

Poetic Constellations and Intermedia Collaborations: The Case of *Vniverse*

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ABSTRACT

Vniverse is an intermedia project that was first conceived in 2002 as a print book with two electronic components online. However, in 2014, Stephanie Strickland revised *Vniverse* and published a new version of the book and an electronic application for iPad exclusively. In its entirety, *Vniverse* invites the readers to read and form constellations by exploring the electronic component's night sky, and to go back to the book where they can read the poems differently. In this work, database and narrative structures are combined, the one revealing the limits of the other as well as the potent hybrids they are capable of creating.

KEYWORDS

intermedia poetry; database aesthetics; poetic system; machine reader; feedback loop; experimental book format

RESUMO

Vniverse é um projeto intermídia concebido inicialmente, em 2002, como um livro impresso com dois componentes eletrônicos online. No entanto, em 2014, Stephanie Strickland reviu *Vniverse* e publicou uma nova versão do livro e uma aplicação eletrônica exclusiva para iPad. No seu todo, *Vniverse* convida os leitores a ler e formar constelações no céu noturno da componente eletrônica, e a voltar ao livro no qual podem ler os poemas de maneira diferente. Nesta obra, base de dados e estruturas narrativas encontram-se combinadas, uma revelando os limites da outra e os potentes híbridos que são capazes de criar.

PALAVRAS-CHAVE

poesia intermídia; estética de base de dados; sistema poético; leitor computacional; *feedback loop*; formato experimental do livro

Vniverse is Stephanie Strickland's second intermedia project, consisting of a print book with an experimental format that was published in 2002 by Penguin Books. *Losing L'una* and *WaveSon.nets* constitute two invertible sections of V, while in exactly the middle of the print book readers are directed to its digital component that is entitled *V: Vniverse* and was created in 2002 in collaboration with Cynthia Lawson Jaramillo and published in *Electronic Literature Collection 2* in 2011. Drawing on Espen Aarseth's notion of ergodic literature in *Cybertext: Perspectives on Ergodic Literature* (1997) and Lev Manovich's theory about the "Database as a Symbolic Form" (1999), I will explore the ways in which the database structure informs the reading experience of *Vniverse* with the numerical structure of the poems reflecting their combinatorial and database potential. This reflection is found in the way the books of *Vniverse* are typographically designed. In particular, *Vniverse* combines narrative and database structures, as will be shown in a selection of close readings from *V: WaveTercets/Losing L'una*.

In her online interview with Laura Hinton, Strickland points out that *Vniverse* has been her first project that integrates a digital portion. However, *V: Vniverse* is only the first digital component of the project and the second one is the hypermedia poem *Errand Upon Which We Came* that was also created in 2002 but this time in collaboration with M. D. Coverley. In 2014, Strickland published with SpringGun Press a revised edition of her print book entitling it *V: WaveTercets/Losing L'una*. This edition is complemented by a new digital component that is different from its previous electronic predecessors and is developed by Ian Hatcher for *iPad* exclusively. This active publication engagement highlights Strickland's interest in rewriting and expanding her works through the use of various media.

In both electronic versions – the 2002 and the 2014 *iPad* application – the poetic text appears in tercets in contrast to the 2002 print book where it appears in sonnet form. The 2014 print edition, however, resorts to different line divisions, with the sonnets being broken down into tercets. Strickland's decision to break up semantic and typographic units by means of pre-determined numbered sequences results in the segmentation and fragmentation of the form-meaning unity that characterizes poetic writing. Of course, this is an effect that can be felt within each poem but also in both Strickland's

2002 and 2014 sequences, as evidenced in the three-line stanzas deriving from her four-line stanza sonnets.

Although the sonnets have turned into tercets in the revised print edition, the sonnet form remains a core element in the conception and development of *Vniverse*. Of all poetic forms, the sonnet's closed structure displays an algorithmic pattern, with the volta being one of its most important components. In their essay of how *Vniverse* was created entitled "Vniverse," Strickland and Lawson point out that through *Vniverse* they have tried to rethink the sonnet "as a poetic form in the twenty-first century" and the "volta itself takes a new turn as V turns into cyberspace" (2009: 165). The restructuring of the sonnet is not the only aspect of poetry that is reconsidered in this project, but it is also the role of the readers as they enter the poetic system of *Vniverse* in a dynamic way.

Vniverse for iPad consists of four sections with each one of them providing a different reading and interactive approach to the poetic text. These sections are "Draw," "Constellations," "WaveTercets" and "Oracle." In the section entitled "Draw," the reader is given the chance to draw the constellations through the touch of his or her finger. As he or she touches the screen, words appear and vanish after a few seconds. However, the visual shape of the constellations remains visible (see Fig. 1).



Figure 1.

This textual arrangement of the words on the screen draws our attention to the relationship between the verbal and visual components of the work, while it juxtaposes the ephemerality of speech to the permanence of the inscribed visual track. Digital poetry, as seen in the case of *Vniverse*, appears to share oral language's performativity as each reading performed is

one-of-a-kind and cannot be repeated in the same manner, just like an utterance cannot be articulated in the same way as in the exact moment and occasion it has first been expressed. In the *Vniverse iPad* application, one finds a combination of visual and verbal elements in the shape of constellations that draw connections with *Vniverse's* poetic and textual units. What is more, the reader is able to map down space through the creation of looping reading paths. However, the option for a linear acquaintance with the poems is offered through the automatic playing of the sonnets (see Fig. 2).



Figure 2.

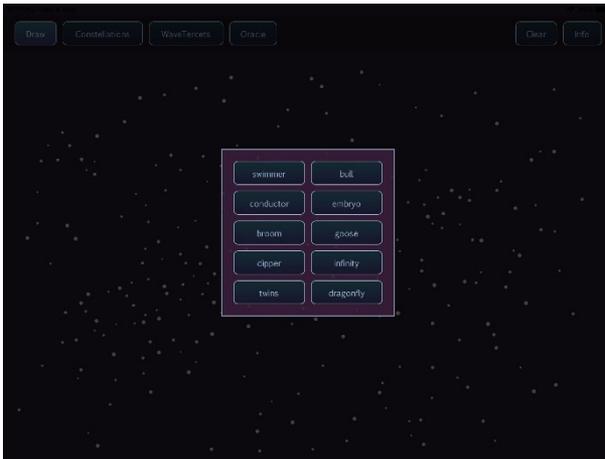


Figure 3.

In the section “Constellations,” the readers are presented with the constellations (see Fig. 3) as they appear in the header of the pages of the 2014 book with a top-to-bottom order. It is important to highlight at this point

that the new book is reconfigured in such a way as to play and accompany its new electronic version. Upon selecting one of the constellations – swimmer, conductor, broom, dipper, twins, bull, embryo, goose, infinity, dragonfly – the readers are also presented with a visual shape per constellation. Still they have to touch the screen for the tercet to appear. However, this does not disappear until they touch another part of the night sky that bears a title. The readers can touch anywhere on the screen and a text will still appear. As a result, they are presented with the visual shape of the constellation that already bears a name, number, title, and an accompanying tercet (see Fig. 4). In this way, they are re-directed to the book that features numbered tercets. The connection with the book is established in the way the readers read the tercets that correspond to each constellation in their print manifestation in a more linear fashion.

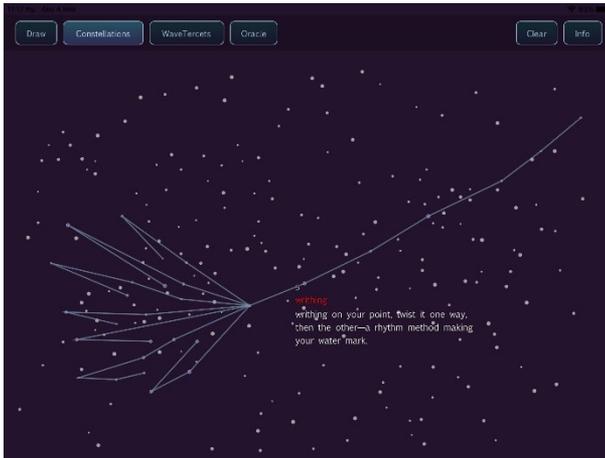


Figure 4.

The *Vniverse iPad* app, as an electronic device, offers the readers a different experience from the desktop or laptop computer due to its touch-screen function that encourages the readers' haptic interaction with the text. Thus, interactivity is seen under a different light since it places the tactile sense of the reading experience at the center of attention. The haptic quality as well as the portable size of the *iPad* create a tactile proximity with the surface of the *iPad* screen, contributing in this way to the digital poetic experience the *iPad* offers since this is not mediated by the mouse or the track pad of the computer. What makes electronic poetic practice different from conventional poetry, Christopher Funkhouser argues in his essay "A Cyber-Editor's Statement," is that "word selection and placement of words on the 'page' [are] now expanded to include sonic and visual effects. The additional layer of computer coding allows multiple layers of textuality for the viewer/reader" (2001: 132).

The readers are called to interact with and read an electronic poem by resorting to multiple levels of sensory perception.

The reading of *Vniverse* in *iPad* involves the readers' body in a more immediate way than the *Shockwave* application, as the star constellations in the *iPad* serve literally as traces of the readers' fingertips on the screen. However, Strickland argues that much of the gestural freedom the readers enjoy has been lost in the transition from the *Shockwave* application to the *iPad* (2014: n. pag.). Comparing touch to the other senses, Strickland points out that "touching and hearing are privileged in *V*. Both are disprized in our world with the visual [...] Both touching and hearing are close to waves – vibrational touch and acoustic waves" (2002: 5). What this highlights is the materiality and malleability of poetry as well as the reader's embodied experience of a text that constantly fluctuates. This materiality is understood as an aspect of both digital and print media, and it is found in the books as well as in the digital components of *Vniverse*. One of the benefits of computation to language with regard to poetry, Funkhouser claims in "A Cyber-Editor's Statement," is that "poetry inhabits a flexible, dynamic, and transmittable circuitry that allows built-in links, intricate graphical components, sound-tracks, and other capabilities, such as various forms of animation" (2001: 141). *Vniverse* illustrates this flexibility in the way it asks the readers to navigate it and put to use their different reading skills.

One way to navigate the text is an automatic ploy in the section "WaveTercets" of the *iPad* app that comes from the 2014 printed book with the title *V: WaveTercets*. The text appears in a linear order, starting from tercet number 1 and concluding with tercet number 32. While the tercets are played out in a linear order, a different constellation shape appears in the night sky interface of the screen. Once a tercet appears on screen, the previous one fades out (see Fig. 5). The permutations that the tercets and the shapes of the constellations generate enhance the computational aspect of the *iPad* version of Strickland's text.



Figure 5.

One would argue that through this section the reading experience emulates that of the book. However, readers are not in control of the reading pace since the text permutes automatically on the screen. In the print book, however, it is the readers who decide on the reading pace of each tercet. Strickland and her collaborator, Hatcher, in this section, are not only writing the text, but they also control the pace with which the loop will be read. Even in that case, the looping structure allows the readers to intervene at any point and disrupt the permutation. This affects of course the poetic experience, transforming it into an interactive occurrence.

In “Oracle,” Strickland provides seven first-person questions: “Whose body?”; “How to know?”; “Why care?”; “What do I love?”; “Where to build a bridge?”; “When did you say?”; “Which one?” (see Fig. 6). Each one of these serves as an open-ended question leading to a variety of responses. To take an example, in the question “Which one?” an array of numbers appears on the screen that gradually fade away. If the readers touch the screen, words appear that again fade away after a while. So the question, “Which one?” in this context, invites readers to make a choice since the 232 available options on the screen will soon vanish (see Fig. 7).



Figure 6.

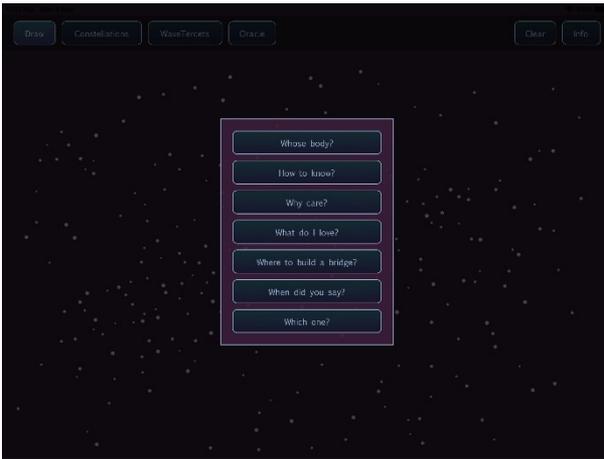


Figure 7.

This kind of difficulty such texts present readers with brings to mind Espen Aarseth’s book *Cybertext: Perspectives on Ergodic Literature* (1997), where he introduces the notion of “ergodic literature” for which “nontrivial effort is required to allow the reader to traverse the text” (1). As Aarseth points out, the word “ergodic” is “a term appropriated from physics that derives from the Greek words *ergon* and *hodos*, meaning ‘work’ and ‘path’” (1997: 1, emphasis in original). In other words, it pinpoints the effort of the reader to traverse such texts. This differs from “nonergodic literature, where the effort to traverse the text is trivial, with no extranoematic responsibilities placed on the reader except (for example) eye movement and the periodic or arbitrary turning of page” (Aarseth, 1997: 1). The introduction of an ergodic way of reading provides the readers with multiple reading

paths. Strickland's *Vniverse* embodies the notion of an ergodic text, since its multiple formats in print and electronic media as well as its hypertextual structure compel the readers to choose how and what will be read next. The special way in which *Vniverse*'s ergodicity is brought forward lies on the way the reader moves between digital and print medium in order to traverse the poetic text. The ergodicity does not only depend on the digital components of *Vniverse* but in the way they are combined with the print components together. The hypertextual reading of *Vniverse* constantly reminds the readers "of inaccessible strategies and paths not taken, voices not heard. Each decision will make some parts of the text more, and others less, accessible, and you may never know the exact results of your choices; that is, exactly what you missed" (Aarseth, 1997: 3). The interface of *Vniverse*'s electronic components does not allow the readers to retrace their steps, as the tercets that hover over the interface of the night sky will soon disappear.

Taking into consideration the fact that *Vniverse* constitutes a poetic system that engages print and analog devices, it is important for one to understand how the printed book works as a mechanism that has the "capacity and method for storing information by arresting [...] the flow of speech conveying that information. The book's mechanism is activated when the reader picks it up, opens the covers and starts reading it" (McCaffery and bpNichol, 2000: 18). Steve McCaffery and bpNichol argue further that "[i]n its most obvious working the book organizes content along three modules: the lateral flow of the line, the vertical or columnar build-up of the lines on the page, and thirdly a linear movement organized through depth" (2000: 18). Keeping in mind the database aesthetics that are brought forward by the computational components of *Vniverse*, one is worth considering how McCaffery and bpNichol's modules change the page layout of *Vniverse*.

Although linearity is often associated with the printed book, *Vniverse*'s print counterparts provide a reading experience that is far from linear. Aarseth points out that "linearity is not an intrinsic part of the codex structure" (1997: 47). Additionally, he admits that the structure of the book, "while perfectly suited to linearity, also ease[s] the way [to] nonlinearity" (Aarseth, 1997: 47), which helps argue that the codex is as responsible as the computer for the inception and generation of non-linear texts. *Vniverse* puts readers into a reading system that is based on loops, in which linearity is not a suggested reading path. The way the book is structured diverges from a linear reading and its database structure promotes a hyper and combinatory reading. In the case of *Vniverse*, it establishes a poetic system in which everything relates to each other with the readers now being invited to read in loops. Despite the fact that the computer is recurrently seen as the natural enemy of the book, an opinion expressed by Sven Birkerts in his book *The*

Gutenberg Elegies: The Fate of Reading in an Electronic Age (2006), in *Vniverse* their relationship becomes complementary. The electronic hypertextual component of *Vniverse* is not seen as an alternative to the book but rather as part of the overall print experience. Very interestingly, Aarseth points out the particular characteristics of electronic hypertextual form “in which the text is organized into a network of fragments and the connections between them [...] A reader may approach a specific point of interest by a series of narrowing choices simply by clicking on the screen with the mouse” (1997: 76). In *Vniverse*, the hypertextual reading does not occur only within the electronic medium, but it is an operation that takes place across the book as well. Most interestingly, Aarseth points out that the reader of ergodic texts is “a player, a gambler” and that the text itself is “a game-world; it is possible to explore, get lost, and discover secret paths in these texts, not metaphorically, but through topographical structures of the textual machinery” (1997: 4, emphasis in original). *Vniverse*’s electronic components’ interface provides the space for navigation and spatial exploration, complementing in this way their print counterparts. What we have here then is the case of an ergodic text that should be thought of alongside interactive reading.

By bringing together print poetics into the electronic space, *Vniverse* demonstrates the need to see media within a poetic system and not separately, and most importantly to see literature benefiting from this pairing while bringing to the fore its intermedia potential. In their essay “Vniverse,” Strickland and Lawson argue that with this project they wished to explore how the very practices of reading and writing would change when moving to different media: “we intentionally turned a long poem away from print and into an interactive medium in order to explore our emerging vision of how reading is remade and text transformed online” (2009: 165). As with the case of visual poetry, the readers are urged to see and read while developing particular skills as Strickland and Lawson argue: “a see/read difference comes into play with all texts that are both visual and verbal. Skills for visual reading include, but go beyond, knowing how to read images” (2009: 165–167). *Vniverse* calls for a combinatorial way of reading images and poetic lines in introducing a synthesization of narrative practices that encompass both print and digital components. In particular, in the reading of *Vniverse*, the readers are trained into a diverse scheme of reading, and they are confronted with a desire to be lost and found, as Strickland argues in her essay “To Be Both in Touch and in Control” (1999): “There seems to be two basic wishes that we bring to art: the wish to be lost and the wish to be found; to leave home and to come home; to dare terror – being frightened out of our minds – or to dare knowledge and a shift of consciousness” (n. pag.). This follows the tracks of Aarseth’s ergodic reading: the ergodic text “puts its

would-be-reader at risk: the risk of rejection” (1997: 4). With Aarseth and Strickland exposing the reader’s position, *Vniverse* invests in this powerfully playful and volatile situation by inviting readers to read the numeric sequences they find in the pages of the printed book and the poetic constellations that feature on the electronic screen.

In the 2002 electronic component of *Vniverse*, the readers were given the option to have two structures in which the poetic text appears: the sonnet form and the tercets (see Fig. 8).

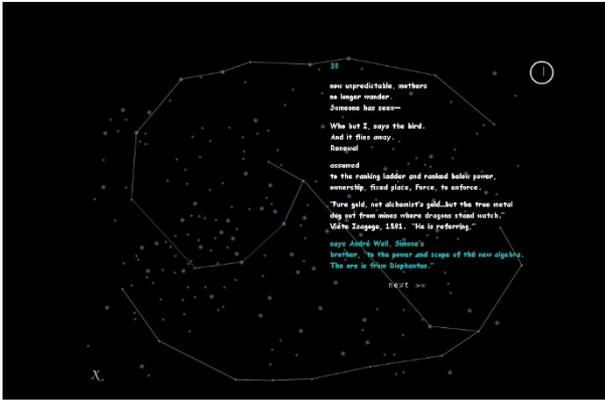


Figure 8.

What is more, they were able to move freely between these two. The ways in which the readers could access the texts highlight their looping structure:

Entering a number in the upper right circle releases a keyword and a poem tercet. Alternatively, a variety of hand gestures interrupt ordinary surfing to distinct effect: mousing in a sweep over the screen, holding the mouse over a star, single clicking to stabilize a constellation, double-clicking to release larger text units, clicking again to toggle between Son.nets and sets of tercets. (Strickland and Lawson, 2011: n. pag.)

Being structured in a looping manner, *Vniverse* opens up to multiple contextual, hence, semantic associations. This resembles the constellations/inscriptions that appear on the sky interface of the screen: “My point is that we need to inscribe our own constellations. My *Vniverse* constellations are not ‘the real’ ones, as there are no canonical, or real constellations” (Strickland, 2014: n. pag.). Strickland argues further that while technology and astronomy have their own way of connecting the dots on the night sky, *Vniverse* is a system like them “inscrib[ing] the sky with shapes important to its world” (2014: n. pag.). The ergodic level of *Vniverse* can be located in the

way the reader performs while attempting to read these texts either by drawing her own constellations on the *iPad* application or by attempting to synthesize those constellations that loop automatically. Strickland thinks of *Vniverse* as a poetic system whose each part “is entirely distinct, and yet they are evidently interrelated” (2002: 8). In the way this is read, various looping structures reveal themselves as the readers interact with each version and then go back to them in a feedback loop motion. Strickland asks, “[h]ow does one read a poetic system?”, and she reminds us that “the old oral epics were poetic systems” with their rhyming patterns to aid their memorization (2002: 8). What this makes evident is that computation enhances poetic experience as it transforms the poem itself into a machine of words echoing in this way William Carlos Williams’ well-known phrase that a poem is a machine made of words.¹ What this suggests is that a poem could very well be an accumulation of words in a machine-activated database that is able to combine the words it stores by taking advantage, for example, of their common visual or sound features which in turn could lead to variable word formations and patterns.

The poem *Errand Upon Which We Came* belongs to the section *Losing L’una* (2014 and 2002 edition) and is an explicit comment on the nature of reading. The poem opens with a direct apostrophe to the reader, as if the poem itself is providing the reader with reading instructions: “Gentle Reader, begin anywhere. Skip anything. This text / is framed / fully for the purposes of skipping. Of course, // it can / be read straight through, but this is not a better reading, not a better life” (*Losing L’una* 34).² These reading instructions further reinforce the loop effect that has been argued so far, which pushes the reader towards a non-linear or interactive way of reading. The following lines – “Leaping progress // will consist / in considering this and closing the book. Anything / else will represent a settled course” (*Losing L’una* 34) – highlight a different way of reading that resembles that of the jumping frog and the movement of the butterfly visually represented in the frog and butterfly graphics used (see Fig. 9 and Fig. 10).

1 William Carlos Williams writes in “Author’s Introduction (The Wedge)” from the *Selected Essays of William Carlos Williams*: “To make two bald statements: There’s nothing sentimental about a machine, and: A poem is a small (or large) machine made of words. When I say there’s nothing sentimental about a poem I mean that there can be no part, as in any other machine, that is redundant” (1969: 256).

2 *Losing L’una* constitutes the second part of the invertible section of *WaveTercets* and *WaveSon.nets*.



Figure 9.



Figure 10.

All these bring to our attention Lev Manovich's article "Database as Symbolic Form" where he poses the following question: "Why does new media favour database form over others? [...] What is the relationship between database and another form that has traditionally dominated human culture – narrative?" (2007: 39). *Vniverse* explores exactly this relationship between two different forms of meaning-making: the database and the narrative form, as the reader is caught up between these two practices. In *Vniverse*, the database forms a loop that allows multiple entry points into the narrative of the text as it is compiled and assembled by the reader. Manovich defines the database as "a structured collection of data" in which these data "are organized for fast search and retrieval by a computer [; therefore] a database is anything but a simple collection of items" (2007: 39). In the case of *Vniverse*, the books are structured following certain database aesthetics such as the listing and numbering of data, as each tercet is numbered on top, a numbering that is very often interrupted by other textual sequences creating non-linear reading paths.

According to Christiane Paul, "[t]he common understanding of 'database aesthetics' seems to be more focused on the operations on the front-

end – the interactions with the visual manifestations of algorithms, and cultural implications – rather than the back-end of the data container and its structure” (2014: 128). What this suggests is that *Vniverse* pays homage to the database aesthetics and the way the print books are written. Very interestingly, the way the two print books differ from each other – the one contains 14-line sonnets on each page whereas the latter one follows a different line division in tercets – has to do with their line division and the difference this makes to the human readers as opposed to machine readers. A computer program would read and thus process the information of the lines as commands regardless of their spatial layout and line division, whereas a human reader would not. The visual manifestation of the algorithm is something that *Vniverse* pays homage to with its numbered sequences in the 2014 version. However, this functions only on a visual and conceptual level. The books of *Vniverse* are addressed specifically to the human readers who can understand the implications of the line division. The machine, however, can have access only to the digital devices and not the print books. So, the electronic versions are in turn informed by the structural elements of the print components for the construction of the narrative. However, it is not only the human reader who reads *Vniverse* but also the computer. Strickland and Lawson argue that in *Vniverse* they “engage the computing machine as a second interactor. Not only is the human reader interacting with the interface but the machine, as a second reader, is responding to these interactions by creating actions of its own” (2009: 171). This human and machine interaction affects the way Strickland’s poetic practice develops by having two kinds of readers in mind.

This is evident in the following observation found in Tatiani G. Rapatzikou’s article, “Reading Machines and Reading Subjects in Amaranth Borsuk and Brad Bouse’s *Between Page and Screen*,” where she discusses human and machine interaction in poetic space as essential for the reading of the literary piece by pointing out that “such media generated texts” demand on “the part of the readers the cultivation of different reading strategies and skills in addition to the different cultural attitudes and perceptions as to how human subjects and machines work together especially when it comes to accessing and evaluating” them (2017: 104). In the case of *Vniverse*, the poetic system combines print-bound and digital-bound practices with readers needing to invent their own reading strategy. What is more, Rapatzikou addresses the problem of many users not being familiar with programming and not knowing how to explore and “read” code and argues that “artistic and literary experimentations within the digital realm” facilitate readers’ understanding of how code works (2017: 107). *Vniverse*, in particular, touches upon readers’ literacy skills since it draws not only on the print

book mechanisms but also brings digitality into the foreground; this is exactly where the value of such projects can be located in their intersection of print and digital literacies. Such works familiarize the wider public with the function of code, especially when this is weaved together with poetic language, as in for example the work of other digital poets such as the Australian-based Mary-Anne Breeze and in particular her invention of *mezangelle*, a mixture of coded and natural language.

As for the data of the *Vniverse* database that the print components derive from, Manovich claims that they “appear as a collection of items on which the user can perform various operations: view, navigate, and search. The user experience of such computerized collections is therefore quite distinct from reading a narrative or watching a film or navigating an architectural site” (2007: 39-40). In the case of *Vniverse*, the reader views, navigates, and searches the tercets that appear in both its print and electronic version, creating in this way multiple loop narratives that allow multiple entry and connecting points in the text. With regard to the incorporation of additional elements to narrative, Manovich asks: “If new elements are being added overtime, the result is a collection, not a story. Indeed, how can one keep a coherent narrative or any other development trajectory through the material if it keeps changing?” (2007: 41). The answer to this question is provided by Strickland’s *Vniverse*, whose dynamic feedback and feedforward loop-routes enable the reader to maintain narrative and, hence, semantic coherence. What is more, Manovich points out that the database structure

represents the world as a list of items, and it refuses to order this list. In contrast, a narrative creates a cause-and-effect trajectory of seemingly unordered items (events). Therefore, database and narrative are natural enemies. Competing for the same territory of human culture, each claims an exclusive right to make meaning out of the world. (2007: 44)

In *Vniverse*, those two structures are entangled since there is no reason to keeping the database and the narrative separate, and as Manovich himself admits, “[i]t is hard to find a pure encyclopedia without any traces of a narrative in it and vice versa” (2007: 51). *Vniverse* manages to combine these structures as the reader accesses its poetic system made out of synthesized print and electronic narrative snippets.

This approach meets the criteria for database and narrative hybrids that Manovich brings forward in “Database as Symbolic Form”:

[W]e do expect computer narratives to showcase new aesthetic possibilities that did not exist before digital computers. In short, we want them to be new-media-specific. Given the dominance of database in computer software and the key role

it plays in the computer-based design process, perhaps we can arrive at new kinds of narrative by focusing our attention on how narrative and database can work together. How can a narrative take into account the fact that its elements are organized in a database? How can our new abilities to store vast amounts of data, to automatically classify, index, link, search, and instantly retrieve it, lead to new kinds of narratives? (2007: 54)

The impact such ideas have on poetic writing is so influential that they completely change the way we come to think of story, narrative, and language as we are heading towards a different way of meaning making, which is far more complex when combined with the way computation works. This point is very effectively illustrated also in Strickland's other works such as *True North* (1995) and *Zone: Zero* (2008). Thus, the ergodic level of *Vniverse* becomes prominent once the reader compiles a narrative out of the database so as to enter the loop that *Vniverse's* structure is based on.

One of the narratives that emerge from the print component of *Vniverse* is that of embodied forms of knowledge. The poem "From Sails to Satellites" from *Losing L'una* builds upon Plato's myth of the cave, while commenting on the way that human senses operate in relation to the tangible surroundings of the visible world. The speaker informs the readers that, as in Plato's allegory, the freedom from captivity is not desired since the transition from the world of shadow to the world of light is not a smooth one: "Freed, / the captive is wretched. It is wretched to recognize / as false what seemed // so good, so possible, so complete" (*Losing L'una* 2³). The light, as it features here, is very disturbing for the eyes of the captives used to the dim light of the fire that has been burning from behind; the captives are able to see the shadows of objects which they have mistaken for the real things existing in the world. So, the speaker points out the difficulty of the captives to confront the new reality around them: "To emerge / from the cave // with some knowledge, but not yet to know it, / until you un-dark-adapt, un-ark- / adapt, dissolve // into the luminous, the light that dapples / the eyes with dark dots" (2-3). Different kinds of vision are linked to particular kinds of knowledge here as evidenced in the various sonic and spelling combinations that emerge from words such as "un-dark - adapt," "un-ark-adopt," "dissolve," "dapples" and "dark dots." Throughout the collection, this idea is brought a step further by Strickland as she parallels the ability to know with the ability to read and combine information that comes from different layers of data, something that is evident in the way she structures her texts.

What is more, a close reading of some of the tercets from *WaveTercets* demonstrates the feedback loops created between the reading paths of

3 The parenthetical note cites the page number of the invertible side of *WaveTercets/Losing L'una*.

Strickland's print and electronic versions. How can a "jumping frog" and "butterfly" reading, as suggested in *Errand Upon Which We Came*, be performed in the space of the print book? In the case of *Vniverse*, it is the constant movement between its print and digital versions that is recommended as a strategy of reading. This skip and select approach uses the tercets of the print book as stepping-stones before the reader turns to the digital part of the text.

Combining this with the way Strickland inscribes the reader in virtual space, one can argue that in the *WaveTercets*, subjectivity features as a wave-like motion. In the following lines from Strickland's *WaveTercets* femininity emerges as a repetitive, almost wave-like effect: "If you understand virginity, / you understand abstraction, you understand V - / V which is flight, and you understand VVV" (2014: 1). The repetitions of particular words facilitate the creation of a looping structure that is further enhanced by the URLs used, as it is with the three "www" that one has to type in order to access the World Wide Web which can be visualized as a series of interlocking V signs. The same interweaving effect is triggered when each wave-tercet is constructed giving way to the next wave. In her interview with Lance Olsen, Strickland points out the following: "Waves proved to be distinct markers between page and screen. The *WaveSon.nets* section of *V: WaveSon.nets / Losing L'una* is a series of 'Son.nets' which are in general not end-stopped. Though divided and numbered, they flow into one another and read as one long wave, one long poem" (2012: 194). The wave-effect Strickland comments on here resembles the multiple loops created as the reader of *Vniverse* constantly moves from the poems in the book to the poetic constellations in the digital and back to the book again. This kind of structure is indeed wave-like in the way Strickland interweaves the different poetic elements with one another.

Just as the people from the Ice Age and antiquity used the sky in order to tell stories as evidenced in the myths that are connected to the constellations of stars, as in for example Andromeda and Orion's belt, the readers of *Vniverse* come to tell their own stories with the sky they inscribe on the *iPad*, which of course ascertains the diachronic value of narrative. Although *Vniverse* resorts to database aesthetics up to a point, while keeping in mind Manovich's argument about database as opposed to narrative, we come to realize that narrative is always present and vibrant since it constitutes a human need in our effort to understand and record the world around us. The fact that narrative in Strickland's case can be enhanced with database elements does not proclaim its absence. Human beings still need to make meaning out of the world. As *Vniverse* demonstrates, the act of inscribing the sky is still here with the only difference now that we have to resort to the aid of

the computer in order to do so, which demonstrates the ways database and narrative can come together.

Overall, what makes Strickland's poetic practice distinct is the way she brings together print and digital media into a poetic system and how her poetic language is influenced by computation. Strickland challenges poetic conventions by using the electronic medium together with print in order to create poetic systems that demand from users a different navigation and reading strategy. Strickland's close attention to language ranks her digital works among the most demanding and elusive ones, for she expands the poetry that exists in a print book without sacrificing language in favor of impressive visual effects. Strickland combines two different technologies and succeeds in demonstrating the impact of computation on poetic writing paving in this way alternative paths of poetic expression and communication.

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