

**The Internet of Minds (IoM) and the Evolution of the Frankenstein Literature: Features of Cyber Alienation in *10:01* by Lance Olsen and Tim Guthrie, *Chat* by Mohamed Sanajelah, and *Flightpaths: A Networked Novel* by Kate Pullinger, Chris Joseph, and participants.**

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**Abstract:**

It was not so long ago that a writer prophesized the future. A scientist will create a piece of art that will no longer be a dead object. It will speak, listen, interact, and have a mind of its own. It will be a deformed creature that will go beyond the aspirations of its creator crossing all redlines. While Roland Barthes announced long ago ‘the death of the author’, the digital age manifests a deeper validation of his theory. The merger between technology—a cold pragmatic tool—and literature- a vivid lively art— is producing both, beautifully poignant and fearfully deformed offspring. This offspring, this paper proposes, can be called ‘Frankenstein Literature’ referring to the uncontrollable results of merging human faculties with technological and scientific innovation without taking into consideration the cultural and social dimensions of the human condition. The term ‘Frankenstein Literature’ clearly borrows its naming from Mary Shelley’s novel *Frankenstein*. However, the choice of the name does not only refer to the horrendous ending of the novel in which the creation annihilated the creator. It more importantly refers to a deeper and a more profound value: the repercussions of alienation and social isolation within the context of a new world of technologized humans or humanized technology on the created and the creator. While ‘Internet’ is a term that refers to the global computer network, and the ‘Internet of Things (IoT)’ refers to the interconnection of the computing devices embedded in everyday objects, the ‘Internet of Minds (IoM)’ is a term this paper proposes to refer to the interconnectivity between *minds through the internet*.

Astonishingly enough, and in spite of what would have been expected from a technology that was primarily invented to

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connect people, the outcome is exactly the opposite. While manipulating the transmitted messages, it moreover intensified the alienation of online and offline of both senders and recipients. These features of alienation and social isolation are the main and most recurrent theme and mode of writing within the digital world. This feature, 'alienation', that has been studied by philosophers, theorists, literary scholars, and thinkers through many years of literary criticism, is currently of a diverse nature and dimension within the cyber world. It moreover promises to associate wider and deeper implications with the wider and deeper human plunging in technology. This paper forecasts the production of a 'Frankenstein' or a fearful technologically mutant literary content whose influence is far beyond the virtual world giving a term to a yet termless production that includes all online and offline content transmitted, created, and posted using digital technology whether individually or combined with other forms of art whether audio or visual showing literary merit. It moreover presents a study of a common feature in much of that content which is a distinct type of 'alienation' related to the cyber experience which might be called Cyber Alienation. Thus, this paper will be divided into three parts. First, there will be a quick overview of the final stages of the development of literature into the digital age. Then, there will be a presentation of the premises of the two terms that this paper proposes for the evolving phenomenon resulting from the encounter between Literature and New Media, namely, the Internet of Minds (IoT) and the Frankenstein Literature. Third there will be an analysis of three representative digital works: *10:01* by Lance Olsen and Tim Guthrie, *Chat* by Mohamed Sanajelah, and *Flightpaths: A Networked Novel* by Kate Pullinger, Chris Joseph and participants to tackle features of what this paper specifies as Cyber Alienation.

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Astonishingly enough, and in spite of what would have been expected from a technology that was primarily invented to connect people, the outcome is exactly the opposite. While manipulating the transmitted messages, it moreover intensified the separation, isolation and alienation on and offline of both senders and recipients. These features of alienation and social isolation are the main and most recurrent theme and mode of writing within the digital world. This feature, ‘alienation’, that has been studied by philosophers, theorists, literary scholars, and thinkers through many years of literary criticism, is currently of a diverse nature and dimension within the cyber world. It moreover promises to associate wider and deeper implications with the wider and deeper human plunging in technology. This paper forecasts the production of a ‘Frankenstein’ or a fearful technologically mutant literary

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Narrative is one of the oldest forms of creative production of the human race. Humans used the available medium to produce creative accounts of their lives, habits, and culture. These accounts can be found in the carvings of the primitive caves of the first humans on earth. So, is not art in this case a form of narrative? Is not narrative a larger term that embraces all forms of human production that documents what was, is or will be? Is not a drawing of a shepherd and his herd in a prehistoric cave tell a story, a narrative, a Nano-narrative? After this period comes the next phase of human existence with the invention of writing. With this new tool Man became more eloquent and skillful in expressing the intricate details of any narrative. Feelings, emotions and plot twists are possible with less space for interpretation and larger opportunity for giving directions. When Roland Barthes spoke about the 'death of the author', he was in no way even close to what was about to take place few thousands of years later. The space which he saw very wide between the signifier and the signified in language that results in the reader's receiving of a whole new meaning irrelevant to that meant by the author, is incomparable to the gap which is *intentionally* created by authors of the digital age using the tools of technology while creating their narratives. Rather than telling a story, they merely draw a frame filled with loops, entrances and exits-- a maze in which the reader is both a subject and object, director and directed, creator and destroyer. This documentation that took the form of artistic paintings was transformed into the use of meaningful signs for purposes of this documentation—the alphabet. The invention of writing was not merely an invention of a new medium for creative production. It became an element in that production with its format, arrangement, font type and size and various other elements. This element witnessed an enormous change with the communications revolution.

The where, when and how of the communications revolution is much variable and scholars of Information and Communication Technology (ICT) have had different points of view on this. As Laxmi Ramasubramanian puts it, “[T]here are countless narratives about information and communication technologies, and each narrative has its own starting point” (20). One narrative would cite the ‘Pony Express’, the fast mail service of 1860 as a starting point while another would refer to the invention of the telephone and telegraph at the turn of the nineteenth century as an iconic moment in the evolution of communication technology. However, the revolution in communications technology has not seriously affected the content of literary production massively. Advancements in communication methods and channels only facilitated the transference of the literary work, whether fiction or non-fiction to its audience. It remained a written document similar to the primitive inscriptions on the stones of caves or narratives on leaves. The stories became more readable with higher readers reach and easier accessibility. In general, the content did not change due to that medium although it has definitely evolved due to changes in human condition as a mirror and reflection of Man.

And then there was the computer, and few decades later the internet, and the world turned upside down, or rather outside in. Just like fairy tales, the wizard’s crystal ball that brings together the whole world with a touch on its magical glass, we all became wizards with our own crystal balls. This small machine with a screen that transforms electricity into written words started a new era of literature. While in the early years, computers connected to the Internet presented to writers, literary scholars, and readers a tool with an easier and wider medium for accessibility, few more decades, and digitalization hacked the literary world and became much more than a medium or tool. ‘The digital’ is becoming ‘the Literature’ and we are at an instance of history in which we are lucky enough to be the generation witnessing the magnificent setting of an era and the rise of another era in human history. It is this generation, the generation that has witnessed the use of paper and publishing develop and ripe into the latest forms of literary production as well as the use of technology and computers that can and has the responsibility to tweak the transformation in a way that preserves the advantages and achievements of the twilight era and point out the threats and challenges of the new dawn.

The encounter between the written and the digital is a remarkable instance. Alan Liu in his Introduction to *The Companion to Literary Digital Studies* refers to this meet as ‘the New Media encounter’ and gives four propositions which he believes outline the “overall narrative genome of the New Media encounter” (6). **The first proposition** is the generation of “identity tales” in which media at once projects and introjects ‘Otherness’. These ‘identity tales’ question, reflect and interplay Otherness. He cites an example of a native African who while being unable to understand or decipher

the language of the BBC broadcast, insists on keeping listening to it. The way *users* or *members* of the New Media encounter deal with digital world is extremely informing of the Self and the Other in the various contexts the encounter exists. As such, the encounter becomes a “mirror moment”, a moment of reflection and self- reflection that “participates in the broader logic of cultural and interpersonal encounters, which are meaningful only to the extent that the self, at least for a piercing moment, becomes other to itself” (6). In simple terms, the encounter is turned into identity tales of dichotomist relations of Us or/and Them. Within the digital world, the definition of the ‘us’ and the ‘them’ is much more complex and procreant.

**The second proposition** is that the encounter encapsulates the “life cycle of media change” (6) where the building blocks of the New Media narrative-- are: “enchantment/colonization” (6), “disenchantment” (6), and “surmise” (7). The moment of enchantment/ colonization is where there is fascination with the new invention—again the native African encounter with the BBC is cited. The other moment in the life cycle of media change is the moment of ‘disenchantment’ which is a moment of critique or resistance. The user/ reader begins a process of awareness, criticism and then rejection of the new inventions, its uses and creations. The third moment is a moment of ‘surmise’ in which the encounter is embedded with endless potentials and possibilities due to the exceptional nature of the encounter. When leaves, stones or paper were the medium for literature, the influential forces were no more than the reader, the publisher and the published in form and content. With the digital medium, added to the traditional influential forces are huge influences slash challenges that arise from the fact that in the digital world, everything is just one click away. While for almost anyone over thirty, reading from a tangible book is much easier and appealing, teenagers are already treating the use of a pen and a piece of paper as a heavy illogical requirement for studying as long as they have their smart phone or tablet at hand. As such, the possibilities of creativity and change are countless.

**The third proposition** is that the life story of the New Media encounter plays out in the key registers of human significance whether Historical, Socio-political, or Subjective (7-8). For instance, and as the word ‘new’ suggests, the encounter registers a historical moment of encounter between an old system, and a new one. It thus signals the ending of an era and the beginning of a new era. From another perspective, it could be regarded as an ‘enlightenment’ moment after decades of darkness. It is, as Liu puts it, a narrative “of modernization, whether configured as progress ‘Enlightenment’, differentiation... disruption... or globalization (the most recent variation on all the above)” (7). It could also be regarded subjective as “cognitive, psychological, psychosomatic, phenomenological, “personal” (9) intertwined with the social and the political. Extremely personal and subjective

material is placed in the digital world as a socio-political historical subjective statement. Social media posts, extremely personal videos on Youtube and MySpace, and voice recordings leaked out to the internet, personal blogs...etc., places the encounter in a position of becoming a documentation guru and a key transformation factor in human history.

Thus, according to Liu, the outline of the New Media encounter is either identity tales of Otherness, or tales that embody the life cycle of media change moving between astonishment, resistance, and potentiality, or as a registry tale of human significance. *The fourth proposition* or suggestion is that the “identity tales created by narratives of New Media encounter are unpredictable” (9). with Liu’s fourth proposition that these tales are unpredictable, it is the aim of this paper to make a guided prediction, or rather a forecasting of one common aspect of these tales. As McLuhan in *Understanding Media: The Extensions of Man* states, giving a quick prescription for a healthy future of the dichotomy of Man and Media through the words of Pope Pius XII which he quotes, “[i]t is not an exaggeration to say that the future of modern society and the stability of its inner life depend in large part on the maintenance of an equilibrium between the strength of the techniques of communication and the capacity of the individual's own reaction” (33- 34). This means that a balance between the power of the machine and the power of humans have to be maintained at all times in order to ensure stability and peace. It is when the machine becomes more powerful than the human, when it produces a mind of its own code, when instead of being controlled by the humans, it controls them, when Man is enslaved by the machine not vice versa, this is when the equilibrium of the world and by extension its literature is threatened. This paper argues that the New Media encounter is, certainly, and whatever and whoever the dimension or involved parties are, is creating what this paper proposes to term ‘Frankenstein Literature.’ This creation is through what this paper call the Internet of Minds (IoM). Before we embark on what is expected to take place, a quick overview of what has already taken place is essential.

In fact, with the remarkable encounter of technology with literature, a number of literature/ technology or lit-tech terms evolved. However, when we begin to explore the terms that refer to instances within the digital/ literary encounter realm, we need to keep in mind several points. The first point is that most of the words used in explaining these terms are never sufficient or eloquent and that this is so for various reasons. For one, we are using paper-related terms to describe dot com concepts. We are not only speaking about a new field; we are speaking about a whole new creation that remotely carries rare features of the traditional one. Languages’ traditional signifiers fail to completely deliver the meaning of a signified that is sometimes radically different. For instance, when one says Digital

Novel, there is an assumption that this is simply a novel with some digital features which is not the case. It is actually a completely new creation with few features that resemble the novel. In this case language is misleading into driving a reader into a path of (mis)understanding which is both unintended and confusing. This is explained eloquently by Espen J. Aerseth when he realized that in his attempts to study Cybertextuality, he soon realized that his “terminology was a potential source of confusion” (2). He gives an example with the word *nonlinear* in describing features of the Digital Novel which reflected the presence of an “epistemological conflict”. He described the confusion that arose from using the word as being considered by some a completely out of place use since his work is not a novel that can be described as a linear or a nonlinear structure but rather a piece of work to be read sequentially. This reflects an epistemological problem when approaching this ‘New World’ of digitalization with the same terms of the ‘Old World’ of paper-based writing.

Digital works are similar to the average literary work, he argues, since “[T]hey produce verbal structures, for aesthetic effect. This makes them similar to other literary phenomena. But they are also something more, and it is this added paraverbal dimension that is so hard to see” (2). He thus identified the problem:

The problem was that, while they focused on what was being read, I focused on what was being read from. This distinction is inconspicuous in a linear expression text, since when you read from *War and Peace*, you believe you are reading *War and Peace*. In drama, the relationship between a play and its (varying) performance is a hierarchical and explicit one; it makes trivial sense to distinguish between the two. In a cybertext, however, the distinction is crucial--and rather different; when you read from a cybertext, you are constantly reminded of inaccessible strategies and paths not taken, voices not heard. (2)

It is thus crucial to keep in mind that using the old tools of literary criticism is an attempt with several risks of poor communication, confusion, and miscomprehension. When we start in the third part of this paper to present an analysis of three digital novels, while using most of the traditional literary criticism tools, they are either stretched, modified, or totally replaced to fit the new form(at). Digital and technological knowledge or technological familiarity at least is necessary for a literary critic of digital literary works as much as it is needed for an author of a literary digital content.

Another reason is that in spite of the necessity for those in the field of digital literature to be technologically in general and digitally in specific literate, there is still a huge technological knowledge gap for literary scholars as much as there is a huge literary knowledge gap for technology nerds responsible for producing these new forms of virtual literary productions. This is another reason for



confusion. Aerseth again refers to this when he says that whenever he attempted to present his ideas to an audience, he would receive numerous comments concerning the validity of his theory and explanation:

Typically, these objections came from persons who, while well versed in literary theory, had no firsthand experience of the hypertexts, adventure games, or multi-user dungeons I was talking about. At first, therefore, I thought this was simply a didactical problem: if only I could present examples of my material more clearly, everything would become indisputable. After all, can a person who has never seen a movie be expected to understand the unique characteristics of that medium?... But no matter how hard I try to describe these texts to you, the reader, their essential difference will remain a mystery until they are experienced firsthand. (2)

The writer of this paper has personally witnessed similar challenges introducing ideas concerning digital literature. This year, while presenting a paper with a thematic and critical analysis of digital novels during the proceedings of the International Forum of Novel held in Cairo attended by major literary figures and intelligentsia including the Minister of Cultural Affairs, a similar dilemma to Aerseth's existed. Although this year's Forum round's title was, The Novel in the Digital Age, most of the audiences AND presenters were oblivious to most terms and issues concerning digitalization in general and the Digital Novel in particular. Most of the papers discussed in the conference presented critical analyses of printed novels that reflected features of the digital age. When presenting my paper which carried very basic ideas, some of which are being currently developed in this paper, I was faced with a surprising and shocking feedback from audience that all revolved around extremely basic questions of whether there are actually digital novels being produced or whether they were still ideas waiting for implementation, how much technical knowledge would be needed for authors, and who will be writing in the future, IT specialists or authors. Although these questions would be understandable from junior figures in the literary scene, it was a surprising feedback which reflected how budding this field still is. After my session I was surprised and pleased with a flood of side discussions and inquiries along with media interviews and journalists' questions to me of 'what is that you are talking about'. In the end of my session, the moderator, a major literary figure commented that "I think it is clear for everybody that there is a technological knowledge gap in the audience that requires further attempts from paper-based novels readers and critics to fill." Such a gap will be experienced for a while until theorizing, reading, and discussing digital content become more widespread.

The second conviction that needs to be kept in mind is that the humble attempt of the researcher in writing this paper can be simply explained as an attempt to put an elephant in a bottle. Big Data is a term that evolved with the expansion in the use of the internet and Artificial Intelligence systems. These systems lead to the availability and the production of gigantic amounts of data that are extremely difficult to handle through the old traditional ways of managing data. As X. Wu, X. Zhu, G. Q. Wu, et al. define it, it is “the availability of a large amount of data which becomes difficult to store, process and mine using a traditional database primarily because of the data available is large, complex, unstructured and rapidly changing” (*qtd* in “Big Data Analytics using Hadoop” 1). Just like this ‘Big Data’ technological term, within the literary realm is a similar Big Data feature when it meets the digital world. More digital and electronic literary theorists, studies, assumptions, and productions are made along with a lack of credible online resources and the presence of epistemological and theoretical differences in explaining and defining concepts, (a feature of the Frankenstein Literature as will be explained later). It is thus essential to keep in mind that any attempts to explore deeply into the implications and/ or validity of any of these terms is not the concern of this paper as it would require a separate study in itself. However, what is being presented here is just an outline and point of departure for the argument of this paper as a common ground for both researcher and reader to give an outlook on the field we are speaking about and gives the necessary dimension for the paper’s proposal of features of Cyber Alienation that will be discussed through a close reading of three digital novels. Moreover, it is a venture that the researcher finds necessary; an overview that is undersized yet relatively comprehensive of such a huge topic that is being constantly updated. Such a synopsis is hopefully a point of departure for anyone attempting to work in a relevant topic saving them the time and effort of diving in that deep huge ocean of data without primary knowledge of basic categorizations and definitions. A gap that Nabil Ali might have accounted for by pointing out in his book *Al-Thaqafah Al-Arabia wa Asr Al- Maaloomat Arab Culture and the Information Era*<sup>1</sup> among many causes and reasons for it is the lack of translated texts although Arabs are “importers of knowledge” (33). He thus states astonishingly:

The sum of the books translated annually into Arabic do not exceed 300 books. This is less than the fifth of what a country like Greece translates. The accumulative sum of all translated books into Arabic since the era of Al- Ma’moon until now, about ten thousand books, equals what Spain translates in one year. (33)

Translation(s) of technical texts and terms is no longer a luxurious demand for leisure time knowledge. It is a mandate on translators and translation institutions to work harder on filling this

knowledge gap and bridge the cultural technical cavity to help all parties involved whether writers, thinkers, or scholars to enrich our libraries and minds with new and relevant ideas rooted in our experience and the era.

So, when we start discussing the digital/ literary encounter, we are faced with a flood of new terms and theories beginning with the name of the field of study and category of works produced within the encounter to labels given to productions and creations of the encounter. Concerning the field as a whole, sometimes it is referred to as *Hypertext Literature*, *Cybertext (Ergodic) Fiction*, *Generative Literature*, *Digital Literature* or *Electronic Literature*. Other terms refer to distinct genres within the digital/ literary encounter like *Digital Novels*, *Mediapoehty*, and *Epoetry*. There are also newer genres that emerged lately in both printed and digital forms like *Flash Fiction* and *Twitterature* affected by the encounter. Along with those two mediums that are usually discussed in separation, the written and the electronic, there are newer forms of literary productions that challenge the fixed borderlines of the two worlds in merger like *Augmented Reality Books*, the *CaveWriting Hypertext Project*, *Post Digital Interactive Poetry* ...etc. There is also inclusion of untraditional types of literature like '419-fiction', Digital Games, Facebook and Social Media posts and Blogs. Moreover, the encounter is now going further into the process of writing itself. The combination of literary skills with technological tools is producing authoring tools like Literatronica authoring system which is a performative creative writing system based on human-computer interaction. It is noteworthy that the volume and range of the encounter led to the evolution of national, regional, and transnational Literary electronic organizations and platforms namely the ELMCIP Electronic Literature Knowledge Base, the CELL Consortium for Electronic Literature, Arab Union for Authors of the Digital Novel and the Digital Fiction International Network (DFIN) that aim at a more learnt and formal categorization, analyses and shared knowledge of the updated progress of the field.

Before attempting to categorize the products and creations of the Tech- Lit encounter, we need to look into these products first. Some of these products can be simply understood like Mediapoehty and Epoetry where they refer to the use of media in the presentation of the poem or the use of the electronic medium specifically in the transmission and presentation of the poem respectively. However, others are extremely ambiguous. Of these ambiguous terms is *Post Digital Interactive Poetry*. This *Neo* form of poetry refers to various creative processes that go beyond the written AND the digital format and are a merger of virtual and physical world on the level of concepts, ideas or execution. Examples of such works were presented in the *Electronic Literature Organization Conference* held on 2015 under the title "ELO 2015: The End(s) of Electronic Literature" (*Ends of Literature*, 38). These include:

• *Extravia*, called ‘minds in transit’ is a physical hypertext. This means that the idea of the hypertext that is being used on computers only is brought to life in a tangible way. In the hall that is assigned for this project something like a maze is created hanging from the ceiling to the level of the eyesight of the



readers. Lines of the poems are written on scattered pieces that are arranged in a mazelike structure. The readers enter the room that is prepared in this way and they start reading the poems until they reach crossroads in which they have choices to continue reading in the direction that pleases them. It is displayed as a labyrinth where all users can follow their own route, which divides the poem into different

possibilities in each crossroad. <http://entalpia.pe/entalpia/expos/extravia/index.htm>

• *Binary* which is a Book-object designed to allow the reading of only one pair of almost-identical poems at a time. [http://test1.phantasia.pe/entalpia/\\_coc/binarios.htm](http://test1.phantasia.pe/entalpia/_coc/binarios.htm)

• *Circular Altarpiece* which is an Interactive object where the reader may navigate across 12 different states of the combinatorial poem. [http://test1.phantasia.pe/entalpia/\\_coc/retablo.htm](http://test1.phantasia.pe/entalpia/_coc/retablo.htm)

• *Returning is a Place* which is a Spherical poem which allows a physical, manual navigation. Working with the physical layout of the connections this textual surface was generated completely contained in a spherical format. [http://test1.phantasia.pe/entalpia/\\_coc/esfera/esfericas.htm](http://test1.phantasia.pe/entalpia/_coc/esfera/esfericas.htm)

There are also other radical creations that combine literature with technology like the CaveWriting Hypertext project. This project is a Hypertext authoring system in virtual reality. As Sascha Becker et al. state, this project was initiated by the novelist and hypertext expert Robert Coover in 2002. It uses a 4-wall Cave and spatial audio system (1) in which artists enter this cave-like room to create artistic literary texts with background and music. This project is a course that is provided in Brown University annually to encourage students to start immersing technology in the literary creative process through a Virtual Reality VR project. Through this CaveWriting project authors live a four dimensional virtual reality where the limits of creativity and imagination are extended into the virtual world. The name of the project is quite interesting. As cave writing could be seen as the earliest forms of registered creative literature, this project could be regarded in the future as one of the earliest registries of the combination between literature, technology, and creativity.

However, while VR is a complete movement from the real world into an imaginary virtual world using various human senses, Augmented Reality Books is a controlled limited experience to a certain

book at hand. Augmented Reality (AR) as Hakan Altinpulluk states, is “the enrichment of the objects and spaces in the physical world through the use of computer generated artificial, virtual and synthetic 3D elements. Unlike with Virtual Reality (VR), AR users do not dive into artificial worlds with their entire field of vision” (3649). In other words, it is the merger of the virtual world and the real world in one big book read on an electronic device and uses the real world as a foundation for the storytelling. In this case the baseline of the setting of the literary text is not the combined imagination of the reader and the writer, it is the real world. The author combines imaginative elements with the real setting of the reader. Unlike the CaveWriting project for instance which carries the author into an imaginative virtual world of his creation and imagination, Augmented Reality books bring the virtual world to the setting of the reader where imaginative fictitious characters could be read/ experienced in the dining room of the reader or wherever he is reading the book. As Altinpulluk clarifies, AR differs from virtual reality in that it “does not replace the actual world, but rather it enriches the actual world environment with 3D digital elements” (3649). So far, the fields that have benefited from such type of ‘writing’ include “military research, the games industry, medicine, and engineering, and is becoming increasingly widespread as an innovative technology and an interdisciplinary field” (3649). The fact is that AR, as Sarah Rankohi and Lloyd Waugh state, from “the first see-through head-mounted AR display developed in the 1960s by Ivan Sutherland at Harvard (Sutherland, 1968), to the enhanced HD<sup>4</sup>AR and Mobile Augmented Reality System (MARS) developed by Golparvar et al. (Bae et al. 2012)... have been used in various disciplines and arenas, e.g. engineering, entertainment, aerospace, medicine, military, and automotive industry” (1) there are actually several reports (Horizon Reports, API Research, Juniper Research Reports) regarding the current and future status of AR that forecast the fact that AR will become more widespread and effective in the future in various fields, literature among them.

Another remarkable product of the merger between technology and literature is Twitterture. Twitterture is a term that is used to refer to literature posted, exchanged and published on the social-networking site named Twitter. As Michael Rudi states in “From Hemingway to Twitterature: The Short and Shorter of It”, Twitter that was “originally launched in 2006 with the intention of connecting small groups through SMS messaging. By September 2010, that small group had swelled to 145 million users, and they stay connected through not just SMS but dedicated websites and stand-alone desktop and smartphone applications” (1- 2). Although it restricted the length of any tweeted message to 140 characters only upgraded to 280 in late 2017, the concise text restriction has bred creativity of the users to combine clarity, concision, and effect. One example of a Twitterture author, Rudi points

out, is Rick Moody. He is an offline author who “established his online audience with the novels *Garden State* and *The Ice Storm* published over 153 consecutive tweets” (2). *Some Contemporary Characters*, a Twitter Novel, increased his audience extensively. Other writers started as online Twitterers and were able to find publishers for their tweeted novels.

Interesting enough, *The Guardian*, the well-known British newspaper challenged 21 authors to “try their hand at 140- character novels”. The attempt was published and here are some examples of them:

**Geoff Dyer:** I know I said that if I lived to 100 I'd not regret what happened last night. But I woke up this morning and a century had passed. Sorry.

**Blake Morrison:** Blonde, GSOH, 28. Great! Ideal mate! Fix date. Tate. Nervous wait. She's late. Doh, just my fate. Wrong candidate. Blond – and I'm straight.

**David Lodge:** "Your money or your life!" "I'm sorry, my dear, but you know it would kill me to lose my money," said the partially deaf miser to his wife.

**Sophie Hannah:** I had land, money. For each rejected novel I built one house. Ben had to drown because he bought Plot 15. My 15th book? The victim drowned.

**Andrew O'Hagan:** Clyde stole a lychee and ate it in the shower. Then his brother took a bottle of pills believing character is just a luxury. God. The twins.

**AL Kennedy:** It's good that you're busy. Not great. Good, though. But the silence, that's hard. I don't know what it means: whether you're OK, if I'm OK.

**Jeffrey Archer:** "It's a miracle he survived," said the doctor. "It was God's will," said Mrs. Schicklgruber. "What will you call him?" "Adolf," she replied.

**Patrick Neate:** ur profile pic: happy – smiling & smoking. ur last post: "home!" ur hrt gave out @35. ur profile undeleted 6 months on. ur epitaph: "home!"

**Hari Kunzru:** I'm here w/ disk. Where ru? Mall too crowded to see. I don't feel safe. What do you mean you didn't send any text? Those aren't your guys?

**Rachel Johnson:** Rose went to Eve's house but she wasn't there. But Eve's father was. Alone. One thing led to another. He got 10 years.

<https://www.theguardian.com/books/2012/oct/12/twitter-fiction-140-character-novels>

Twitterature was also chosen as the title of a Penguin release that summarizes 80 of the “greatest works of western literature” with less than 20 tweets like *Anna Karenina*, *The Harry Potters*, and *Macbeth*. Twitterature’s official site states that “Twitterature provides everything you need to master the literature of the civilized world, while relieving you of the burdensome task of reading it” In

fact, Twitterature is only an example of many attempts to produce extremely short tales that is sometimes as short as a six words story. This and other extremely short literary work belong to the new and quickly emerging genre Flash Fiction which is “a very short story...normally between 300 and 500 words in length, but it could be as short as 50 words! Because it’s so short, it normally captures one single event, offering just a glimpse of a moment in time.” It is as S. Habib Mousavi and S. Mohammad Ali Mousavi state, “a prose tale which strives towards implanting a single effect and is not composed of more than three or four paragraphs, and so can be read within the course of three or four minutes” (55). This kind of literature, the Flash Fiction, could be the most successful form of literature for the coming generations. With an age that strives for conciseness and the saving of time, flash fiction promises to sustain the presence of literature in people’s everyday life without consuming much of their time.

On the other hand, according to Juan B. Gutierrez and Mark C. Marino, Literatronica is a “dynamic hypertext authoring system” that depends on “static hypertext links and uses an AI engine to recommend the best next LEXIAs based on what a reader has already read” (5). This system is built around the concept of narrative space and the new semiotic element of narrative distance. It creates a map with a “shortest distance” algorithm to suggest paths and because the system is dynamic, “it can change paths according to the LEXIAs the reader has already encountered” (5). Other semiotic elements introduced by the Literatronica system as well include Hypertextual attractors, Hypertextual attraction and Hypertextual friction between two pages. It thus adapts the technique of hypertexts to generate narratives that are continuously changing based on the reader’s experience, preferences, and what he has already read. This form of narrative is usually referred to as ‘Adaptive Digital Narrative’. Literatronica is the most well-known tool basically because it has a website and a number of registered users. However, there are a large number of systems produced constantly as Michael Garber- Baron and Mei Si argue in “Adaptive Storytelling through User Understanding” state. They enumerate a number of systems that include the reader as an element in the narrative like The Papous System, The Virtual Storyteller, and IRST (128).

But how can we categorize these diverse and different creations that differ widely in form, content, type, impact, and outline. What lies where? For this categorization we need to look at the four major terms that are usually used sometimes even interchangeably: Hypertext Literature, Cybertext (Ergodic) Fiction, Digital Literature, and Electronic Literature broadly refer to. According to Alice Bell (2014), from a technological point of view, Hypertext is a form of electronic text in which documents are linked together using an associative system. The ‘World Wide Web’ (WWW) is the most extensive

and renowned example of a hypertext in which individual electronic files are linked to form a vast network of textual documents, visual media, executable programs, and software applications to literary forms of writing such as hypertext fiction and hypertext poetry. She thus defines Hypertext fiction as: “fiction that is written in hypertext and can be published on CD-ROM (e.g. Storyspace hypertext 3) or on the Web. It is read from a computer and comprised of fragments of text, known as Lexias or Nodes, which are connected by hyperlinks. When reading a hypertext fiction, as in all other hypertext systems, the reader has to select links as a means of navigating through the text either by following a default path through the text or by choosing from a selection of links which lead him or her to different parts of the same text (141- 160). Thus, in simple words, Hypertext Fiction is fiction that is created with the aid of computation technology to give the reader a chance to wander freely among different threads of the plot. This is done through providing the reader with hyperlinks on the screen within the traditional flow of the plot that enables them to get into another screen with another path for the plot to move through. This gives the author an ability to create as much plot twists, paths and reversals as possible and make the story poignant with richer and more intricate content.

On the other hand, Electronic Literature, according to Ted Nelson, was first defined in 1965 as “a body of written or pictorial material interconnected in such a complex way that it could not conveniently be presented or represented on paper” and then in 1970 as “forms of writing which branch or perform on request” (qtd in Scott Rettberg’s PrePress draft 2). Such definition carries a rather consensual nature whenever there is reference to the merger of that medium (electronic) and that content (literature). This term also includes works that are categorized as Digital Literature again quite a debatable term. However, we might use Alice Bell’s et.al (2010) definition of Digital fiction as

fiction written for and read on a computer screen that pursues its verbal, discursive and/or conceptual complexity through the digital medium, and would lose something of its aesthetic and semiotic function if it were removed from that medium. (para.13)

And thus Digital Literature refers to:

work with important literary aspects that requires the use of digital computation. Such literature has been produced for more than fifty years, with the first known example being Christopher Strachey’s 1952 love letter generator for the Manchester Mark I computer (Strachey, 1954). It ranges from some of the bestselling software of the 1980s... to a current diversity of work that includes experimental installations, performance-based pieces, and more.

As such, e-literature refers to the direct combination of literature with its traditional meaning and computation and also generated forms of literature from the merger. However, it does not refer to



Digital Literature as being part of a larger content that operates in an entropic cyberspace that is nonetheless connected through a digital network of minds and machines moving constantly between fact and fiction, reality and virtuosity without clear limits or distinctions. Thus, whereas cybertext/hypertext fiction refers to forms of fiction only, Digital/ Electronic Literature refer to a broader scope of writings and productions of literary merit. On the other hand, Generative Literature is, as Mia Zamora and Matt Jacobi describe, a term that is usually associated with the power of the machine specifically computers. It is, they state, “often understood as the production of continuously changing literary texts by means of some set of rules and/or the use of algorithms” (2). It thus refers to literature that can be broadly defined as being generated by computers.

Another way of looking at these terms is from a chronological perspective as does Urszula Pawlick in "Towards a History of Electronic Literature". She divides the history of Electronic or Digital Literature which she uses interchangeably into phases of what might be described as the role of the text within the literary experience:

electronic literature moved from text to technotext, from text as decoding meaning to text as a process of information and information system, from an interpretation to experience, from visual perception to performativity, from close reading to hyper reading, and several others. (7)

She thus looks at the text as it develops through time within the cyber experience. There was first the plain written text that became a technotext, which can be termed Cybertext. There was a development of the text as a medium for the delivery of meaning to a ‘process of information’. The methods for dealing with the text changed from reading and interpretation into experiencing and analysis not only through visual perception but through performativity as a complete experience. The idea of close reading of literary texts becomes obsolete because digital texts especially when they are embedded with hypertexts cannot be described as simply read. They are lived through the different sense: read, seen, heard and felt as will be shown later in the second part of this paper.

As such, Frankenstein Literature is a proposed term that refers to the body of online and offline literature in all its forms and genres. The term Frankenstein Literature which borrows its naming from Shelley’s novel *Frankenstein*, refers to the overall written content transmitted, created and posted using digital technology whether individually or combined with other forms of art whether audio or visual. This includes written texts in any form including individual posts on social media like twitter and Facebook and personal blogs. Included under this umbrella are non-fictional works as well that are created on and transmitted through the internet including news reports, live streaming comments, and personal statements. The term could be expanded in its broadest sense to include non-written texts that are created and produced online and offline and reflects features of literary merit. Thus, included are

online gaming narratives, audio and visual narratives etc. The following figures are an attempt to clarify more about Frankenstein Literature

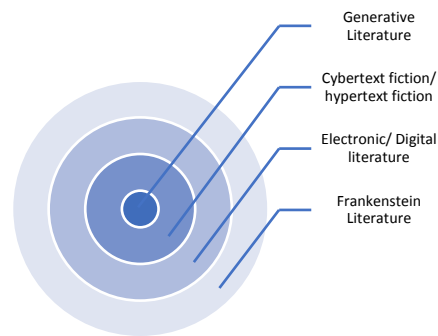


Figure 1 Relation between Frankenstein Literature and other cyberspace literary terms

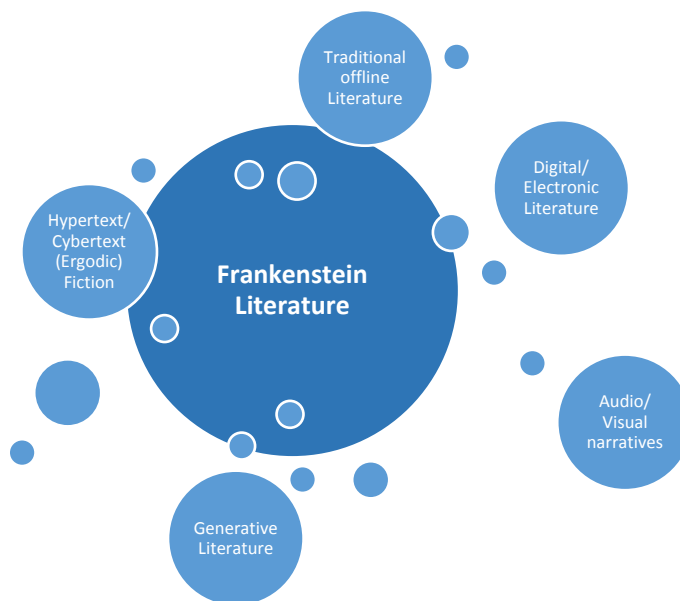


Figure 2 Frankenstein Literature's major Constituents

But what has happened? What would back such a hypothesis of the evolution of a Frankenstein Literature and not simply a benign and even desirable development of literature into a more accessible and reachable creative endeavor just because texts became digitalized and technology is interfering with the literary content? In order to visualize such a suggestion, we need to accept an important fact, and that is what Marshall McLuhan called “*The Medium is the Message*” in his book *Understanding Media: The extensions of Man*. This means that such forms of electronic, digital virtually influenced literature is a primary stage of the complete change in the ‘message’. Literature is not ‘using’ an electronic or a digital medium. Traditional Literature among many other forms of writing, reading and creating generated in a digital context is the new literature termed here Frankenstein Literature. In his book McLuhan makes an interesting study of the dichotomy of Man and Media built on two premises. The first premise is that media is one of the extensions of man. Unlike many other arguments referring to the connectedness and shrinking of the world generally as an outcome of the revolution in the field

of communications, McLuhan describes it as a final stage in a long series of attempts made by Man to expand beyond his body into space through producing imitations of Man's basic faculties in other inventions or machines. What is quite significant about McLuhan's hypothesis is his argument that through the final attempts of Man to extend outward through imitating newer human faculties beyond walking, watching...etc, he has imitated the human central nervous system: "we have extended our central nervous system itself in a global embrace, abolishing both space and time as far as our planet is concerned" (5). This proposition is elaborated on in his other book *The Medium is the Massage* where he states that "All media are extensions of some human faculty--psychic or physical" (26) pointing out that "the wheel is an extension of the foot" (27-8), "the book is an extension of the eye", "clothing an extension of the skin...electric circuitry, an extension of the central nervous system" (40-1).

The second premise can be summarized in the cliché sentence of 'the world has become a small village', or rather a small room where everything and everyone is present one click away. He argues that after a long time of expanding and diverging everywhere, the Western world, and by extension the whole world, is paradoxically assembling and shrinking inwards. For this he uses two antithetical terms-- exploding and imploding: "after three thousand years of explosion... the Western world is imploding" (5). McLuhan thus argues that in spite of the apparent expansion and human advancement throughout the years, the modern world has actually shrunk into itself making it, with its intricate and complex fabric closer, more accessible and more reachable. A similar postulation is made by Nabil Ali where he points out to what he calls "the merits of minimizing and digitizing" (76) of the information era.

McLuhan thus makes a powerful point when he refers to the implication of the medium which Man is and has been using to communicate. Tackling many examples and many images of the dichotomy of Man and Media, he tests the proposition that 'Media is the Message' and the various aspects of the assumption. He takes the use of 'light' as an example. He explains that "the electric light is pure information. It is a medium without a message, as it were, unless it is used to spell out some verbal ad or name" (9). So, according to him, light can be used for a brain surgery or a baseball night. Both activities, he explains, could be considered the "content" of the electric light, since they could not exist without the electric light. This fact merely underlines the point that "the medium is the message" because it is the medium "that shapes and controls the scale and form of human association and action" (10). In other words, what McLuhan is arguing is that with the introduction of technology to the world which has provided different forms and types of media for its messages or activities in the traditional sense, the medium cannot be viewed as a hollow tube for transmission of a message. This tube in itself

is the message because this tube forms and controls this transmission and connects the sender's and the recipient's perceptive construction. This fact which is characteristic of all media, means consequently that "the 'content' of any medium is always another medium" (9). This becomes valid for all media, and so "the content of writing is speech, just as the written word is the content of print, and print is the content of the telegraph (9). He clarifies what he means by 'the message' through the railway/ airplane dichotomy. Both the railway and the airplane are media for transporting humans. This is the activity they were created to perform. however, while performing its mission, the railway has "accelerated and enlarged the scale of previous human functions, creating totally new kinds of cities and new kinds of work and leisure. This happened whether the railway functioned in a tropical or a northern environment and is quite independent of the freight or content of the railway medium" (10). On the other hand, the airplane, "by accelerating the rate of transportation, tends to dissolve the railway form of city, politics, and association, quite independently of what the airplane is used for" (10). This means that The message of technological media is that, he points out, "the change of scale or pace or pattern that it introduces into human affairs" (10). This message exists within all media regardless of the content they are transmitting. The message differs with the change or the range of conversion it leads to in human affairs. He then concludes that we are rapidly approaching the final phase of the extensions of man: "the technological simulation of consciousness, when the creative process of knowing will be collectively and corporately extended to the whole of human society" (12 *Understanding Media*).

Here McLuhan is doing two important things. *The first* is that he is pointing out the significance of the medium of the message as being the message itself. That is to say, the medium through which messages, texts, written or oral scripts are written, are not an empty dead tunnel through which the message moves but it creates changes that affects the community to which it is exposed and the whole world. *The second* is his final conclusion that we have currently reached a stage in which the extension of the faculties of Man which is the highest, most complicated and most significant for humankind which is "the simulation of consciousness". Technology is now imitating, developing and expanding individual and collective human consciousness in the traditional sense into a gigantic incontrollable message. In doing so, the new technological media for transmission of words and ideas is imitating the human mind through a network of receptors and transmitters resembling the human nervous system. The technology which transmits this content, namely New Media, is the Message in the MacLauhan sense where the message is simply 'human consciousness'.

Based on McLuhan's hypothesis, the current status of the Modern Man in the electronic age is that of both, a transmitter and recipient of electric pulses- a mechanism that resembles the human nervous system in connection to the human mind and sensing the surrounding world. This concept was recognized by Professor Salvatore Domenic Morgera, Professor of Electrical Engineering and Bioengineering at the University of South Florida in his most recent studies. In his article for *The Conversation* titled "Advanced Digital Networks Look a Lot Like the Human Nervous System", he speaks about his latest studies on digital networks. He speaks about one of the most well-known reactions made by babies when an adult touches their hands, and the baby grasps this adult's finger instantly. This endearing and involuntary action is explained scientifically as a process in which the newborn's nerves sense a touch, process the information and react without having to send a signal to the brain, an ability that fades very early in life as Professor Morgera points out. In his study, Morgera examines the human neurological system comparing it to digital networks. He explains the processing of data in the brain as follows:

The brain, the center of most of the nervous system's processing power, has several specialized regions in its right and left hemispheres. These areas take input from sensors such as the eyes, ears and skin, and return outputs in the form of thoughts, emotions, memories and movement. In many cases, these outputs are also used by other parts of the brain as inputs that enable refinement and learning. (Advanced Digital Networks 1)

From this description of the work of the human brain, he compares it then to the newest generation of advanced telecommunications networks, known as 5G. Within these networks, the digital equivalent of the peripheral nervous system is, he argues, the 'Internet of Things' while the technological equivalent of the brain is the 'Cloud'. The connecting device similar to the spinal-- cord is a new type of network called a 'fog'. As its name signifies, Morgera defines the cloud as "an internet-connected group of powerful computers and processors that store, manage and process data [that]...work together to handle complex tasks involving large amounts of input and processing, before delivering outputs back over the internet", while the 'fog' is a "thinly distributed cloud-- set up to shorten network connections and the resulting processing delays between the cloud and remote devices. The processors and storage devices in the fog can handle tasks that require especially rapid reactions" Although Morgera conducts his studies expressing his hope for the telecommunications field and the neurology field mutually benefit from this discovery applying it to neurological disorders and diseases like autism and Alzheimer, it is specifically relevant to the scope of this paper where it elaborates on the proposition made by McLuhan concerning the relation between Man and Media.

If we think of the way the two concepts are merged, the outcome is that what this paper proposes to call the ‘Internet of Minds’ (IoM). IoM clearly borrows its name from the term Internet of Things (IoT) which is another well-known technological term that is directly related to our everyday life. Although there is “no single, universal definition” (1), as *The Internet of Things: An Overview* states, IoT generally refers to “scenarios where network connectivity and computing capability extends to objects, sensors and everyday items not normally considered computers, allowing these devices to generate, exchange and consume data with minimal human intervention” (1). In other words, IoT is a term that refers to computerizing equipment turning them into interactive devices that are capable of producing, exchanging and consuming data almost on their own. In the market now, there are a number of devices that collect data concerning an individual’s habits or routine and then acts on its own according to his/ her needs and requirements. For instance, an IoT lock that is now being manufactured worldwide. This is a ‘smart’ lock in the sense that it will perform a number of activities based on the information that has been fed to it concerning the daily routine and preferences of the user. So, it will unlock the house the moment you get in, locks it again as soon as you enter. Such IoT lock can be given to the babysitter or a guest to enter the house while you are away, and the session expires as soon as the assigned period to access the house is over for that person. Understanding the meaning and process of the IoT, we can relate to McLuhan’s idea of the extension of Man through copying some activities carried out by Man through technology. We can moreover relate to his and Professor Morgera’s idea concerning the resemblance of the processes of digital networking to that of the human nervous system. This is where the concept of the IoM finds its place.

So, let’s take a pause here and make a recap. The argument of McLuhan is that human beings throughout the years have extended their faculties into space and that the current situation is the extension of the nervous system creating human consciousness. He also argues that the medium is the message not just a delivery tool independent from the whole communication process. Morgera confirmed through his studies the resemblance between human nervous system and digital networks not just in the metaphorical level but on the scientific and functional level. He moreover argued that, just like the nervous system messages are not only delivered physically through the nodes but are also transmitted wirelessly, so do digital networks. The following diagrams would show how this is related to the concept of the IoM:

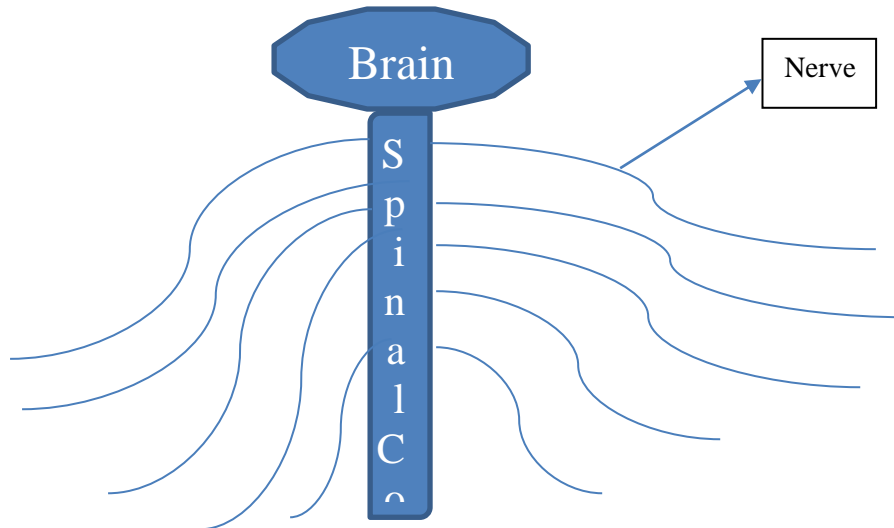


Figure 3 Diagram of the Human Nervous System

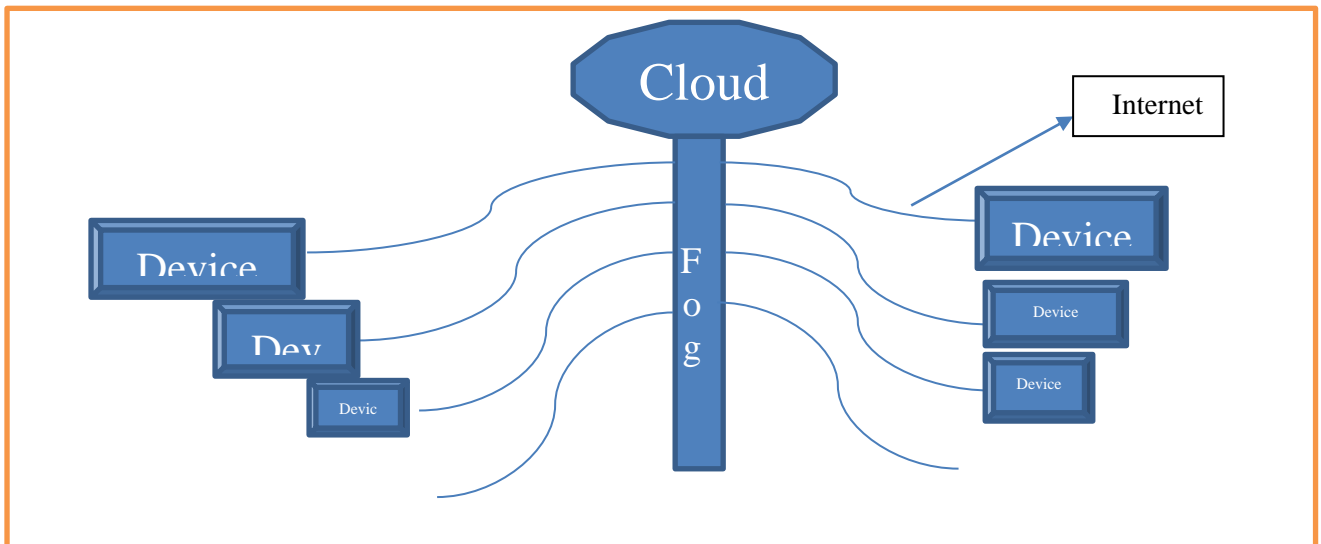


Figure 4 Internet of Things (IoT)

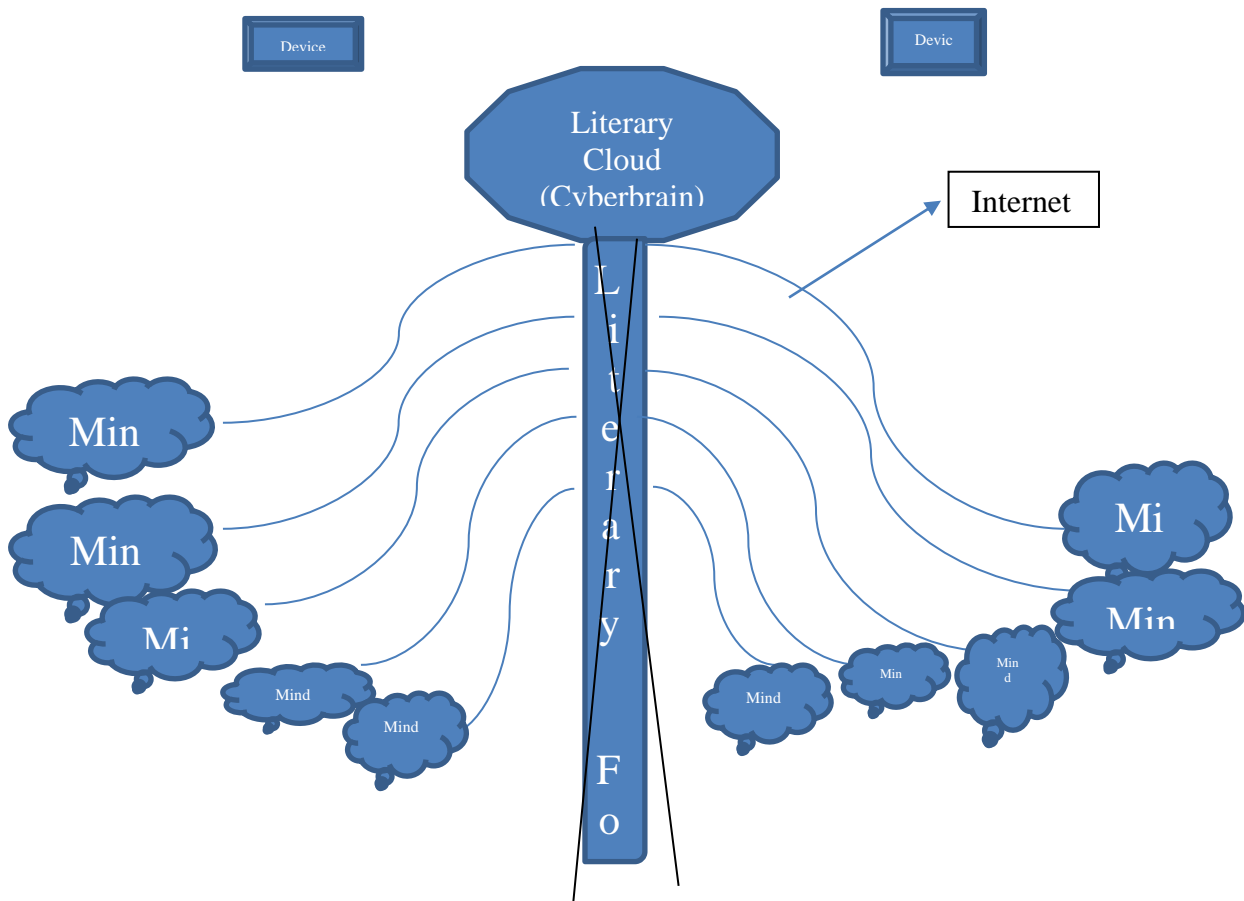


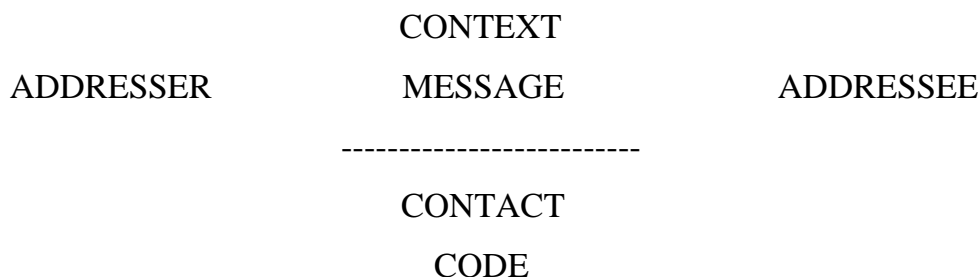
Figure 5 Internet of Minds

Figure 3 shows the main constituents of the human nervous system where there is the brain, the spinal cord, and the nerves responsible for transmitting messages to and from the brain to the various parts of the human body. Figure 4 clearly shows the resemblance between the human nervous system and the IoT in which the Cloud plays a role similar to that of the Brain, the Fog plays a role similar to the Spinal Cord and the internet plays a role similar to the role of the nerves. Figure 5 shows what I am calling the IoM in which the Cloud from a technological perspective is a Literary Cloud or what we may call a Cyberbrain. However, based on the current situation of users of the internet in the literary realm, there is not Fog. A layer of extremely important and vital role which is to overcome the random collision and mismanagement of the huge content being exchanged and transmitted through the internet.

The evolution of the Frankenstein literature is the outcome of the merger between the cold mechanical monotonous world of science with the poignant lively vivid world of arts and literature. Whereas the whole digital world, the idea of computers from start, is built over a one-way understanding and operation through electric pulses, on/off, zero/one ...etc. as is science in general, literature on the other hand is the complete contrast to that outlook with its various tones, layers,



interpretations, backgrounds and voices, as is life itself. What actually takes place can be clarified through the work of Formalism and Structuralism theorists especially Roman Jakobson and his Language Communication Theory and Mikhail Bakhtin and his concept of Heteroglossia. Roman Jakobson, in "Linguistics and Poetics", describes the communication process as such (45):



In his model, Jakobson describes the communication process as a process in which an addresser sends a message that can only be operative when it is "sizeable by the addressee" within "a context" which he terms a "referent", and is "either verbal or capable of being verbalized" as well as a code that is "fully, or at least partially, common to the addresser and addressee (or in other words, to the encoder and decoder of the message) (46). Bakhtin however spoke about a larger view of the language. As Raman Selden, Peter Widdowson, and Peter Brooker state in *A Reader's Guide to Literary Criticism*, 'Heteroglossia' according to Bakhtin refers to:

the basic condition governing the production of meaning in all discourse. It asserts the way in which context defines the meaning of utterances, which are heteroglot in so far as they put in play a multiplicity of social voices and their individual expressions. A single voice may give the impression of unity and closure, but the utterance is constantly (and to some extent unconsciously) producing a plenitude of meanings, which stem from social interaction (dialogue). (41)

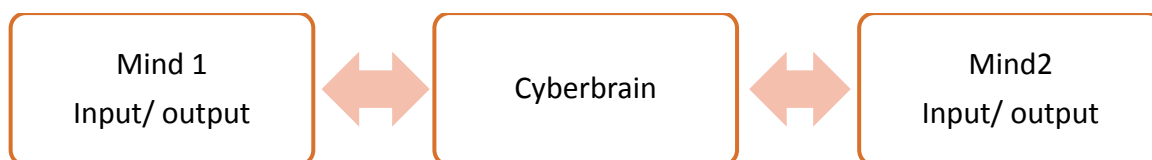
In Bakhtin's study of Tolstoy's and Dostoevsky's works, he contrasted the monologic texts of Tolstoy to Dostoevsky's dialogism. While he studied language to show "the way language is made to disrupt authority and liberate alternative voices" (52), it also draws the attention to the poignancy of language as a reflector of various value systems. The way language works is that it is sent from the addresser to the addressee through a contact and a context with a code. When we apply this to the transmission of e-literature in its broadest sense, the contact, which is the medium, is totally different from the use of paper and the written or the printed word as well as the various associations of language-- Heteroglossia.

Internet of Minds (IoM), now on in this paper will be referred to as IoM, is the process in which there are different scenarios of exchange of texts among human transmitters and recipients through digital networks in a process resembling that of human nervous system. In this process, human

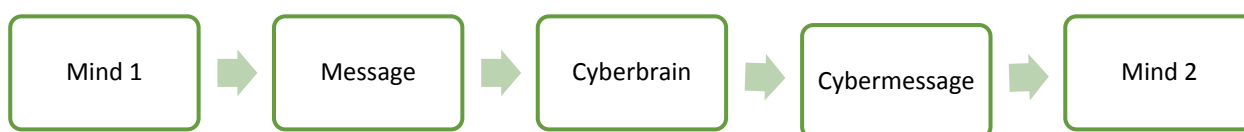
transmitters and recipients are terminals for input and output to the brain. The brain in this process is the digital medium or the cyberspace and is thus termed 'Cyberbrain'. Cyberbrain refers to the pool of e-literary production that acts and interacts digitally either creating further content or extending its processes to inducing real action/ reaction in the real world beyond the virtual medium. This literary production that combines zero one processes with mental and emotional processes incubated in that brain that constantly receives and transmits messages is not controlled or managed in anyway other than the random collision among its constituents. For any given utterance, the message is pulsed into the Cyberbrain producing a Cybermessage which is in fact a distortion of the original message which reaches its audience as such while at the same time interacts as such, a distorted message, with other messages in the Cybrain. The Cyberbrain that lacks a 'mind' or even a 'spinal cord' in human terms, is both a constructively creative and destructively exterminating force. Human minds, that create all imaginative and literary content, are mere content generators and recipients enslaved to that central Cyberbrain. Cyberbrain—a cloud that lacks a Fog that filters, manages, controls and directs-- would definitely bring out a uniquely deformed message which is different from any online or offline message—a Cybermessage. This is a message that carries only part of the intended message of the transmitter but is heavy with associations and meanings. When it enters the Cyberbrain area, it acts and interacts randomly with other messages and carries features of what Bakhtin called Heterolglossia as could be illustrated in the following figures:



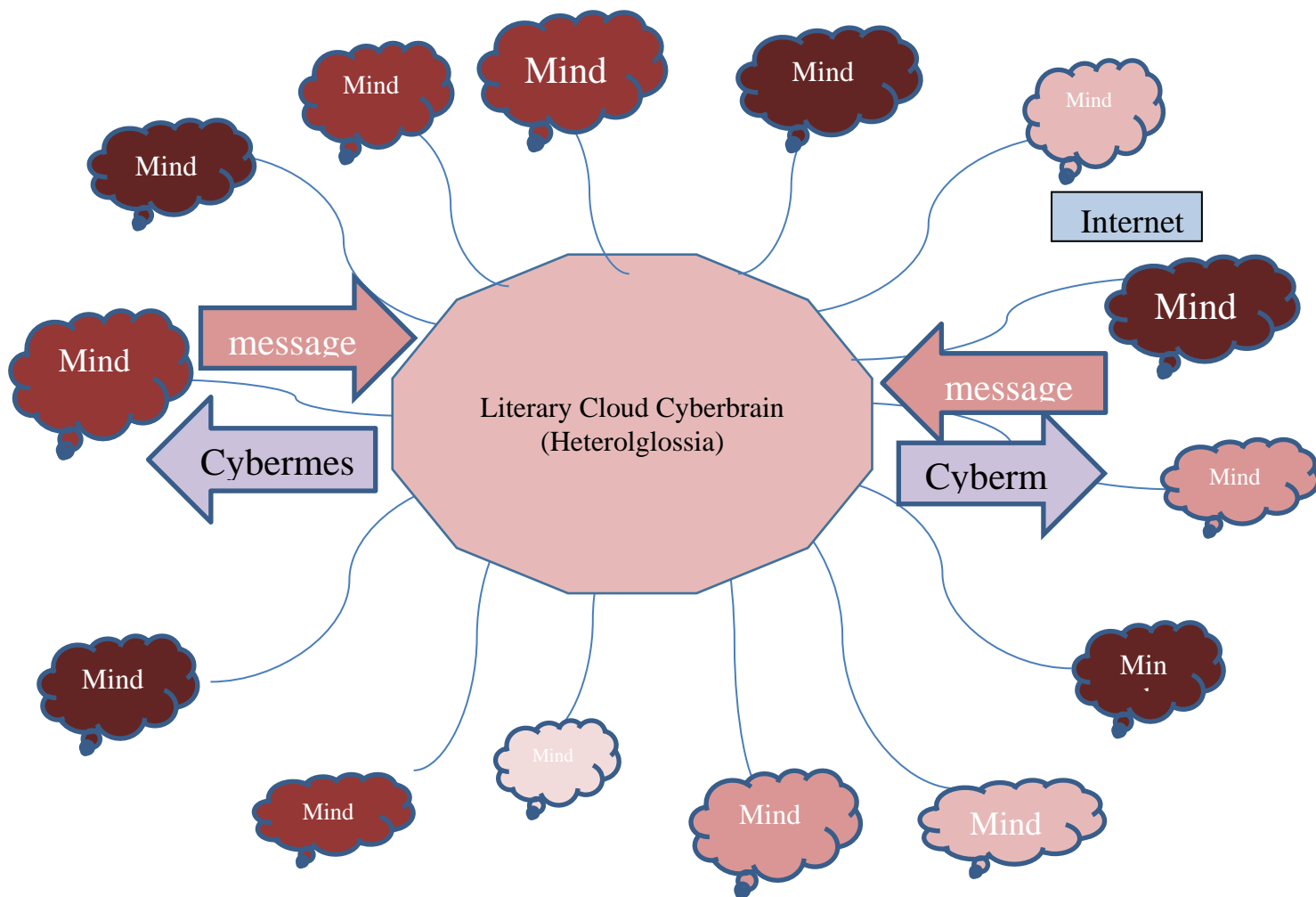
*Figure 6 Communication Process in Cyberspace*



*Figure 7 Internet of Minds Communication Process*



*Figure 8 Frankenstein Literature Content Transmission*



It is not only that any given signifier is transmitting various meanings mostly irrelevant to the signified, it is also the case that these signifiers interact with other signifiers producing completely deformed Frankenstein-like content. People's minds are connected through the IoM as do devices through the IoT. However, a basic difference between humans and things is that, among many features, humans do not just execute as do things. They think, interpret, and respond in ways relevant to the amount and type of information received. However, the internet as a medium allows a huge room for misinterpretation, over-interpretation, and under-interpretation which is contaminating the communication process as a whole.

Moreover, literature is being abused into exploiting its abilities to communicate to the most delicate and sensitive feelings to stimulate action on ground. Literature as a force of change has always been present as a soft yet effective power for causing rebellious changes. Think of all political leaders who made change, who ignited feelings and actions to causing change, mobilization of thousands and millions of people with a speech or a text. Nowadays, this takes place just with a post and a click. When the addresser is anonymous, the addressee is thousands of internet users, the outcome is fearful.

Examples are numerous including organized crime organizations and terrorists saving money and effort using the internet and literary texts singing freedom, liberty and heavenly martyrdom to recruit new calibers. Literature used to have the most elite and transcendental role as ‘an overflow of powerful feelings recollected in tranquility’ as Wordsworth famously defined and that Aristotle identified having a major moral and ethical role in achieving *Catharsis*, causing in the reader a state of purgation through feelings of pity and fear, is now used as scam tool. One example is what is called the Nigeria Letters or ‘419-fiction’ which are fraud emails sent to numerous users containing a heartfelt story about an heir of a dead millionaire who is looking for someone to help him/ her in finishing the administrative procedures in return for part of the heritage. On doing so, the victim of the fraud scam pays money as part of the expenses of the process with the promise that they will be part of the heritage the victim receives later.

But this is not the only reasons why the current overall body of literary content could be named ‘Frankenstein Literature’. The most important reason is that the content that is being created is not just causing irreversible harm in societies. Humans are not creating Frankenstein content that is going back to the creators attacking them, they are *becoming* these deformed semi-human semi- mechanical monsters? After long exposure to technology, Man is bit by bit turning into mechanical beings attempting to process like machines in all aspects. Everybody is complaining about the diminishing of humane feelings, gestures and actions. Not only actions and feelings. With the age of Big Data, Man is faced with the challenge of handling information, the huge amount of data generated and received through the different outlets whether digital, electronic or human. What Man seems to be doing is that he is resorting to the same solutions he created for handling this phenomenon by the machines. Man became a Machine processing data, creating knowledge through similar techniques to that of the machines. He is thus creating corrupt results on a larger scale. While within the scope of the creative literary process it is an Internet of Minds, in fact humans are now operating with regard to the internet in a way machines operate. Face to face interaction is minimized every day and is exchanged with an account to an account interaction. Humans/ users are sitting behind their screens, in front of their laptops, tied to their smart phones interacting with the world through an account on social media or an email or a website. Interaction, interpretation and reaction are made individually:

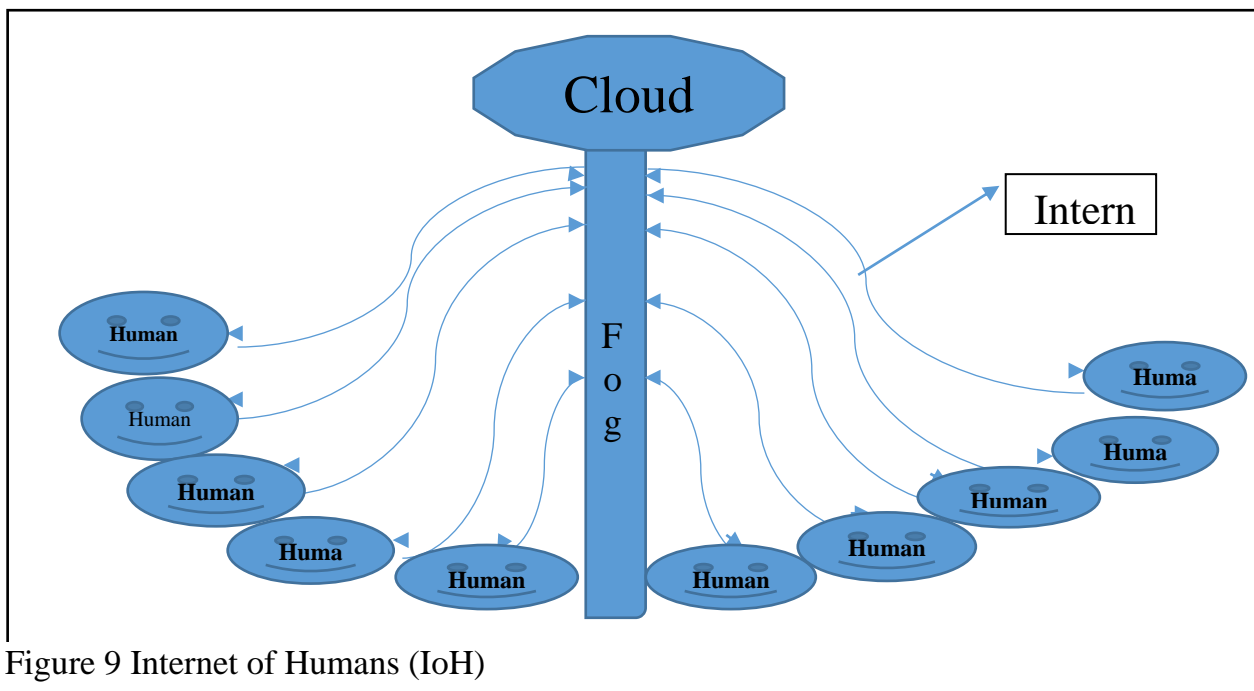


Figure 9 Internet of Humans (IoH)

Humans are acting now as semi-alive zombies who have the form of humans, the minds of the internet, and the processing of machines. They move in the world with digitalized emoticons and machinelike interactions. However, with the faculties of God's creation, they are unable to process properly as a machine and are thus more like Frankenstein's monster that resembles humans but only a deformed sick way.

With this, one of the most overwhelming emotional and mental states prevail the life of the modern man: Cyber Alienation. In Mary Shelley's novel, the reason for Dr. Victor Frankenstein's creation's monstrous behavior is its sustained feelings of loneliness and separation. After its creation and living closely to the De Lacey family and even saving their daughter, his feelings of loneliness and rejection escalates into a chronic will of extending the same feelings of loss and pain into the life of his creator. One can look to Shelley's novel as an early and a prophesizing manifesto of the future of the merger between humans and technology when it is done without an understanding of the dimensions of this activity. Our current state as semi-humans, semi-machines resemble the state of Frankenstein's monster. Moreover, our sense of constant alienation during and because of our interactions with machines that is masterly portrayed in Shelley's novel is currently expanded into an everyday exercise. Alienation which combines feelings of estrangement and isolation takes a specific dimension when it is related to technology and machines. A feeling of isolation in the forest which Frankenstein's monster experienced is different from the state of alienation a reader/ user experiences in contact with machines especially computers and smartphones. Whereas Shelley's monster experienced a combined feeling of

rejection and loneliness, reader/ users experience feelings of isolation, loneliness, and split consciousness.

Kathleen Hatley in her study of *The Development of the Concept of Alienation from Hegel to Marx* discusses the reasons for her interest in carrying out such a study on alienation which is “a concept so broad, so ubiquitous, so vaguely defined and so widely interpreted through such a variety of lenses as to be virtually unmanageable in any but an encyclopedic work?” (1). She states:

After all, one does not have to look far to see the effects of "alienated thinking". Our lack of attunement with the natural world has led us to the brink of innumerable environmental disasters. Our failure to feel connected with other people is painfully visible in the many wars being fought and the incredible stockpile of nuclear weapons we have accumulated to "protect", ourselves from each other. The growing numbers of mental patients and the somewhat less visible multitudes who lead "lives of quiet desperation" attest to a high level of psychic fragmentation. (2)

Her study was carried out in 1989, thirty years ago, when advancements in technology have not reached the current gigantic results of the inventions of the internet and smartphones however her reasons for carrying out that study are still valid. Our need to investigate the implications and effects of mechanizing humans, to fear for our human values and aesthetics, to fear for those ‘who lead lives of quiet desperation’ is becoming even more relevant.

Alienation has been discussed by many philosophers and scholars along the years. Roots of the idea can be traced back to early philosophers like Plato and his pursuit of an ideal community for the Republic. Friedrich Hegel, Karl Marx, Martin Heidegger, Erich Fromm, Jean-Paul Sartre, Roland Barthes, and many others, have contributed to the consideration of the term, its meaning, implications, magnitude, and application. Discussions have moved from the metaphysical to the physical, from the social to the lingual, and from the mental to the psychological. Hegel’s dialectic idea of Man’s inner self alienation from God and the world maintains that alienation bears two meanings. Gavin Rae refers to the two German words, “Entfremdung” meaning ‘alienation as estrangement’ and “Entausserung” meaning ‘alienation as externalisation’ (31). “Entfremdung”, Rae states, “is a process or state where consciousness is separated from, at least, one of the aspects that are required for consciousness to fully understand itself. In contrast, ‘Entausserung’ describes the process whereby consciousness externalizes itself in object form and, through this objectification, develops a better understanding of itself” (31). He thus concludes that Hegel “recognizes that the experience of alienation may be an undesirable aspect of consciousness’s existence...experiencing a particular combination of the two senses of

alienation allows consciousness to overcome its alienation” (23). As such, ‘alienation’ is a necessary stage into complete self-realization and self-actualization.

Different critics have worked on Hegel’s groundbreaking theory whether applying on it, expanding it, or challenging it. Marx, who is both, a loyal follower of Hegel and an opponent to his theory, has rejected much of Hegel’s premises. He however built his own theory on Hegel’s work criticizing alienation as a negative outcome of Capitalism. Reading into both their works by critics has ranged widely giving rise to much academia and studies that if put together would be placing each of them in contradictory places to each other and to themselves. One critic, María Teresa Nandín Vila, called for “the necessity of de-generalizing the term” (247), as it is being used in distance from what she claims to be its original meaning “which alludes to an individual incapable of finding meaning in an absurd life” (249). In fact, a discussion of ‘alienation’, in particular, as Sayers points out, “is murky and confused” (1) to the extent that it seems like critics are discussing” two quite different concepts [that] have been mixed up in it which have little real connection with each other.” (1) As Sayers clarifies, in Marxist literature, alienation is often taken to be a concept that describes and criticizes the social and economic conditions of capitalism (1). On the other extreme side, in existentialist writing, “the concept is used primarily to refer to a psychological, perhaps even spiritual, kind of malaise which is pervasive in modern society but not specific to it. Rather it is symptomatic of the human condition as such” (1).

In this paper, alienation that combines meanings of split identities and consciousness, loss, separateness, and estrangement is applicable. Hegel’s theory of a split self that is alienated from its source could be foundational. However, this culminates into undesirable outcomes. As Erich Fromm in *The Sane Society* puts it, Man’s basic physical needs are not the only needs required for his sanity. Other needs are the true motivator of his sanity and productivity stemming from conditions of the human situation:

Those needs which he shares with the animal—hunger, thirst, need for sleep and sexual satisfaction—are important, being rooted in the inner chemistry of the body, and they can become all powerful when they remain unsatisfied... But even their complete satisfaction is not a sufficient condition for sanity and mental health. These depend on the satisfaction of those needs and passions which are specifically human, and which stem from the conditions of the human situation: the need for relatedness, transcendence, rootedness, the need for a sense of identity and the need for a frame of orientation and devotion. The great passions of man, his lust for power, his vanity, his search for truth, his passion for love and brotherliness, his destructiveness as well as his creativeness, every powerful

desire which motivates man's actions, is rooted in this specific human source, not in the various stages of his libido as Freud's construction postulated. (66, 67)

Cyber Alienation is the antithesis to relatedness, rootedness, and the need for a sense of identity and devotion. It thus has various and diverse meanings and associations relevant to the writer, the text, and socio-economic circumstances.

By Cyber Alienation is meant a state of split existence, isolation, and detachment that involves the writer, the reader/ user of digital literature (Frankenstein Literature), as well as the characters of the digital literary work. It is a mode of separation and estrangement that is experienced in contact with cyberspace. Thus Hegel's idea of estrangement meaning detachment is one sense of the word. While Hegel's discussion referred to detachment and estrangement from the self for better realization of the Creator, Cyber Alienation refers to the individual's double identity and split consciousness in the cyberspace. Within the cyber world, individuals have at least two identities, usually more, that result in a split consciousness: one identity which any individual owns and interacts with within the real world, another identity is that which an individual embraces and interacts with within the virtual world. Other associations of the word alienation are relevant as the nature of the digital experience, and no matter how collective it is-- by collective meaning involving many persons, and various activities— is one of the most isolating detaching quarantining experiences. In fact, with the introduction of technology in general to the world and its wide uses, paper-published literary works have been skillfully portraying the loneliness and detachment of the modern man due to an increased use of technology and the diminishing of human values. Within the digital experience, it is not only portrayed, it is lived. This is also being reflected in most of the current digital literary writing. In the three works tackled in this paper, features of Cyber Alienation become very clear. In *10:01* by Lance Olsen and Tim Guthrie, *Chat* by Mohamed Sanajelah, and *Flightpaths: A Networked Novel* by Kate Pullinger, Chris Joseph, and participants, values of loss, seclusion, social isolation, corrupt messaging, purposelessness, and separation govern the three works. It is safe to say that such values flood digital writing in general and are specifically combined within the digital literary encounter causing what might be collectively termed Cyber Alienation.

*10:01* is a novel that is set in a movie theatre in the Mall of America just ten minutes before the beginning of the movie and spans till the first minute of the beginning of movie. This is presented through a number of characters who are supposedly attending the movie. It was originally a paperback published novel by Lance Olsen then adapted into a digital work with Tim Guthrie. The title of the novel directly reflects a juxtaposition in time. It refers to a time interval which seems to be the end of



something and the beginning of something else. If the reader is not acquainted with the plot of the novel, one would expect this to be past the time of arrival or departure or beginning or ending of a certain meeting or significant incident by one minute: it is ten and one. This minute is the minute of the unknown, whether it is a moment that precedes or follows the culmination of a certain activity, or both, it is almost always a moment of questions about the future and the past. In fact, and in an association that is remotely intended from the author, this time interval reflects on the timing of the current age concerning the introduction of a technology that is greatly expected to end the use of paper published literature in general or at least to diminish its use in the old sense of reading a paper book into a classic or antique activity. We are just a few years before this instance, sitting in our chairs, waiting for this moment to come. No matter what our expectations are, the actual moment of occurrence will tell.

On the other hand, *Chat* is a digital novel written in Arabic that tackles a story of a chat combined with mistaken identities juxtaposing the virtual world with the real. Just like 10:01, the title of *Chat* reflects a juxtaposition of time. The Arabic title of the novel is Chat شات; an Arabic transliteration of the English word. As such, 'chat' is a term that is usually used by Arabic speaking public to refer to activities of conversing through applications and websites that enable people to chat via electronic devices especially connected to the internet. It thus refers to modernist activities of current and futuristic times. Since the language of the novel is Arabic, the use of that English word in Arabic letters is another significant feature of current generations who transliterate English into Arabic and vice versa when communicating through the internet. On a deeper level, it sadly reflects the failure of Arabic language scholars and experts to provide innovative updated Arabic lingo to cope with advancements in technology. It is noteworthy that Sanajelah is considered one of the first, if not the first digital novel writer in the Arab world with his digital novel published in 2005 *Shadows of the Lover*. The Jordanian physician, who has established the Internet Arab Writers Association, produced a number of digital novels and is an ardent promoter of Arabic digital literature and studies through different channels.

*FlightPaths* is a digital novel that narrates the story of the flight paths of three characters- Yacub, Harriet, and Jack and the intersection of their stories. Based on true stories of immigrants who are smuggled in airplanes and fall out of them near Heathrow Airport—at least five registered cases—this is a story of a Pakistani laborer in Dubai attempting to travel to London but falls on one of the cars. The intersection of his story with that of the car's owner forms the plot of the novel. As the title suggests, it is simply the story of different flight paths, the juxtaposition here is in time and place. A flight designates a time of departure and arrival, and a place of departure and arrival. On the webpage of the novel, the production of the novel is referred to as made by Pullinger, Chris

Joseph, and participants. The novel which is subtitled 'A Networked Novel'. Amy Spencer explains what is meant by a networked novel: "The networked novel has emerged over the past six years as a form of digital book that is written, edited, and published online. Whereas a printed book is closed, the networked novel is open. It exists online and can include text, audio, video, links to other online sources and anything else you can imagine" (Amy Spencer. *A Short History of the Networked Novel*. 2013) The webpage is of blue background with six hyperlinked images. Each image is titled: Yacub in Dubai, Yacub at the Airport, Harriet Driving, Dark Mass, Paths Crossing, Jack Meets Yacub. In fact, and in spite of the contribution of many individuals in producing the novel, the feeling of loneliness and isolation nonetheless prevails.

As a digital novel, the term 'setting' extends to include the design, colors, places, and distribution of the hyperlinks on the page. It could also be stretched more to include sound effects and background music. From the first encounter with the setting of any of these works, a deep feeling of loneliness and isolation is reflected. In *10:01*, the entire novel is set in the same webpage with the same design that is rich in hyperlinks. Portraits of the few attendees present in the almost empty auditorium are hyperlinked so the reader/ user may click on any of them as a hyperlink. With this click, a dialog box emerges written in it the part of the novel relevant to that character. To the bottom of the page, there are tiny circular icons that refer to definite time intervals. When the reader clicks on them, a dialog box emerges referring to a specific timing with background references and recurrent ideas in the mind of one of the characters seated in the auditorium. The attendees in the movie theatre are spread seated with their backs to the reader/ user, all black in color as shadows of seated individuals. The reader/ user in his position in front of the computer screen is taking the same posture as one of them. Except for the dialogue box, the page is colored in black, blue, and dark red. From that setting, *Cyber Alienation* is manifest. Shadowed individuals scattered in a movie theatre, each one's prime connection is with the movie that is expected to play and not to each other. Silence prevails except with sound effects that play as the reader/ user clicks on one of the attendees and thoughts or background information of that person is presented.

On this webpage, a long ago separated genre from literature is finally united to its sibling. Isolation and separation governing the life of the modern man especially within the context of human interaction with technology is emphasized. Technology even in the field of entertainment, while increasing the amount of pleasure and 'spectacle' in the Aristotelian sense, have also separated and isolated the individual from his fellow humans. Although sharing watching a movie in the theatre could be one of the most pleasant human experiences, it was the invention of the television that

separated members of the same family under the same roof into their separate rooms with their separate devices—a habit that evolved and extended with the invention of the mobiles and smartphones. In fact, this work was especially selected as a direct manifestation of the concept of Frankenstein literature in many aspects. As a work that connects literature with technology, it also documents one of the initial moments of that venture that has been taking place at the dawn of the previous century with the inventions of televisions and filmmaking. In spite of thousands of televised and filmed works adapted from literature, movies are not considered by most literary critics as a genre of literature, unlike plays.

The way the audience is seated, moreover, instantly recalls Plato's philosophy in his discussion of the role of the philosopher and author and their detachment with the image of the Cave in *The Republic* whose people are seated watching an imitation of life playing. Plato in that context was referring to detachment in two senses: detachment from the real world by losing oneself in the imitated world perceiving it as real, and the need for detachment from the imitated world to realize the truth as a valuable and necessary state that is only achieved by the philosopher who is able to turn around and face the real world. Thus by copying the reader/ user's position in front of their computers, while technology is absorbing its users into an imitation of an imitation of life, sense, truth is away from the screen. Real life is away from the screen.

In *Chat*, from the beginning, Cyber Alienation is stressed. The novel starts off with a screen in two colors only: black background and 0/ 1 dynamic green stripes that directly calls to mind *The Matrix*, a famous movie that used these same stripes. This movie also alluded to Plato's Cave People with the concept that the world we are witnessing is not the real world. The movie however referred to a parallel world completely controlled and governed by software and programmers which is the real world and not the one we are living in. In fact, one of the characters in the novel mentions the movie. The title of the novel is written *Chat* in Arabic and then subtitled "a Realist Digital Novel". Then the sound of the rolling stripes is transformed to the Aeolian sound of wind with the scene of an extended desert with nothing but sand. A text box is expanded over the screen with the first line "it was boredom and coincidence that led me into this experience." The Matrix-like overture, the Aeolian sound, the desert, and the opening line reflect a sense of isolation and loneliness on the characters. Moreover, just like *10:01*, the reader/ user shares the same status of the novel's setting where there is an interaction between the virtual world and the real world. Such interaction isolates the reader/ user from the real world into a fake 'realistic' world. This isolation is moreover stressed with the setting of the novel with all its details.

The setting of *Flight Paths* is on the other hand different than both. With a blue background and an airplane replacing the dot of the word 'flight' in the title, a feeling of freedom that is usually connected to flying, peace, and calmness evolves. However, this feeling is disturbed by the six pictures representing the six chapters of the novel. The disturbance is the result to what these pictures portray: skyscrapers shot through a yellow filter, a black gloomy sky, a street with traffic lights with the red light on, a gloomy sky with a title 'Dark Mass', a red car with a damaged ceiling and a black shadow of what seems to be a man. Like *10:01*, there are no sound effects or musical tracks on the main webpage. However, as the reader/ user click on the links, each chapter is accompanied with a corresponding musical background.

*10:01* is a cry against the negative impact of modernism in general on humanity. Olsen presents a number of sketched characters that represent different age and back ground categories. The naming of the mall in which the movie theatre is located is highly significant: The Mall of America. America, like the rest of the world, is becoming just a huge market of consumers of products in which the needs for them were created in order to be sold. Between the unnecessary need and the unsatisfied unnecessary need, humans are controlled with consumers' cultures. This is evident in the mental status of his characters who, although are all attending the same movie, and although some of them are seated together, no one has any connection to the other. What is more astonishing is that through exploring their history, dreams and thoughts, none of them has any connection with anyone. Kate Frazey is the great- great granddaughter of Franz Kafka "although she carries no awareness of this within her" (Olsen *10:01*). Moira Lovelace, the Algebra teacher, has no connection with her students: "she cannot understand their lingo. She cannot understand their clothing. What they listen to too loudly through their headphones may be many things, but none of them is music" (Olsen *10:01*). The Algebra teacher uses technology to exercise her double personality. In an attempt to overcome her isolation and loneliness, the respectable Math teacher makes sex videos mailing them "to strangers across the country" (Olsen *10:01*). She does this just because the simple idea that someone "may be thinking about her this very second in Omaha, Nebraska, and how" (Olsen *10:01*) revives her. Josh Hartnett, is an actor who is attending his movie wearing "a fake goatee, tiny round wire-rimmed glasses, and schlumpy Irish tweed walking hat" (Olsen *10:01*). He attempts to conceal his identity; however, it is a fake attempt that entails a need for connection with his audience who should recognize him even with his poor disguise. He remains in the movie theatre "wishing someone would recognize him. How famous can you really be... if you can throw people off this easily?" (Olsen *10:01*). Another character is Vito Paluso who merges reality with fiction in his imaginative world. As the assistant manager at the

Mall of America, he watches the surveillance cameras as people seem to be characters in a movie. He is mostly interested in tourists taking photos specifically the moments exactly after the photo is taken: “when people slowly stop smiling after the shot has been snapped and you can actually see their public masks soften and melt back into everyday blandness, a gesture always accompanied by a slight lowering of the head in a miniature act of capitulation” (Olsen *10:01*). All these characters reflect feelings of alienation which is a specific type of alienation. It contains features of isolation, double identity in relation to technology and estrangement. They all suffer from ‘lost connection’, the pun intended. As connection is an expression usually used within the cyber world that refers to being able to connect your device to the internet and thus become connected to the world, they lack the connection in the real world while trying to create it through one of the technological devices.

The characterization goes on to emphasize the attendees’ disconnection to anything and their deep need for a sense of relatedness to anything. The one thing they are related to in some way in the movie that is only a distorted, or changed, version of reality. As Stephen-Paul Martin states in “Already Too Many Stories in the World”: “Most of these people are at the movies to watch their own movies, and *10:01* revolves around the ongoing tension between the cinematic time of frames moving in a linear, mechanistic sequence and the human time of subjective experience moving freely, in many different improvised patterns” (Martin *Already Too Many Stories*). Thus Martin argues that the movie is the only connection since the attendees are looking for themselves in the story played in front of them. He sustains that real life’s unpredictable dynamic plot is opposed to the cinematic plot. However, one might see Olsen’s contrast as being between another dichotomy namely between the new media plots like that digital novel with all its hyperlinks and external links and those of the linear plot like a paper published book. This is echoed clearly in the ending of the novel with a terrorist attack that takes place at 09:27:10. Reactions of the different characters just reflect their diverse mindsets. This nonlinear sequence is only a reflection of the nonlinear sequence of digital novels. In other words, it is an ode to digital novels as the most suitable and honest reflection of life. So, when the terrorist attack erupts, the most significant response is that of Josh Hartnett, the actor, who attempts to continue his impersonation of his characters, this time as “Sergeant Matt Eversmann in *Black Hawk Down* and his mission is to boost his men’s morale” (Olsen *10:01*). However, a realization of his double consciousness hits him: “Through the dust and smoke, he sees his soggy Irish tweed walking hat and fake goatee. Something in him liquefies. Shit, man. Shit. This isn’t a stupid movie. He’s no army Ranger. This is the real deal” (Olsen *10:01*). Between his staged character in the movie, his under disguise character in the movie theatre, and his real character, he wakes up from his alienated

consciousness: “This is the real deal, and he’s just Josh Hartnett, the schmuck with really nice eyes” (Olsen 10:01). With this realization, he peels off his characters, and the real him comes out, screaming, “He drops his hat and goatee. ‘Help us!’ he screams. ‘Oh, god, help us! Help us! We’re gonna die! Stand by to crash! *Help us!* Help!” (Olsen 10:01). Contrasted to him is Milo Magnani’s reaction whose obsession with movies, with a parallel world to the extent of dreaming of finishing his unfinishable movie of footages from the surveillance cameras of the mall in what seems to be during the terrorist attack at 09:28:15. Creating in his mind a story about each one of them, he gets theatrical in his movement “glows with quiet pride, gives their thoughts back to these people, and straightening his bowtie unnecessarily, rises to depart” (Olsen 10:01). Living in his dreamland, he sees the terrorists’ chaos through his dreamy lens only interested in the movie: “Around him, throats clear, feet scrape, candy wrappers crinkle. The world grows brighter and brighter and brighter. Milo waits. The film begins” (Olsen 10:01).

In *Chat*, Sanajelah stresses directly on the various aspects of Cyber Alienation. Nezar, the protagonist, gets a message on his mobile from a girl mistaking him for her lover or more precisely ex-lover. The plot wanders among the various technological devices for communication specifically the mobile, the email, the Yahoo Messenger and chat rooms. Within the cyber context, alienation is the norm. Nezar is not Manal’s lover, but she keeps texting him for a while as such, Manal is nicknamed Lilian as she tells Nezar introducing him to a chatroom of her ‘friends’. She tells him: “Manal is my real name and I cannot give it to whomever. I am here named Lilian... don’t forget” (Sanajelah *Chat*). All the names of the chat room are nicknames that copy political figures: Saddam, Bin Laden, Guevara. Some of the names are descriptive: Angry, Moslem...etc. Nizar, who is escaping his broken marriage to his beloved wife, compensates for her loss with having online sex with Manal. Even her name “Manal” which she gives him could be a nickname of her real name for all he knows of her are her messages. She might even be a man in real life. In fact, he is trying to compensate for his whole lost life by creating a virtual life and a virtual world of his own. He creates a chat room which he calls “Lovers Kingdom... Home to Love and Freedom”. This chatroom absorbs him completely to the extent that he was fired from his job for continuous absence. However, he explains his feelings “I didn’t care, I made up my mind and knew my path... had they not fired me, I would have fired myself” (Sanajelah, *Chat*). And just like Frankenstein, Nizar created a monster that escaped the artificial world into his real life. He bought a café and a room above to be able to monitor everything. As part of the absorption of his characters into the cyber world, Sanajelah writes a love scene that is highly symbolic and highly repugnant when Nezar and Manal/ Lilian have online sex. As a testimony to the artificiality

of the cyber experience, she does not change her username to Manal even when they are exchanging vows of love. In the climax of the act, he calls her by her nickname “oh, Lilian... kiss me... I need your little kisses on my lips” (Sanjelah, *Chat*). However, his chat room mates revolt against him. In his decision to end the revolution, to end the virtual war, he deletes the chat room as a whole to return back to life.

However, it was Nezar’s failure to achieve his dreams in life that led him to the cyber world. That is why after thirteen days of loss in the real world, in which he has “wandered the Amman streets and its bars, was drunk for thirteen days in which [I] drank tons of beer” (Sanjelah, *Chat*). However, his “state of emptiness was becoming more deeply entrenched” (Sanjelah, *Chat*). His resistance collapsed, his real life experience was too difficult to survive with his cyber identity “the fourteenth day I felt almost dead... ultimate loneliness and an anesthetic body” (Sanjelah, *Chat*). The novel ends with Nizar’s decision to build a new chatroom “Poets Home... House of Poetry, Love, and Freedom”. A deluded dream of an impossible kingdom. Just like Milo in *10:01*, in the final scene of the novel, Nizar refuses to come back to the real life. Regardless of the damage, the delusions, the isolation, and lack of connection to reality, they both choose to remain in a secluded place away from the real world where they are able to create a virtual world that is both unreal and comforting. Although in *10:01*, it is not a cyber-world per se, meaning that is related directly to computers and the internet, however the term is chosen as being significant of this era in which even movies and films are played, distributed and shared as cyber material. Moreover, it is in this era that old media regained a deeper and stronger influence of humans everyday lives. In all cases, it is a term most relevant to the digital novel that is only available through the cyberspace.

*FlightPaths*, however tackles Cyber Alienation in a different pattern. It is both an exercise of Cyber Alienation and an attempt to overcome it. As a networked novel, characters, plot, setting and all the elements of the novel are changeable with the contributions of selected participants. From among the three works tackled in this paper, from an artistic point of view, this novel is the most eye and ears engaging. The pictures are realist and surrealist reflecting on the various associations of the simple plot of the novel. It is a true manifestation of the saying a picture is worth a thousand words. While narrating the simple story of Yacub who sneaks into one of the airplanes travelling to England falling out of it on Harriet’s car as it is close to landing, so much is transmitted through the senses. The first chapter ‘Yacub in Dubai’, the background music is eastern Arabic Oud with pictures from Dubai all picked or painted through a yellow lens telling the story of Yacub’s arrival to Dubai: “I went to Dubai from my home because I heard I could earn good money” (Kate Pullinger, Chris

Joseph, and participants *Flightpaths*). The yellow color reflects not only the desert of Dubai but also Yacub's disappointment with all the images of a developed country with hundreds of skyscrapers where everything was new, "the conditions were not good, worse than at home" (Kate Pullinger, Chris Joseph, and participants *Flightpaths*). The second chapter which narrates the story of his sneaking through the doors of the airport to the plane, is all monochrome. The tragic activity of smuggling of migrants is reflected in the blackened pictures where Yacub "skimmed up the landing gear and folded myself onto the little shelf which was exactly where Aamer said it would be" (Kate Pullinger, Chris Joseph, and participants *Flightpaths*). On the other hand, chapter three portrays Harriet, a British mother who is quickly driving to the supermarket to bring food because she is "a good wife... a good mummy" (Kate Pullinger, Chris Joseph, and participants *Flightpaths*). The pictures are bright; music is quick paced English song. The fifth chapter that skillfully juxtaposes the two worlds, Yacub's dark narrow place in the airplane, and the world, with Harriet's colored wide world of choices and luxury in the supermarket dividing the screen several times between them: "I am crushed into this too small space; I have been here for an eternity" (Kate Pullinger, Chris Joseph, and participants *Flightpaths*), "I push the loaded trolley across the car park, battling to keep its wonky wheels on track as it veers toward the row of shiny bumpers" (Kate Pullinger, Chris Joseph, and participants *Flightpaths*). Yacub falls from the airplane. It is not a fall, it is freedom, it is an arrival. It is the destination: "I am set free, I am flying from the sky, I am here at last" (Kate Pullinger, Chris Joseph, and participants *Flightpaths*). The sixth chapter is where Yacub meets Harriet's son Jack. Taken by surprise, Yacub tells him that he has been living in their house's pantry: "You mother thinks I'm dead and that no one can see me. Except her... Please don't tell her you can see me. Can I play?" (Kate Pullinger, Chris Joseph, and participants *Flightpaths*). The novel ends of both of them sitting to play a game on the computer or a PlayStation device.

In this novel, a serious attempt is made to overcome Cyber Alienation. While, and just like any digital novel, the user/ reader involuntarily enters a state of Cyber Alienation in which he is isolated completely from his surroundings consumed in his cyber experience, a networked novel is an attempt to overcome the negative outcomes of this form. It is moreover a utilization of the facilities of the new age to reach a collaborated version of the artistic work that not only appeals to the different senses, but also collects the efforts of various participants into its accomplishment. As such, it creates a state of artistic creativity bringing down the barriers between the reader/ user, and the writer/ producer. They exchange roles mutually producing a highly artistically creative work that is also rich in human values. Such works could be in which the reader/ user is engaged in an artistic activity are exactly what the



world needs in an era of Frankenstein Literature. This is not only an option; it is a serious need. In fact, with the diminution in the use of the printed paper publications and the inclination of the newer generation to use technology in their everyday life, what seemed at a time as a question of “if” technology and electronic/ digital literature will replace the printed versions, it is now a question of “when” and “how”. Not only because of its accessibility and the possibilities it gives to both readers and authors, but also because this is the only way to fit with the life style of the newer generations. With a generation that uses their smart phone, laptops, automated systems, AI...etc. As a way of life, a generation that is almost always connected to the internet, an internet service that is made available in many countries free of charge with complete coverage of all areas, a time frame for everyday activities that is constantly getting busier, tighter and more demanding, electronic forms of literature are the more likely to survive and sustain.

With such a view, a more liberal understanding and analysis is necessary in which many types and creations of traditional Media and New Media was usually excluded as literature. Movies and songs were never considered literature in the mainstream academia of literary criticism in spite of the fact that plays are, although both were originally written literary texts that are performed by artists. Written plays- drama- are included under the umbrella of literature, but what about movies scripts, and songs’ lyrics some of which were originally poems? Do they maintain their categorization as literature just by being written and lose their eligibility when performed? Why do not we go back to the roots of the study of literature which we teach for first year students of literature? Don’t we teach them Aristotle’s and Plato’s concepts of Art and artists as the roots of the study of literature? Is there a teacher of literature who is not well informed of Aristotle’s six elements of tragedy that includes spectacle and song? What about the new form of audio- novels? Are not they literature or have they lost their eligibility because they are orated and not written, heard but not read? Or do they gain eligibility just because there is a written text of them? Are or are not oral folk tales considered literature? Literature has been evolving as life evolved and with the revolution in communications technology, literature has to jump on the wagon. Literature is, according to the Merriam-Webster Dictionary “the production of literary work especially as an occupation”, “writings in prose or verse *especially* **writings** having excellence of form or expression and expressing ideas of permanent or universal interest”. On the other hand, Britannica Encyclopedia recognizes the difficulty of filtering literature from the volume of written texts since even “writings that are primarily informative—technical, scholarly, journalistic—would be excluded from the rank of literature by most, though not all, critics” Writing that “possess something called artistic merit” are accepted as literature although

“the nature of artistic merit is less easy to define than to recognize... a scientific exposition might be of great literary value and a pedestrian poem of none at all” But do they have to be written and remain so?

Such questions highlight the need to revise traditional borders of the discipline and accept discussions and efforts of shaking previously fixed assumptions and categories. This is not only an exercise of flexibility on the side of literary critics made just for the fun of it. It is the duty of literary theorists and critics to keep up with the mandates of the age and the newer generation. Lack or scarcity of such attempts led to announcements of the death of literature and its inappropriateness in an age of science and technology. S. Habib Mousavi and S. Mohammad Ali Mousavi point out that, “Twentieth century has witnessed certain hideous and gruesome neologies as ‘death of literature,’ the ‘end of literature,’ the ‘death of culture,’ ‘death of author,’ ‘anti-art,’ ‘disappearance of literature,’ and ‘postculture.’” (53) Flexibility in the minds of literary critics is now more critical than ever. Think of Terry Eagleton’s question/ study “What is Literature?” where he emphatically defines literature through the eyes of the various ‘readers/critics of literature. Definitions vary but they all revolve around one fact: literature is a written work of art that carries exceptional elevating artistic qualities and universal values. But does it have to be written? At least in the traditional way as paper or screen based alphabet? How about a code? How about performed? Towards the end of his book, Eagleton gives an important statement:

If literature matters today, it is chiefly because it seems to many conventional critics one of the few remaining places where, in a divided, fragmented world, a sense of universal value may still be incarnate; and where, in a sordidly material world, a rare glimpse of transcendence can still be attained. Hence, no doubt, the otherwise inexplicably intense, even virulent passions which such a minority, academicist pursuit as literary theory tends to unleash. For if even this precariously surviving enclave of art can be historicized, materialized, deconstructed, then where indeed is one to find value in a degraded world? (208)

Literature’s most significant quality should not be that it is written. It is that its core is WORDS that transmit values, emotions, meanings, associations, imagery, purgation, passion, transcendence and idealism. Those words whether written, uttered, thought of or scripted, as long as they achieve what literature basically has been and hopefully, for the good of humankind, continue to achieve, make up what can be termed ‘literature’. This literature without the interference of literary scholars to create a *Spinal Cord* for the mad Internet of Minds, the value provider of that degraded world will only continue to be a transmitter of corrupt messages and deformed values that will damage humanity placing them in a state of negative Cyber Alienation, like a malicious virus, manipulating their minds

and feelings from inside out. The new age of technology provides us with tools of connection and connectivity that has never been available before. Our access to such tools should be guided with an honest and conscious effort to maintain the humanity of humans and their values. It gives artists of all backgrounds infinite possibilities and access to imaginative realms that thinking about them previously was only considered mad dreamers' fantasies. Used properly, then, it could bring together all parties involved in the literary creative process to lands of beauty and magnificence just as literature has always succeeded in achieving.

## المستخلص

إنترنت العقول (IoM) وتطور أدب فرانكشتاين: ملامح الاغتراب الإلكتروني في 10:01 لكل من لانس أولسن وتيم غوثري، وشاتل محمد سناجيله، ومسارات التحليق-رواية شبكية لكيت بولينجر وكريس جوزيف ومشاركين.

## رشا محمد وجدي محمد الليثي

لم يمض وقت طويل منذ ان تنبأ كاتبنا بالمستقبل. سيخترع عالما قطعة فنية لنتكون كائنا ميئاً. سوف يتحدث ، يستمع، يتفاعل، ويكون له عقل خاص به. سيكون مخلوقاً مشوهاً يتجاوز طموحات خالقه عابراً جميع الخطوط الحمراء. بينما أعلن رولاند بارث منذ زمن طويل "وفاة المؤلف"، فإن العصر الرقمي يؤيد هذه النظرية. إن الدمج بين التكنولوجيا - أداة براغماتية باردة - والأدب - فن حيوي حي- ينتج ذرية مؤثرة بشكل جميل ومشوهة بشكل مخيف. تقترح هذه الورقة أن هذا النسل يمكن أن يسمى "أدب فرانكشتاين" في إشارة إلى النتائج التي لا يمكن السيطرة عليها من دمج السمات البشرية مع الابتكار التكنولوجي والعلمي دون الأخذ في الاعتبار الأبعاد الثقافية والاجتماعية. من الواضح أن مصطلح "أدب فرانكشتاين" يستعير تسميته من رواية ماري شيلي بذات الاسم. ومع ذلك، فإن اختيار الاسم لا يشير فقط إلى النهاية الرهيبة للرواية التي أهلك فيها المصنعه. الأهم من ذلك أنها تشير إلى قيمة أكثر عمقاً: تداعيات الاغتراب والعزلة الاجتماعية في سياق عالم جديد من البشر التكنولوجيين أو التكنولوجيا البشرية على المبتكر والمبدع و شخصياته. بينما يشير مصطلح "الإنترنت" إلى شبكة الكمبيوتر العالمية، ويشير "إنترنت الأشياء (IoT)" إلى الترابط بين أجهزة الحوسبة المضمنة في الأجهزة اليومية ، فإن "Internet of Minds" أو إنترنت العقول (IoM) هو مصطلح تقترحه هذه الورقة في إشارة إلى التواصل بين العقول عبر الإنترنت.

و انه لمن المدهش، و عكس ما كان متوقعا من تقنية تم اختراعها في الأساس لتواصل الأشخاص، فإن النتيجة هي عكس ذلك تماماً. فبجانب التلاعب بالرسائل المرسله، فانه كثف من عزل مستخدمي الإنترنت. و لذلك تعد سمات الاغتراب والعزلة الاجتماعية الموضوع الرئيسي والأكثر تكراراً في العالم الرقمي. هذه السمة، "الاغتراب"، التي درسها الفلاسفة والمنظرون والعلماء الأدبيون والمفكرون عبر سنوات عديدة من النقد الأدبي، تعد حالياً ذات طبيعة خاصة وأبعاد متنوعة داخل عالم الإنترنت. هذه الورقة تعطي ايضاً مصطلحاً للإنتاج اللانهائي والذي يتضمن جميع المحتوى المنقول، والمنشأ، والمنشور عبر الإنترنت و بدون انترنت باستخدام التكنولوجيا الرقمية سواء بشكل منفرد أو مدمج مع أشكال فنية أخرى سواء أكانت سمعية أم بصرية. علاوة على ذلك ، تقدم هذه الورقة دراسة لسمة شائعة في الكثير من هذا المحتوى وهو نوع خاص من "الاغتراب" المتعلق بالتجربة السيبرانية التي يمكن أن يطلق عليها Cyber Alienation او الاغتراب الإلكتروني. وبالتالي، سيتم تقسيم هذه الورقة إلى ثلاثة أجزاء. أولاً، ستكون هناك نظرة سريعة على المراحل الأخيرة من تطور الأدب في العصر الرقمي. بعد ذلك، سيكون هناك عرض للمصطلحين اللذين تقترحهما هذه الورقة للظاهرة الناتجة عن اللقاء بين الأدب والإعلام الجديد، وهما إنترنت العقول (IoT) و ادب فرانكشتاين. ثالثاً، سيكون هناك تحليل لثلاثة أعمال رقمية هي 10:01 للانس أولسن وتيم غوثري ، وشاتل محمد سناجيله ، ومسارات التحليق :رواية شبكية لكيت بولينجر وكريس جوزيف والمشاركين لتقديم سمات ما تقترحه هذه الورقة على أنها اغتراب الكتروني.

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<sup>1</sup> All excerpts and quotations from this book are my translation.

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