# Teaching with the Electronic Literature Collection Volume 4

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#### ABSTRACT

This article surveys the four ELCs – Electronic Literature Collections (2006-2022), reviews pedagogical approaches to teaching ELCs, and situates ELCs and electronic literature pedagogy into higher education's course management systems. ELCs' increasing accessibility serves its global audience and centers the ethical values of diversity, equality, and inclusion. The ELC4's user experience design manifests these values. The article discusses the history of the Collections' experience design. Volume Four (2022) expanded reader accessibility and linguistic diversity by including video playthroughs and collecting 132 works from 42 author nationalities in 31 languages. This article surveys those evolving design changes. It engages a robust literature review of global electronic literature pedagogy. It features suggestions for thematic clusters of ELC4 works in a variety of subjects including literature, media studies, critical AI, identity theories and bibliotherapy. It concludes with a discussion of how electronic literature pedagogy fits within higher education's ecosystem.

#### KEYWORDS

electronic literature collections; teaching electronic literature; pedagogical strategies

#### RESUMO

Este artigo analisa as quatro ELCs – Coleções de literatura eletrónica (2006-2022), investiga abordagens pedagógicas para o seu ensino, e posiciona as ELCs e a pedagogia da literatura eletrónica nos sistemas de gestão de cursos do ensino superior. A crescente acessibilidade das ELCs adapta-se ao público global

e centra-se nos valores éticos da diversidade, igualdade e inclusão. O design de experiência do usuário da ELC4 manifesta esses valores. O artigo discute a história do design das Coleções. O Volume 4 (2022) expandiu a acessibilidade e a diversidade linguística, incluindo vídeos e reunindo 132 obras de autores de 42 nacionalidades em 31 idiomas. Este artigo examina essas alterações no design, propondo uma revisão bibliográfica da pedagogia da literatura eletrónica global. Apresenta sugestões para criação de grupos temáticos de obras da ELC4 à volta de assuntos como literatura, estudos dos média, IA crítica, teorias da identidade e biblioterapia. Conclui com uma discussão sobre o enquadramento da pedagogia da literatura eletrónica no ecossistema do ensino superior.

#### PALAVRAS-CHAVE

coleções de literatura eletrónica; ensino de literatura eletrónica; estratégias pedagógicas

#### INTRODUCTION

he Electronic Literature Collection is comprised of, at the time of the article's publication, four volumes of web and physical¹ publications that archive and gather the most significant works of electronic literature during a generally five-year period as selected by editors appointed by the Electronic Literature Organization. The Collection includes either the works themselves or documentation of such works when playthrough is no longer possible, as well as statements by both the editors as part of their selection and by the authors. The first volume was published in 2006, and the most recent one, the fourth, was published in 2022. This article will begin by reviewing the evolution of the Collection's web interfaces and contents before introducing the novel features of ELC4, all of which were designed with pedagogy in mind.



Fig. 1: Electronic Literature Collection Volume 1 Main Page

<sup>1</sup> https://collection.eliterature.org/4/works.json

#### Electronic Literature Collections Volumes 1-3

The first volume of the Collection was edited by N. Katherine Hayles, Nick Montfort, Scott Rettberg, and Stephanie Strickland (2006). It consists of 60 works, with a keyword, author, and title index. The home page of the Collection displays the works as a set of tiles, where the title graphic changes based on the mouse cursor hovering over each work. The site was developed in HTML and JavaScript. Many of the works have been preserved as they were originally developed for Flash, which no longer runs on modern browsers.

The second volume of the Collection (2011) was edited by Laura Borràs, Talan Memmott, Rita Raley, and Brian Stefans. The design (Fig. 2) was largely the same as volume 1 (Fig. 1), with a keyword, author, and title index (Fig. 3).



Fig. 2: Electronic Literature Collection Volume 2 Main Page

The third volume of the Collection was edited by Stephanie Boluk, Leonardo Flores, Jacob Garbe, and Anastasia Salter (2016). It collected 114 entries from 26 countries, 13 languages, and many platforms. The collection interface includes additional indices for languages and countries while keeping indices for Title, Author, and Keyword. The site was built using HTML and JavaScript and follows responsive design principles. The main page completely fits on a standard desktop screen while the layout adjusts the number of columns for mobile screens. Several subcollections are represented on the main page, including *Taroko Gorge* Remixes and Bots (Fig. 4).

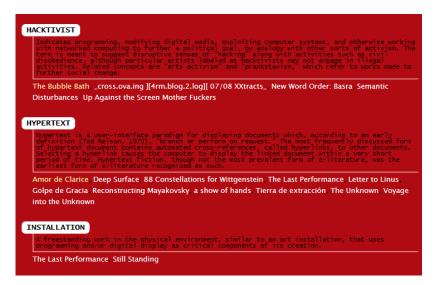


Fig. 3: Electronic Literature Collection Volume 2 Keyword Index Excerpt



Fig. 4: Electronic Literature Collection Volume 3 Main Page

Each work has its metadata represented as a set of panels (Fig. 5). As before, this Collection adds additional metadata where available to supplement an author(s) statement and the editorial statement on the work itself, along with a link to the work or an archived artefact from the work.



Fig. 5: Electronic Literature Collection Volume 3 Work Interface

#### Electronic Literature Collection Volume 4

The ELC4 editors set several goals and faced challenges that distinguish it from previous volumes. They set out to increase the types of diversity represented within it as well as the granularity of metadata, including not only the language of the work's text, but also the authoring language, platform, format, author(s) nationality, and geographic origin of the work. These additional metadata categories and data were then used as a basis for two novel interfaces that allow users of the website to filter works based on matching search terms and tags. Based on this additional complexity, the website was developed in React and incorporated code and formatting from the previous Collection (ELC3). The site stored the metadata used to render the site as a single JSON file, but adopted the recently popular React framework, a front-end JavaScript library, which allowed the authors to incorporate advanced features for displaying and searching through the new metadata categories. These include the search bar on the main pages which has auto-completion for each metadata field and the tag filter interface as discussed below.



Fig. 6: Electronic Literature Collection Volume 4 Main Page

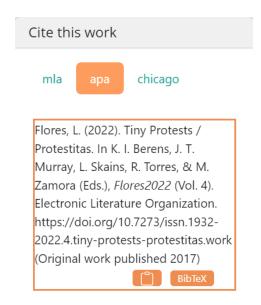


Fig. 7: Electronic Literature Collection Volume 4 Citation Widget

A common practice for accessing a Collection is to use keywords or other metadata which allow the user to find similar works for comparison. This was facilitated in the *ELC3* through a listing of works that were tagged with a keyword in the index. Along with common interfaces for online shopping,

this method inspired the Collection's filter-based approach to facilitate explorations. Every time a filter is applied, only tags that are included in the selected works are shown along with the number of works. This allows for explorations of common content, genres, or platforms based on shared characteristics. The tag feature was further incorporated into a single search interface which further disambiguates between tags with the same name but different categories. The data is made available as a JSON file, the same file used by the website, 2 so researchers and educators may use other tools to explore relationships between the works' metadata.

Finally, one of the most important features added was a simple way to cite either the work itself or the documentation on the work. This was provided as a citation widget (Fig. 7), which is available on each work page. It offers three common citation formats as well as a BibTeX entry. The main design goals of the collections have remained consistent: allow users to both reference and browse the collected works while connecting them to one another through metadata and editorial introductions. The most recent Collection started to grapple with the challenge of exploring a larger number of works whose attributes and authors are increasingly diverse and interconnected as the field matures.

#### Critical Reception for the Electronic Literature Collections

In her review essay of the Electronic Literature Collection, Volume 1, Adelaide Morris (2007) proposes that "[1]ike the Norton, Heath, and Oxford Anthologies, the Electronic Literature Collection makes available for the classroom a canon of materials that constitutes a field." These "thinkertoys" (a term coined by Theodore Nelson in Computer Lit / Dream Machines), or works of electronic literature, imply a "cognitive engagement" for a generation of students that "came of age with the Nintendo PlayStation and currently process their lives through laptops, cell phones, PDAs, iPods, iPhones, Blackberries, and wearable digital devices" (Morris, 2007). Moreover, they are "tutor texts," (a term proposed by Hayles in Electronic Literature as "a text that teaches us how to interpret it"), which help us understand the Collection's distributed media ecology in an information-saturated age. Morris concludes that what really matters is readers' "participation in the construction of a viable life within societies of control and freedom. It is important that these poems enter-and change-the classroom. And it is important that we learn to interrogate their limits" (Morris, 2007).

<sup>2</sup> For some time, ELC volumes 1, 2 and 3 were made available on USB thumb drives by request. This option is no longer available.

Vinícius Carvalho Pereira (2021) also reviewed the three first volumes of *ELCs*. Pereira argues that interconnections encapsulated in each of the Collection's volumes allow the reader to identify a "heterotopia" constitutive of the project as a whole. Pereira refers to a "tension between the self-sufficiency of each volume and the contiguity relations between them", noting that this tension is related in turn to the "tension between independence and interdependence of works collected in the same volume" (223). In this sense, *ELCs* allow us not only to situate, organize and think about the past or present of electronic literature, but also, and mainly, "the futures that are outlined for it when we open and manipulate its archives" (235).

#### ELECTRONIC LITERATURE IN THE CLASSROOM: A LITERATURE REVIEW

The benefits of using electronic literature in the classroom have been widely studied. It often involves innovative teaching methods that advance the blending of theory and practice, encouraging students and teachers to adapt to new cognitive modalities. Electronic literature invites readers to experimentally engage with the materiality of texts and technologies and has been adopted in interdisciplinary areas, from media to literary studies, from computation to arts curricula. Reading multimodal digital texts further implies forms of critical literacy. With the increasing complexity, profusion, and ampleness of algorithmic narrativity, hybrid modes of textuality progressively embed distinctive semiotic features and tensions, and prompt new forms of understanding our culture and society.

In hypertext, furthermore, theory and practice, criticism, and creativity integrate in reflective ways. Cornis-Pope and Woodlief (2002) have formerly referred to the advantages of re-reading and re-writing processes involved in collaborative pedagogies, having argued that students would benefit from non-linear approaches to narrative for the reason that "multilinear or networked organization" of hypertexts is based on "open-endedness, greater inclusion of nontextual information, interactive authorship" (2002: 160). George Landow and Paul Delaney (1991) had already explained that hypermedia and literary studies share a common evolution, and can benefit from each other, claiming that "hypertext breaks down our habitual way of understanding and experiencing texts, [and therefore] it radically challenges students, teachers, and theorists of literature" (p. 4, 7, 44). Likewise, Unsworth (2008) anchors multiliteracy with e-literature and the teaching of English, proposing and outlining three frameworks that can help teachers in their preparation of classroom work. These include an organisational framework, an interpretive framework, and

a pedagogic framework. The latter, describing "various types of online contexts for developing understanding about different dimensions of literary experience" (64), involves, as the author explains, "the strategic use of student-centered, discovery learning as well as teacher-directed, overt teaching and intermediate, guided investigations." (70) Although Unsworth recognizes that teachers may not "feel confident or comfortable in the world of digital multimedia," he also accepts that "this intergenerational digital divide" (62) can be bridged with children's literature, and, we would add, with children's and youth electronic literature, which, as Ramada Prieto (2017) explains, has a close relationship with video games, illustrated books and educational software.

Although addressing the teaching of digital fiction from the perspective of creative writing workshops, Skains (2019) provides criticisms and clues that can be relevant to the scope of the work of the ELC. Multiliteracies, Skains argues, "are not yet standard pedagogical aims," and therefore we should expect neither students nor instructors to possess the skills required to design or develop digital fiction (4). With that in mind, Skains reminds readers that even though the ELO is consistently creating and promoting archives, collections, and databases, these are but a partial representation of the amount of digital fiction that is actually out there. Moreover, these archives, collections, and databases often avoid the publication of other "'popular' forms that students are more likely to connect to in their introduction to digital fiction" (5). These are problems that ELCs still need to address. And with ELC4, the editors have tried to guarantee that Skains' criticism of previous ELCs — that they tend to be based on "browsing rather than offering an easily searchable and filterable database for selection of works" - was solved.

ELC4 was a collection conceived, developed, and published during the COVID-19 pandemic. As such, Mseleku's (2020) systematic literature review conducted on sixteen databases, which identifies relevant studies about online learning and teaching during this period, may be relevant. The author identified several challenges for online teaching and learning, including, but not limited to, difficulties of adjustment from both students and teachers, connectivity and related issues, mental health problems, lack of resources, etc. Mseleku also addresses COVID-19-induced opportunities, and these constitute guidelines that can be adopted in pedagogies with electronic learning and literature. We particularly refer to "new approaches and tools for learning online and capacity development (...) develop innovative ways to deliver teaching (...) innovative thinking and innovative solutions within the sector (...) new experiences in the digital world" (592).

Teaching with electronic literature (elit) — in terms of studying it as a form of literature and of using it as a tool for studying other topics —

introduces a wealth of pedagogical possibilities. Based on her experience with teaching electronic literature at the University of California at Berkeley, Saum-Pascual (2017) proposed and shared a rich pedagogical plan that recognizes the wide "range of cultural literacies that are involved in digital reading and writing competencies." In her "Electronic Literature: A Critical Making & Writing Course," she incorporated "academic research tools and resources, together with practical, hands-on work." Saum-Pascual concludes that "[t]eaching digital literacies as (global) e-lit and vice versa — understanding e-lit as a DH discipline — implies questioning institutional aspects related to how we traditionally work in humanities departments" (34). Moreover, similar courses and practical activities would motivate us to start "rethinking our notion of literacy through the practice of electronic literature involves expanding what we understand by digital literacy" (39). Koskimaa (2007) analyses some educational possibilities put forward by new technologies, arguing that they can be simultaneously used to teach traditional and electronic literature. He mentions "role-based online discussion" as a possible technique for teaching literary history, and "visualization methods of literary structures" to improve and help the creation of academic editions of literary classics, "making various intertextual allusions visible" (5).

Scholars and instructors repeatedly emphasize the usefulness of elit pedagogy, stressing the gap between elit as a creative and/or scholarly field and its relatively low implementation in wider teaching contexts. On July 25-26, 2019, Ana Maria Machado and Ana Albuquerque e Aguilar organized the International Conference "Teaching Digital Literature" at the University of Coimbra. In the special issue of MATLIT where they published selected articles, they refer to an "evident disproportion between the volume of research on electronic literature and that on teaching electronic literature." Recognizing, however, new and recent approaches to the teaching of electronic literature, they call for its inclusion in formal education, both in kindergarten and in elementary school, as well as in high school and the university.

Before the Conference in Coimbra, Maria Engberg (2014), reporting on activities centered at her Blekinge Institute of Technology, in Sweden, during the ELMCIP project, offered an accurate portrait of the "pedagogical efforts" developed in Europe concerning the teaching of electronic literature. In that context, Engberg has outlined a series of recommendations and best practices that still constitute important reports for "policy decisions in the field of education, the arts, and culture." For the scholars and artists invited to Engberg's workshops, "[t]he teaching of digital literature mirrors the fundamental changes in the humanities and arts — and across the university as a whole — in response to phenomena such as globalization and

digitization," (81) serving "as a lens to new methods of learning" (82) as well as "a model for how to address contemporary digital culture as well as the challenges for education to address the digital skills needed for current and future job market" (83).

The simple fact that we teach and use in the classroom forms of digital writing suggests the elit pedagogy field already exists "in its own right, along with its own specificities and tensions," according to Serge Bouchardon and Victor Petit (2019). In their study, they define three levels of writing, which in their turn are correlated with three ways of understanding the technology: Writing by the Machine, related to technology as a material; Writing for Machines, related to the technology as a code; and Writing with Machines, related to the technology as a form of art. The authors argue that "[a] tension specific to digital writing results from the existence of these three dimensions." They derive these reflections from a specific project, PRECIP (PRatiques d'ECriture Interactive en Picardie, 2009-2013), which they describe as "an action research project around the subject of digital writing," based on the hypothesis that digital writing, with its own characteristics, can be taught, both theoretically and in a practical way. Their experimental use of digital writing with fourteen and fifteen-year-olds in France leads them to some very relevant conclusions. Unlike other authors, they believe that teachers should not concentrate on teaching software. Instead, they believe that "the best way to introduce pupils to digital technologies is through writing practice and theory." This may be applicable to our understanding of ELC4: "To understand digital literature means to study the works of authors whose writing is reworked by the device or program on which it is written." Bouchardon and Petit propose that the real significance of electronic literature lies in its heuristic value(s), motivating us to revisit "the tension which exists between writing (visible) and programs (invisible)."

Finally, the role of the scholar of electronic literature is one that needs to be "mobile, flexible, and sensitive," Davin Heckman (2021) argues. Professors originate the reading practices and put forward the institutional contexts that can validate the works, but "it is often the students that engage with the transmedia landscape who bring the work to class, form the research questions, and produce novel results." In that sense, electronic literature, "which can keep the classroom nimble, dynamic, and fun" (2), always involves an inherent promise that relies on the future: a "potential for knowledge production."

### Pedagogy and Thematic Clusters of Works Featured in ELC4

As the rich history of elit pedagogy disclosed in the previous section makes clear, *ELC4* presents a broad range of interactive creative works

that can be construed in a variety of ways to suit both broad and nuanced pedagogical aims. This section explores thematic clusters associated with disciplinary fields: literary criticism, media materialism, global cultural analytics, critical AI, identity theories (critical race theory, feminism, queer theory, anticolonialism), activism, and bibliotherapy. In courses where these critical approaches are being surveyed, themed clusters of *ELC4* works can be dropped into existing course structures; or, for courses that are studying one or two approaches in depth, *ELC4* can foster a deep reading experience in which students can read thematics, code, platform studies, and in some cases, reader response.

This section presents some sample clusters that professors or students can use to explore analytic approaches through primary texts in *ELC4*. For the sake of brevity, one cluster is explored in detail to demonstrate how works across national, linguistic, and geographic boundaries can be clustered to explore one theme, depending on the types of queries one makes of the text. This feature makes the *ELC* unique among most global collections of literature: where the media modality is an active source of productive "tension" that can be explored as part of any theme.

In his essay, "Toward a tension-based definition of Digital Literature," Serge Bouchardon identifies four "tensions" in digital literature that turn upon the "creative tension" between a work's medium and its story or meaning. The four tensions Bouchardon identifies are 1) medium, 2) semiotic, 3) programmed writing and 4) aesthetic. Using Bouchardon's tensions as a lens into various critical approaches listed in the category below, this section offers pedagogical questions one could pose of works in *ELC4*. Such questions would prompt students to examine both the categorical method and the component features of the individual works. One example, literary critical, is developed below to demonstrate how thematic tensions work in tandem with elit's media materiality.

Literary Critical Cluster		
Remixing Shakespeare: A Netprov in Three Acts (Rock, 2018)	Meghadūtam (Pandurangan, 2019) Piksel Zdrój (Posarksi and Keller, 2015)	
robot sorridente (vasques, 2020)		

Table 1: Literary Critical Works

Works in this cluster yield insights through the method of close reading, in which elements of the text are examined in detail to expose the text's ambiguity, complexity, and potential contradictions. Such tensions can be

expressed through the rhetorical trope of irony. For example, in Remixing Shakespeare, the tension between the original multimodal presentation of theatrical display can be juxtaposed against this work's textual animations, polychromatic tones, and sound. In Robot Sorridente, a critique of Instagram Poetry set inside the Instagram platform can be read in tension with that platform's algorithmic reinforcement of quantified "success" in the form of likes, reposts, and comments. In Meghadūtam, fluid, kinetic typography emanates from multiple acts of translation. The poem snippets read by the author Priti Pandurangan are nineteenth-century British translations of the ancient Sanskrit; Pandurangan's gorgeously minimal kinetic typography uses the Latin alphabet (the most widely used alphabet in the world) to translate the Sanskrit into modern words contemporary Indians could read. Pixel Zdrój, a collaborative hypertext novel authored in Polish, consists of 16 separate stories divided into 250 segments connected by over 1300 URLs, of which about 600 are rhetorical links, a kind of metacommentary. Each author offers a distinctive writing style in their micro-storyworld, contributing to a plot revolving around an unsolved crime. These four works spanning various geographies, chronological moments, languages, and media formats reveal the rich intertextuality within each work and among them when clustered together.

Table 2 collects 6 sample clusters of works and their topics for further exploration.

#### REFLECTIONS ON USING ELCS IN HIGHER EDUCATION CLASSROOMS

#### From Students

Student reactions to using the *ELC* vary from resistant to enthusiastic. The nature of elit is such that students' first encounters with it feel extremely novel to the point of daunting: not only is the concept of elit typically unknown and requires "guess and check" methods of reading, but there is no one clear definition, form, style, or instance of elit to hold on to as something familiar. Its very variability, which makes it so fascinating as an art form, gives it a steep learning curve for neophytes. The *ELC*, with its primary purpose to collect, does little to help propel students up this hill, for several reasons. Early *ELCs* (Volumes 1 and 2) have little in the way of categorization, classification, or order. Their descriptions of the works are academic, with few to no instructions as to how to access, read, or play the works. The works' evanescence and technological obsolescence present an added level of difficulty: links break; platforms become outdated and unsupported; and supplementary materials to provide access after a work

is no longer playable were typically not included in these initial collections. (The NEXT, "a museum, library, and preservation space" produced by the Electronic Literature Organization, remedies this problem.) Volumes 3 and 4 show recognition of these issues, providing glossaries, in-depth descriptions, instructions, and, in the case of Volume 4, filtering and searching capabilities as well as archived videos and versions of the works themselves. What began as a fairly standard attempt at critical anthology has become far more of an exploration in archiving, acknowledging, and introducing exemplary works of elit from across languages, narrative traditions, genres, platforms, cultures, and artistic origins from *avant garde* to popular/commercial.

Media Materiality	Global Cultural Analytics	Critical AI
Golden Days, Silver Nights (Greenspan, 2013)	Déprise / Loss of Grasp (Bouchardon, 2010-2021)	The Listeners (Cayley 2020)
Writers Are Not Strangers (Clark, 2018)	Selections from  BrokenEnglish.lol (Zapata	Liza Gennart (Husárová & Panák 2020)
A Physical Book (Daly 2017)  The Offline Website Project (Saum, 2019-2020)	et al. 2018-2021) 怪力亂神 New Myth (Cheung 2020)	Progress in Work (Ministro 2021) Data Souls (Wright
Permanente Obra Negro (Abenshushan et al. 2019) A dictionary of the revolution (Hanafi	Byderhand-Pioneer Garden (Greyling 2018)	2019)
2017-2018)  Critical Race Theory, Feminism, Queer Theory, Anti-Colonialism	Activist	Bibliotherapy
.break.dance (Parham 2019) Travesty Generator (Bertram 2019)	Le Lac (Kadandara 2019) EXPOSED (Daniel 2020)	Hana Feels (Inglis 2015)
The Warp and Weft of Memory (Turner 2017-2019)	Masked Making (Fan, Salter & Sullivan 2021)	everything is going to be ok (Lawhead 2018)
When Rivers Were Trails (Indian Land Tenure Foundation & GEL Lab 2019)	Textos Guerreros / Words of Guerrero (Ruano 2017) Voz Pública (Bigurra 2019)	The Winnipeg: The Poem that Crossed the Atlantic (Mencia 2018)

Table 2: Suggested Clusters

Student feedback on the Collections reflects this evolution of purpose and capability. They typically express frustration at the early volumes: the technology is unpolished by current standards; the sites are difficult to navigate and browse; and the works can be inaccessible (both technologically and literarily). Frequently, even if a work is functional, students do not have

the critical framework or sometimes even the digital literacy to experience it without guidance from their tutor. They comment that guidance in the volumes themselves is lacking — students have no roadmap to introduce them to elit as a concept and practice, much less the often unique works presented to them.

In their more positive comments, students note that the *ELCs* provide a vast set of choices to explore in terms of styles, genres, and works. They are thus more likely to find something that appeals to them personally once they get over their initial disorientation. The *ELC4* provides more scaffolding for students, such as video playthroughs of how to play the works, categorization and filtering options, and instructions for access, in addition to a cross-referenced glossary and the critical commentary and artists' notes written in accessible, less academic terms. The search and filter functions aid students with discoverability, and the supplemental materials guide their path into the works.

#### From Teachers

Instructors introducing students to elit have a big task: students are often completely ignorant of the form, without familiar references to aid them in developing a more advanced literacy. Prior to *ELC4*, commercial works of elit were excluded from the *ELCs*, making it even more unlikely that the collection would contain a work that students might already be familiar with. Similarly, a focus on *avant garde* and emerging elit meant that early collections leaned heavily toward North American and European elit, largely in the English language. Broadening the categorization of elit to commercial works and traditions less technologically focused (such as those arising in geographical locations with more slowly progressing digital access), and actively seeking out works in other languages helps to create a more inclusive collection and one that is easier to get a start in for a wide array of students and teachers.

Teachers in higher education certainly have barriers to using the ELCs in their classrooms. For one, unlike other media taught alongside and/or in a similar manner to elit (e.g., books and films), university libraries remain largely unable to maintain or administer access to works of elit. The bulk of elit exists in non-commercial spaces of the Internet, on artists' personal webpages. Most is freely offered in a gift economy, which is highly beneficial to schools, as the costs of assigning these works to students is minimal, but it also makes discoverability, access, and systematization of course materials more difficult. For ebooks and films, university libraries and publishers or distributors have established methods for classifying, purchasing, and accessing the works, usually through platforms that

manage electronic rights and licensing agreements. The works can then be added through electronic systems to a unit's reading list linked to the unit's page in the virtual learning environment. Such systems do not exist for elit's motley assortment of personal webpages; instructors have to add them to reading lists and course websites "manually", and thus there is no support for problems of access should any given website or work become unavailable. In the increasingly electronically-managed resources world of higher education, that elit sits almost entirely outside systems of information management means universities have little desire or ability to provide resources for them (such as budgets to purchase works/licenses). This puts an added burden on the instructors. The *ELC*s, while not a perfect replacement, provide some amelioration for this gap in higher education bureaucracy.

#### PEDAGOGICAL STRATEGIES

An approach to the digital humanities through electronic literature and new media narrative composition that emphasizes a networked and production-centered learning model also promotes a broader experience of global digital citizenship. The e-lit class (in open and connected networked space) is transformed into a place of digital experimentation and composition, and in turn becomes a "collaboratory" for research. An example of this overall strategy is featured in "Distilling the Elements of 'Networked Narratives' with Digital Alchemy" – a case study featured in *Digital Media and Textuality* (Zamora, 2017). By building upon key digital literacies and designing a network built on connected creativity and collaborative imagination, we can open the field to new elit practitioners who are engaging critical humanist inquiry with innovative strategies and insight.

#### Digital Citizenship and the Civic Imagination

Imagination is our own, personal, infinite playground. And it is, by its very universality, a shared capacity. The richer a person's imaginative experience, the richer the material their imagination has access to. What we imagine together becomes the foundation for human community. By extension, civic imagination is the capacity to imagine alternatives to current social, political or economic conditions.

How may an electronic literature course expand a student's imaginative capacity? When considering pedagogical strategies for elit, a design that exercises creative imagination-in-collaboration can be transformative for students. With the *ELC4* as a central anchor or shared reference point,

elit students are guided to play with new digital tools, applications and networks as a central means for co-learning. An electronic literature class which highlights the following four tenets provides the capacity to build upon participatory projects for co-production, and allows for an integrated notion of digital citizenship:

- 1. Writing as making (students create their own interactive digital stories; i.e. students co-create their own ELC);
- 2. Writing to build a public (students write reflectively in an open connected environment, i.e. student blog syndication to the course website);
- Reading as navigating (students re-learn the act of reading as exploration and discovery, i.e. showcase ELC4 "walkthroughs" via in-class student presentations and student-designed video tutorials);
- 4. Reading as a social act (students read in the open via networked social annotation; i.e. students use hypothes.is to share their thoughts on a certain work)<sup>3</sup>.

These strategies open up more nuanced and empowered conversations about what is possible when contributing and participating in digital networks. How can we urge students to metamorphose from media consumers to media producers while embracing the digital mediascape in the context of learning, growth, community, and creativity?

Strategies for expanding civic imagination might include a class netprov, networked designing/executing role-playing games, or collaborative world-building with interactive storytelling. Here, the electronic literature class facilitates co-imagining new worlds through creative play.

#### Care & Intentionally Equitable Hospitality

How can we minimize the ways that our institutions and pedagogies serve to exacerbate existing inequalities? How can we work together to create and sustain equitable and just learning environments for all? (Zamora et al, 2021) In recognizing the important role intercultural education plays in supporting justice, as noted by Palaiologou and Gorski (2017), when it is "implemented in ways that respond directly to the most pressing contemporary forms of exploitation – when they respond to the newest forms of exclusion, disenfranchisement, and marginalization" (2017: 353). The work of open, participatory, equitable learning and teaching is

<sup>3</sup> Available here: https://web.hypothes.is/.

personal and requires continual reflection on our own practice, including excavating assumptions not serving the needs of all students and the greater public good. Unfortunately, this aspiration is often at odds with institutional mandates that hem teachers in with an emphasis on content and prescribed learning outcomes. How can teachers foster an authentic and collective sense of belonging when designing for impactful learning? How can they create an equitable environment that is hospitable to diverse students? (Bali & Zamora, 2022) When aspiring to social justice, it is not enough to assign the ELC4 to cover diverse and representative content. The critical curricular design of the ELC4 must be matched by an equity-oriented praxis. The activation of a pedagogy of care guides us to renew our intentions to notice oppression and injustice and seek to redress them, to iteratively modify and adapt our practices according to the responses and reactions of participants/ learners, particularly those who bring marginalized perspectives. A learning design for equity-in-community should be a critical component of teaching the ELC4.

"Intentionally Equitable Hospitality" (also known as IEH) is a valuesbased approach that promotes co-learning among students, who might be different in innumerable ways, by prioritizing the needs and wants of the most marginalized among them (Bali & Zamora, 2022). IEH begins with the notion that the teacher is a "host" of a space, responsible for hospitality, and welcoming others into that space. IEH requires intentionality about who is involved in the design of that space, noticing for whom the space is hospitable and for whom it is not. The work requires a constant renewal of the daily effort to pay attention, to interrogate one's own positionality, to imagine and extend one's own critical engagement with "the other", and to reckon with the limits of one's own understanding of other people's lives - to model this and explicitly discuss this so that co-learners can begin to practice IEH with one another. IEH is iterative design, planning, and facilitation in the moment. Ultimately, to pursue a co-creative exploration of the ELC4 alongside a praxis of intentionally equitable hospitality posits the electronic literature classroom as a site for transformational change. One that is attuned to social justice in a fraught global media landscape.

#### Designing for Emergence in an Open Environment

It is a surprising and often counterintuitive truth that good learning design must anticipate the unforeseen. When it comes to designing a dynamic learning environment, the plan should leave ample room for what cannot be predicted, with an eye towards responsive improvisation. By making student agency, student choice, and student instinct a listening/actionable priority, our final learning outcomes might at the onset be less discernible.

But an unexpected outcome (one discovered along the way) tends to be more impactful and more personally meaningful than any hackneyed prescriptive outcome. Preparing new learners to cope with the boundless and ubiquitous connectivity that technology presents is urgent, and this is something that must be addressed in our formal learning contexts. Anyone can claim a voice or develop a platform on the social web. Whose stories do we see meaning in, and why? Who do we choose to listen to? How do we read texts anew? Who do we attempt to connect with, and for what reasons? If we pursue certain interactive and unscripted exercises (i.e. live video studio visits, collaborative creative writing forums, live social annotation of webtext, and community chats) in an open co-learning context with students, we are also refining digital media literacies in the here and now. The balance lies in developing a procedural framework that situates the ELC4 as a primary "anchor" for learning in conjunction with a loose timeline for emergent learning. The intentionally undefined gaps on an elit syllabus and class schedule leave the space for unforeseen connections and responsive planning that matters. Ultimately, a body of shared student work can manifest which reflects both creative and collaborative responses to that community's self-identified concerns and questions. In other words, the ELC4 should not be situated as a static artefact of cultural authority for students. Rather, the ELC4 is designed as an inspirational cultural mood board, setting the stage for exploration and discovery of new literacies and new knowledge regarding the narrative mediascape of our global world.

#### REFERENCES

- ABENSHUSHAN, Vivian. (2019) 2022. "Permanente Obra Negra." *Electronic Literature Collection Volume 4*. Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora. Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.permanente-obra-negra.work
- BERENS, Kathi Inman, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora, eds. (2022). *Electronic Literature Collection, Volume Four*. Electronic Literature Organization. https://collection.eliterature.org/4/
- BALI, Maha, and Mia Zamora. (2022). "Intentionally Equitable Hospitality as Critical Instructional Design." *Designing for Care.* Ed. Jerod Quinn, Martha Burtis, Surita Jhangiani, and Catherine J. Denial. Hybrid Pedagogy Inc.
- BERTAM, Lillian-Yvonne (2019) 2022. "Travesty Generator." Electronic Literature Collection Volume 4. Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora. Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.travesty-generator.work

- BIGUURA, Dora Ytzell Bartilotti (2019) 2022. "Voz Pública." In Electronic Literature Collection Volume 4. Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora. Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.voz-publica.work
- BOLUK, Stephanie, Leonardo Flores, Jacob Garbe, and Anastasia Salter, eds. (2016). *Electronic Literature Collection, Volume Three.* Electronic Literature Organization. https://collection.eliterature.org/3/
- BORRÀS, Laura, Talan Memmott, Rita Raley, and Brian Stefans, eds. (2011). *Electronic Literature Collection, Volume Two.* Electronic Literature Organization. https://collection.eliterature.org/2/
- BOUCHARDON, Serge (2017). "Toward a tension-based definition of Digital Literature."

  Journal of Creative Writing Studies 2.1: 1-13. https://scholarworks.rit.edu/jcws/vol2/iss1/6/
- BOUCHARDON, Serge, and Victor Petit (2019). "Digital Writing: Philosophical and Pedagogical Issues." *Electronic Book Review*. https://doi.org/10.7273/xkjp-rk21
- BOUCHARDON, Serge (2022). "Déprise / Loss of Grasp." *Electronic Literature Collection Volume*4. Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora.
  Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.deprise.
  work (Original work published 2010)
- CAYLEY, John (2020). "The Listeners." In *Electronic Literature Collection Volume 4*. Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora. Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.the-listeners. work(Original work published 2020)
- CHEUNG, John (2022). "怪力亂神New Myth." Electronic Literature Collection Volume 4. Eds.

  Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora.

  Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.new-myth.work
- CLARK, Lynda (2018). "Writers Are Not Strangers." *Electronic Literature Collection Volume 4.*Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora.
  Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.writers-are-not-strangers.work
- CORNIS-POPE, Marcel, and Ann Woodlief (2003). "The rereading/rewriting process: Theory and collaborative, on-line pedagogy." Ed. Marguerite Helmers. *Intertexts: Reading Pedagogy in College Writing Classrooms*. London: Lawrence Erlbaum. 146-164.
- DALY, Liza (2017). "A Physical Book." In *Electronic Literature Collection Volume 4*. Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora. Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.a-physical-book
- DANIEL, Sharon (2020) "EXPOSED." *Electronic Literature Collection Volume 4.* Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora. Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.exposed.work
- De KOVEN, Bernard Louis (2016). "The Infinite Playground." *Deepfun.* 13 Aug 2017. http://www.deepfun.com/the-infinite-playground

- ELECTRONIC LITERATURE ORGANIZATION. The NEXT. https://the-next.eliterature.org/
- ENGBERG, Maria (2014). "Electronic Literature Pedagogies." Electronic Literature as a Model of Creativity and Innovation in Practice: A Report from the HERA Joint Research Project. Ed. Sandy Baldwin and Scott Rettberg. Morgantown, WV: West Virginia University Press. 71–86. https://elmcip.net/sites/default/files/media/critical\_writing/attachments/elmcip\_4\_electronicliteraturepedagogies.pdf
- FAN Lai-Tze, Anne Sullivan, and Anastasia Salter (2021). "Masked Making." *Electronic Literature Collection Volume 4.* Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora. Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.masked-making.work
- GREENSPAN, Brian (2013). "Golden Days, Silver Nights." Electronic Literature Collection Volume 4. Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora. Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.goldendays-silver-nights.work
- GREYLING, Franci (2018). "Byderhand-Pioneer Garden Poems." *Electronic Literature Collection Volume 4*. Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora. Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.byderhand-pioneer-project.work
- HANAFI, Amira (2017). "A Dictionary of the Revolution." *Electronic Literature Collection Volume 4*. Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora. Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.a-dictionary-of-the-revolution.work
- HAYLES, N. Katherine, Nick Montfort, Scott Rettberg, and Stephanie Strickland, eds. (2006). Electronic Literature Collection, Volume One. Electronic Literature Organization. https://collection.eliterature.org/1/
- HECKMAN, Davin (2021). "Learning as You Go: Inventing Pedagogies for Electronic Literature." Ed. James O'Sullivan and Dene Grigar. Electronic Literature as Digital Humanities: Contexts, Forms, & Practices. New York: Bloomsbury Academic. 275–286. http://dx.doi.org/10.5040/9781501363474.ch-024
- HUSÁROVÁ, Zuzana, and Ľubomír Panák (2020). "Liza Gennart." Electronic Literature Collection Volume 4. Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora. Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.liza-gennart.work
- INDIAN LAND TENURE FOUNDATION & GEL Lab (2019). "When Rivers Were Trails."

  Electronic Literature Collection Volume 4. Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora. Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.when-rivers-were-trails.work
- INGLIS, Gavin (2015). "Hana Feels." *Electronic Literature Collection Volume 4*. Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora. Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.hana-feels.work

- KADANDARA, Nyasha (2019). "Le Lac." *Electronic Literature Collection Volume* 4. Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora. *Electronic Literature Organization*. https://doi.org/10.7273/issn.1932-2022.4.le-lac.work
- KOSKIMAA, Raine (2007). "The challenge of cybertext: teaching literature in the digital world." *UOCpapers* 4.
- LANDOW, George P., and Paul Delaney (1991). Hypermedia and Literary Studies. Cambridge: MIT Press.
- LAWHEAD, Nathalie (2018). "Everything Is Going to Be OK." *Electronic Literature Collection Volume 4*. Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora. Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.everything-is-going-to-be-ok.work
- MACHADO, Ana Maria, and Ana Albuquerque e Aguilar (2020). "Teaching Digital Literature."

  MATLIT: Materialities of Literature, 8.1. https://doi.org/10.14195/2182-8830\_8-1
- MENCÍA, Maria (2018). "The Winnipeg: The Poem that Crossed the Atlantic." *Electronic Literature Collection Volume 4*. Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora. Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.the-winnipeg.work
- MINISTRO, Bruno (2021). "progress in work." *Electronic Literature Collection Volume*4. Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora. Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.progress-in-work.work
- MORRIS, Adalaide (2007). "How to Think (with) Thinkertoys: Electronic Literature Collection, Volume 1." *Electronic Book Review*. https://electronicbookreview.com/essay/how-to-think-with-thinkertoys-electronic-literature-collection-volume-1/
- MORRIS, Sean Michael (2011). "Adventures in Unveiling: Critical Pedagogy and Imagination." Hybrid Pedagogy. 15 Feb 2018. http://hybridpedagogy.org/adventures-in-unveiling/
- MSELEKU, Zethembe (2020). "A Literature Review of E-Learning and E-Teaching in the Era of Covid-19 Pandemic." *International Journal of Innovative Science and Research Technology*, 5.10: 588-597.
- PALAIOLOGOU, Nektaria, and Paul C. Gorski (2017) "The evolution of intercultural and multicultural education: scholarship and practice for new sociopolitical and economic realities", *Intercultural Education*, 28:4, 353-355. DOI: 10.1080/14675986.2017.1334367
- PANDURANGAN, Priti (2019). "Meghadūtam." Electronic Literature Collection Volume
  4. Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia
  Zamora. Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.meghadutam.work
- PARHAM, Marisa (2019). ".break .dance." *Electronic Literature Collection Volume 4*. Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora. Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.break-dance.work
- PEREIRA, Vinícius Carvalho (2021). "Recolher, escolher, acolher em um arquivo literário digital: o projeto da Electronic Literature Collection como coletânea e coleção." Fragmentum, 57: 215-237. https://doi.org/10.5902/2179219461944

- PISARSKI, Mariusz, and Olaf Keller. (2015). "Piksel Zdrój." In *Electronic Literature Collection, Vol. 4.* Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora. Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.piksel-zdroj.work
- RAMADA PRIETO, Lucas (2017). Esto No Va de Libros. Literatura Infantil y Juvenil Digital y Educación Literaria. Ph.D. Thesis (Didática da Língua e da Literatura), Universidade Autónoma de Barcelona.
- ROCK, Joellyn (2018). "Remixing Shakespeare: A Netprov in Three Acts." *Electronic Literature Collection Volume 4*. Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora. Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.remixing-shakespeare.work
- RUANO, Pablo Somonte (2017). "Textos Guerreros / Words of Guerrero." *Electronic Literature Collection Volume 4.* Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora. Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.textos-guerreros.work
- SAUM, Alex (2022). "The Offline Website Project." *Electronic Literature Collection Volume 4.*Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora.
  Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.beauty-routine.work
- SAUM-PASCUAL, Alex (2017). "Teaching Electronic Literature as Digital Humanities: A Proposal." *Digital Humanities Quarterly*, 11.3. http://digitalhumanities.org:8081/dhq/vol/11/3/000314/000314.html
- SKAINS, R. Lyle. (2019). "Teaching digital fiction: integrating experimental writing and current technologies." *Palgrave Communications*, 5.13: 1-10. https://doi.org/10.1057/s41599-019-0223-z
- TURNER, Renée (2017). "The Warp and Weft of Memory." *Electronic Literature Collection Volume 4*. Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora. Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.the-warp-and-weft-of-memory.work
- UNSWORTH, Len (2008). "Multiliteracies, E-literature and English Teaching." *Language and Education*, 22.1: 62-75. DOI: 10.2167/le726.0
- VASQUES, Liliana (2020). "Robot Sorridente." Electronic Literature Collection Volume 4. Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora. Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.robot-sorridente.work
- WRIGHT, David Thomas Henry (2019). "The Data Souls." Electronic Literature Collection Volume 4. Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora. Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.the-data-souls.work
- ZAMORA, Mia. (2017). "Distilling the Elements of 'Networked Narratives' with Digital Alchemy." *Digital Media and Textuality*. Ed. Daniela Côrtes Maduro. Bielefeld: transcript Verlag. 151-166. https://doi.org/10.14361/9783839440919-010

- ZAMORA, Mia, Maha Bali, Parisa Mehran, and Catherine Cronin (2021). "Equity Unbound as Critical Intercultural Praxis". *The Journal of Applied Instructional Design* 10.4. https://edtechbooks.org/jaid\_10\_4/equity\_unbound\_as\_cr
- ZAPATA, Canek, Pierre Herrera, and David Martinez (2022). "Jardín de bots de Brokenenglish. lol." *Electronic Literature Collection Volume 4*. Eds. Kathi Inman Berens, John T. Murray, R. Lyle Skains, Rui Torres, and Mia Zamora. Electronic Literature Organization. https://doi.org/10.7273/issn.1932-2022.4.jardin-de-bots-de-brokenenglish-dot-lol.work (Original work published 2018)

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