Digital Poetry: Reading Jim Andrews' "Seattle Drift" and "Arteroids"

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Digital Poetry: Reading Jim Andrews' "Seattle Drift" and "Arteroids"

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Abstract

Digital technology is reshaping literature and literary creativity. Digitisation of traditional texts is a common practice now, and reading digitally is widely deemed as convenient and time effective. While such changing practices of texts reservation and reading are often matters of intellectual and popular discussions, relatively little attention is given to literature exclusive made for and within digital realm. E-Literature or Electronic Literature is the term used to define literature created taking the advantages of network and/or stand alone computers. Although still an ever-evolving genre, within E-literature, digital or hypertext poetry is now an established trend. Digital and hypertexts poems are increasingly getting popularity, and the genre is finding its way to western academia. This thesis is an analysis of digital poetry as a genre, which is still relatively little known in Bangladesh. I will analyse two digital poems namely "Seattle Drift" (1997) and "Arteroids" (2001) by Jim Andrews, one of the prominent poets in the field of digital poetry. Like other digital literary pieces, digital poetry has also contributed to the changing pattern of reading literature. With the reference of these two poems I will analyse the writing as well as the reading methodologies of digital poems, and will examine its possibility in academia.

Chapter 1 Introduction

Digital technologies have altered our practices of communication and representation.

They have modified our aesthetic expectations and changed the ways in which literary texts are composed, distributed and read today. The concept of electronic literature is quite a new phenomenon in the literary ground. According to Electronic Literature Organization, "Electronic literature, or e-lit, refers to works with important literary aspects that take advantage of the capabilities and contexts provided by the stand-alone or networked computer". This defines e-lit as a genre of literary works which are extensively created to be read on electronic devices only and at the same time does not lack the literary values. The transition of e-lit happened from "computer literature, where texts were generated on the computer prior to the appearance of the World Wide Web in 1994" says Urszula Pawlicka in her article "Towards a History of Electronic Literature" (18). If we look at electronic literature now, we will see that within the literary family poetry has flourished more than novel and prose.

Poetry has always been interested in area in terms of experimenting new ways of writing. Such experiments are becoming more interesting as computer and internet media are now being used to make digital poetry. Texts are now being digitalised and such invention and development of digital computing came in the middle of the 20th century (Rosario 13). This brought to literature's doorstep potent media giving it flexibility and more power than any preceding ones. In this paper I will interrogate the contemporary idea of digital poetry with a thorough analysis of the two poems within a framework of reading digital poetry. In order to do that I have chosen "Seattle Drift" and "Arteroids" by Jim Andrews who is one of the prominent figures in the field of digital poetry in recent times.

I aim to give a broad and clear understanding of what digital poetry is and what are the significant strategies to interpret and approach digital poetry. This chapter therefore lays the ground by dealing with the basic concept of digital poetry. In the following two chapters I have inspected my two primary texts which are "Seattle Drift" and "Arteroids" to develop arguments about the poems. Those chapters discuss how to decode the meaning in digital poetry. In my fourth chapter, I have explained digital poetry in relation to different theories to approach in the evolutionary dynamic between humans and technology. I have also categorised digital poems in order to make them more approachable and understandable as objects of study.

Within its own literary family, poetry is perhaps more technical than novel and drama. Poetry is more concise and full of playing with words. Like language, as time developed poetry acquired new features leaving the old one behind. Thus now we can convey our thoughts without any text but in sound and music. Now we have digital poetry which has drastically drifted away from the previous notion of poetry. In a novel or a prose, writers have the space to describe their thoughts and feelings whereas in poetry a poet needs to restrain the description in a manner so that the thought can be expressed in fewer words.

In speaking of digital poems, N. Katherine Hayles explains in her essay "The Time of Digital Poetry: From Object to Event" that the digital elements in poems make it more of a process rather a poem which "ceases to exist as a self-contained object" (183). Digital poems alike conventional ones bring events into existence, but with appropriate software loaded hardware like a computer screen.



Figure 1&2: Images of Digital Poetry

In order to understand a poem we need to understand how it is constructed taking into consideration the author's assumptions, targeted audience and the medium used. It also includes how a variety of forms of representation work together to convey meaning. In his research article "Poetry: A Powerful Medium for Literacy and Technology Development", Dr. Janette Hughes argues that "very soon the screen will govern all of our communication practices", and electronic literature is a very good example of that (2). In digital environments, different modes of expression such as aural, visual, gestural, spatial, and linguistic come together in ways that reshape the relationship between printed and digital poetry. Such journey from printed to digital poetry inevitably changes ways that readers and audiences receive and interpret the text.

Though the emerging time of digital poetry can be traced back to mid nineties, it was mostly written since the 1990s. Digital poetry uses technology as the primary element and "have more flexibility in how they [e-poet] can employ the temporal dimension as resources in their writing practices" (Hayles 181). In his online article "Digital Poetics or On the Evolution of Experimental Media" Friedrich W. Block talks about the birth of digital poetry in the spirit of poetic experiment. Block in this article describes a great deal about the evolution of digital

literature and how it could be traced back to the war time. According to Block the idea of poetic experience "marks an historical break, following the global catastrophe of World War and Holocaust, when a new generation, 20 to 30 years old at the time, started to seek out up-to-date and more advanced possibilities of poetry writing" (34). The experiences of war inevitably changed the experiences of life for the poets which came out in their poems. Following the war the demand for art became more than it was ever before. The experience of was like a total abuse, especially in Central Europe. It made the poet to make a more radical approach than to simply support a 'realistic' representation function of language. The approaches of the avantgarde were rediscovered and similar interests in approximately the same age group were also discovered. Under the label of concrete poetry "jointly launched by the Brazilian Noigandres group and Eugen Gomringer in 1955, artists from Europe [also Eastern Europe], North and South America as well as Asia" were soon communicating with each other (Block 76).

Block further describes that by the end of the 60's concrete poetry was found to be too restricted, "numerous partial programs appeared on the scene, such as: visual, sound, and action poetry - increasingly overlapping with general genre programs such as Fluxus, pop art, concept art, mail art or copy art" (77). Therefore we see that like every other genre, the emergence of the genre of digital poetry also occurred as a solution for its time; an alternative. An important note of the time which is worth mentioning as Block says that "within the context [specially in Europe] of social, political and cultural movements, which today bears fruit for the discourse on digital poetry and media art: along with this transitional period, the family likeness between experimental poetics developed since the fifties and the philosophical reflection on linguistic turn, the medial revolution as well as science leaps to the eye" (77).

Before discussing the varieties of digital poems I will briefly talk about the different types of poetry in general. In *Poetic Designs An Introduction to Meters, Verse Forms, and Figures of Speech*, Stephen Adams provides a full treatment of poetic traditional topics, from the iambic pentameter through other syllabic rhythms. He also covers other metrical types, structure, sonnet and other standard forms. Adams includes a variety of topics not covered in most other introductions to the topic; perhaps most significantly he provides a full chapter on form in free verse. Moreover, he treats rhyme extensively and includes a comprehensive chapter on literary figures. If we have a quick look we will find "additional verse" which is sometimes referred to as "closed forms", free Verse- referred to as "open forms". Lyrical poems are a brief subjective poem "strongly marked by imagination, melody, and emotion, and creating a single, unified impression", for example ode, elegy, sonnet, and haiku and so on (Adams 42). The classification continues also depending on types of stanzas and other elements of poetry.

Such classifications faces dilemma when it comes to putting digital poetry among them.

Digital poetry is written as well as read in such distinctive ways which is difficult to categorise.

Explaining different types of digital poetry in his essay "Electronic Poetry: Understanding Poetry in the Digital Environment", Giovanna Di Rosario talks about the difference between textgenerative poetry and electronic poetry. Textgenerative poetry or computer poetry is programmed by the author and generated by the machine whereas electronic poetry is not generative rather largely appears to constitute the bulk of the works created.

The features or characteristics of digital poetry are difficult to sum up as the field is yet to be explored. However, as digital poetry is meant to be read online different mediums are chosen to write or read a poem. Digital poetry is not meant to be published or used by the digitalisation of printed work as it includes several technical elements such as images, sounds, videos and

hyperlinks. In digital poetry language and graphics function heterogeneously. In the book *The Aesthetics Of Digital Poetry*, Friedrich W. Block says that digital poetry denotes creative, experimental, playful, or even critical language art via programming, multimedia, animation, interactivity, and net communication (49). The boundaries of digital poetry are not explicitly made and most of the time we do not find an end product.

Sometimes it overlaps with other forms of literature and art such as hypertext fiction, time-based art, installation art, net art, performance poetry, and sound poetry virtual reality and computer games. The influence of concrete poetry and visual poetry is very apparent in well-known works of digital poetry such as Brian Kim Stefans' "The Dream Life of Letters" or Jim Andrews' "Nio". Other works, such as John Cayley's "Overboard or The Set of U" by Philippe Bootz and Marcel Fromiot, include textual elements which are recognizable poetic, though embedded in dynamic, image-rich and acoustic digital environments (Poetrybeyondtext).

So far we have seen that there are similarities and dissimilarities between conventional and digital poems. This inevitably raises the question if digital poetry is an extension of conventional poetry or a different genre itself. If we look at the time when digital poetry emerged, we will see that it was the time of late modernism. The twentieth century modernism and technology came hand in hand. Therefore the influence of literary experimentation with technology was inevitable. However, we can think of digital poetry as continuation of conventional poetry as the experimentation was ongoing.

On the other hand, placing it in a separate genre will not be too wrong as even reading digital poetry requires certain skills which are certainly not a continuation. According to Katherine Hayles, digital poetry "is an emerging literary genre that challenges the traditional understanding of literary criticism and theory" (156). Drawing on technology related literary

criticism and theory, she creates a new space for electronic literature to be read and understood. She argues that the impact of the digital on modern writing cannot be underestimated (165). Digital poetry does not always have the stylistic features such as meter, verse or rhyme like conventional poetry. Instead it breaks away from all these restrictions and opens up a wider space with its newness.

Hayles also argues strongly for the radical difference of digital poetry and says that it "operates in fundamentally different ways than print and requires new critical frameworks to assess its reading and writing practices" (137). Others, such as Glazier puts more stress on digital poetry as being an extension of twentieth century innovative text of poetic traditions. Espen Aarseth also stresses on the risks in its approach saying, "on the one hand, the risk of applying literary critical / theoretical concepts unreflectively, so that they become 'unfocused metaphors'; on the other hand the risk of 'technological determinism'" (as cited in Rosario14). This assumes that the material technology involved in digital poetry determines its attributes and it is fundamentally modern.

Digital poetry is the most advanced stage of poetry. It is concerned with the nature of the text and its relationship with the reader. Digital poetry blurs the autonomy of the poet with its readers. For example in animated, kinetic poetry, hypertexts or interactive texts readers control the poems to a great extent and without their active participation the poems are left to be completely displayed. This implies that unlike conventional poetry digital poems leave its audiences the chance to actually end a poem in their own way which I have discussed in following chapters. We can conclude saying that digital poetry is not made of plain text which are distributed on the web or put into electronic form. It rather uses the properties of digital medium in a meaningfully distinct manner. Thus we can now define digital poetry as a literary

work which depends essentially on its form on the operation of digital processes on an electronic device, and which also has poetic qualities.

Chapter 2 "Seattle Drift"

As the title of the chapter might have given an impression, here I am going to analyse my first text "Seattle Drift" by Jim Andrews in terms of its construction and reading approach. The creation of digital poetry requires a poet to be essentially skilled and educated in using technology and computer language. A media analysis of Andrews' poems shows his extensive knowledge in software and programming languages. Apparently he used his skills to shape the creative performances in significant ways. Leonardo Flores in his article "Typing the Dancing Signifier: Jim Andrews' (Vis)Poetics" extensively discussed Jim Andrews' writing style.

Andrews develops his poetry mainly in three different sectors such as visual poetry which is from static to kinetic, sound poetry [from static to responsive], and code poetry which is created from objects to applications (Flores 25). In the world of electronic literature, poetry has now become moving texts which apparently arrange themselves into successive lines of abstract poetry. It creates an interactive form where a poet let his audiences and readers play with moving words as we have seen in "Seattle Drift". In this Chapter I will show an extensive analysis of reading "Seattle Driff" as a digital poem.

"Seattle Drift" is one of Jim Andrews's best known digital poems and first DHTML [Dynamic Hyper Text Markup Language]¹ poem published in 1997. Andrews "wrote the code in Javascript² updating the DHTML with Marko Niemi in 2004 to make it work on PC and Mac, and again in 2015 to adapt it for mobile users" (Prezi). It is considered to be an important expression of Andrews' poetics and is a landmark in the field of electronic poetry [e-poetry].

¹DHTML poem is the kind of digital poem which requires a collection of certain types of technologies that allow and helps a web content to be changed each and every time it is viewed.

² Javascript is a computer programming script language. Inside a host environment (for example, a web browser), JavaScript can be connected to the objects of its environment to provide programmatic control over them.



Figure3: Initial state of "Seattle Drift"

Initially "Seattle Drift" seems to be constructed with plain text like any conventional poem which has been uploaded online. While reading the poem, it feels like the poem is claiming its position; self personalising. The text here has been given a voice. When I first read the poem, I found nostalgia for established form of poetry. It seemed to indicate the transition of poetry from conventional into digital form. These texts here are complaining against this change. They do not seem to approve the idea of reader's interaction or readers having the authority to change [do] the text according to their will. These texts now can easily drift apart with the invention of technology in literary world. Previously they could stand still in their places and now they get unseen from the scene when readers click the hypertext; "Do the text".



Figure 4: Text Vanished from the Scene in "Seattle Drift"

These again let us explore the debate of digital poem being an extension or separate genre. As we see that the transition of conventional to digital is explicitly presented in the poem by formerly plain text being drifted apart.



Figure 5: Text drifting away in "Seattle Drift" after clicking on "Do the text"

"Seattle Drift" is made up of words that move and drift apart when readers press "Do the Text" option. This is one of the key features of digital poetry that confirms active participation of its readers. In "Seattle Drift" the text does not represent the whole poem. The poem remains still initially unless one notices the hyperlinks above in red- "do the text", "stop the text", and "discipline the text". If someone leaves it without using hypertexts ["do the text", "stop the text", and "discipline the text"], the reading will remain incomplete. In order to get the whole picture of the poem readers must do the text, stop it and at the end discipline it. Thus the poem makes its readers participate actively in reading the poem.

In the essay "I want you to do me: Jim Andrews and New Media Poetry", Prezi analyses "Seattle Drift" in great detail. He explains that each word in the poem has its own behavior. This might seemingly be random but quite clearly organised by an algorithm called Math.random (Prezi). This algorithm determines if the word will move left or right or up or down. Here, when a reader presses the hypertext "Do the text", those texts drift in a particular pattern which had been fixed by the poet himself. This Math.random functions in such a way that generates a random value between 0 and 1 which handles the variables movement, allowing the variables to traverse along different paths when the document is reloaded or when the variables are 'disciplined' and returned to their initial positions ("Digital Langu[IM]age Language and Image as Objects in a Field"). Therefore we see that though the readers are given authority to play with the text, it remains limited compared to the authority they are provided with in "Arteroids" as we shall see in the following chapter.

An extensive research shows that the technological involvement does not only remain within the hyperlinks given in the poem but also in understanding the underlying thoughts

represented by the codes. As it is a digital poem it is obvious that the poet has used coding to do the digitisation part and one must read beneath the text to have an in depth understanding of a poem. In digital poetry codes represent the underlying thoughts for words which are called source code as we see in "Seattle Drift" (Prezi).

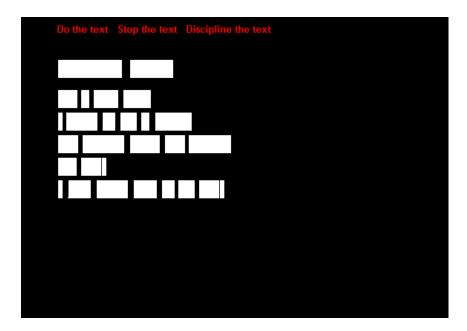


Figure 6: Image of texts as object/neath code in "Seattle Drift"

As readers of conventional poetry it might be difficult for us to grasp the coding system. However, we must understand that since the language is being digitalised using binary language [0 and 1], so are the thoughts. In digital poems the underlined thoughts are presented through source codes. Here words are being modified into objects and presents it like the image I have provided above. In the essay "Coding both with and Against the Grain- Jim Andrews Seattle Drift", Gavin Jocious describes this saying that "when one activates the Javascript start function by clicking the "Do the text" link, one can focus simply on the movement of the objects" (Jocious). When the words float across the computer screen it represents the codes beneath every drifting words and works as a form of expression that supports those words.



Figure 7: Image of object/neath code drifting away in "Seattle Drift"

Jim Andrews, as a digital poet does not only offer us to explore the digital inventions in poetry but also allows us to look into how poetic experiences can be represented through these digital means. In conventional poetry a poet requires to experience or imagine particular event or incident in order to write a poem on it. Similarly a source code as we have discussed above provides an e-poet enough with the experience or imagination to express it through digital means. What makes Andrews' digital poem unique is the well documentation of the source code. Within the source code, Andrews offers examples of what he calls 'neath text'³. He states that neath text "isn't a footnote, but another representation of the text. Some will read this 'neath text' more carefully than the other representation" (as cited in "changethecode" 181). Disrupting the traditional computer user experience, the 'neath text' places greater emphasis on the source code than the surface layer text of the poem.

³ Text beneath the surface text.

When viewed as a program, "Seattle Drift"'s 'neath text' does not necessarily make the program creative or artistic. As Matt Barton writes, "I've tried to assert that coding itself can be artistic; that eloquent commenting can complement, but not substitute for, eloquent coding" (6). This emphasises on the representation coding. Alike conventional poem, digital poem also needs to be well presented to express its thought, but through coding. Andrews' 'neath text' acts as a hidden level of information that helps readers gain greater insight into his code, the poem and the reasoning behind the code. For a programmer the actual art rests in how concise the code is [words in case of conventional poem] and how well it operates across multiple browsers.

Andrews' neath text can be viewed both as creative as well as a basic documentation of literate coding. If we want to look at the fullest possible interpretation of the poem, we need to go thorough and original. When we dig into the process of the construction of the movement of the text we find that it is determined by Andrews. He determined it so precisely that the words are meant to vanish off the left or top of the screen fast (Andrews "Digital Langu(IM)age Language and Image as Objects in a Field" 3). Ian Davidson in his *Ideas of Space in Contemporary Poetry* describes the movement of the words in the poem as "slightly jerkily" (173). The explanation for this "slightly jerk[ily]" movements of the words in "Seattle Drift" was given by Alistair Brown. He pointed out two issues on this regard emphasizing on the relationship between the code and the tech that is used to view the code. First he indicates to the digital devices that readers use to read "Seattle Drift". Readers' experience of reading that text is highly dependent on whatever device they use. Secondly, Brown remarks, "Displaying the text on a larger screen means that there is more black space to the right and below for the poem to move into, before the words drift entirely off screen. The poem would offer a different sense if

played on a mobile phone screen" (173). In the same way when we read a conventional poem different people interpret it differently according to their experience of reading the poem.

Each screen, presents limitations to the viewing of this work. It bears noting that, as Leonardo Flores writes, the words will continue drifting even after they leave the constraints of the screen. According to Flores, "if allowed to drift for a long period of time, would create an enormous virtual space in the browser that would require serious exploration of that space using scrollbars to find them" (81). This shows the influence of time and space in the poem. Here, any starting and stopping of the work present an artificial description of what the poem represents in that particular time and space. This draws attention to the poem's form, leading the reader to look at the words rather than just reading them. The concept of time and space is also very important in conventional poem.

In "Seattle Drift" Andrews deals with the intention of letting the text present its own meaning as Andrews says, "each object might have various properties in addition to its usual appearance and meaning and place amid other words" (Andrews). In "Digital Langu(IM)age Language and Image as Objects in a Field" Andrews also explains that when all the characters of the text drift away after clicking "Do the text", it shows that the words in the poem has its own behaviour, and "each word is a kind of little language widget⁴, a languidget" (Andrews).

Despite the fact that these are links that initiate, stop, and restart the function, at the same time they does not let its readers leave the page. In addition to that though the poem has a tendency to disperse, the work is fairly cohesive to many extents. Speaking of the stylistic features of the poem, Jim Andrews says, "the piece is similar to the pop-up poems [though not in

⁴ A widget is an element of a graphical user interface that displays information or provides a specific way for a user to interact with the operating system or an application.

behaviour] in that the text talks about itself" ("vispo.com"). Here the central is the self-aware voice of the poem itself. The last line provokes us to look into its connection with the hyperlink "Do the text". When readers press the hyperlink, they will experience an "algorithmic movement of the words to the right and bottom of the screen until no words are visible" and thus readers become active participants of the poem (Prezi). Afterward with "Stop the text", they can leave the words and punctuation marks wherever they stand and finally the option to "Discipline the text" would bring the words back to its correct order.

Another interpretation of the poem was given by Dr Alistair Brown in his essay "Reading the Source of "Seattle Drift" where he indicates to a sadomasochistic approach of the poem and we can sense it with that teasing request to "do me" as punishment for being "bad" (2). This interpretation is very much linked to the gender theory by Judith Butler. In her book *Gender Trouble*, Butler says that Gender is "a stylized repetition of acts . . . which are internally discontinuous . . . [so that] the appearance of substance is precisely that, a constructed identity, a performative accomplishment which the mundane social audience, including the actors themselves, come to believe and to perform in the mode of belief" (39). According to her claim, one's gender is constructed through one's own repetitive performance of gender. Similarly "Seattle Drift" is being labeled constructively as a digital poem by doing the text or performing it according to its sex.

Such performance stops when we press "stop the text". The direct request of doing the text ["Do the text"] compels its audience or readers to do the text and perhaps the text itself derives some pleasure from being "done". This notion of the text being bad becomes clearer when we combine the words "do me" and "discipline the text". This combination reveals that the

⁵ Interaction through sexual activities

text is a "bad text" which creates "a slightly sadomasochistic scenario", involving the reader in the punishment/pleasure of the text (Prezi 3).

However, when we "stop the text" the movement pauses, and the words may form new phrases based on their new configuration. According to Andrews, "this invites us to think about how a poem or poetic forms may drift between different traditions: the starting form of the poem looks quite traditional - perhaps an example of modernist imagism⁶; the animated poem is a child of the electronic era; and the paused animation is like a concrete poem that represents a different strand of modernist poetics" (as cited in Brown).

Eventually at one point the words come back to its original form which shows Andrews' intention of retaining a lingering sense of the original from which they have drifted. Thus Andrews has determined that although the words will "drift," they will not do so with the subtle smoothness that word implies. Instead, the words deliberately saccade, so that even in movement this is a "bad" poem, not living up to its promise to drift but instead jerking somewhat [but not entirely] erratically" (Andrews, Jim. "Digital Langu(IM)age Language and Image as Objects in a Field 5). However, the way the poem presents and generates these perceptive possibilities may also be affected by the medium on which it runs.

In conventional and digital poetry, a phenomenological difference lies in the ways in which we perceive poems as we both read and then interact with it. This analysis of the poem precisely shows the playfulness of words using technical effects. Andrews claims that "Seattle Drift" is both a poem and a program that "turns documents into programs" (as cited in Literate

⁶ Modernist Imagism is considered as most important but short lived movement in English poetry in early 20th century. It promoted Imagism as an avant-garde movement and helped turn Imagism into an important force in modern poetry.

Programming 1). Therefore, whether "Seattle Drift" is viewed as coding with or against the grain may depend on one's perspective. The free verse in "Seattle Drift" is an appropriate example to show the overlapping of digital poetry and conventional poetry. The poem reads: "I am a bad text. / I used to be a poem / but drifted from the scene. / Do me. / I just want you to do me".

"Seattle Drift" seems to have more likeness with traditional poetry than "Arteroids". It would be a wise choice for the audiences to read to get introduced with the concept of digital poetry. Since it starts with plain text and leads its audiences into the new scheme with the hypertexts, it becomes easy for the readers to grasp the idea. For Andrews also "Seattle Drift" was an attempt to introduce its readers with the world of digital poetry and afterward when the readers become mature they can read and understand "Arteroids". After reading both "Arteroids" and "Seattle Drift", "Seattle Drift" would be considered simpler in its design and direct in its content. On the other hand, "Arteroids" is perceived as more evolved and matured as a digital poem.

Chapter 3 "Arteroids"

"Arteroids" is another major work of Jim Andrews where the performance of reading is being enacted by playing video game. "Arteroids" calls for the readers' intervention in determining the readability, sequentiality, and spatiality of textual fragments. Andrews' use of certain conventions and tools of computer games as rhetorical devices in his digital multimedia shows his interest in exploring the programming features of digital media in order to make the playfulness of art and poetry into a formal element of the works themselves. Though we have seen certain boundaries in "Seattle Drift", here, the reader's authority goes beyond every boundary.

Reading digital poetry like "Arteroids" allows readers to become self conscious about playing with texts. Here interactivity is programmed in ways that enhances the reader's self-consciousness of reading as a part of the signifying field. All the signs in the poem enable the readers to engage in the sign field which they try to process. In his essay "The Battle of Poetry against Itself: On Jim Andrews's Digital Poetry" Manuel Portela talks about the nature of the formation of "Arteroids". He says that "Arteroids" is a "visual kinetic audio text", which is a "formal parody of asteroids⁷, nearly a computer videogame, originally designed for the Atari computer⁸ in 1979" (Portela). "Arteroids" now have three major versions, like software

⁷ Asteroids are a small rocky body orbiting the sun. Here it refers to the supply of random rocks that move vertically downwards. Whenever the spaceship hits a rock, he rock becomes a flaming ball. In a more realistic version, this would destroy the ship, but we choose a more peaceful variant here.

⁸ The Atari 8-bit family is a series of 8-bit home computers introduced by artari.inc. in 1979 and manufactured until 1992. Shortly after delivery of the Atari VCS game console, Atari designs two microcomputers with game capabilities: the Model 400 and Model 800.

applications, computer games and every version contains extended interactive capabilities than the previous version.

In his web page "vispo.com", Andrews has described "Arteroids" as a work of "a literary computer game for the web". Its first version was programmed in 2001 and it is also considered "a literary shoot-em-up computer" in version 2.5 in 2003 (Andrews, "vispo.com"). The poem is available in two languages- English and Portuguese. After selecting the language when the homepage shows up it provides a few tips for its reader/player saying "Turn out the lights! Turn up the sound! Throw away your preconceptions about poetry".



Figure 8: Homepage of "Arteroids"

Looking at the picture I have provided above, we can understand the multidimensional technological aspects of the poem. As it is an advanced level of digital poem, Andrews provided us with a manual [essay]. This certainly is a clear hint that digital poetry is taking us into a whole new level to experience poem.

"Arteroids" has blurred the boundary between poem and video game. One can only read the poem by playing it. The poem as we see it is structured in two modes: the "game mode" and the "play mode". Here, the game is arranged in a way where spaceships will shoot asteroids. The spaceships are the two texts: 'poetry' and 'desire'. The arrow keys are used to drive the spaceships around the full screen and use the 'x' key to shoot blue and green texts that attack the ships at various velocities and densities as we play. Instead of asteroids, we encounter texts and when the spaceship shoots a word it does not always breaks down into letters, sometimes into codes as well.

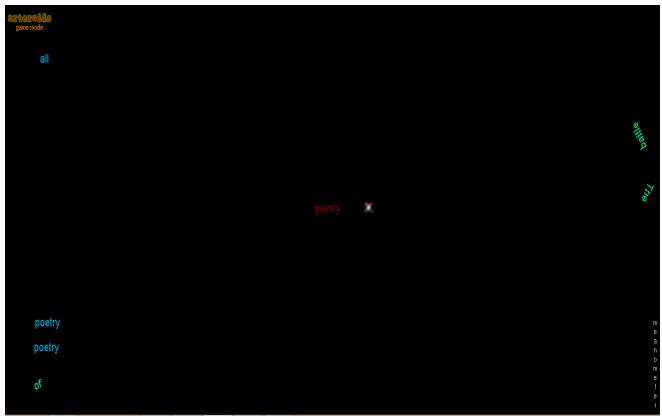


Figure 9: Texts [asteroids] are coming from different angle to attack the spaceship ['poetry'] in game mode

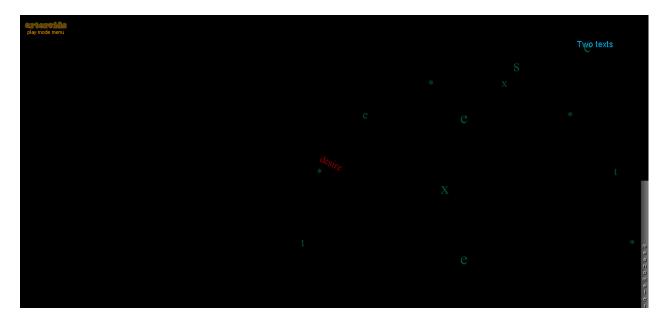


Figure 10: Texts [asteroids] are coming from different angle to attack the spaceship ['desire'] in play mode

In both mode readers are identified in relation to the spaceship. They solely hold the control of the spaceships. In play mode readers do not hold "control over the four parameters [velocity, density, friction, and mortality]. In play mode however, readers can control the textual fragments. Explaining the game mode in "Arteroids" Jim Andrews says that "in game mode, the player captains their "beleaguered poetry ship as red entity text against the green text, which is the forces of dullness incarnate, and the blue text, which spells out a different message" (vispo). When each ship attacks those blue and green texts that explode like imaginative destruction and thus words also seem to explode into ideas. The explosion looks like circular lettristic sprays of letters. This explosion works in such a way which let the language open up. In conventional poetry as well, poets use concise words and sentences but those words opens up bigger thoughts.

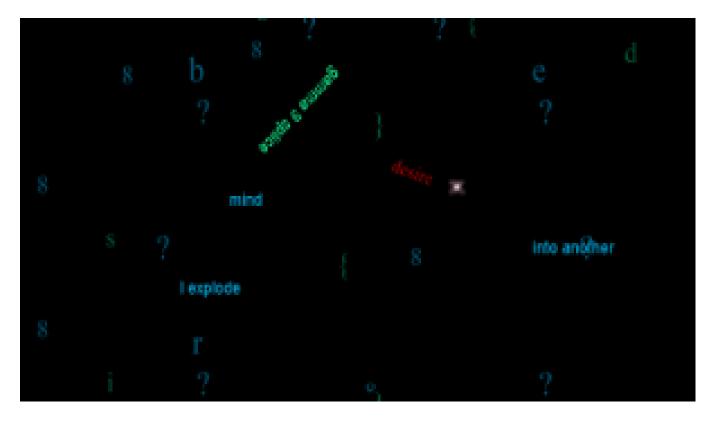


Figure 11: The explosion of textual asteroids into lettristic spray of letters

In 'play mode' readers can compose the texts they encounter and also adjust all the "parameters of the app: textual density, velocity, fictive friction, whether the texts can 'kill' you, etc" (Andrews 18). They can also have more control over the situation in 'play mode'. They can be deathless and the texts cannot hurt them. In 'Word for Weirdos' section which we can reach via the 'edit' menu option in 'play mode' readers or players can change the velocity and density of the opposing texts as well as "adjust the amount of fictive 'friction' they experience while driving the id-entity" (Andrews 22).



Figure 12: 'Word for Weirdos' section in 'play mode'

'Play mode' is more a 'Do It Yourself' combination of "odd poem editor and videogame adjuster" so that one can mash poetry and game together in a way that permits to think about both without worrying about being killed (Andrews, "Arteroids, Poetry, and the Flaw"). Thus readers help the poem to evolve. On the other hand, the 'Game mode' is a videogame where one can read the text at low velocities. The velocity increases as readers progress through levels. At higher levels text becomes device for the game and "the game is a device for the poetical text" (Andrews). Scores are saved in 'game mode' but not in 'play mode'. Scores in 'game mode' are based on the speed and accuracy of the player's performance. Initially Andrews wrote two "cantos", experienced separately but as the development of the game progressed he came to see that, instead of the two cantos the game needed a 'play mode' and a 'game mode' as he says in the article "Change the Code". The game mode has 216 combinations [levels], while in the play mode it has 3360 levels (Portela 5).

The textual asteroids come from different angle to attack the spaceship. The textual asteroids are organized into four sets of lines- inner green, outer green, inner blue, outer blue. "Arteroids" makes poetry suffer in unsuspected ways as Andrews describes.

"A literary shoot-em-up computer game—
the battle of poetry against itself and
the forces of dullness"

(vispo.com)

Though it is not poetry of suffering, the poetry itself suffers with "the force of dullness and its fate is up to you [its readers]" (Andrews). In "Arteroids" both the spaceships in game mode and play mode are the red texts which shoot the textual asteriods by driving its entity around the screen using the keyboard, and execute those asteroids.

In digital poetry, language is not limited to words only. It is a combination of all technological elements along with texts. According to Andrews as he says in "Arteroids, Poetry, and the Flaw", "when writers and artists use all kinds on all types of media, when sound is an inscribable, editable object just as language is" and the same goes for videogame when we make it a digitisable material information to use in poems. Using all these language automatically cracks open in the sense that the fundamental symbols of writing are no longer simply the letters in the alphabet and other typographical marks.

The musical vocal is one of the exclusive features in "Arteroids". According to William S. Burroughs, "when you cut it [the sound], the future spills out" (as cited in vispo). As we have seen that in "Seattle Drift", source code laid the ground of thoughts, here, music is one of such elements. The background music works the way "word deals with words, in many ways—as fundamental symbol and combinatorial concatenated string of 'letters' and signification, pattern,

design, extended composition in space and time to cognize" (Andrews in vispo). We can put sound in the same group with other elements of digital literature as we can edit sound in the same way as those. In the homepage we will see that Andrews provided us with different versions of sounds as he developed them. Andrews further explains that the sounds of exploding texts in "Arteroids" are male, female, young and old, human and semi-human and animal. These sounds were produced by him with a little help from Sound Forge. In addition to that these sounds are ranged "from cartoonish to adult, sound poetry to computer game" (vispo). This shows the openness and participation of all kind of people which might be rare in conventional poetry.

In "Arteroids" Andrews shows us how does poetry works in a video game format. We understand that poetry is not a game somebody wins and so is art. Therefore instead of resolving any conflict this poem is meant to explore the meeting points and playing the game fulfils that. In this poem Andrews enlightens us about the situation where poetry and video games are colliding as poetry is getting more electric and net-oriented. At the same time videogames are maturing as a form of art and there will be more exploration of the meeting ground of poetry with games. Thus games would attain art in which language is handled with depth and poetry would move into the digital scheme and find new ground rather than simply print to the digital.

In "Arteroids" videogame has been used as a literary device. According to dictionary.com a literary device is "a literary or linguistic technique that produces a specific effect, esp[ecially] a figure of speech, narrative style, or plot mechanism". Videogames create virtual events using technological mechanisms. These events are interpreted in a meaningful manner. With every event the mode and scenario of the game change according to how a player would respond. Keeping this in mind, Jim Andrews uses videogame as a form of art rather mere computer game as net-based works of digital art using games within literary devices is actually happening now.

The artists creating these art pieces were more intent upon creating works of art than computer games.

The combination of game and poetry is an interesting element for the digital poets in relation to the world. According to Jim Andrews, "the process of reading a poem or book or viewing a picture or listening to a piece of music etc can be thought of as a process whereby events [in videogames] are generated by some mechanism and the events are interpreted and meaningful within the world of the piece of art" (21). When we read a poem we interpret it in particular ways which would be different from another person. Similarly, two persons playing game would be different. In "Arteroids" I am shooting the texts in a particular angle which would be different from others or could even be different from the next time I will play it. The experience of reading poetry is not always equal or same. It varies depending on different factors and shoot —em-up poetry.

There are critical and creative activities we engage in that situate the game in the world and in our lives. In reading a poem we try to situate it in our lives and thus art becomes a very important element in our lives. "Arteroids" however, modified our perception to a great extent. We now play poetry in relation to art and poetry and to some extent, it came to be both the differences and similarities between game and art and they find their intersection in the notion of play. When we play the poem we are creatively engaged in guiding processes. The processes themselves guide our activity, but we are also guiding the processes and perhaps adjusting them in ways that make the play more meaningful to us.

Instead of simply experiencing the action of the game "Arteroids" gives us the opportunity to actually compose aspects of the narrative and creatively explore the game.

Multiple perspectives in the poem permit people to find relevance to their own lives and

aspirations and the process of playing it is only one of many. The idea is to try to deal with poetry and videogame at the same time on an equal basis. This is meant to observe what we get when poetry and shoot-em-up video game come along. While describing the construction of "Arteroids" Andrews says, "Once I had the videogame working, I found that the game was dominating poetry. That's when I started building 'Word For Weirdos', that's also when I made the program capable of 216 levels of play. So that it goes from a manageably—and readably—slow speed up to speeds that defy reading altogether" (15). Thus he shows that the relationship between poetry and videogames is mostly of the oil and water variety.

In "Arteroids" Andrews broke the boundary between game and poetry and defines poetry in a new form. It is a literary shoot-em-up for the Web, a work of software art and various odd literary devices. Instead of making poetry an end product, digital poems leave it open-ended for its readers. Andrews in "Twin Devices" says that "I have worked on "Arteroids" since 2001 yet it is never really finished" (16).

Chapter 4 Theory and Analysis

Digital poems are consisted of digital texts which are both texts and digital content at the same time therefore the language theories as well as the cultural theories are very much relatable in this context. Donna Haraway's subversive idea of 'cyborg' is important as we discuss the cultural theories because reading digital poetry itself is embodied with technical expertise. This brings us to Judith Butler's agency as digital poetries are discursively made by playing with the texts. After explaining all these we will see how the conventional identity of poetry is being challenged. The identity is no more pre given rather constructed as goes with the identity of gender according to Butler

To start with the linguistic aspects we must consider that digital poetry puts forward a new kind of textuality, which implies new reading strategies. It consists of both structural and post structural elements as it is texts with its digital essentials. In order to discuss the structural aspects of the language of digital poetry we must start with Ferdinand de Saussure, the pioneer of the ideas of structure in the study of language. In his famous book *Course in General Linguistics* he speaks about structural linguistics which explains language as a system of contrast and equivalents. According to Saussure, language has two major aspects which are language as system and the act of speaking.

In the chapter "Nature of the Linguistic Sign" Saussure says "the linguistic sign unites not the thing and a name but a concept and sound image" (832). This means that whenever we utter a word, we immediately associate a particular symbol to that sound which is called signified and uttering that word is called signifier. In order to understand the signifier and signified in digital literary media I would like bring in Charles S. Pierce's idea of sign which consists of three elements, "a represent amen, the material part of the sign, an object, the referent to which

the sign refers, and an interpretant, which is derived or generated by the sign (as cited in Rosario). Both "Seattle Drift" and "Arteroids" consist of text though the representation of those texts is drastically different. In "Arteroids" we see that the text 'poetry' and 'desire' is written in red whereas other texts are in green. This verily signifies the structural notion of language as we understand red to be dangerous and green is safe. Thus we could interpret that readers being in control of the spaceships are being protective. This shows how readers intervention is saving poetry from being destroyed when other text are coming from dangerous angle.

On the other hand, in "Seattle Drift" it seems that the poem is written in a conventional manner. Afterward we see that it becomes "a bad poem" as texts start drifting away from the screen. This brings us to the poststructuralist aspect of digital poetry which is that the signifier does not refer to a definite signified but produces other signifiers instead. Thus the difference here is drifting from the main stream.

This brings us to Jacques Derrida's idea of 'difference' which refers to the difference that "shatters the cult of identity and the dominance of self over other" (45). It means that there is no origin therefore it cannot be identical. It is on the other hand, the displacement of "signifying signifiers to the fringe, since there is no organising, original, transcendental signified" (Derrida 45). The writing of difference refers to itself, because it breaks with the concepts of signified and referent. The emphasis on the theme of writing functions as an antidote against idealism, metaphysics and ontology. Both "Seattle Drift" and "Arteroids" have a deconstructionist approach which establishes a constant tension between conventional and digital poetry.

As we have seen that neither structuralist nor post structuralist approach successfully defines digital poetry, Espen Aarseth in his famous book *Cybertext* states that there is a need of a new definition of textuality in the field of electronic literature as an addition to the previous

definitions proposed by different disciplines. According to Aarseth none of the previous approaches "have expressed the perspective of the text as a material machine, a device capable of manipulating itself as well as the reader" (25). His comment clearly suggests that those disciplines do not seem to offer any readily useful prospective in the context of electronic literature. We get similar reaction from Per Aege Brandt, a semiotic specialist as he [Brandt] says that "neither the interpretative semiotics based on the Peircean⁹ tradition, nor the structural semiotics of the Seussurean tradition—thought both necessary—seem sufficient to follow up the substantial" to analyse the new media literacy (128). Both Brandt's and Aarseth's critique on the limits of semiotic approach to text which implies cybernetic textuality, demonstrate the importance that semiotics has acquired in studying these kind of texts.

About fifteen years have passed since those critiques were made and semiotics itself has changed to take into account "the challenge from cybernetic sign systems" (5). Structuralism shifts the object of its study from the sign to the code. Semiotic codes are procedural systems of related conventions for correlating signifiers and signified. They provide a framework within which signs make sense. However, according to most semioticians a text can be defined as "a system of signs in the form of words, images, objects, sounds and/or gestures (as cited in Rosario). A text therefore is the "product of a process of representation and 'positions' both its makers and its readers" (7). Semiotics investigates the text by using qualitative and descriptive methods, in particular moving from the surface which is the uniqueness of the text to depth or abstraction.

⁹ Peirce's accounts are distinctive and innovative for their breadth and complexity, and for capturing the importance of interpretation to signification.

Glister defines Digital Literacy as "the ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers" (20). This implies that one needs to acquire the skill of finding things as well as the ability to use those in life. Acquiring digital literacy for Internet use involves mastering a set of core competencies. The most essential of these is "the ability to make informed judgments about what you find on-line" (19). The Semiotics of New Media Literacy can help us to approach texts deeply transformed by their medium, texts that can be transformed by them, texts that can be manipulated by the "reader", texts that can escape—materially—the author's control. This approach can help us to better describe, analyse, and interpret what Aarseth calls the textonomy and the textology 11 (20).

Being dynamic is one of the most important characteristics of the digital/hypertextual corpus. These texts change and sometimes they can even disappear as we have seen in "Seattle Drift". Semioticians therefore need different methods to analyse such multimodality¹² and multilinearity. With the arrival of internet in human discourse it now seems necessary to understand semiotics in digital terms. Human interactions are also changing in a rapid pace with the interval of digital media. Digital media not only influence our way of communication but also our ways of creation and digital poetry is a good example of that. These changes in the creation practice affect the text's form. Texts are not static any more, it can often require the interaction of the reader making texts resemble objects. Marshall McLuhan talks about the

¹⁰ the study of the textual media

¹¹ the study of the textual meaning

¹² Multimodality describes communication practices in terms of the textual, aural, linguistic, spatial, and visual resources - or modes - used to compose messages.

importance of moving images in modern society in 1967 in his book *The Medium Is The Massage*. He says, "The aim is to develop awareness about print and the newer technologies of communications so that we can orchestrate them, [...] And get the best out of each in the educational process (as cited in Rosario 23). In order to do that we must understand the media language and sign. Media has its own sets of rules, languages and grammars. Without understanding these, we cannot hope to achieve a contemporary awareness of the world. Importance of understanding media "grammar" and "language" as the media are texts and have their own language and grammar to analyse and understand in order to appreciate the artistic production they are making.

Katherine Hayles insists on the necessity of studying the specific materiality of the support or better she suggests the "MSA – Media Specific Analysis". Hayles argues that a text's instantiation in a particular medium shapes it in ways that cannot be divorced from the meaning of its "words [and other semiotic components]" (25). She calls for the need to develop a theory that takes into consideration the medium as a crucial aspect of the content of a work. According to Hayles, "the physical attributes constituting any artifact are potentially infinite [...]. From this infinite array a technotext will select a few to foreground and work into its thematic concerns (32-33). Hayles defines technotext as "Literary works that strengthen, foreground, and thematise the connections between themselves as material artifacts and the imaginative realm of verbal/semiotic signifiers they instantiate" (25).

Hayles definition very much explores the idea of 'cyborg' by Donna Haraway. Her evolutionary piece "A Cyborg Manifesto" represents a hybrid of machine and organism. In "Seattle Drift" and "Arteroids" we see similar hybrid characteristics as reading these poems personify both human organism and machine. In the essay "The Digital Diasthima: Time-Lapse

Reading Digital Poetry", Alvaro Seica talks a great deal about reading digital poetry. According to her in electronic literature, cursor is assumed to be the symbolic presence of the reader and "the extended index finger in that hand a representation of the reader's hand, about to touch the text" (Seica 2). Though it is certainly an input cue that allows the text to develop its character, it seems like a hybrid as Haraway explains. The only elements that would be out of place in a print poem are the red words found above the poem's title, which are options for the reader to activate with a mouse click, evoking the familiar computer interface of the menu bar. The presence of these input cues and the personified text's request to the reader are the keys to this poem's conceit and to its behaviors.

When we are playing in "Arteroids" we automatically assume the mouse as human hand and conversely in "Seattle Drift" the reader is embodied as the machine which "do [does] the text". Haraway also asserts that "cyborg politics is the struggle for language and the struggle against perfect communication, against the one code that translates all meaning perfectly" (23). Here we will see how Andrews' poems also represent the same thought as digital literature denies the concept of perfect communication and instead uses its own form of language to communicate with its readers.

Quoting Wordsworth, as he says "if the time should ever come when what is now called science, thus familiarized to men, shall be ready to put on, as it were, a form of flesh and blood, the Poet will lend his divine spirit to aid the transfiguration, and will welcome the Being thus produced, as a dear and genuine inmate of the household of man" (as cited in Halberstam et al 1). In today's world cybernetics has effectively discredited the romantic paradigm of inspiration. In the age of computer and internet poets must take refuge in a new set of aesthetic metaphors for the unconscious. Now we have computer programme which processes poems in few seconds.

Clearly the merging of computer technologies and literature is helping to bring about radical change in processes of reading, writing and meaning making. This kind of change is not simply an outgrowth of already-established processes rather we see that digital poetry transforms the creation process into a shared act between reader, writer and computer and thus break from the model of the poet as divinely inspired human prototype. The ontological and epistemological underpinnings of digital poetry are particularly indicative of the unsettling of what poetry is commonly thought to be, which is inextricably linked to a departure from, specifically, the poet as privileged exemplar of human culture and medium through which we read ourselves, and generally, the liberal humanist subject.

From the perspective of Donna Haraway's "Manifesto for Cyborgs," "Seattle Drift" and "Arteroids" are Cyborg and interacting with it we become cyborgs as well. Our understanding of the world becomes one informed by the cyborg vision as Haraway says cyborg that is "all light and clean because they are nothing but signals . . . eminently portable, mobile . . . as hard to see politically as materially" because "they are about consciousness—or its simulation". (70-71). The existence here remains by the self-generating/reader-driven/interactive poem as we see in "Seattle Drift" that in order to actually read the poem we need to interact like doing the text, stop it at a time and then discipline it. In "Arteroids" also we play the spaceship and shoot out the other texts. Such existence suggests a cyborg world that is about "lived social and bodily realities in which people are not afraid of their joint kinship with animals and machines, not afraid of permanently partial identities and contradictory standpoints" (72).

These all prove that our perception of poetry has changed to a great extend therefore the identity of poetry comes to question. This question of identity can be explained by exploring Judith Butler's theory of performitivity. Butler uses her theory to explain the gender trouble in

society. In the first chapter of her book *Gender Trouble* she says that "gender is the repeated stylization of the body, a set of repeated acts within a highly rigid regulatory frame that congeal over time to produce the appearance of substance, of a natural sort of being" (10). This explains gender identity as socially constructed rather naturally given. By performing particular acts repeatedly we put the gender label. Similar theory goes with the identity of poetry; not pre given. In digital poetry, the identity of poems is discursively made by playing with the text as we play in "Seattle Drift".

Conclusion

This paper has discussed the notion of digital poetry as an instance of generative art by analysing Jim Andrews's poems "Seattle Drift" and "Arteroids". Here the reading experience is determined by the way that readers access the poems. Along with writing, even reading digital poems requires certain skills which make it distinctively different from conventional poetry. Digital poetry almost cherishes the communication between the reader and the author. In doing so, we have derived a model to understand the creative process at the core of the interaction. Electronic literature is a postmodern phenomenon. In the field of electronic literature poetry is expanding with its fullest possibility along with other literary members of the family. After a thorough research we can say that unlike any other time in history poetry is heading towards a future where art and technology will be intimately related to human. Both "Seattle Drift" and "Arteroids" are example of that future. The two poems are so well written that anyone reading digital poems for the first time would automatically mature in their ways of reading it.

"Seattle Drift" being Andrews's first poem shows us the simplistic approach of poetry in the digital world. Along with time as we see the poet matures through his creation of "Arteroids". The self- personalizing voice of "Seattle Drift" makes it unique along with the technological elements. The poem appears as a conventional poem with plain text initially. However, as we progress and start using the hypertexts, it shows its playfulness. Words drift away is one of the key features of digital poem. Here words eventually come back and thus shows us the value of different meaning of a poem. Many digital poems are created using this. By now we have realised that this feature of digital poetry that confirms active participation of its readers. In "Seattle Drift" the text does not represent whole poem. The poem remains still initially unless one notices the hyperlinks above in red-"do the text", "stop the text", and

"discipline the text". If someone leaves it without using hypertexts ['do the text', 'stop the text', and 'discipline the text'], the reading will remain incomplete. In order to get the whole picture of the poem readers must 'do the text', 'stop it' and at the end 'discipline it'. Thus the poem makes its readers participate actively in reading the poem.

On the other hand, in "Arteroids" we experience advanced stage of digital intervention in poems. Here, poems are merged with video games. In general, playing a videogame and reading a poem are drastically different kinds of experiences. These require very different sets of skills. While reading "Arteroids" such diverse skills are combined together. This goes simply beyond only reading a poem or playing videogame.

Like conventional poetry, digital poem also has its own set of behaviours. Jim Andrews, as a digital poet does not only offer us to explore the digital inventions in poetry but also allows us to look into how poetic experiences can be represented through these digital means. The poetic experiences and the underline thoughts are now played in a digital mode. The two poems have shown that in order to understand digital poetry we should first understand its language, grammar and medium as well as the coding system and source code. These would provide us to come up with our own set of theories and opinions. Another important factor about digital poems is the reader's authority. It can be said without any doubt that readers hold significant power to control digital poems. In conventional poetry readers have the freedom to interpret poems whereas in digital era they can actively participate to create a poem. This also represents the open-endedness of digital poetry. Along with literary values it requires certain technological skills.

Digital poetry or electronic literature has transformed our thoughts of reading and writing poetry. Though digital poems are distinguished for their digital behaviour we are still using

theories from the conventional academic world to analyse digital poems. These theories are still leading the field of literary criticism. Yet, if we research enough we would see that the field of digital media criticism is expanding, especially in western academia. In order to make electronic literature more effective we need to explore it more. In many universities in West, electronic literature is now being included in the academic courses. They are now leading the field. As the field is significantly expanding and opening new doors to interpret and read poetry, we should also consider the possibility to include it in our academic syllabus.

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