

**Online Communication in the Digital Age**  
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**Lecture – 18**  
**Evolution of Digital Literary Practices**

Good morning dear friends and welcome to this module. In the previous module, we had focused on the digital writing process, its various types, pertinent theories related to it and also digital writing for the web. Today in this module, we will be looking at interdisciplinary approaches in the realm of digital writing, particularly in the field of electronic literature as well as the techniques and technologies to support tailored access to content in its wide variety of forms. When we say electronic literature, we are taking advantage of the computational, multimedia and networked properties of the contemporary computer and digital media in the production of narrative works that are specific to this context. We are not necessarily looking at the application of digital tools for writing, but shall look at experiments in the creation of new forms of narratives in the digital environment.

## Electronic Literature and Digital Writing

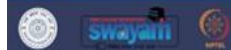
- Katherine Hayles in her work *Electronic Literature* (2008) explains electronic literature as a first-generation digital object that has been digitized, created on a computer and meant to be read on a computer.
- These projects are forms of creative expression and experiments that research and engage with technology on an aesthetic level.
- The genres of electronic literature include hypertext fiction, kinetic multimedia poetry, interactive fiction, generative poetry and database narratives based on its engagement with the contemporary technological apparatus.



We should not see print and electronic literature as in competition, but rather in conversation. The more voices that join in, the richer the dialogue is likely to be.

— Katherine Hayles —

Katherine Hayles' *Electronic Literature*  
Sources: undpress.nd.edu, www.azquotes.com

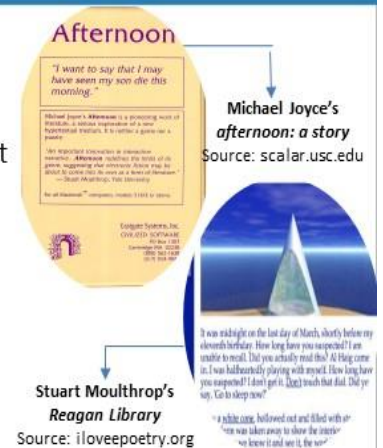


In this context, we refer to Katherine Hayle's work *Electronic Literature* published in 2008, where she has explained electronic literature as a first generation digital object that has been digitized, created on a computer and meant to be read on a computer.

These projects are forms of creative expression and experiments that research and engage with technology on an aesthetic level. The genres of electronic literature include hypertext fiction, kinetic multimedia poetry, interactive fiction, generative poetry and database narratives based on its engagement with the contemporary technological apparatus. These are based on new writing practices, specific to network communication, technologies and text-based new media art installations. This directs attention not only to the changing nature of digital writing, but also to the different ways in which the literary community mobilizes these capabilities.

Let us trace the evolution of electronic literature or digital literature and try to understand the main forms of delivery and consumption.

- The classical period of digital literature was marked by hypertext fiction (1960– 1980).
  - It allowed readers to navigate the narrative by choosing links that led to different parts of the story.
  - These works were written in a hypertext authoring program called ‘Storyspace’.
  - The representative work was Michael Joyce’s *afternoon: a story*.
- Hypertext fictions mutated into various forms by incorporating hybrid forms, non-linear storytelling and multimedia elements (1980– 1990). They include:
  - Shelley Jackson’s iconic work, *Patchwork Girl*.
  - Stuart Moulthrop’s multimodal work *Reagan Library*, which featured QuickTime movies with random text generation.
  - Caitlin Fisher’s *These Waves of Girls* that included sound, graphics and other functionalities in a networked linking structure.



The period between 1960 and 1980 is often termed as the classical period of digital literature and it was marked by hypertext fiction. It allowed readers to navigate the narrative by choosing links that led to different parts of the story and these texts were written in a hypertext authoring program called storyspace. The representative work was Michael Joyce's ‘Afternoon, a story’. The hypertext fictions between 1980 and 1990 mutated into various forms by incorporating hybrid forms, non-linear storytelling and multimedia elements.

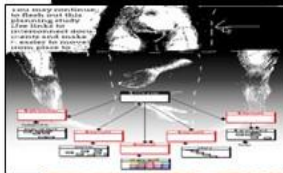
As examples, we can refer to Shelley Jackson's iconic work, Patchwork Girl, Stuart Moulthrop's multimodal work, Reagan Library, which featured quick time movies with random text generation or Caitlin Fisher's These waves of girls that included sound, graphics and other functionalities in a networked linking structure. These creative representations of writing could never be replicated on traditional print formats. Let us analyze now the example of Shelley Jackson's Patchwork Girl. This work engages dialogically with two works that are different in genre and style but equally engaged with feminism. Mary Shelley's Frankenstein and Frank Baum's Patchwork Girl of Oz.

As a hypertext, its meaning is actualized through the reader's clicking of the hyperlinks it contains and the narrative foregrounds a material being in the form of the patchwork girl

whose corporeality is repeatedly foregrounded and the reader's designated task is to patch up the fragments of the creature's body as well as those of the various narratives that make up the text. It creates a cyborg that is a hybrid being of textual organic and technological creature text. This form of writing is termed as cyborg writing. With this background now let us look at the Patchwork Girl.

## Shelley Jackson's *Patchwork Girl* (1995)

- Shelley Jackson's hypertext consists of five sections- body of text, graveyard, journal, story and crazy quilt.



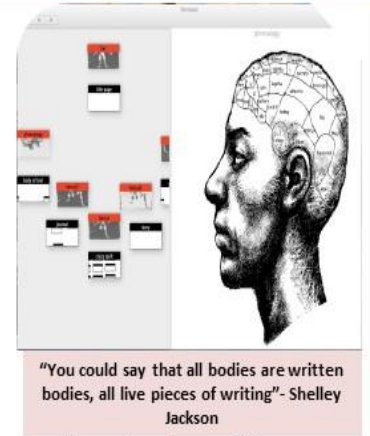
Hyperlinks create a multiplicity of narratives which form the hypertext and are pieced together by the reader's intervention.

The dotted lines show the fragmented and variegated body of the female monster that symbolizes her plural identity.

The hypertext deconstructs the male-dominated and plot-based tradition of the novel.

It becomes an example of cyberfeminism because the female is no longer defined in biological terms but produced by female imagination itself.

Sources: [theshapeofamother.com](http://theshapeofamother.com), [www.realtime.org.au](http://www.realtime.org.au), [eliterature.org](http://eliterature.org).



"You could say that all bodies are written bodies, all live pieces of writing"- Shelley Jackson

Source: [journals.openedition.org](http://journals.openedition.org)

Published in 1995, Shelley Jackson's hypertext consists of five sections, body of text, graveyard, journal, story and crazy quilt.

Hyperlinks create a multiplicity of narratives which form the hypertext and are pieced together by the reader's intervention. The dotted lines show the fragmented and variegated body of the female monster that symbolizes her plural identity. The hypertext also deconstructs the male-dominated and plot-based tradition of the novel and becomes an example of cyber feminism because the female is no longer defined in biological terms but produced by female imagination itself. Many critics read *Patchwork Girl* as the fragmented nature of human subjectivity, particularly female subjectivity which is enhanced by the multiple reading paths enabled by the hypertext. It deconstructs male-dominated versions of identity privileged by print text.



With the advent of the world wide web, writers started experimenting with web-based narratives. Interactive fiction or IF was once a genre that provided a dynamic storytelling experience where players made choices that affected the outcome.

- The postmodern period of digital literature was marked by Interactive Fiction (IF) and Interactive Poetry.
  - Interactive Fiction alternates game play with novelistic components.
  - Makes use of functional metaphors, non-linear narratives, self-referential commentaries and critiques, and metatextual elements to give authority to the user in constructing meanings.
- The World of Emily Short- a visionary in text-based games.



- She blends non-player character dialogue which is controlled by the computer and narrative agency of the player.
- She designed the conversational IF that controls the interaction, which has now progressed to an AI-driven experience.
- Her well-known works include *Galatea*, *Counterfeit Monkey* and *Blood&Laurels* that decanonizes the traditional theorizing of fiction.



Emily Short's 'Counterfeit Monkey'  
Sources: [www.nme.com](http://www.nme.com),  
[https://youtu.be/9RlwXo\\_i-OQ](https://youtu.be/9RlwXo_i-OQ)

The postmodern period of digital literature was marked by interactive fiction and interactive poetry. Interactive fiction alternates gameplay with novelistic components and it makes use of functional metaphors, nonlinear narratives, self-referential commentaries and critiques and meta-textual elements to give authority to the user in constructing meanings. The world of Emily Short is a visionary in text-based games.

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Narrative design, world building and implementation happen within the digital world.

This is what the French literary critic Roland Barthes had called as the ideal text, one which associates text with dispersion, multiple authorship and networked structure.

## Hypertext as 'Ideal Text'

- Katherine Hayles talks about how Roland Barthes in his work *S/Z* (1970) uncannily anticipates electronic hypertext literature as the 'ideal text' because it outlines the plurality of paths and the multiplicity of approaches.
- In cyberspace, all ideal texts are self-deconstructed because there is no imposition of the dominant and canonical roles of reader and writer.
- Barthes calls this ideal text as the playful 'writerly' text that consists of a galaxy of signifiers;
  - It implies that the reader is actively involved in the process of creating a network of meanings.
- Interactive and polyvocal discourses in hypertext fiction disrupts the canonical order.



Roland Barthes' *S/Z*

Sources: [www.newyorker.com](http://www.newyorker.com) [www.abebooks.co.uk](http://www.abebooks.co.uk)



Roland Barthes' work, *S/Z*, was published in 1970 but very uncannily as it has been commented by Katherine Hayles. It has anticipated electronic hypertext literature as the ideal text as it outlines the plurality of paths and the multiplicity of approaches. In cyberspace, all ideal texts are self-deconstructed because there is no imposition of the dominant and canonical roles of reader and writer.

Barthes called this ideal text as the playful writerly text that consists of a galaxy of signifiers and it implies that the reader is actively involved in the process of creating a network of meanings. Interactive and polyvocal discourses in hypertext fiction also disrupt the canonical order. Interactive fiction also led the way for the creation of artworks which have flattened the hierarchy between the author and the reader and this redistribution of power makes the reader into a co-author. The advent of the world wide web opened up new possibilities for electronic literature because writers started experimenting with web-based narratives. Text, audio, video and images were combined to create engaging and immersive experiences for a much broader audience especially with the advent of the social media.

- The contemporary period of digital literature is marked by web-based narratives and collaborative storytelling through social media.
- Collaborative storytelling on social media involves multiple users contributing to the creation of a narrative, often in real-time or through iterative contributions.
  - Social media users can start or join collaborative storytelling projects using specific hashtags or prompts.
- Twitter fiction is an example of collaborative storytelling on social media, where stories unfold through a series of tweets.
- Immersive storytelling experiences are explored by Virtual Reality (VR) and Augmented Reality (AR) which places reader directly within the narrative.



Twitter Fiction  
Sources:htlit.com, test-ej.org

We can say that the contemporary period of digital literature is marked by web-based narratives and collaborative storytelling through social media. Collaborative storytelling on social media involves multiple users contributing to the creation of a narrative often in real time or through iterative contributions. Social media users can start or join collaborative storytelling projects using specific hashtags or prompts. Twitter fiction is an example of collaborative storytelling on social media where stories unfold through a series of tweets. Immersive storytelling experiences are explored by virtual reality and augmented reality which places reader directly within the narrative.

Collaborative storytelling thus brings together participants from various backgrounds, cultures and experiences. It is this diversity which enriches the narrative incorporating different voices and perspectives into the story fostering a sense of inclusivity. Virtual and augmented reality have also opened up new and innovative frontiers. We will discuss this point in detail in the coming weeks. Now let us look at two examples, one from social media that is Twitter and the other a web-based novel called The Jew's Daughter.

These texts examine and represent the operations of cognition through literary technologies.

## 'Wandering Rocks' – a Case of Twitter Performance

- Ian Bogost and Ian McCarthy conducted a new media experiment by renovating a section called 'Wandering Rocks' from James Joyce's famous fictional story *Ulysses* into a twitter performance.

- Bogost and McCarthy created Twitter accounts for Joyce's main characters and then adapted selected texts from *Ulysses* into tweets.
- They created a database for these tweets and broadcasted these data-based performances.

- This digital practice resembles the literary technique called 'stream of consciousness', that is, representing human cognition in text.



**STEPHENDEDALUS: I see Dilly's high shoulders and shabby dress, shut the book quick, don't let see**

- The twitter-based remix was an attempt to show how media makes accessible the cognitive functioning of a person's unconscious to others.

- It also shows how twitter can be a part of the literary efforts to record the experience of reading someone else's thoughts.



James Joyce's *Ulysses*

Source: <https://youtu.be/X7FobPku27M>



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The Twitter-based remix was an attempt to show how media makes accessible the cognitive function of a person's unconscious to others. It also shows how Twitter can be a part of the literary efforts to record the experience of reading someone else's thoughts. This digital practice reminds us of the literary technique of a stream of consciousness which tries to represent human cognition and emotions without any interruption with the help of a text. Tweets are often written in first person point of view and presented as immediate transcription of our cognition. It distributes stream of text thoughts to readers via the web's hypertextual network.

The next example we are going to look into is a digital work called *The Jew's Daughter* which is a web-based novella by Judd Morrissey and Lori Talley and also draws inspiration from *Ulysses*.



## Morrissey's *The Jew's Daughter* (2000)

- *The Jew's Daughter* is a web-based novella by Judd Morrissey and Lori Talley.
- It depicts a posthuman understanding of 'distributed cognition' wherein a character's voice is permeated by information technologies.\*
  - For example, Misspelled words and non-human voice for monologues.
- A succession of individual letters appears in a linear stream and each letter is programmed to represent a different page and page number to disorient the reader's sense of location.
- The computer turning pages can evoke a sense of surprise for the reader. It triggers a different cognitive response compared to reading a linear printed text.



Morrissey's *The Jew's Daughter*  
Source: <https://youtube.com/watch?v=WMMXjStYRmA&feature=share>

\*Jessica Pressman- Digital Modernism



The Jew's Daughter published in 2020 depicts a post-human understanding of distributed cognition wherein a character's voice is permitted by information technologies. For example, misspelled words and non-human voice for monologues. A succession of individual letters appears in a linear stream and each letter is programmed to represent a different page and page number to disorient the reader's sense of location. The computer turning pages can evoke a sense of surprise for the reader as it triggers a different cognitive response compared to reading a linear and conventionally printed text.

The work reflexively displays a cyborgic reading practice that is human technology hybrid reading practice. This political invisibility of cyborgs through cyborg writing has been discussed earlier when we had talked about Patchwork Girl. The progression of pages in Jew's Daughter shows the involvement of the other reader that is the computer in producing the literary text. This manipulation of the reading experience can impact how the human brain processes and retains information potentially influencing memory recall and engagement with the narrative. At this point, let us look at a video by a member of the electronic literature organization Leonardo Flores where he is talking about the potentials of digital medium.

He is also talking about how it can actively shape the reader's experience by playing a dynamic role in shaping the narrative.

**Potentials of Digital Medium**

Flores is presenting three dynamic works of Electronic Literature- 'My Body' by Shelley Jackson, 'Strings' by Dan Waber and 'Taroko Gorge' by Nick Montfort.

Source:  
<https://youtu.be/qN9fret0PNo>

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These textual behaviors were used to be static. That is what ink does when you put it on paper. You put ink on paper and it will stay there for centuries, even thousands of years if you preserve those materials well. But digital texts can do many other things.

Rather than go through the list, let me show you some examples. So here we have a hypertext, my body. Hypertext is what we are most used to on the web. You have links, you have images, you have static text, and the links are responsive text. You click on it and it does something.

We can have kinetic text. And here this animation, this poem argument, yes, no, yes, no, is a kinetic scheduled text operating on a loop. We can see other kinds of behaviors such as in family tree. When you click on it, you seem to have this sort of static kinetic text, right? But notice that pointer. And notice what happens as you scroll down, as you move the pointer, it starts to affect the swing of this family tree. You see, that pointer is your symbolic presence in the text.

And the text is reading you as you are reading it. So, you become part of the performance. To take it a step further, Jason Nelson took the idea of the platformer game

and combined it, used it as a surface for writing poetry. Game, game, game, and again game. I muted the audio, but it combines all of these things, and you have to play through 13 levels.

And your interactions are meaningful. Obviously, this is a quick screen capture so you can have an idea, but each level explores an idea. Here we have Taroko Gorge. This is an amazing work because you have this text that is slowly flowing on a schedule down the screen. Now, it is a nature poem about this canyon in Taiwan, right, that Nick Monfort visited and was inspired to write this poem.

But if we look at the Source code, wait a second, this poem is generated. If you try to read it on the surface, it goes on forever. And that source code, other people like Scott Redberg, remixed it and made it about Tokyo.

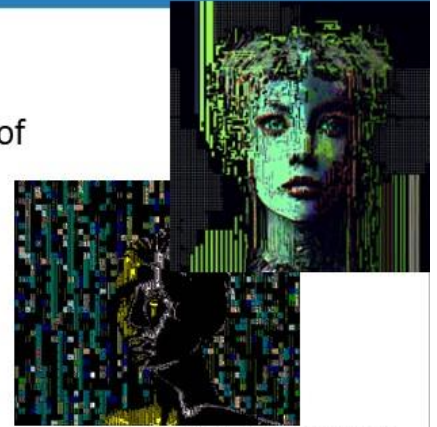
J.R. Carpenter remixed it, changed the words, and made it about eating. Here we have the poem still flowing down the screen, Kathy Ann Manbarrins made it about cooking, about Julia Child, about programming. Darius Kasemi, a famous bot maker, made it about clubs in Hey Gorgeous. And as we can see, all of these texts, right, what we see is the emergence of a new native poetic form.

Basically, this is like the sonnet. It is a form that people can repurpose and do wonderful things with. The links in the hypertext represent our symbolic presence in the text. The text is reading us as we are reading the text. So, we are becoming part of the performance. But the problem with using digital medium is that technical malfunctions can disrupt the overall experience.

However, it is interesting to note that creators sometimes intentionally incorporate glitches to challenge conventional aesthetics. And this is called the glitch poetics. Let us look the concept of the glitch poetics in somewhat detail.

## Glitch Poetics

- Glitch poetics is characterized by the deliberate use of glitches, errors, and technical malfunctions in the creation and presentation of texts and artworks.
- Prominent glitch theorist Rosa Menkman notes that glitch opens up an area of critical enquiry by destabilizing the layers and sequences of assured informatic flows and structures.
- Glitch poetics subverts the idea of strict control and precision in digital media. Critically, it implies the idea put forward by Katherine Hayles about how “language cracks and compresses under the pressure of the anthropocene”.



Sources:wifflegif.com, www.artstation.com



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Glitch poetics also subverts the idea of strict control and precision in digital media. Critically, it implies the idea put forward by Katherine Hayles about how language cracks and compresses under the pressure of the Anthropocene. It also implies that language systems may struggle or experience difficulties in adequately expressing the profound changes and challenges posed by the Anthropocene. Glitch poetics can be seen as a reaction to the hyper polished and seamless digital aesthetics of mainstream media. Let us take two examples to demonstrate glitch poetics which are artist Erika Scourti's work Negative Docs and Think You Know Me.

Let us see how glitch poetics works in these performances.



- 'Negative Docs' consists of a diary whose extracts appear in order of increasing emotional negativity.\*
- The extracts are played through a speed-reading app and Scourti reads along until she loses pace with it.
- It is a performative reading of Scourti's descent into depression and her inability to keep pace with life.
- The speed-reader is used as a metonymy here to show how neoliberal-age technologies push human mental capacity beyond its limits.

- Scourti explores the flip side of glitch in 'Now You Tell Me'.\*
- The performance is based on the text Scourti reads from her phone.
- She reads directly from auto-suggestions provided by her phone which has learnt to speak for her based on a corpus of her blogs, posts and tweets.
- The result is a text-utterance that is uncannily evocative, textually strange and overly intimate.
- These glitches recognize the limits of technology and the infrastructure that surrounds it.



Sources:v2.nl/blog\_Jessica Pressman

\*Jessica Pressman- Digital Modernism

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Digital or electronic writing is inevitably a process that is a result of interaction between the author, reader, text and software and it will always be in a state of transition. Electronic media has made possible the coupling of reception and participation which in turn have produced novel reading, politics and practices. Let us also look at textual

installations such as a screen to demonstrate the need for digital works to consider the grammar of bodily interaction as part of meaning attribution.

## Cave and Materiality

- Caves are immersive virtual reality environments where images are projected on four surfaces, three walls and the floor.
- Using VR as a medium, the text merges with the physical space and confronts the reader with the semblance of volume and structure.



Source: <https://www.youtube.com/watch?v=W0wF5KD5BV4>

- Screen by Noah Wardrip-Fruin et al. has become a classic VR work for the CAVE environment.
- The work has been written as a three-layered 'reading' effort- three texts are projected onto three walls while a voice-over reads the text back to the users.
- Words become floating objects that can be moved around in a non-textual manner.

Screen by Noah Wardrip Fruin  
Source: Noah Wardrip-Fruin

Caves are immersive virtual reality environments where images are projected on four surfaces, three walls as well as the floor. Using VR as a medium the text merges with the physical space and confronts the reader with the semblance of volume and structure.

Screen has become a classic VR work for the cave environment. This work has been written as a three layered reading effort. Three texts are projected onto three walls while a voiceover reads the text back to the users and words become floating objects that can be moved around in a non-textual manner. These installations demand material and presence ready literacy competencies. Hypertextualization of texts reorients digital writing to the modes of ideology, production and consumption.

The postmodern scenario has taught us that there will be a material basis for digital works rooted in political discourses and that shapes the digital work. Let us now have a look at it.



## The Performative Politics of Digital Space



- The 'Refugee Project' is a data visualization project to tell the stories of refugee movements around the world.
- The project aims to shed light on the global refugee crisis.

Sources: [www.awwwards.com](http://www.awwwards.com),  
[edition.cnn.com](http://edition.cnn.com), [www.pablocenter.org](http://www.pablocenter.org)



- Numerous digital artists have created artworks and visual campaigns in support of the **#BlackLivesMatter** movement.
- These works use powerful imagery and messages to protest against racial injustice and police violence.

Performative politics in digital spaces refers to the ways in which political actions, ideologies, and expressions are performed, enacted, and disseminated online.

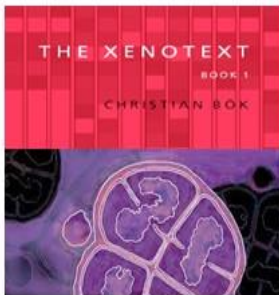
Performative politics in digital spaces refers to the ways in which political actions, ideologies and expressions are performed, enacted and disseminated online. The two examples which we are citing here are that of the refugee project and also the movement of Black Lives Matter. This has paved the way for the post digital that is digital writing beyond the screen.

It means that digital writing is complexly imbricated with social, technical and environmental context and that it can never be read in isolation. Let us understand this further with the help of a contemporary example.



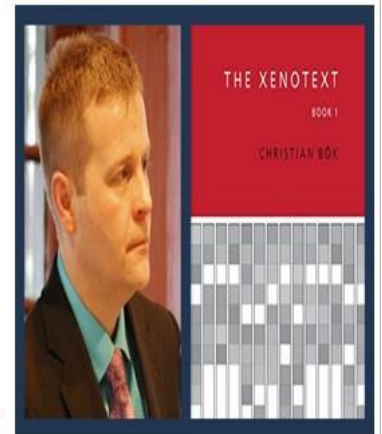
## Post-Digital

- Post-digital refers to the pervasive integration of digital technology into various aspects of contemporary life.
  - Post-digital creators emphasize the materiality and tangibility of digital artifacts.
  - Post-digital practices often involve critical reflection on the impact of digital technology on culture, society, and identity.



Sources: [www.engadget.com](http://www.engadget.com), [www.americanscientist.org/](http://www.americanscientist.org/)

- 'The Xenotext Project' is a bio-poetic experiment by poet and bio-chemist, Christian Bök.
- The project seeks to encode a poem into the genetic sequence of a bacterium, essentially creating a living organism that carries the poetic text within its DNA.
- It explores the intersection of technology, biology, poetry and art.



Source: [jacket2.org](http://jacket2.org)



Post digital refers to the pervasive integration of digital technology into various aspects of contemporary life. Post digital creators emphasize the materiality and tangibility of digital artefacts. Post digital practices often involve critical reflection on the impact of digital technology on culture, society and identity.

We can refer to the Xenotext project which is a biopoetic experiment by poet and biochemist Christian Bok. The project seeks to encode a poem into the genetic sequence of a bacterium essentially creating a living organism that carries the poetic text within its DNA. It explores the intersection of technology, biology, poetry and art. So, this poetic text by Bok, this Xenotext consists of words that obey a strict genetic code based on the four letter DNA alphabet A, T, C and G. The poem was translated into a genetic sequence and was inserted into the genome of a bacterium and this is the Xenotext project.

In the whole digital writing process, computer code and software are entities that often get overlooked. However, codes are also shaped by ideologies, it influences the ways people interact with technology and each other. Let us look briefly about the key aspects of critical code studies and how it is a part of post digital writing.



## Critical-Code Studies

- Critical-Code Studies (CSS) involve the analysis and interpretation of computer code as a form of writing, cultural expression, and a site of power dynamics.
- It investigates the power dynamics embedded in code, including issues related to surveillance, privacy, censorship, and control.
  - The best example is how algorithmic biases can perpetuate social inequalities and ways to mitigate these issues.
- Just like any other digital writing, CSS also requires a hermeneutic study and multiple readings of the structure, semantics and syntax of computer code.



Source: [criticalcodestudies.com](http://criticalcodestudies.com):



Swajanti  
Institute of Technology



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The best example is how algorithmic biases can perpetuate social inequalities and ways to mitigate these issues. Just like any other digital writing, CSS also requires a hermeneutic study and multiple readings of the structure, semantics and syntax of computer code. By analyzing computer code through a critical lens, CSS helps to uncover the often hidden ideological and cultural dimensions of technology and fosters a more nuanced understanding of its impact on individuals in society. We will learn more about algorithmic bias when we talk about AI in the upcoming modules. Digitality has become the textual condition of 21st century writings and literature.

It is very interesting to note that there are books that imitate digital literature. One such example is Mark Danielewski's House of Leaves. It does not incorporate digital technology but it imitates an electronic text in ways that change its ontology.

## Trace of the Digital in Mark Danielewski's *House of Leaves*



- The Text is richly multimodal combining text, graphic, colors and non-linguistic sound effects.
- Layered text appears on many pages (like square brackets) signifying indecipherability that hint at unseen text-behind-the-text just like hypertext.
- Code also runs riot on the pages as if positioning itself as a rival to computer's ability to represent within itself other media.
- The difficulty in reading the novel imitates the complexity in understanding the computer code in its entirety.

Sources: [walkingtheforestfloor.wordpress.com](http://walkingtheforestfloor.wordpress.com),  
[journals.openedition.org](http://journals.openedition.org),  
[www.theguardian.com](http://www.theguardian.com), [signalhorizon.com](http://signalhorizon.com):



The text is richly multimodal combining text, graphic colors and non-linguistic sound effects. Layered text appears on many pages, for example, like square brackets, etc., signifying indecipherable that hint at unseen text behind the text just like a hypertext. Code also runs right on the pages as if positioning itself as a rival to computer's ability to represent within itself a different or the other media. The difficulty in reading the novel imitates the complexity in understanding the computer code in its entirety. Having looked at these examples, one might also wonder about the future of print literature. Perhaps books will not disappear but neither will they escape the effects of digital technology.

Digital technology has already interpenetrated them and digitality has become the textual condition of 21st century writings and literature. The electronic text being portable and independent of a physical form has already got a successor that could replace print-based books. They are the e-books published in e-reader platforms. The e-reader platform should be dissected and examined that takes into account its unique elements.

## The Era of E-Books

- The e-book is an electronic-mediated experience.
  - It is a confluence of hardware platform, electronic text and commercial body working in concert to replicate a print-like reading experience.
- The e-book is not absent of its own political ideologies. It is not always geared toward the dissemination of knowledge and intellectual exchange.
- It follows a familiar business model designed in locking consumers to a particular manufacturer's hardware and software ecosphere.
- While reading-oriented eReaders aim to mime some of the characteristics of a book, physical e-readers are designed for additional purposes. For example, Amazon's 'Kindle' or Barnes & Noble's 'Nook'.



Kindle and Nook

Source: [www.businessinsider.com](http://www.businessinsider.com)



swayam




The e-books offer an electronic mediated experience. It is a confluence of a hardware platform, electronic text and commercial body working in concert to replicate a print-like reading experience. It is not absent of its own political ideologies. It is not always geared toward the dissemination of knowledge and intellectual exchange only. Rather, it follows a familiar business model designed in locking consumers to a particular manufacturer's hardware and software eco-sphere. While reading, oriented e-readers aim to mime some of the characteristics of a book, physical e-readers are designed for additional purposes.

For example, Amazon's Kindle or Barnes and Noble's Nook. While Amazon's Kindle provides features like e-ink and front lid display with a built-in dictionary, Nook has its own glow light, library lending and expandable storage. Let us look at a video now by the business news channel CNBC which was taken three years back and which explains why physical books still outsell e-books.

Why  
Physical  
Books  
Outsell  
E-books?



Source:  
<https://youtu.be/5Em-U9onvGI>

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E-book or physical book. You may be surprised to hear that for most, old school print on paper still wins despite digital media having disrupted many other industries. 67% of Americans had read a physical book in 2017 but only 26% had read an e-book.

So why do people still prefer print over the convenience of reading on a smartphone, Kindle or Kobo? You might think that electronic books, more commonly known as e-books, are relatively new. But an initiative called Project Gutenberg claims to have started them all the way back in 1971. Today it still publishes books online focusing on older works where the American copyright has expired so it can offer them for free. The modern e-book came around in 2007 when Amazon launched its Kindle in New York. It went on sale for \$399 and was reported to have sold out in just five and a half hours.

By 2010 Amazon announced it was selling more e-books than hardcover printed books. At the time many questioned the future of hardcovers and their relevance in the digital age. While the Kindle popularized e-books, the book industry is still dominated by physical versions. I met up with Merrill Halls, Managing Director of the Booksellers Association, to learn why.

Print's been incredibly resilient actually. I think the e-book bubble has burst somewhat;

the sales are flattening off. I think the physical object is very appealing. So the cover designs are often gorgeous, they're beautiful objects. The book lover loves to have a record of what they've read and it's about signalling to the rest of the world.

It's about decorating your home. In 2018 more than 2.7 billion books in all formats were sold in the US for an estimated net revenue of almost \$26 billion for publishers. And that's just the value of all books directly sold by publishers to retailers. Of that amount, around \$22 billion worth were printed books, \$2 billion were e-books and \$1.2 billion were audio books. In the UK the same year, publisher sales of printed and e-books topped \$8 billion, with printed books taking \$4.5 billion of that. Cookbooks are having a resurgence. Nature writing and nature books are doing incredibly well. And I think it's partly the sort of political landscape. People are looking for escape but they're also looking for information. It's harder to have an emotional relationship with what you're reading if it's on an e-reader. It's obviously cheaper to produce e-books than print copies, but the number of printed books sold by publishers to retailers in the US and UK also outstrips the number of downloaded books.

Even the kind of books people like to read in print versus on an e-reader varies. In the UK readers prefer fiction categories like crime, thriller and romance on their e-readers, but children's books are still dominated by print. High profile launches like *Three Women* and of course the *Fifty Shades of Grey* franchise have also boosted print sales. One of the major difficulties with e-books is that it gives more of an impression of having access to a file rather than purchasing something as a source for reading and entertainment. Ideology and technology live on several levels in the e-reader. Ideology informs not only the physical design but user interface and distribution methods.

It is important to digitize in the fast-paced world, but it is more important to democratize and it can only be done by subordinating private interests to the public good. Corporate enterprises like Google Books left unchecked will hold a de facto monopoly over cultural knowledge with little preventing it from raising prices or even denying access in the future. So, it is a misconception that e-readers are digital equivalents of print books. Now let us see what is the current trait in knowledge production in the aesthetics of digital literary practices.

## Current Trade in Knowledge Production

- Cybertextual formalism focusses on the study of cybertexts. Its key features include:
  - **Ergodic literature:** Readers of ergodic literature must actively engage with the text to generate meaning, as opposed to linear reading where the text is simply consumed.
  - **Digital Poetics:** It explores how digital technologies enable new forms of literary expression and storytelling. This includes investigating the creative potential of multimedia elements, interactivity, and computational processes.
  - **Algorithmic Narratives:** Some digital texts incorporate algorithms to generate narratives, where the sequence of events or the content itself is determined by algorithms rather than a fixed authorial structure.



Source:www.slideshare.net



Cybertextual formalism focuses on the study of cybertext. The key features are ergodic literature, digital poetics and algorithmic narratives. Ergodic literature expects its readers to engage with the text to generate meaning. The readers of ergodic literature cannot simply consume meaning. Digital Poetics explores how digital technologies enable new forms of literary expression and storytelling. This includes investigating the creative potential of multimedia elements, interactivity and computational processes.

At the same time, there are some digital texts which incorporate algorithms to generate narratives where the sequence of events or the content itself is determined by algorithms rather than a fixed authorial structure. This has influenced discussions in digital literature, game studies, interactive media and new forms of storytelling that have emerged with the advancement of technology.

- Katherine Hayles talks about a media-specific approach in the field of digital writing and literature.
- Hayles emphasizes that electronic literature cannot be fully understood without considering the specific material properties of the digital medium.
  - This includes aspects such as code, algorithms, visual elements, interactivity, and networked connections.
- Hayles introduces the concept of "transcoding" to describe the process of translating a literary work from one medium to another.
  - It highlights the differences and challenges in preserving the original work's meaning across different media.
- The physical and cognitive experiences of reading digital texts differ from those of reading print literature.



Sources:  
<http://www.picturequotes.com/n-katherine-hayles-quotes>  
<https://www.youtube.com/watch?v=8lb4oeJjM7Q>



Katherine Hayles has talked about a media specific approach in the field of digital writing and literature. Hayles emphasizes that electronic literature cannot be fully understood without considering the specific material properties of the digital medium which include aspects such as code, algorithms, visual elements, interactivity and network connections. She has also introduced the concept of transcoding to describe the process of translating a literary work from one medium to another.

This highlights the differences and challenges in preserving the original works meaning across different media. The physical and cognitive experiences of reading digital text differ from those of reading print literature. This also encourages scholars to move beyond traditional literary analysis and consider the intricate relationship between form, content, technology and the reader's experience in the context of electronic literary works. In conclusion, digital and electronic literature have ushered in a new era of literary expression and engagement, challenging traditional notions of textuality and storytelling. As technology continues to evolve, these forms of literature have given rise to various new approaches that enrich our understanding of how literature can be created, experienced and analyzed.

## Conclusion

- From hypertext and interactive narratives to algorithmic storytelling and generative literature, electronic literature has expanded the creative possibilities available to authors and artists.
- The media-specific approach advocated by scholars like Katherine Hayles emphasizes the importance of considering the material properties and affordances of digital mediums.
- Moreover, the study of electronic literature has led to cross-disciplinary collaborations, bringing together scholars from fields such as literature, digital humanities, media studies, and computer science.



From hypertext and interactive narratives to algorithmic storytelling and generative literature, electronic literature has expanded the creative possibilities available to authors and artists. The media specific approach advocated by scholars like Katherine Hayles emphasizes the importance of considering the material properties and affordances of digital mediums. Moreover, it has also led to cross-disciplinary collaborations bringing together scholars from various fields such as literature, digital humanities, media studies and computer science. In the next module, we will be looking more into the area of digital humanities, particularly about the contested nature of digital scholarship, digital materiality, publishing and its various realms. Thank you.