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Digital Hyperworks: A Few Irish e-Lit Examples

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Abstract:

As the very idea of authorship is changed by the digital environment, so is the role of the author, their practices, their centrality inside the text undergoing a radical transformation. The analogic author sees their works operating in a traditional, typically 'Gutenberg' environment, whereas the digital author exploits information technology to explore what Poster calls a "networked authorship" (2002, 490). A scattered authorship (Landow 1992, 130) and a collective/ cooperative notion of writing are typical features of the digital framework, and of hyperliterary works that enable a multisequential reading. The assumptions above inform the empirical investigation developed in this study. It looks at the ways digital authorship tools have contributed to deconstructing the idea of "one strong authorial voice". In its place, these tools have introduced a "mild", plural alternative, which is currently being circulated on the Internet. Therefore, the unity of a digital text appears to be in its destination, not its origin. This essay considers several Irish digital works as case studies. It shows how the fragmented nature of digital literary works, which resemble the hypertextual links, moves close to Barthes's "lexias" which, with their "galaxie[s] de signifiants" (Barthes 1984 [1968], 11) establish intra- and inter-textual connections dismantling the unity of the text and implement the notion of a multiple, collective authorship.

Keywords: Digital Literary Environment, Electronic Literature, Irish Literature, Wreadership

0. Foreword

In the real world nowadays, that is to say, in the world of video transmissions, cellular phones, fax machines, computer networks, and in particular out in the humming digitalized precincts of avant-garde computer hackers, cyberpunks and hyperspace freaks, you will often hear it said that the print medium is a doomed and outdated technology, a mere

curiosity of bygone days destined soon to be consigned forever to those dusty unattended museums we now call libraries. Indeed, the very proliferation of books and other print-based media, so prevalent in this forest-harvesting, paper-wasting age, is held to be a sign of its feverish moribundity, the last futile gasp of a once vital form before it finally passes away forever, dead as God. (Coover, 21 June 1992)

With the digital revolution, the compressed and rectangular space of paper-based, textual, analogue communication is freed. Digital communication is by its very nature liquid, formless, continuous, in that hyperlinks represent the antithesis of punctuation marks: rather than circumscribing concepts, they break down boundaries and open up an infinite set of (alternative) learning paths. Knowledge is no longer a consequential sequence of topics, but instead it is more like a network that users create every day; an "interface" through which to construct, negotiate, and share meaning(s). Characterised by its ability to encompass everything that is typically excluded from printed text, digital text is inclusive. While the work created in an environment that could be defined as "analogue" (in clear contrast to a digital one, and thereby to different modes of representation, production, organisation, transmission and data sharing) is based on linearity and "monolithic" structures, what is created in a digital environment makes room for fragmentation.

The digital environment changes the very concept of authorship, to the extent that the author as a figure, their related practices and textual centrality undergo a radical transformation, taking the assumed twentieth-century crisis of the "I" to its extremes. As both a symbol and a representation of the social process, the creative process is expressed through the image of the network, under the form of a distributed, fragmented, dematerialised authorship, which is no longer oriented or focused on the singularity of the writer. While the *analogic author* is a single, absolute author, who conceives their works in a traditional, typically "Gutenbergian" environment, the digital author operates in a digital environment and, as such, exploits technologies, navigating what has been called "networked authorship" (Poster 2002, 490). The lack of boundaries of the new textuality disperses the very figure of the author (Landow 1992, 130), fuelling forms of cooperative writing and hyperliterary works that require a multisequential reading. The "absolute" author is transformed into a collective author, who takes shape from within multiple interactions of different authorial voices.

However, not only have the technological tools supporting a form of digital authorship sensitively influenced the figures, forms and modes of literary creativity, but also its very contents and genres, which are slowly moving towards a similar liquidity, or structural non-finiteness. In a digital environment, hyperauthorship indicates the active participation of readers/users in the development and creation of hypertextual content. These forms are manifested through various modalities, such as the following:

- Collaboration: users can contribute to the creation and enrichment of a hypertext work through sharing ideas, feedback, and various contributions. This is made possible via platforms for collective writing, discussion forums, and online collaboration tools.
- Co-creation: users can participate actively in the construction of a hypertextual work through adding new links, and interactive content. This allows creators and co-creators to expand and enrich the work in unpredictable ways, ultimately generating a variety of narrative paths and interpretations.
- *Personalization*: users can customise the reading and interaction experience with a hypertextual work, adapting it to their preferences and interests. This may include the ability to

select specific narrative paths, modify the order of nodes, and even influence plot development through individual choice.

- Remix and mashup: users can remix or combine existing hypertextual contents to create
 new works or interpretations. This practice allows reusing and reinterpreting pre-existing
 materials, while also opening new creative and critical perspectives.
- Commenting and annotation: Users can add comments, annotations, or in-depth analysis
 to a hypertext work, thereby contributing to its understanding and interpretation. This
 form of participation enriches the text with different perspectives and different levels of
 reading.

These forms of hyperauthorship, where a primary author ("hyperauthor") allows a number of secondary authors ("hyper-readers") to develop possible alternative reading possibilities on their behalf, emphasise the importance of active interaction and readers/users' participation in creating and interpreting hypertextual works. In this case, the digital environment opens up new possibilities for engagement and collective meaning-making, breaking author-reader boundaries and making space for individual expression and the establishment of a creative community.

1. Historical Background

According to Nelson's own definition, who coined the term during his 1965 lectures at Vassar College, the *hypertext* refers to a few text passages interconnected through links that allow the reader to take different paths. In *Literary Machines* he wrote:

[A] non-sequential writing-text that branches and allows choices to the reader, best read at an interactive screen. As popularly conceived, this is a series of text chunks connected by links which offer the reader different pathways. (Nelson 1990 [1981], 0/2-0/3)

Formulated in the wake of Vannevar Bush's Memex (*Memory Extended*), which was the first computer system aimed at indexing and retrieving computer documents (Bush 1945)¹, the Nelsonian hypertext intended to reproduce the associative functions of the human brain and its cognitive trends, using computational technologies and creating a global meta-document, including all previous versions; it thus emerged as a literary "docuverse" – precursor of the World Wide Web. Hypertext systems are essentially based on imitation of dialogue and human thought process, the latter operating through associations facilitated by external links. Transitions from one path to another are frequently traversed or forgotten, resulting in the loss of certain elements, and creating a temporary memory. In a hypertext, this mental process, or flow of thought, is replicated through artificial means (Bush 1945).

From the Xanadu project (1965) to *Computer Lib/Dream Machine* (1974), Nelson's vision appears to be tied to the effects of emancipation generated by means of communication. It is also aimed at furthering the development of computer technologies in the humanities, namely, the idea of a hypertext as a universal library. Like all digital technologies, hypertext has an "emancipatory" power for both writers and readers or, in Nelson's words, it is "the manifest destiny of free society" (Nelson 1992, 57).

¹Memex was a tool based on multiple inclined screens where contents were projected, allowing the reader to read several topics simultaneously, adding personal comments, and creating new connections.

Unlike the book as commonly perceived, a (literary) hypertext is a form of dynamic communication that can be built and enjoyed in a non-sequential manner. Its structure is formed by textual blocks (or lexias, as Barthes puts it, or "units of reading", 1970) and/or multimedia blocks (internal or external), which are joined together by electronic links. First theorised by George P. Landow, Robert Coover and Jay D. Bolter in the late 1980s and first half of the 1990s, the *literary hypertext* immediately reveals its familiarity with certain concepts of poststructuralist literary theory, for instance decentralisation, de-identification, and rhizomatic thought. The concept of non-linearity or sequentiality resembles the principles of Deleuze and Guattari's rhizomatic theory (1987; Moulthrop 1995). The rhizome does not grow vertically, but rather it branches and reaches out horizontally, with neither beginning nor end. All points on the rhizome can and must be connected to all others. Similarly, hypertexts eschew hierarchical textual ordering and linear narrative developments, allowing for unique and subjective reading experiences.

While for Landow, authors like Derrida, Foucault, and Barthes all contributed to dismantling the notions of authorship, readership, linearity, and traditional textual canons, he also sees the hypertext as promoting a "vindication of postmodern literary theory" (Bolter 1992, 24), that is, as a ramification or implementation of poststructuralist or deconstructionist theories ranging from antilogocentrism to the idea of the death of the author. It is worth remembering Roland Barthes's words when he states that "It is necessary to free the reader from their condition of minority, a condition produced by a rigid form of textuality that excludes the reader from the pleasure of the text and condemns them to a predetermined universe of meaning". "In this ideal text", Barthes writes,

the networks (réseaux) are multiple and interact with each other without one being able to dominate the others; this text is a galaxy of signifiers, not a structure of meanings; it has no beginning: it is reversible; it can be accessed through multiple entrances, none of which can be declared the main one with certainty; [...] in this absolutely plural text, systems of meaning can indeed appropriate it, but their number is never closed, as they measure themselves against the infinity of language. (1974, 5-6)

Barthes illustrates a new vision of the work, as no longer closed but, as Eco also said in 1962, as "an open work" in motion. To some extents, Barthes can be thought to have paved the way for the development of hypertext theory. Hypertext is the most suitable form for this new conception of the "open work", due to its multiple levels and reading paths. Authors deliver multiple individual narrative paths into the hands of readers and make the latter potential co-authors, thus generating the concept of the hypertextual *wreader*: a reader, as conceived by Landow (1992), who assumes an authorial role in the identification of an individual reading path (Page 2012). We can witness the emergence of the reader as an *alter auctor* and Landow's (1992) concept of "wreadership" (from the union of writer and reader).

A definition of the text as outlined above, involves interactivity, multisequentiality, multilinearity, and multimedia strategies. The range of possibilities offered by a hypertext provides new tools for the writers to amplify their messages while maintaining the internal coherence of the text. It also offers readers and, to a lesser extent, writers an opportunity to explore different solutions, moving from one topic to another and constructing their own additional contents. This gives rise to a "layered" reading and writing experience (Bolter 2001). As Carolyn Guyer and Martha Petry highlight in their hypertext fiction "Izme Pass", which was first published in the magazine *Writing on the Edge* (spring 1991):

This is a new kind of fiction, and a new kind of reading. The form of the text is rhythmic, looping on itself in patterns and layers that gradually accrete meaning, just as the passage of

time and events does in one's lifetime. Trying the textlinks embedded within the work will bring the narrative together in new configurations, fluid constellations formed by the path of your interest. The difference between reading hyperfiction and reading traditional printed fiction may be the difference between sailing the islands and standing on the dock watching the sea. One is not necessarily better than the other.

3. Hypertextual Literature

Deconstruction touches upon the evolution of how writing is disseminated from manuscript culture to Gutenberg and the Internet, as well as how these media are implicated in the increasing liberation of the reader, both in terms of social access and the reading practice itself. (Gorman, *The Book of Kells*, 1999)

Hypertextual literature is a distinct genre encompassing other genres and subcategories. Instances where the hypertext is used as a narrative framework, not as a technological tool, are not uncommon, even within the traditional practice of writing that predates the computer's entry into the landscape of various writers. Proto-hypertextual print fiction refers to literary works that display characteristics related to hypertext, incorporating nonlinearity, compound storylines, and interrelated narratives. Alternative paths in the form of footnotes, annotations, and fragmented structures are often used to allow readers to navigate the text in a non-linear manner. These elements encourage readers to make connections, exploring different tracks, and engaging with the story in a non-traditional way. Some examples of print fiction predate the digital age and display similar characteristics from the rise of the 18th century novel, for example, Lawrence Sterne's non-linear novel Tristram Shandy (1760). There are also notable examples of proto-hypertextual print fiction and poetry from within modernist and postmodernist literature; these include, to name a few, Joyce's Finnegans Wake (1939) and Raymond Queneau's Cent mille milliards de poems (1961), as well as major experimental works by Jorge Luis Borges (The Garden of Forking Paths, 1941), Georges Perec (Life: A User's Manual, 1978), and Italo Calvino (Il castello dei destini incrociati, 1969; and Se una notte d'inverno un viaggiatore, 1979). The structure of Calvino's If on a Winter's Night a Traveller, for instance, is the combination of many interconnected stories and their framing "main" narrative. This model encourages nonlinearity and reader participation. Another interesting example is Julio Cortázar's Hopscotch (1963), which offers multiple readings, where readers can choose their own sequence of chapters, thereby developing potentially infinite narrative experiences. In his Lezioni americane (published posthumously in 1988), Calvino calls hypernovels those complex novels that result from many intersecting stories and universes (2001, 131).

Despite the shift in medium and in reading possibilities, the conceptual continuity with this type of hypernovel is still strong and evident in the first-generation literary hypertext, particularly in the shared attempt to challenge the linearity of the structure. The non-linearity of a hypertext stems from the fact that its textual blocks can be related to one other in different ways. The text thus becomes a "dynamic network of relations" (Bolter 2001, 234), where meaning is derived from the internal organization of the novel itself. This is in line with Calvino's definition of the "contemporary novel as encyclopaedia, as a method of knowledge, and above all as a network of connections between facts, between people, between things in the world!" (1980). The network paradigm is a recurring theme in various structuralist and post-structuralist theories that refuse a linear perspective.

The first-generation hypertext fiction is associated with the so-called Storyspace School, the first offline hypertext composition platform and software program developed for producing, editing, and reading hypertext fiction, established in the 1980s by Jay David Bolter, and Michael Joyce. First-generation hypertexts are hypertextual narratives that have moved beyond the book form to explore the multisemiotic possibilities offered by the machine. The primary characteristic of these hypertexts, in terms of their purely formal level, is that they have a structure that would not allow their reproduction in a printed book. They are dynamic fictions that require using a computer and a mouse to navigate across links.

The experience of the Storyspace School, which remained the only authorial hypertext system until 2009, is first and foremost associated with Shelley Jackson's *Patchwork Girl; Or, a Modern Monster* (1995). Mirroring the *ante litteram* hypertextual labyrinth of Borges's *Garden of Forking Paths, Patchwork Girl,* it displays a non-linear structure where the reader can choose among a range of different reading experiences. Unlike its "authoritative" source, Mary Shelley's *Frankenstein* (1818), the protagonist of Jackson's narrative is Shelley's herself, who through bringing the inanimate matter to life ultimately manages to complete the construction of a female monster and becomes its lover.

afternoon – a story, by Michael Joyce, can be considered another milestone in the scenery of hypertextual works. First published in 1987 on a floppy disk, it has been available for purchase directly from the publisher's website, Eastgate Systems, since 1992². Each of the 500 pages and more that make up the story are contained within the application window and marked with a title. Each page contains a short text, composed mainly of the protagonist's thoughts, without a precise temporal placement, allowing each node to be self-contained and conceptually connected to the others. In one of the readings, for example, Peter, the protagonist, begins his afternoon with the terrible suspicion that the destroyed car in the accident he witnessed a few hours previously could have belonged to his ex-wife, and that he might have been witness to her and their son Andy's death. However, the meaning of the work changes depending on the path chosen by the reader, which makes it impossible to find a single plot inside any one hypertext. Interestingly, afternoon is also enriched with intertextual elements, as confirmed by the references to the Odyssey, the Grimm brothers' Kinder und Hausmaerchen, and Goethe's Werther, whereas Peter's interior monologues – which embody his confused and disordered feelings – clearly evoke Joyce's Ulysses.

The novels of the so-called "Storyspace school" were first presented to the public as a demonstration of the hypertext authoring system mentioned previously, which was announced in 1987 at the first Association for Computing Machinery Hypertext conference. Today, Storyspace is still used both to create stand-alone hypertexts and to export them to the web. Storyspace is based on a hierarchical tree editor (outline), although the paragraphs are displayed in boxes that can be freely arranged and visually connected. Other hypertext fiction works written in that period used HyperCard, a software specifically created for developing and reading hypertext novels. Hypertext fictions are currently written in HTML language.

² After Michael Joyce's piece, Eastgate Systems continued to follow the trend of hypertext fiction with a series of other pieces including Sarah Smith's *The King of Space* (2008) and Stuart Moulthrop's *The Victory Garden*. Published in 1991, *The Victory Garden* is considered another pioneering piece in the field of electronic fiction, focusing on the story of a group of revolutionaries in a near-future dystopian society. It explores topics of resistance, political activism, and the power of language, through a nonlinear structure, allowing readers to navigate the story and make choices that affect the outcome. It incorporates hyperlinks, embedded multimedia, and interactive elements to engage readers in an immersive and non-linear reading experience.

The advent of the World Wide Web in 1993 clearly opened new possibilities for hypertext literature, increasing its reading options due to its "public" and open nature, as compared to offline and other more "limited" modes of consumption, such as those that had been developed by the Storyspace School. In addition, diverse and multiple semiotic systems, such as text, sound, graphics, and animation, were able to converge for the first time in the same hypertext or, more precisely, hypermedia. New patterns of mono- and multi-linear interactivity were developed, which were capable of implementing different levels and interpretive paths, where readers are literally guided through a text. Hypertextual elements appear incorporated into more linear storylines in their use of multilinear structures, so as to avoid puzzling readers. The connectivity, adaptability, and multimodality of the Web all provide an ideal environment for multilinear fiction.

Robert Arellano's *Sunshine 69* (first published in 1996 by Riding the Meridian, https://the-next.eliterature.org/works/512/0/0/) is the first hypertext fiction novel published in the era of the World Wide Web. In the novel, the reader explores "the pop-cultural shadow-side of 1969—from the moon landing to the Manson murders, from a Vietnam veteran's PTSD to a rock star's idolatry, from the love-in at Woodstock to the murder at Altamont—by relating intermixed stories and emphasizing graphics and music" (from *Electronic Literature Directory*, ELO³, https://the-next.eliterature.org/works/512/13/0/) through a non-linear table of sections and perspectives.

Other examples produced across the period from the Storyspace School to the development of web-based, reader-friendly hypertextual forms include Brian Kim Stefans's *The Dreamlife of Letters* (2000), Jim Andrews's sound and visual poem, "Nio" (2001), and a few pillars of electronic literature, such as Michael Joyce's *Twelve Blue* (1996)⁴, Stuart Moulthrop's *Reagan Library* (1999), Judd Morrissey's *The Jew's Daughter* (2000; with contributions from Lori Talley), Talan Memmott's *Lexia to Perplexia* (2000), Caitlin Fisher's *These Waves of Girls* (winner of the 2001 ELO's fiction award), as well as Kate Pulinger's *Inanimate Alice* (2005-2016)⁵. All these works were later collected in the eponymous ELO Volume I, which was published in 2006⁶,

³ The Electronic Literature Organization (ELO), founded in 1999 in Illinois by novelist Robert Coover, electronic author Scott Rettberg, and Internet business leader Jeff Ballowe, is an international organization aiming to promote the creation of electronic literature.

⁴ After his first hypertext fiction, *afternoon*, *a story*, Joyce authored *Twelve Blue* (1996), his first web hypertext, adopting several frames and image-maps.

⁵ Inanimate Alice certainly represents another interesting example of an online hypertext that refers not only in its title but also in its content to another work of the English literary canon, namely Lewis Carroll's Alice's Adventures in Wonderland (1865). It is a multimodal digital fiction about the life and experiences of aspiring game designer Alice Field and her digital, imaginary friend, Brad. Structured into 10 episodes that cover Alice's life from the age of eight to 25, the fiction follows the Bildungsroman of its protagonist, both in terms of content and formal complexity. From the first four episodes (the first published in 2005), authored by writer Kate Pullinger and digital artist Chris Joseph, to the sixth episode in 2016, we witness the expansion of the authorial team, which includes digital artists and game designers following the principles of multiple and collective authorship. In contrast to first-generation hypertext fictions, Inanimate Alice also combines text, musical compositions, images, games, and virtual reality experiences.

⁶ ELO currently includes 4 volumes, published respectively in October 2006 (https://collection.eliterature.org/1/), February 2011 (https://collection.eliterature.org/2/), February 2016 (https://collection.eliterature.org/3/) and June 2022 (https://collection.eliterature.org/4/). The collections include interactive, animated poems, drama, and fiction. The works use Shockwave, Flash, JavaScript, interactive programming languages (TADS and Inform) and HTML.

Mark C. Marino's a show of hands (2008) is another relevant example of an adaptive hypertext novel using the Literatronic system, where hypertextual elements appear incorporated into storylines that become more linear in their use of multilinear features, aiming to avoid disorienting the reader. This adaptive system is designed to provide users with an immersive experience. The software also includes tools to facilitate the user's understanding of the traversed text, such as the percentage of pages read, the recommended steps, and the most widely interpreted passages, thereby enabling personalised reading and writing experiences able to stand in competition with those of the authors themselves (Fauth 1995; Morgan and Andrews 1999; Millard et al. 2005: Rustad 2009; Bell 2010).

The already mentioned connectivity, adaptability, and multimodality of the web provide an ideal environment for multilinear fiction, conferred and supported by the development of user-generated content of Web 2.0. A case in point is *Twine*, a software launched by Chris Klimas in 2009 to create an interactive narrative that follows the model of "storygames" or "gamebooks". Developed on an open-source platform, *Twine* facilitates the use of a node map that reproduces the hypertext structure by showing the pages of the gamebook and their connections. Anna Anthropy's *Rise of the Videogame Zinesters* (2012) helped *Twine* obtain the status of "fringe mainstream", to the extent that it became more than an independent gaming platform. The hypertext fiction published on *Twine* turned into a manifestation of the queer community and its related e-narrative (Bernardi 2013; Friedhoff 2013; Harvey 2014; Kopas 2014). Concepts like those of collective intelligence and the democratisation of content strengthened the potentialities offered by the very structure and process of multi-reading paths (O'Reilly 2007; Jenkins 2006a; 2006b). *Queers in Love at the End of the World* (2013) by Anthropy and *With Those We Love Alive* (2014) by Porpentine are two examples of the numerous games launched on *Twine* that focus the reader/ player's attention on topics such as love, gender, sexuality, or mental illness.

4. Electronic Literature in Ireland

In hypertext, everything is there at once and equally weighted. It is a body whose brain is dispersed throughout the cells, fraught with potential, fragile with indecision, or rather strong in foregoing decisions, the way a vine will bend but a tree can fall down. (Jackson 1997, http://web.mit.edu/comm-forum/papers/jackson.html)

Given the substantial amount of electronic literature somewhat pertaining to the Irish context, the following pages can but offer only a partial analysis of the works considered. Therefore, my attempt is to capture briefly some useful data, and can still be useful for future investigation in this rich field of study. In my attempt to provide an overview of electronic literary works about or related to Ireland, as well as written by Irish authors, I took into consideration a number of sources and platforms, even though the field of electronic works is vast and constantly evolving.

The websites of Irish universities, research centres, and cultural institutions represent an important opportunity to follow digital collections or online exhibitions dedicated to Irish literature and culture, which are either born-digital or which have been digitised. Some notable examples include the **Trinity College Dublin Digital Collections** and the **National Gallery of Ireland**. The main collections held at the Irish Art Digital Archive & Library of the National Gallery comprise the *Irish Art Archive*, which collects materials on Irish art history, and the *Source Stories* collection, an anthology of stories on art history, as well as the *Yeats Archive*, with more than 13,000 records, all searchable through Source.

The National Library of Ireland (NLI) is one of the main venues for digital material, with their vast collection of print materials that have been made available through its Digital Library. Digitized materials include manuscripts, photographs, maps, prints, drawings, newspapers, and other archival items, which provide valuable sources for those interested in Irish history, culture, and literature. In addition to capturing the websites of galleries, libraries, archives and museums across Ireland and a very useful archive of websites of Irish literary organisations and festivals⁷, the Digital Library also collects companions to digital literary studies in Ireland⁸. For the purposes of the current essay, the most interesting sections are those storing digitised and born-digital collections. Among the principal digitised collections, "The 1916 Rising Collection" includes

Among Irish literary organisations and festivals: A Poem for Ireland, http://apoemforireland.rte.ie/; Chapters.ie, http://chapters.ie/; Borris House Festival of Writing and Ideas, http://festivalofwritingandideas.com/; Hinterland Festival, http://hinterland.ie/; International Festival of Literature Dublin, http://ilfdublin.com/; International Literature Festival Dublin, http://ilfdublin.com/; Irish Gothic Journal, http://irishgothichorrorjour-alpha nal.homestead.com/>; The Irish Literary Society, http://irishlitsoc.org/>; Irish Writer's Centre, ; Limerick Literary Festival, http://wildwords.ie/>; Listowel Writers Week, http://www.bramstoker.ie/; Bram Stoker Festival 2013, http://www.bramstokerfestival.com/; Contemporary Irish Writing, http://www.contemporaryirishwriting. ie/>; Cork Poetry Festival, http://www.cuirt.ie/>; Dalkey Book Festival, http://www.dalkeybookfestival.org/; Dalkey Book Festival, http://www.dalkeybookfestival.org/; Dromineer Literary Festival, http://www.dromineerliteraryfestival.ie/; Dublin Book Festival, http://www.dublinbookfestival.ie/; Dublinbookfestival.ie/; Dublinbookfestival.ie/http://www.dublinbookfestival.ie/; Dublinbookfestival.ie/http://www.dublinbookfestival.ie/; Dublinbookf com/>; Dublin City of Literature, http://www.dublincityofliterature.ie/; Dublin City of Literature. dublincityofliterature.ie/>; International DUBLIN Literary Award, http://www.dublinliteraryaward.ie/; Dublin One City One Book, http://www.dublinonecityonebook.ie/; Dublin One City linonecityonebook.ie/>; Dublin Shakespeare Society, http://www.dublinshakespearesociety.ie/; Dublin Writers Festival, http://www.francoirishliteraryfes-festival, http://www.francoirishliteraryfes-festival, http://www.francoirishliteraryfes-festival, http://www.francoirishliteraryfes-festival, ; Hay Festival Kells, ; Illustrators Ireland, http://www.illustratorsireland. com/>; International IMPAC Dublin Literary Award, http://www.impacdublinaward.ie; IMPAC Literary Award, http://www.impacdublinaward.ie; IMPAC Literary Award, http://www.impacdublinaward.ie; IMPAC Literary Award, <a href="http://www.impacdublinaward.ie; Impacdublinaward.ie; http://www.irishbookawards.irish/; Irish Book Awards 2016, http://www.irishbookawards.irish/; Irish Paris, http://www.irishmeninparis.org/; Irish Literature in Russian Translation, http://www.irishmeninparis.org/; Irish Literature in Russian Translation Irishmeninparis. Literary Belfast, http://www.literarybelfast.org/; Literature Ireland, http://www.literatureireland.com/; Mountains to Sea, http://www.mountainstosea.ie/; Munster Literature Centre, http://www.mountainstosea.ie/; Munster Literature Centre, http://www.mountainstosea.ie/; Munster Literature Cent http://www.murderone.ie/>; Poetry Ireland, <http://www.poetryireland.ie/; Publishing Ireland - Foilsiú Éireann, http://www.publishingireland.com/>; Roddy Doyle, <http://www.roddydoyle.ie/>; Festival of Russian Culture, http://www.russianfestival.ie/; Seamus Heaney, http://www.seamusheaneyhome.com/; Stinging Fly, http://www. www.stingingfly.org/>; Writing.ie, http://www.writing.ie/; Active Speech: Sharing Scholarship on Teresa Deevy, https://activespeech2021.org/; Childrens Books Ireland, https://childrensbooksireland.ie/; Claremorris Folk Festival, https://claremorrisfolkfestival.com/; E.R Murray, https://cramurray.com/; https://cramurray.com/; https://cramurray.com/; ; Kidsown, https://kidsown.ie/; Patrick Kavanagh Country, https://kidsown.ie/; Patrick Kavanagh Country, https://patrickkavanaghcountry. com/>; Poethead, https://poethead.wordpress.com/>; Listowel Writers' Week, <https://writersweek.ie/>; Cúirt, ; Donaghmede Literary Festival, https://www.donaghmedelitfest.com/; Dublin Book Festival, https://www.ennisbookclubfestival.com/; Hinterland Festival of Literature & Arts, https://www.hinterland.ie/; Howth Literary Festival, https://www.howthliteraryfestival. com/>; Imagine Arts Festival, https://www.irelandreads.ie/>; Irish Book Awards, https://www.poetryireland.ie/; Redline Book Festival, https://www.redlinebookfestival.ie/; Seamus Heaney, https://www.seamusheaney.com/; Tramp Press, ; West Cork Music Festival, https://www.westcorkmusic.ie/literary-festival/>; Words by Water, https://www.writing.ie/.

⁸ Among these Companions, it is worth remembering Claire Lynch, *Cyber Ireland: text, image, culture,* Palgrave Macmillan, Basingstoke 2014; Andrew Weanus, *Electronic Literature as Digital Humanties: Contexts, Forms, & Practices,* Lanham, Maryland: Lexington Books, an imprint of The Rowman & Littlefield Publishing Group, Inc., 2021; Ray Siemens and Susan Schreibman (eds), *A companion to digital literary studies,* Chichester: Wiley-Blackwell, 2013; Matthew G. Kirschenbaum. *Technology in Irish literature and culture in Technology in Irish literature and culture.*

photographs, letters, and other materials related to the Easter Rising. The "Yeats Collection" is a noteworthy compendium gathering a range of Yeats's manuscripts, letters, photographs, and other items. The "National Folklore Collection" is one of the largest folklore collections in the world, containing digitized manuscripts, photographs, and audio recordings on Irish folklore and cultural heritage. NLI also hosts the famous "James Joyce Collection", featuring a selection of James Joyce manuscripts, letters, photographs, and other materials about his life and works.

It is widely well known that digital library collections play a very important role in preserving works of electronic literature. In addition to the UK-based Digital Preservation Coalition and the Electronic Literature Organization's PAD (Preservation / Archiving / Dissemination), the Digital Repository of Ireland (DRI) is a national service, launched in June 2015, for the long-term digital preservation of Ireland's humanities, social sciences, and cultural heritage resources; it contains a number of important digitised collections, such as the "Oscar Wilde Collection" and the "Papers of John Millington Synge" (DOI 10.7486/DRI.rr17fk819).

The "Irish Film Poetry Archive" is an essential resource, with its poetic texts or speeches complemented by various media, such as videos and sounds. Film poetry is extensively associated with "digital poetry" and "multimedia poetry", as the digital plays a main role in the connections between poetical and filmic elements. Irish poets and practitioners see film poetry as a very common experimental *genre*, as shown by the work of Doireann Ní Ghríofa and Pat Boran. The section "Irish Film Poetry Archive" at the DRI includes a selection of ten film-poems, which are briefly listed in the following in chronological order:

- "The Lammas Hireling" (2009), from Ian Duhig's poem (2000), investigates the theme of superstition in 19th-century rural Ireland;
- "Red Line Haiku" (2015) by Brian Kirk, which was composed in 2013 as a series of Haiku during his travels on the Red Line (one of two lines of the Dublin light rail system), and was later enriched with a visual and audio component;
- "Chronosequence" (2018), by Doireann Ní Ghríofa, Peter Madden, and Linda Buckley, intertwining images of nature and ruins as the words of the poems are projected on a screen;
- "Going to the Well" (2018), a film based on a poem by poet and author Lani O'Hanlon, which tells the story of a group of women seeking water in three wells;
- "Marsh" (2018), from a poem by Cork poet, Paul Casey, read by Aidan Stanley, which
 is about the Carrafeen salt marsh in West Cork, an area where sea and land meet;
- "Recipe for the Bad Times, the Sad Surprise Times, the No Light Times" (2018), a film poem by Doireann Ní Ghríofa, with music and voice by Linda Buckley;
- "The Origin of Superlatives" (2019), a two-minute film poem composed and filmed by Colm Scully, featuring the craftspeople of La Colporteuse society in France;
- "Virginia Gave Me Roses" (2019), a film poem based on Lani O'Hanlon's poem, filmed
 and edited by Fiona Aryan, and recited by Lani O'Hanlon, exploring "impermanence,
 female relationships and the rituals that sustain us in times of sorrow, loss and joy";
- "Cur Síos" (2021), a 59-second film poem by Brian Mackenwells, which displays a roll of paper from a fax machine scrolling continuously across a typewriter to create a pattern, while a voice is reading the poem;
- "Lineage" (2021) by Sinéad McClure, a one and a half minute film poem on nature, climate change and habitat loss, while a voice recites the poems.

The **UCD Digital Library** gathers historical materials, photographs and art, as well as interviews and letters, which have been digitised and made available through open access, in-

cluding, to name a few, the "Papers of Michael Collins", the "Letters of Roger Casement", the "Press Photographs of Eamon de Valera in 1919-1979", and the original material concerning the events of Easter 1916, taken from the UCD Archives and UCD Special Collections. The UCD Digital Library also collaborates with many Irish repositories to make primary source materials and research data freely accessible online. The Irish Virtual Research Library and Archive (IVRLA) is also worth mentioning for its digitisation project on digital Humanities and Social Sciences launched in January 2005 to optimise access to the cultural heritage repositories of the University College Dublin through digitisation technologies. The material, made accessible from a single virtual location, is organised in searchable collections, such as the collection entitled "Joyce's Dublin", which is a very interesting selection of podcasts and interviews related to James Joyce's short story "The Dead".

As far as cultural institutions are concerned, the previously mentioned Electronic Literature Organization (ELO) plays an essential role as a useful directory of electronic literature, which allows one to browse individual works, resources, featured articles, authors, publishers, and a glossary. ELO collaborates with Bloomsbury Publishing for the *Electronic Literature* open access series (https://www.bloomsbury.com/uk/series/electronic-literature/), which focuses on the transformation of literature in the digital ecosystem. At present, the series includes three volumes entitled respectively *Electronic Literature as Digital Humanities* (2022), edited by Dene Grigar and James O'Sullivan, which provides a comprehensive report of born-digital literature; *The Digital Imaginary. Literature and Cinema of the Database*, edited by Roderick Coover, exploring the impact of digital technologies on current culture; and John Cayley's *Grammalepsy. Essays on Digital Language Art* (2020), which investigates the cultural change from print literature to electronic literature and the ensuing revolution in reading.

ELO also boasts the publication of four anthologies gathered under the title *Electronic Literature Collection* (https://collection.eliterature.org/). The first volume of the collection was published in 2006 on the web and as a CD-ROM (with identical contents); it includes 60 e-lit works by international poets and scholars. *The Electronic Literature Collection*, Volume Two, was published in 2011 on the web and includes 61 e-lit works. It was later published in combination with the **Electronic Literature Collection**, Volume One, on USB Flash Drive.

Unlike its companion volumes, volume three (2016) of the *Electronic Literature Collection* suitably allows its addressees to select digital works by country or authors. By selecting Ireland, we can find Liam Cooke's "poem.exe" (2014). This is a bot of micropoetry that collects poems in the form of haiku⁹. By surfing randomly across collections, the software chooses a single line from each collection to publish 3-4-line poems on Twitter and Tumblr every two hours, building on the cut-up method that Raymond Queneau employed in his *Cent mille milliards de poèmes* (1961).

The third volume of the Irish section of the *Electronic Literature Collection* also includes Irish Digital Poet John Pat Macnamara's "Take Ogre", a new version of Nick Montfort's original work, *Taroko Gorge*, where "the gorge becomes an ogre, a shadow self haunting a fantasy-driven reinterpretation". "Take Ogre" is also inspired by mediaeval fantasy and by *Dungeons and Dragons*, also in terms of its vocabulary (i.e., player, knight, queen, magician, sage, banshee, ogre). The work leads its users in their understanding of the creative process and its relationship with technology, "depicting a cluttered work desk filled with papers,

⁹ "The bulk of the corpus it reads from consists of translated haiku by Kobayashi Issa; as a result, many of the poems are coloured by Issa's personality, in particular his fondness for snails. [...]" (https://collection.eliterature.org/3/work.html?work=poem-exe).

books, and disks in front of a window at night. A laptop is prominently featured and displays only the same picture of the desk, echoing forward through infinite repetitions of the screen-within-a-screen" (https://collection.eliterature.org/3/work.html?work=take-ogre). "Take Ogre" is one of forty digital poems that create the larger digital narrative at http://www.digitalvitalism.com>.

By selecting nationality as a filter and choosing "Ireland", the fourth volume of the collection introduces us to "The River Poem" (2019) by Jeneen Naji. Calling on the literary tradition of writers like James Joyce, Lady Augusta Gregory, Oscar Wilde, Jonathan Swift, Kate O'Brien, Elizabeth Bowen, and many others, "The River Poem" employs Joyce's Finnegans Wake "as the training text for the AI's learning algorithm, processing the work and generating the poetic verses from its prose". Finnegans Wake actually turns out to be an ideal text, which is apt to be transposed to the digital medium, due to its language rich in neologisms, and its stream of consciousness style associated with multilinearity. The generated lines are "projected onto a 3D model of Dublin City, [...] flowing along the River Liffey" (https://collection.eliterature.org/4/ the-river-poem). In her stimulating 2022 essay, published in the eleventh issue of *Studi irlandesi*. A Journal of Irish Studies – a part of which is devoted to Digital Humanities and Literature in Ireland -, Jeneen Naji illustrates how "The River Poem" is part of a bigger installation shaped by the Building City Dashboards, whose research project focuses on visualisations of the data projected onto 3D printed scale models of Dublin and Cork. "It is an example of a digital text", she continues, "that is spatially situated in the same way that urban planning VGEs are but also incorporates some aspects of literary placemaking and multimodal communicative dimensions such as kinetic text and atmospheric audio", emphasising that "Characteristics such as these can be found in the field of digital humanities in born-digital literary texts such as electronic literature and its sub-genre of digital poetry" (2022, 77).

ELO has also produced an open-source knowledge base called the *Electronic Literature Directory* (https://directory.eliterature.org/), which is one of the most functional research resources for electronic literature, with information about authors, creative works, critical writing, and platforms. Currently, the Knowledge Base, developed by the University of Bergen Electronic Literature Research Group, contains 3,899 creative works records, 5,031 critical writing records, 4,707 authors, 321 platforms, 99 teaching resources, 934 publishers and journals, 76 databases and archives, and 65 research collections, among which the *Electronic Literature in Ireland Research Collection*. This collection features creative and critical works¹⁰, either born digital fiction¹¹ and poetry or remediated forms of print literature in the digital environment, mostly created by Irish scholars and practitioners, in both English and Irish. The organizations that took part in the project are Dublin City University, Maynooth University, National University of Ireland, Galway, Trinity College, Dublin, and University College Cork, and New Binary Press as a Publisher. The main purpose of the Collection,

¹⁰ Critical writings concerning the Irish literary digital collection are limited to the years 2012-2017.

^{11 &}quot;Digital fiction is 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. Digital fiction as a genre thus does not include blogs, communitarian digital fiction, digital storytelling, and any other form of digital narrative that does not qualify as fiction. While we welcome the authorial democratization that Web 2.0 technology permits and wholeheartedly support research that seeks to understand it, life narratives are fundamentally nonfiction and therefore beyond our remit. It similarly does not include e-books or games we can't 'read', or rather games where there is no dynamic relationship between the gameplay (rules) and its themes (representations) that we can read into, reflect on, or interpret" (Ryan 2010).

curated by Anne Sofia Karhio¹² with the collaboration of Michael J. Maguire, Jeneen Naji, and James O'Sullivan, is to understand

how Irish literary culture adapts itself to, or engages with, the changing technological and media landscape. However, it opts for a relatively wide definition of what is meant by "Irish" literature, acknowledging the permeability of geographical and cultural borders in the digital age. Works engaging with Irish themes or topics by non-Irish writers and literature of the Irish diaspora, for example, may also be included in this collection. (https://elmcip.net/research-collection/electronic-literature-ireland-research-collection, 05/2023)

Samantha Gorman's 1999 reappropriation and readaptation of *The Book of Kells*, a Latin version of the Bible circa 800 AD is one of the most important creative works included in the collection. As Samantha Gorman declares in her artist statement, it was developed as a hypertext "weaving of historical study, literary theory, travel narrative, meditative prose, mystical contemplation, and academic inquiry [...]". Gorman's accomplishment as a literary gamer and e-lit writer was in Dublin, where she was introduced to the *Book of Kells*, while spending a summer at Trinity College. She claims that "reflecting on the original manuscript's hypertextual melding of text and image, the icons of The Book prompt the texts of Deconstruction: lexias emerge from and are symbolized by designs on the manuscript's folios. Overall, the work is a study on the original manuscript within the scriptorium of electronic media and methods". Gorman studied with Professor of Creative writing Robert Coover, at Brown University, where she developed an interest in multimodal forms¹³.

The *Electronic Literature Knowledge Base* is also enriched by poetry. "Holes" is a ten-syllable digital poem, which has been published online daily by Graham Allen since 23 December 2006. Now in its sixth edition, "Holes" presents a new perspective on autobiographical writing focused on the author's life. Stylistically, it is a born-digital text on landscape. Digital platforms are exploited in the project to contribute to the symbolic representation of the protagonist's inner feelings, but also to challenge the very idea of landscape: "Inasmuch as the motif of landscape, in the Irish context in particular, has almost exclusively been understood as a visual metaphor of cultural and historical narratives, the aesthetics of the database can challenge narrative cohesion through alternative processes of accumulation and patterning". The one-line entries, made up of ten syllables, are always preceded by the date, but they may vary in terms of rhythm and metre, and they are written and modelled as Twitter posts, or online diary entries. From the homepage users access photographs of rock surfaces and walls of different materials from close range, intended to show greater detail and to accompany the poem. Graham Allen is still working on the poem.

Irish history and Irish American family memories, displacement and survival, the role of art and its central place in the abolition of slavery are the main subjects of the Irish American electronic manuscript, Judy Malloy's *From Ireland with Letters* (2012). Composed of a Prologue, six Cantos, and a coda (Canto 8), the manuscript combines the stories of Walter Power, an Irish slave who was captured by Cromwell's soldiers and sold in the Massachusetts Bay Colony when he was 14 years old (The Goodfellow, 1654), and his successor, Hiram Powers, a 19th-century

¹² Anne Karhio's online volume *Digital Art in Ireland. New Media and Irish Artistic Practice* was published in 2022 by Cambridge UP.

¹³ In collaboration with Danny Cannizzaro, Samantha Gorman coauthored *Pry, a novella*. It is an electronic literature interactive novel sold as an app by Apple for phones and tablets.

Irish American sculptor. Powers grew up in Vermont, but he eventually migrated to Italy, where he became a fervent abolitionist advocate. The 8 Cantos are all written in a different structure and tempo but they are held together by the overarching themes. *From Ireland with Letters* allows the readers to move independently across the story, through clicking autonomously on each lexia and finding their own paths.

Judy Malloy's "Scholars Contemplate the Irish Beer" (2012) is a generative poem that brings readers to Ireland, and to its poets, musicians, and fairies, where all of them become part of the real and mystical brew that moves from St. James Gate.

Huckleberry Finnegans Wake (2013), by Talan Memmott, Eric Snodgrass, Sonny Rae Tempest, and Michael J. Maguire¹⁴, is another interesting e-lit text of the collection. It is a performance work combining Mark Twain's Adventures of Huckleberry Finn and James Joyce's Finnegans Wake, where both texts are rich in regional dialects and neologisms; however, once they are combined, they give way to a fantastical environment, devoid of specificity, except for the Liffey and the Mississippi rivers running through both. Huckleberry Finnegans Wake stands as a sort of comparative and deconstructive textual analysis that can be performed on one **text,** or on both texts combined. From another perspective, the work is creative, in that it is both generative¹⁵ and performative. The performance utilizes various applications to generate a multimodal interpretation of the combined text with visual material, audio, and live readings drawn from different engines.

Michael J. Maguire's electronic literature work and website, "digitalvitalism.com" (2014) focuses on Irish digital poet John Pat McNamara, whose life and works have been deeply influenced by technology. Inside Digitalvitalism.com, users can experience McNamara's works and life.

Justin Tonra's "Eververse" (2019) sends biometric data to the poet's poetry generator via a fitness tracking device, worn by the poet himself. The generator, mostly using the Python programming language, allows the creation of poetic text (via NLG techniques) relying on biometric data. Text is eventually published in real time and it consists of a web interface showing the poetic text once it is fully generated.

14 "Michael J. Maguire is arguably the nation's most prominent e-lit practitioner; he has certainly long been one of the stalwarts of the Irish community within the broader international cohort. [...] Maguire's ambitions were substantial, and he borrowed a large sum of money, as well as securing matching funding from investors, for the purposes of launching his own videogame development company, Táintech Creative Studios. He designed several large-scale videogames, working with a small team to define all of the rules and mechanics, write all of the scripts, and develop many of the assets. With many of Táintech's designs completed, he approached the European arm of Sony Computer Entertainment, which responded positively, proposing to make Michael's fledging operation the first and only licensed PlayStation developer in Ireland. In 2006, finally returning to his own creative practice, Maguire used Tiddlywiki—something of a predecessor to Twine—to create *Bob Casio's Dead Cameraman*. In 2008, the exchanges bore some fruit, when Maguire founded the Irish Electronic Literature Community, a non-profit voluntary group concerned with the promotion of electronic literature throughout Ireland. It was in this same year that Maguire published "Promise: The Annals of the Four Webmasters" in *The New River* (Maguire 2008), a journal of digital writing and art, largely considered to be one of the first online journals dedicated exclusively to the publication of electronic literature. As a work of Irish e-lit, "Promise" was more than its authorship—steeped in Irish symbolism, it was one of the form's first works to truly be of Ireland" (O'Sullivan 2018, https://electronicbookreview.com/essay/electronic-literature-in-ireland/).

15 "The term "generative poetry" is used to refer to any born-digital poetic project that uses code, algorithm, or other indeterminate means to generate poetic texts. In generative poetic works, a program or algorithm generates a poem or series of poems based on a lexicon or set of lines developed by the authors. This generation may run once, for a fixed period or a fixed number of times, or indefinitely, depending on the project" (https://directory.eliterature.org/glossary/4964).

"Greetings from..." by Paul O'Neill (2019) focuses on the author's global research on Amazon Web Services (AWS). O'Neill charts new AWS data centres around the world through employing the Amazon Atlas (www.wikileaks.org/amazon-atlas) and the AWS infrastructure map (www.aws.amazon.com/about-aws/global-infrastructure).

The Electronic Literature Organization should also be considered for the publication of a number of volumes focusing on the development, main characteristics, guidelines, and best practices of electronic literature more generally. These include *Acid-Free Bits. Recommendations for Long-Lasting Electronic Literature* (2004) by Nick Montfort and Noah Wardrip-Fruin and *Born-Again Bits. A Framework for Migrating Electronic Literature* (2005) by Alan Liu, David Durand, Nick Montfot, Meerilee Proffitt, Liam R.E. Quin, Jean-Hugues Réty, and Noah Wardrip-Fruin. In 2007, ELO led to the publication of Joseph Tabbi's *Toward a Semantic Literaty Web: Setting a Direction for the Electronic Literature Organization's Directory* (2007) and Katherine Hayles's *Electronic Literature: What Is It*? (2007).

Online literary magazines and journals are often focused on Irish literature, and they publish contemporary works as well as showcasing emerging Irish writers. Notable examples include the peer-reviewed journal, "The Electronic Book Review", with critical writing about digital literary works; "The Stinging Fly", which is an independent and non-profit literary magazine, book publisher, and online platform; and "The Dublin Review", a quarterly magazine of essays, memoir, reportage, and fiction.

Elo 2015: the Ends of Electronic Literature gathers some interesting theoretical essays on the topic and other contributions on Irish electronic literature, such as those by Karhio on Allen's "Holes", Maguire on Digitalvitalism.com, Nagij on "Multicultural translation in the digital space" and James O'Sullivan, who proposes a personal reflection on e-lit as a publisher. O'Sullivan was involved in many e-fictions and digital poems, such as "Holes", which was the first work his New Binary Press published. Founded in 2012, New Binary also published Montfort's generative work, Round, in 2013; Duels — Duets, a collaboration between Montfort and Strickland; Remembering the Dead. Northern Ireland, created by John Barber, a work to remember each one of the nearly 3,600 men, women, and children who died during the Troubles in Northern Ireland; novelling, completed in 2016 with video, design and coding by Will Luers, text by Hazel Smith, and sound by Roger Dean, which is a digital novel about the acts of reading and writing fiction. In Elo 2015: the Ends of Electronic Literature, O'Sullivan investigates how and why many publishers are supporting electronic literature, and why a conspicuous number of authors choose to self-publish their works, facing long-term sustainability issues and other technical challenges, in addition to financial constraints. Fallow Media is another Dublin-based publisher whose activity is centred around digital creative works.

5. A Handful of Inconclusive Outcomes

Digital literature, as opposed to digitised literature, is an altogether new *genre* of literature; as such, it deserves critical attention by any readership (digitised literature accessible online is of course also worthy of mention and attention). As James O'Sullivan points out, "When something is truly digital, a lot is transformed: the multimodality of expression, the perceived agency of readers, the way that immersion and interactivity are deployed in the service of narrative" (2021, 405). Digital works need to be characterised by advanced technological features and a certain degree of literary quality. Authors have to address a number of technical and content requirements to be able to establish and to remain in dialogue with the chosen media. Narratology, the sociology of literature, textual criticism, media theory and structure (i.e.

linking, navigation), experimental writing and new media studies, as well as hypertext theory and critical code studies¹⁶ are all called to action, and coalesce to shape an essential theoretical background for the analysis of works conveyed through different media.

Electronic literature in the Irish context is a still young and evolving field of development and enquiry. Also taking into account the number of possible examples that I have unintentionally neglected, the production of literary works that explore the potential of digital technologies does not appear to be fully explored in Ireland and, as such, has been little investigated, also so as to have it included as a *genre* within the Irish literary canon. Proponents of e-lit are for the most part both practitioners and scholars: this convergence of the two roles enables e-authors to write multimodal forms, to analyse them, and to gain the necessary competencies to teach what they have learnt or practised¹⁷. New generations of readers need to acquire the critical tools to be able to understand and to appreciate e-lit as a new *genre* with its own canon. This does not simply involve the ability to navigate multi-sequentially, or to generate one's own paths of reading or listening merely through the making of choices¹⁸, but rather the ability to adapt individual technological-digital skills while understanding and enjoying a particular text.

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¹⁶ "Critical Code Studies (CCS) is an approach to code studies that applies critical hermeneutics to the interpretation of computer code, program architecture, and documentation within a sociohistorical context. CCS holds that the lines of code of a program are not value-neutral and can be analyzed using the theoretical approaches applied to other semiotic systems, in addition to particular interpretive methods developed specifically for the discussions of programs. Meaning grows out of the functioning of the code but is not limited to the literal processes the code enacts. Through CCS, practitioners may critique the larger human and computer systems, from the level of the computer to the level of the society in which these code objects circulate and exert influence" (Marino 2006).

¹⁷ "The number of people with the time, training, and access to create these artistic works is quite small and were introduced to the form by another person, rather than a random web search. To an extent, electronic literature is a guild-based art form, one that requires mentoring just as it requires evangelists" (http://www.digitalhumanities.org/dhq/vol/2/1/000017/000017.html).

¹⁸ This kind of active engagement by a readership is defined as ergodic literature.

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