust, which is to say, we ought to use the findings of the computer as points of theoretical departure. To take one further example from Scott Rettberg's paper on this panel, a critical essay on *Rezeptionsästhetik* could greatly benefit from the circular visualization of all citations of creative works contained in the ELMCIP Knowledge Base.

4. Nation and Narration (database): Notes on Process and Selection

If the future of a relational database, such as the ELMCIP, is to cease to be relational as it becomes all encompassing, right now the paradigm is still very much authorial. At its current stage, The Brazilian Electronic Literature Collection is the result of my own academic biases and as such, any current “findings” need to be taken with the proverbial grain of salt since they are the results of the tautological exercise of data compilation and digitization. They are, so to speak, narratives-turned-into-database.⁶ Preliminary research led me to a few prominent names, notably, Eduardo Kac (<http://elmcip.net/person/eduardo-kac>), Andre Vallias (<http://elmcip.net/person/andre-vallias>), Wilton Azevedo (<http://elmcip.net/person/wilton-azevedo>), Jorge Luis Antônio (<http://elmcip.net/person/jorge-luis-antonio>), Giselle Beiguelman (<http://elmcip.net/person/giselle-beiguelman>), and Lenora de Barros (<http://elmcip.net/person/lenora-de-barros>), whose records contain links to creative works, critical writings, and events in which they were involved.

The bulk of the critical writings currently contained in the Brazilian Collection was extracted from three principal sources, two of which are anthologies of essays and one a monograph comprising a panorama of digital poetry from its origins to the present. They are Jorge Luis Antonio’s “Poesia Digital: Negociações com os Processos Digitais: Teoria, História, Antologias” (“Digital Poetry: Theory, History, Anthologies”) (<http://elmcip.net/critical-writing/poesia-digital-negociacoes-com-os-processos-digitais-teoria-historia-antologias>), Jorge Luis Antonio and Artur Matuk’s (Eds.) “Artemídia e Cultura Digital: Palestras e Textos Apresentados e Desenvolvidos no Evento Acta Media III – Simpósio Internacional de Artemídia e Cultura Digital” (<http://elmcip.net/critical-writing/artemidia-e-cultura-digital>), and Paula Perissonoto and Ricardo Barreto’s “Teoria Digital: Dez Anos do FILE - Festival Internacional de Linguagem Eletrônica” (<http://elmcip.net/critical-writing/teoria-digital-dez-anos-do-file-festival-internacional-de-linguagem-eletronica>), the latter comprising rare translations into Portuguese of such familiar names as Noah Wardrip-Fruin, Markku Eskelinen, and Lev Manovich.

Despite Brazil’s continental dimensions, Brazilian electronic literary production is concentrated on a few metropolitan areas, Rio de Janeiro and São Paulo being the most prolific. Though one can certainly detect interconnections amongst the producers and critics of electronic literature, it would be somewhat premature to speak of a national (in the sense of all-encompassing) community of electronic literature in Brazil. There are, however, burgeoning sub-communities well worth mentioning, particularly if one is willing to aggregate electronic art as an “edge” to a Brazilian network of Electronic Literature. Institutionally, São Paulo houses both the

⁶ Which, admittedly, is ironic in its own right since theories of narratology, particularly Ricouer’s tripartite mimesis, have shown that pre-narrative scenarios tend to belong to the order of the paradigmatic (vs. the syntagmatic), which is to say the pre-causal and synchronic disposition of events. In layman’s terms: a database.

internationally renowned FILE (Festival Internacional de Linguagem Eletrônica)⁷, a success story from its inception, and Itaú Cultural, the cultural branch of the eponymous bank, which hosts and maintains the most complete online encyclopedia of Brazilian interchanges between art and technology (<http://elmcip.net/databases-and-archives/enciclopedia-itaucultural-arte-e-tecnologia-no-brasil>). On the scholarly side of the São Paulo sub-community one will inevitably encounter the Programa de Pós-graduação em Comunicação e Semiótica at Pontifícia Universidade Católica São Paulo. The program at PUC-SP has produced a variety of dissertations on electronic language over the years. Notably, professor Lucia Santaella, the director of CIMID, Center of Research in Digital Media, PUCSP has advised a plethora of scholars of electronic language and could be regarded as one of the key nodes of a “paulista” network community in Brazilian electronic literature. A similar “network logic” applies to artist, curator, and scholar of electronic literature Giselle Beiguelman, whose works are featured in electronic literature syllabi all over the planet. Still in the São Paulo sphere, Wilton Azevedo is a rare example of a full-fledged electronic artist cum scholar: co-author of *Interpoetry* (alongside Philadelpho Menezes), Azevedo is a poet, musician, graphic designer, and academic. Azevedo’s promptness to contribute to the Knowledge Base has generated immensely thorough records, including the full text of his postdoctoral dissertation “Interpoesia: O Início da Escritura Expandida,” written in 2009 under Prof. Philippe Bootz’s advisement at Paris VIII

(http://elmcip.net/sites/default/files/files/attachments/person/pos_doc_do_prof_wilton.pdf).

Rio de Janeiro has Andre Vallias as perhaps its most well-known representative in electronic literature. Working in electronic poetry since 1988, Vallias is coeditor (alongside poet and critic Eucanaã Ferraz) of the online literary magazine *Errática*, a prolific critical resource on poetry and new media. Ample documentation on Vallias’ paradigmatic poems as well as the author’s participation during the several stages of development of the Brazilian Collection have amounted to rich entries in the ELMCIP Knowledge Base. Notable examples are IO (<http://elmcip.net/creative-work/io-analysis>), and *Nous N’avons pas Compris Descartes* (<http://elmcip.net/creative-work/nous-navons-pas-compris-descartes>).

Rio de Janeiro headquarters Oi Futuro, an institute which has consistently invested in and curated exhibits of electronic poetry, visual poetry, and new media installations. A highlight from the Oi Futuro output is the exhibit POIESIS <POEMA>ENTRE

⁷ A word of caution: the prominence of FILE in the current iteration of the Brazilian Collection could be regarded as questionable insofar as FILE is primarily a festival of electronic art (versus literature). The recurrent debates on the problematic demarcations between computer-based art and literature notwithstanding, I felt that the exclusion of FILE would have constituted curatorial myopia on my part due to the importance and consistency of the festival in the context of sparse manifestations of electronic literature in Brazil. I thus opted to privilege the term “language” or “linguagem” in the FILE (Festival de Linguagem Eletrônica) acronym and add individual records of FILE iterations to the ELMCIP Knowledge Base. Creative works featured in each edition of the festival remain to be aggregated and decisions need to be made on a case-by-case basis.

PIXEL E PROGRAMA</>, co-curated by Vallias, Friedrich Block, and Adolfo Montejo Navas in 2007 (<http://elmcip.net/event/poiesis-entre-pixel-e-programa>). The full catalog and individual creative works (including images and videos) featured in the Poiesis exhibit are currently contained in the Brazilian Collection.

A cosmopolitan carioca, Eduardo Kac, is another central figure of a Brazilian electronic literature network community. Responsible for revolutionary works such as the “Genesis” installation and the fluorescent GFP bunny “Alba” —a piece of transgenic art consisting of an albino bunny injected with a green fluorescent protein—Eduardo Kac has been an active voice in the theorization of new media art as well as a remarkable practitioner of digital language as it relates to and dialogues with biology, sociology, and culture. Because Kac embodies the kind of post or trans-nationality which is characteristic of the electronic medium, it is difficult to sell him as a typical “Brazilian” author. Yet, in the end, passports do make a difference and databases are built on rather trite binary distinctions. As such, Kac is included in the Brazilian collection as a central node. Additionally and rather parenthetically, I should mention that apart from the examples extracted from Kac’s Holopoetry, a great number of Kac’s works would technically fall under the heading of electronic or bio-art rather than electronic literature. Decisions were made on an individual basis. The *Genesis* installation, for instance, has warranted its individual ELMCIP Knowledge Base entry (<http://elmcip.net/creative-work/genesis>), whereas the GFP bunny was omitted.

A notable geographical outlier is NUPILL - Núcleo de Pesquisas em Informática, Literatura e Linguística, linked to the Department of Vernacular Language and Literatures, in the Center of Communication and Expression at Universidade Federal de Santa Catarina. Headed by new media poet and academic Alckmar Luiz dos Santos, NUPILL has organized the first international Symposium of Electronic Literature (I Simpósio Internacional e V Simpósio Nacional de Literatura e Informática) in 2012 (<http://elmcip.net/event/i-simposio-internacional-e-v-simposio-nacional-de-literatura-e-informatica>).

5. Conclusion

The ambitious future of the Brazilian Collection, where the qualifier would allude to both the incommensurable notion of a “national literature” and to a mere geo-tag, is not to be the curatorial by-product of a single Brazilian. The future should be an anonymous result of collective data-mining. But we are not there yet and, in some ways, this is a good thing.

With Rettberg, I would submit that it is both a strength and flaw of the ELMCIP Knowledge Base that the content is provided by humans as opposed to being automatically harvested by algorithms. With Collections, the human factor assumes an even greater significance for collections are de facto personal narratives adorned with statistics, and if in their current iterations they present themselves as such (rather than as objective portraits of literary communities, which they simply cannot be yet), then we have done our jobs as scholars of literature.

That said, one should not neglect the message of the medium. The future of a database is already contained in and dictated by its name: data. After all relevant data has been compiled and digitized, after we have internalized algorithmic criticism to the extent that, as Ramsey puts it, “[the term] will seem as odd as library based criticism” (RAMSEY, 2003), after we have distanced ourselves enough from distinct literary objects so as to be able to see the “big picture,” then what? If we renounce reading, as Moretti seems to suggest, are we not essentially forfeiting the central task of literary criticism? And if so, isn’t algorithmic reading *reading* nonetheless and should it not be underscored as such? These are questions to occupy scholars to come. For my part, I encourage you to take a look at the Brazilian Collection and contribute where possible. Mechanized or not, the hermeneutics of the future will certainly profit from a plurality of voices.

- BEIGUELMAN, G. "The Reader, the Player and the Executable Poetics: Towards a Literature Beyond the Book" IN GENDOLLA, P. & SCHÄFER, J. (Orgs.) **Beyond the Screen: Transformations of Literary Structures, Interfaces and Genres**, Bielefeld: Transcript Verlag, 2010.
- CAMPOS, A. ET AL. "Plano-Piloto para Poesia Concreta" - Manifesto da Poesia Concreta publicado em Noigrandes, n. 4, São Paulo, 1958. IN TELLES, G. M. **Vanguarda Européia e Modernismo Brasileiro: Apresentação Crítica dos Principais Manifestos Vanguardistas**. Petrópolis: Vozes, 1992.
- FUNKHOUSER, C. T. **Prehistoric Digital Poetry: An Archeology of Forms, 1959-1995**. Alabama: University of Alabama Press, 2007.
- HAYLES, K. "Narrative and Database: Spatial History and the Limits of Symbiosis" IN **How We Think: Digital Media and Contemporary Technogenesis**. Chicago: The University of Chicago Press, 2012.
- _____. "The Digital Humanities: Engaging the Issues." IN **How We Think: Digital Media and Contemporary Technogenesis**. Chicago: The University of Chicago Press, 2012.
- KAC, E. **Telepresence and Bio Art: Networking Humans, Rabbits and Robots**. Michigan: The University of Michigan Press, 2005.
- MAYER-SCHONBERGER, V. & CUKIER, K. **Big Data: A Revolution That Will Transform How We Live, Work and Think**. London: John Murray, 2013.
- MORETTI, F. "Conjectures on world Literature." IN **New Left Review** 1, January-February, 2000.
- _____. **Graphs, Maps, Trees: Abstract Models for Literary History**. London: Verso, 2005.
- RAMSAY, S. "Towards an Algorithmic Criticism" IN **Literary and Linguistic Computing**, Vol. 18, No. 2, 2003.
- RETTBERG, S. "An Emerging Canon? A Preliminary Analysis of All References to Creative Works in Critical Writing Documented in the ELMCIP Electronic Literature Knowledge Base" Electronic Literature Organization Conference, 2013.