Communitizing Electronic Literature

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Abstract

Electronic literature is an important evolving field of artistic practice and literary study. It is a sector of digital humanities focused specifically on born-digital literary artifacts, rather than on using the computer and the network to redistribute, analyze, or recontextualize artifacts of print culture. Works of electronic literature appeal to configurative reading practices. The field of electronic literature is based on a gift economy and developing a network-based literary culture built on the collaborative practices of a globally distributed community of artists, writers, and scholars. This article situates the development of the field of electronic literature within academe, some of the institutional challenges currently confronting the field, and its potential for further development.

[1] I have been involved in what you might loosely call "the field" of electronic literature for ten years, as a writer of digital fiction and poetry, as a community organizer through my work with the Electronic Literature Organization, and as a scholar and teacher. In 1998, after writing the collaborative hypertext novel *The Unknown* with Dirk Stratton and William Gillespie, I fell down a rabbit hole from which I have yet to emerge. After *The Unknown* won the trAce/AltX prize for hyperfiction, I found myself immersed in the fascinating world of computer literature. At a 1999 conference at Brown University hosted by Robert Coover, "Technology Platforms for Twenty-First Century Literature", I encountered a small but robust community of authors who had chosen the computer as a platform for their literary endeavors, a motley and innovative crew of literary experimentalists. These writers were energized by the potentialities of the networked computer as a medium: by the new ease with which multimedia elements could be integrated into literary texts, by the programmable nature of digital literary artifacts, by the distributive capabilities of the emerging global network, and by the new registers of semantic representation enabled by the computer.

[2] This group was a vibrant and engaged community of writers, impatient to take the future of literature by the horns. Yet even in 1999, some electronic writers were voicing elegiac concerns. Many writers who had authored hypertext work in the Storyspace platform were frustrated that their work, published by Eastgate Systems, had not reached a wide audience. There was a also sense that the mess and clamor of the World Wide Web were drowning these literary efforts for the computer in a sea of commercial noise, and that the platform they were working in was becoming obsolescent. There was a deflated notion, as Robert Coover put it in his 1999 Digital Arts and Culture Keynote address, that the golden age of literary hypertext had already passed. Nevertheless, in 1999, a group of us also decided to start the Electronic Literature Organization, a nonprofit organization with a mission to promote and facilitate the writing, reading, and distribution of electronic literature.

[3] I'd like to take this opportunity, a decade after my own initial foray into electronic literature, to look back and take stock of what the electronic literature community has become in the intervening years, and perhaps to make some pragmatic suggestions about what it might yet become.

[4] In many ways, the present moment is an exciting one. Electronic literature has forked down a multitude of paths, so many in fact that it has become difficult to describe the field in terms of distinct genres. In comparison to other literary cultures, e-lit culture is still marginal, produced by a comparatively small group of writers dispersed around the globe, often working in isolation. Yet at this point there is a fairly large corpus of creative work and an ever-growing body of

critical and theoretical scholarship that addresses and closely reads electronic literature. Every year innovative work is produced, dissertations are written, and scholarly articles and monographs about electronic literature are published. Electronic literature is slowly but surely working its way into academic contexts as literature programs, digital culture programs, and other academic departments hire new faculty with specializations in digital textuality. Each year there are more conferences and festivals at which writers and critics of electronic literature gather to share their work, and in contrast with the past, more of these gatherings are focused specifically on the topic of literature that is native to the digital environment, rather than treating electronic literature as a curious sideline or novelty act.

The electronic literature community is increasingly global, as networks of practice and scholarship become more interconnected and communicative with each other across national and generic boundaries. Although the French, Spanish, German, Dutch, Brazilian, Scandinavian, English, American, and Canadian electronic literature communities, for example, don't necessarily speak the same languages, we are all becoming increasingly aware of each other's work. The field of electronic literature is a network of networks, and we are only beginning to learn how to work together.

At the same time as I note these positive developments, many of the same frustrations voiced by those writers back in 1999 still hold true today. Electronic literature has not found a large popular audience, and it is entirely possible that it never will. While use of the Internet has become an important part of everyday life in many parts of the world, most people have no idea that electronic literature exists, or at best, have heard of "e-books" and think that by electronic literature we mean print books distributed as PDFs or some other electronic format.

Electronic literature has a foothold in academia but most of the jobs in the field are for critics or theorists; authors of electronic literature are less likely to find employment as teachers. It is possible to write a dissertation *on* electronic literature but there are few institutions that even offer a course on digital writing, much less allow students to complete a master's thesis or dissertation that itself *is* electronic literature. While online journals that publish electronic literature exist, few have been sustained over a long period of time. Journals that were publishing electronic literature ten or even five years ago are just as likely to have vanished altogether as they are to be publishing electronic literature today. Many works no longer function due to dependencies on platforms that are no longer available. This has consequences not only for authors who wish to somehow cobble together lives as digital authors but also for scholars who wish to study work in historical contexts. At the same time as the field has never been more active or more diverse, electronic literature is like a library written in invisible ink, vanishing before our eyes.

Literature for a Configurative Reader

The United States National Endowment for the Arts issued two widely discussed and controversial reports in 2004 and 2007, "Reading at Risk" and "To Read or Not to Read," which assert that both reading in general and more specifically recreational literary reading are in sharp decline. The reports are generally skeptical of the benefits of digital textuality, and in fact rather slyly imply that the computer might well be the culprit behind the downfall of literary reading, as in this suggestive sidebar comment:

> Opinions aside, there is a shortage of scientific research on the effects of screen reading — not only on long-term patterns of news consumption, but more importantly, on the development of young minds and young readers. (A good research question is whether the hyperlinks, pop-up windows, and other extra-textual features of screen reading can sharpen a child's ability to perform sustained reading, or whether they impose unhelpful distractions.) [NEA 2007, 44]

While the methodology of the study and the conclusions one can draw from it are themselves disputable, if we accept the NEA's claim that literary reading is in decline, and that the current generation of teenagers is the first of what the Kaiser Foundation has labeled "Generation M" (for Media) [Kaiser Family Foundation], then it seems to me that the culture at large ought to be concerned not with blaming the Internet for the decline of literary reading, but rather with finding a way to better utilize the networked computer to further literary reading.

While I feel that the NEA's report on the state of American reading is more alarmist than justified, given a generation replete with readers who have read multiple volumes of the *Harry Potter* series, I agree that there is certainly something

at stake, and that considering the place of literary reading in contemporary culture is important. We live in a culture of simulations, and many of the most popular forms of entertainment contemporary digital culture has to offer, computer games in particular, do not involve their participants in the sort of imaginative or interpretive experience we associate with literary texts, but instead with the activity of playing and adjusting variables in a simulation. I would not argue that playing a role in a simulation is any less intrinsically valuable than reading a good novel, simply that it is a different type of activity. Planning a city's zoning and traffic patterns (as a player of *SimCity*) or leading a raiding party on a dragon's lair (as a player of *World of Warcraft*) is a different order of activity from literary reading. While reading is an activity focused on interiority, on building one's own senses of metaphor, of language, of character, of a world from the materials presented on the page, interacting with a simulation is largely about exteriority, about acting and doing within a world that already has been visualized and imagined by others. Where reading is primarily imaginative, simulation is primarily strategic.

In a recent essay in *Profession*, N. Katherine Hayles distinguishes between the "deep attention" of immersive literary reading and the "hyper attention" of Generation M. Hayles distinguishes between the two cognitive modes:

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> Deep attention is superb for solving complex problems represented in a single medium, but it comes at the price of environmental alertness and flexibility of response. Hyper attention excels at negotiating rapidly changing environments in which multiple foci compete for attention; its disadvantage is impatience with focusing for long periods of time on a noninteractive object such as a Victorian novel or a complicated math problem. [Hayles 2007, 188]

In order for literature to appeal to Generation M, it may need to be produced in forms that can capture the interactive, multimodal, and fragmented interests of hyper attention, and yet also provide opportunities for deeply attentive and immersive close reading.

There is no reason to suppose that two cognitive modes of deep and hyper attention are mutually exclusive — it is entirely possible to produce cultural artifacts that appeal to and reward both. Hyper attention should not be understood as the lack of attention or as a state of perpetual distraction, but as diffuse attention, extended over the surfaces of a variety of sensory inputs. This is, for example, the kind of attention paid by the player of a massively multiplayer online game, who might be carrying on two conversations on different chat channels while engaging in both individual and group play within the game while also monitoring the various metrics and levels of other players in the game while periodically checking email, and so forth. Hyper attention is not disengaged, but actively engaged in multiple experiences simultaneously. The hyperattentive mode is *configurative*: the user/player/reader is making a variety of choices at any given time, treating his or her own attention as a resource that must be marshaled, arranged, and constantly reallocated.

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While one of the pleasures of deeply reading a traditional immersive print narrative may be the reader's sense that in reading she is entering another world that has been so artfully described that she feels "transported," the hyperattentive reader might by contrast feel cheated by such an experience: if she has been delivered to a completely configured world, what choices, after all, might be left for her to make?

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The process of reading any configurative or "ergodic" form of literature invites the reader to first explore the ludic challenges and pleasures of operating and traversing the text in a hyperattentive and experimental fashion before reading more deeply. The reader of Julio Cortazar's *Hopscotch* must decide which of the two recommended reading orders to pursue, and whether or not to consider the chapters which the author labels "expendable." The reader of Milorad Pavic's *Dictionary of the Khazars* must devise a strategy for moving through the cross-referenced web of encyclopedic fragments. The reader of David Markson's *Wittgenstein's Mistress* or *Reader's Block* must straddle between competing desires to attend to the nuggets of trivia of which those two books are largely composed or to concentrate on the leitmotifs which weave them into a tapestry of coherent psychological narrative. In each of these print novels, the reader must first puzzle over the rules of operation of the text itself, negotiate the formal "novelty" of the novel, play with the various pieces, and fiddle with the switches, before arriving at an impression of how the jigsaw puzzle might together, how the text-machine may run. Only after this exploratory stage is the type of contemplative or

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interpretive reading we associate with deep attention possible.

In the electronic literature courses I teach, I watch students working their way through electronic works struggle with toggling from hyper attention to deep attention time and time again. Operating in a liminal space between the deeply attentive types of book reading behaviors they may have been taught on a parent's knee or in a literature classroom and the types of hyperattentive reading behaviors they have learned at their keyboards and mobile phones, they are discomforted by texts which demand that both cognitive modes be brought to bear. While the activity of reading a book typically requires little configurative thinking (open to page one and begin), many works of electronic literature necessitate a great deal of non-trivial effort from the reader before any reading can actually take place. The reader must figure out what type of choices can be made in a hyperfiction and posit what sort of textual structure he or she is navigating, must arrive at some understanding of the limitations and affordances of interacting with the text parser of an interactive fiction, must decipher how particular gestures and movements of the mouse affect the delivery of an interactive poem. This type of configurative activity is more akin to learning how to put together a "some assembly required" toy without consulting the instructions than it is to any reading behavior taught in a traditional literature classroom. Nevertheless, in my experience the current generation of digitally literate students is adept at reverse-engineering complex digital objects, at deciphering structures and rules of operation, at getting these works "to work". More challenging for my students is switching back to a deeply attentive mode of reading where they can appreciate the qualities of the narrative, style, metaphors, and so forth – the "substance" of the text they have worked so hard at unpacking from a technical standpoint.

The richness of experiencing such a work is not only understanding how a Rube Goldberg machine operates, but also understanding what literary experience that machine has ultimately delivered. Thus a rich reading of Michael Joyce's hypertext fiction *Afternoon, a story* is a reading of links, nodes, fragmentation, and recursive loops, but beyond that a reading of how those shards and repetitions are correlative to the tragic experience of an individual character whose life is coming apart. A rich reading of Emily Short's interactive fiction *Galatea* should not only be about realizing that the interactive character is responding not only to the readers typed commands but also to her style and tone, but should also entail an understanding of the metaphoric relationship between this style of interacting with a computer program and the mythical subject of the story itself. A rich reading of Donna Leishman's animated interactive narrative *Deviant: The Possession of Christian Shaw* should lead to an appreciation of how different mouse-clicks and gestures can activate and modify details of the artwork and open portals to other sections of the narrative, and also that those clicks are making the reader complicit in a disturbing historical narrative of victimization.

Right now, the Internet is still primarily a textual medium. At the same time as the NEA is decrying the death of American reading, it is not taking into proper account the hyperattentive forms of digital textuality which have become part of the routine daily lives of people in most economically developed nations: reading and writing email, sending and receiving text messages, participating in online social networks, and so on. These activities are by no means the deeply attentive forms of writing and reading we think of when we think of literature, but they do involve popular reading and writing on an unprecedented scale. The important open question is what forms of literature will appeal to readers for whom the hyper attention is the primary textual mode, who are more likely to "read" machinima, YouTube videos, and Flash games than they are to read anything remotely recognizable as poetry or fiction. I argue that many works of electronic literature can appeal to the configurative desires and cognitive behaviors of Generation M and yet also make the type of contemplative and interpretive demands we have historically associated with literary reading. I can think of no literary medium more suited to straddling the divide between hyper attention and deep attention than electronic literature, and I'm frankly surprised that the National Endowment for the Arts, the National Endowment for the Humanities, and other funders are not yet furiously writing grants to support and further the development of e-lit.

I hesitate to claim that the popular adoption of electronic literature is inevitable – it is equally likely that literary reading of all sorts will continue to decline. I am certain, however, that if writers don't continue to experiment with digital literary forms on a more widespread basis as the broadband Internet becomes less textual and more dominated by video and other communicative modalities, the written word will lose out. Within academe, within reading and writing communities, within library and archival culture, it is important to recognize that we are participating in the formation of a field. The decisions we collectively make now about what sorts of digital artifacts we should describe as electronic literature, how

to document, distribute, archive and preserve, assess, and critique those works, how to encourage audiences to read them both critically and recreationally, and how to encourage writers to create more of them, will have an important impact in years to come.

The Economics of Electronic Literature

Although both writers and scholars, often ensconced within universities, tend to think of the economics of their field as an entirely separate matter from their actual practice, in the case of an emerging field such as electronic literature, the question of how artists and scholars can support their work has a different sense of urgency and bears consideration here. One particularity of electronic literature is that the predominant publishing model is that of a gift economy. The vast majority of contemporary electronic literature, virtually all of my own work included, is distributed for free on the Internet. When people ask me where they can buy my work, I tell them they should type my name into Google, and they'll find my writing, free for the reading. And frankly, this does not embarrass me. I revel in this particular type of freedom. It seems to me a progressive evolution of the distribution of thought, enabled by the technology of the global network.

About a decade ago, as the World Wide Web was popularly adopted, the community of electronic writers writ large made a consequential choice. There was (and still is) one moderately successful publisher of electronic literature in the English-speaking world, Eastgate Systems. Writers who published their work with Eastgate could claim the imprimatur of being "published" in the conventional sense. In return for assigning all their intellectual property rights to the publisher, they would be entitled to royalties – paid for their work – and in turn their work would be published on a floppy disc or CD-ROM that would reach dozens or perhaps even hundreds of readers. Even after some notable publicity, such as Robert Coover's essay in the *New York Times' Book Review*, Eastgate failed to develop much of a popular audience for literary hypertext. The multitudinous Web, on the other hand, offered writers the opportunity to reach a potentially wider audience.

The cost of this freedom was that to reach the network, most writers essentially chose to give their work away for free. Because there is not an established market for this type of work, at this point it simply makes more sense for authors of e-lit to distribute their work as widely and freely as possible. Some notable benefits of this means of distribution include the facts that works can be made available globally simultaneously, that authors can retain full rights and control over their works, that there are no market pressures to write in a particular style or genre, and probably most importantly that writers can share their work without impediment with the community of people who are most likely to be interested in and to respond to it — other electronic writers, scholars, and students of electronic literature. While there are still occasional efforts to publish e-lit in the conventional sense of charging money for a literary artifact, the practice of free distribution on the Internet has proven better at enabling a wider community of practice to form around electronic literature.

There are, of course, problems with building a profession around the production and distribution of free goods and services. Many people are inclined to believe that if something comes for free, that then it must be "valueless." The history of the twentieth century avant-garde is, however, replete with examples of artistic and literary movements, notably the Dada and Fluxus, which managed to have a great deal of lasting influence in spite of the fact that they worked outside of the conventional cultural economy of their day. While we could cite plenty of examples of "priceless" works of art, which are procured by a single owner such as a museum but free for the culture at large to view, that model does not translate easily to electronic literature. When something exists everywhere simultaneously on the network, there seems little point in attaching particular economic value to an "original" in the same way that the art world does.

There is also the simple problem of how to support the work of artists and writers, how to "buy time" for them to create innovative new work. Programs like Turbulence Commissions that award new media artists small grants to create works which are then distributed freely on the network provide one useful model of how writers might be paid to create works of electronic literature for public use. The lack of a price tag or a best-seller list also forces us to think in more creative and critical ways about how we assign value to digital literary artifacts. In order to professionalize electronic literature, we need to develop means of credentialing notable works of electronic literature and of acknowledging the work done

by authors.

Ultimately, we will need to conceive of "digital author" as a profession, and professionals are, by definition, paid for their work. This is not necessarily to say that the works themselves should be treated as commodities, or that the field need replicate the problematic models of print publishing. Just as the world of music is shifting from a model in which recordings were the center of its economy to one in which the music is largely distributed for free while performances and tertiary merchandizing provide income for the artists, we will need to find new ways to build economic support structures for electronic literature. Even in the world of print literature, most literary fiction writers and poets are not able to support themselves solely on the sale of their actual literary work. Royalties for most literary authors are nominal and largely symbolic; they rarely pay the rent, much less the mortgage. The majority of contemporary writers make their living in other ways, most notably from teaching creative writing in universities. One of the most substantial obstacles to the sustained development of electronic literature is that few such teaching jobs yet exist for electronic writers. If electronic literature is going to develop on a wider scale and become a more predominant part of digital culture, electronic authors will need to have a better professional context, in which their electronic writing practice is valued and rewarded economically.

Perhaps influenced by the polemic title of Robert Coover's 1992 *New York Times Book Review* essay "The End of Books", much of the early discussion of electronic literature was framed by the idea that literary hypertext would or could someday make the printed book or conventional literary culture obsolete. Whenever I give a presentation on electronic literature to a general audience I encounter one or two curmudgeons who still operate under the false assumption that the purpose of e-lit is to destroy the book. I think it safe to say that if conventional literary culture does decline during our lifetimes, it will not be due to the market dominance of electronic literary forms. This is not a behemoth cultural movement that will in one fell swoop displace printed literature, but a humbler culture of literary experimentalists testing out new forms of expression that engage the affordances and constraints of the networked computer. This is not necessarily the future of literature, but a laboratory of potential literature(s).

If we accept that electronic literature is likely to occupy the marginal position of a literary subculture for some time to come, we might question whether it is even possible for a literary culture to sustain itself on an other-than-mass-market scale. I can think of successful models that do so. Consider the contemporary "poetry industry." Poetry has not in recent memory been a large-scale popular art form. Very few books of poetry make the best-seller lists, and very few people outside of the poetry community could name more than a handful of famous living poets. Yet a vibrant global poetry subculture nevertheless exists, because of the fact that poets do buy each other's books, attend each other's readings, critique each other's work, select poetry for awards, and conduct extended esoteric debates. Furthermore, people still pursue advanced degrees in the writing and study of poetry, generating new generations of poets and scholars long after the culture at large changed channels. The popular culture doesn't care much about poetry, but poets do, and that itself has been enough to sustain a diverse literary culture.

In the earliest days of the Electronic Literature Organization, when I was working as its executive director, most of our funding came from donations from a few executives of internet companies, during the height of the dot com boom. I spent a good deal of time trying to explain the value of electronic literature to businessmen, and why they should be interested in supporting an organization intended to further it. While most of their eyes would glaze over the moment I mentioned the phrase "non-profit," the question almost all of them would ask at some point in our conversation was "That all sounds very interesting, but how are you going to *monetize* it?" That was a question I had a hard time answering at that point, and that I would still hesitate to answer today. At this point in the history of electronic literature, the question is not how we can monetize it, in the sense of getting people to pay money for things, but rather how we can *communitize* it. We don't need to build a market for electronic literature, but rather a culture that will support and sustain its development.

Within the sphere of electronic literature, I would point to the Interactive Fiction community as one model of how a community interested in one particular form of electronic writing has managed to support and further develop that form. Interactive Fiction is the electronic literary form derived from the text adventure games, such as Zork, published by Infocom during the era of personal computer's infancy. Working with remarkably few resources, the IF community has

managed to develop several types and several generations of free and freely distributed platform-independent software for writing and programming interactive fiction, to develop the IF-Archive, on which individual works of interactive fiction are indexed and hosted for free downloading, to maintain an archive of reviews of interactive fiction submitted by members of the community, to publish guides to playing interactive fiction and programming tutorials to help others develop it, to maintain an active MUD and mailing list widely utilized by the community, and to conduct an annual awards competition that involves a form of fairly rigorous peer review of new works. While one could critique both the form and the IF community for its insularity, it is one hermetic community that has been remarkably successful at reviving and sustaining a form that the commercial game industry long ago gave up for dead.

The Electronic Literature Organization: Building Communities of Practice and Context

The Electronic Literature Organization strives to develop an active and supportive culture of writers and readers working together to advance born-digital literature. The majority of our programs are based on the volunteer efforts of our board of directors, literary advisory board, and membership. During the nine years the ELO has existed, there have been a number of different programs intended variously to promote interest in electronic literature, to preserve and archive electronic literature, to publish and make e-lit more accessible. Over that period I would also describe a general shift in the focus of the organization. While the majority of our earliest efforts were focused on promotion, on trying to make the general public more aware of and interested in e-lit, in recent years our focus has shifted more towards the community of electronic literature itself. In recent discussions about the mission of the organization, board members have agreed that that we should focus on facilitating the existing electronic literature community and making connections with other electronic literature communities, rather than on popularizing the work to the general public. That is not to say that we are abandoning the goal of building a broader audience for electronic literature, but rather that we think the best way to do so is to create resources that better enable electronic writers, scholars, and their audiences to reach each other, and to provide new ways for works of electronic literature to be as available and as well-documented as possible. In addition to organizing a biannual conference that, like the E-Poetry Festival, can serve as regular in-person gathering for writers and scholars to meet and exchange ideas and new works, the ELO is currently focused on three projects, each of which is intended to help develop the field.

The Electronic Literature Collection: The first volume of the *Electronic Literature Collection* (ELC) was published in October 2006. It is a collection of sixty exemplary works of electronic literature, each presented with a brief description and "tagged" with keywords that place each work in a technical and conceptual context with other works. Rather than labeling works with traditional genres derived from print, we felt it was important to identify works with the emergent vocabulary of the field. It is no longer enough to describe a work of electronic literature simply as a poem or fiction. Each individual work crosses into a variety of conceptual and technical categories, and might be read and studied for a variety of different reasons. While one group for instance might only be interested in works produced in Flash or in Processing, for instance, another group might be interested in focusing on time-based or combinatorial work, or works by women. The keywords help readers to look at groups of work according a variety of different criteria. The other very important decision we made with the first edition of the ELC was to ask all of our contributors to make their work available under a non-commercial Creative Commons license. This means that any work in the ELC can be freely shared and duplicated. For instance, an educator could make as many copies of the CD-ROM as she liked for her students, or install all the works in the *Collection* in the school's computer labs, without asking for any kind of special permission or making any kind of payment. Educators can be sure that the works published in the ELC will still be available the next time they teach a class. The ELC is available both on the Web and in CD-ROM form from the ELO. We thought it was important to publish the work on CD-ROM as well as the web both for archival reasons – so that as many copies of the bits as possible would be distributed – and so that libraries would be able to include it in their collections. We announced the call for works for Volume Two of the *Electronic Literature Collection* at our conference in Vancouver, Washington in May. Volume Two will be published both on a DVD and on the web. As was the case the first time we published the ELC, the publication of the second volume is made possible by the generous support of a coalition of institutional partners, many of whom utilize the *Collection* in their curricula.

Archive-It: The United States Library of Congress asked the ELO to gather a collection of 300 web sites for the Internet Archive's Archive-It project. Each of the sites entered in the project will be web-crawled and archived to the extent allowed by the Internet Archive's technology. This technology is by no means perfect, and works best on HTML documents. There are many other types of e-lit which this system cannot archive or archive in only a very limited way. It will however result in a focused searchable collection of individual works, web journals, and contextual and critical sites related to electronic literature, which can serve both as a historical reference and a way to introduce new people to the field. We continue to gather records for this collection (at http://eliterature.org/wiki), and the program has been renewed by the Library of Congress to extend into a second year.

Electronic Literature Directory 2.0: The work we have done on the Archive-It project will also serve as the basis for a reimplementation of the Electronic Literature Directory. The new directory will be both more flexible and more durable than the current directory platform. In comparison to the prior version of the ELD, the new version will be easier for the community of writers and scholars to contribute to. Although information entered will be reviewed for relevance and accuracy, users will not have to go through an administrator to set up an account or to enter new information. Records will now include keyword tags, so that users will be able to sort information by a variety of criteria. In developing the new forms for works, we will be consulting with organizations that are developing similar projects with an aim to develop a standardized vocabulary and metadata description for electronic literature. We also plan to make the records exportable in machine-readable format, so that we will be able to share and exchange records with other directories and similar projects, such as the Montreal-based organization, nt2, which is developing a French-language directory, and the Siegen, Germany Media Upheavals project, which is developing a directory of critical work on electronic literature. The Directory itself will be published under a Creative Commons license, so that others can integrate records into their own databases. Another important new feature of the Directory will be the inclusion of records for monographs and critical articles about electronic literature, which will be linked to the records of the works they address. This will be one way of adding a qualitative layer to the directory. Users will be able to see what works have been written about by scholars, and will be able to sort the directory by keywords, dates, language, and a variety of other criteria. The new version of the directory will be based on a widely used, extensible, open-source platform, so that the database can change, improve over time, and last.

In each of these programs, the ELO works to engage the community of electronic literature writers and scholars (in fact they are all dependent on collective effort), to build international connections with other interested parties, and to make electronic literature freely accessible in a well-documented and archive-friendly way.

Accentuating International Communication and Exchange

The ELO is developing close working relationships with international partners. One simple but vitally important way of doing this is by making electronic writers and scholars more aware of and to some extent *literate* in electronic writing done in other language groups. Although it is of course difficult to fully experience literary works in languages other than one's own, because of the visual, computational, and multimedia elements of electronic literature, I'm always amazed at how much I can learn from experiencing many works of electronic literature written in languages in which I have no fluency. As we all go about developing this field internationally, I would suggest that there are a variety of ways that we could work toward common goals and to work together across language communities. One very important effort would be to develop shared bibliographic and metadata standards for electronic literature, and to create descriptive records that are both open and shared. Another worthy effort, albeit a time-intensive one for those doing it, would be to translate important works of electronic literature from one language to another. Even without translating entire works, translations of introductory essays such as N. Katherine Hayles' "Electronic Literature: What Is It?" or Philippe Bootz's "Les Basiques: La Littérature Numerique" and other surveys of electronic literature in specific language groups would do a great deal to inform other electronic literature networks of the types of work being developed in parts of the world other than their own.

The Role of Academic Programs

As electronic literature has accrued the trappings of an academic field, with dedicated conferences, an ever-increasing

body of scholarly work (much of it, incidentally, in printed form), and an increasing number of faculty positions in literature, digital media, and communications fields in which a literacy in the form is at the very least permissible and often desirable, electronic literature is taking a place in the curriculum of the contemporary university. At the 2007 MLA conference in Chicago, there was an electronic literature poster session that showcased projects in and related to electronic writing in addition to a number of well-attended panels on the subject, and e-lit panels were back again at the 2008 convention in San Franciso. It seems that many literature programs are begrudgingly allowing e-lit a seat a the table, and recent MLA job list searches for "new media" in literature programs reveal that many universities are now hiring tenure-track faculty who focus on digital textuality. Correspondingly, an increasing number of graduate students are writing dissertations on electronic literature. These slow-moving engines of change ensure that e-lit will be a part of literature curricula for some years to come. Having said that, it is still very difficult to find many "safe places" in the university where the actual practice of digital writing can be taught, or faculty positions in which the production and successful distribution of a work of electronic literature could count towards the tenure and promotion process.

This relative lack of academic contexts in which the production of works of electronic literature can take place is the most significant obstacle to the advance of electronic writing. We have yet to see the development of the equivalent of MFA creative writing programs specifically focused on electronic writing. The sustained focus and workshop atmosphere of those programs could do a great deal to provide writers with the opportunity to approach electronic writing as a craft and as a profession, rather than as a hobby or as a one-off project in a web design or programming class. More environments are needed in which writers can develop and critique both the technical and semantic aspects of electronic writing. We need to find ways to professionalize the writing of electronic literature, just as the scholarship of electronic writing is currently being professionalized. `35`

We have already seen the fruits of gestating electronic writing within academia. Students of early workshops in electronic writing and courses in digital poetics have authored influential works, and students of early critical and theoretical courses on electronic literature are making important contributions. In developing electronic literature curricula, we develop both a readership and a writership. To borrow the example of the "poetry industry" I referred to earlier, it is likely that the best way to produce more readers of electronic literature is to produce more digital writers. `36`

In addition to nonprofit or advocacy organizations, academic research networks and consortia structured locally, regionally, and globally can do a great deal to develop the field and enable international exchange. In addition to the ELO, networks such as Hermeneia, Elinor, and the Laboratoire Paragraphe have already accomplished much. Beyond facilitating the exchange of research, such networks could enable more student and faculty exchanges. While only one or a handful faculty members at any given institution are likely to focus on the teaching and/or development of electronic literature, undergraduate and graduate students should be able to take advantage of the fact that these networks exist, and be able to study with electronic literature experts in different cultures and communities. These networks might also work together to establish publication venues and journals that could prove more durable than previous efforts and could establish methods of peer review particular to electronic literature, which could both improve the quality of published work and establish credentials for electronic writing that the rest of the academic world could comprehend and assign professional value to. Award competitions, such as the International " *Ciutat de Vinaròs* " Digital Literature Prize, also serve an important credentialing function, and can help motivate writers to create new work. `37`

Open Source Literature

The Australia-based digital poet Jason Nelson has recently begun working on a project that could serve as a useful model for the communitization of electronic literature. Nelson is developing twenty small projects of electronic writing in Flash, and as he releases them at netpoetic.com, he is also releasing the code, descriptions of the works, and videos explaining how he put them together. He is in effect opening his source code and methodology to the community, and to writers who may be interested in electronic writing but have no idea where to begin. This also enables scholars to penetrate "the black box" and to produce readings of work informed by the layers of writing beneath the surface level. It is particularly important that in formats such as Flash, which do not by default allow users access to the source code, people who are interested in understanding how a work is made can get exactly these sorts of explanations from the artists who have been successful in developing them. Jim Carpenter also recently released the source code for his `38`

poetry generator. In the absence of more formal institutional avenues for the education of new digital poets, these types of efforts will help to give writers with limited computation literacy the tools and educational resources they need to begin creating new electronic writing.

In a larger sense, I think that Jason and Jim's efforts point towards an ethos within the electronic literature community that corresponds with those of the free open source software movement and the Creative Commons movement, and diverges from the purely proprietary individual authorship/ownership model on which conventional literary culture and the publishing industry are to a great extent based. Just as open source software development is based upon the efforts of interested individuals building on the work that others have done before them in a progressive, iterative, and modular fashion, electronic writers are beginning to move away from a model in which the individually crafted well-wrought urn is the ideal, toward a model in which we can see these literary productions not only as individual "works" but also as experiments in the scientific sense – experiments that can be successful whether or not they produce positive results in the individual iteration, because their innovations and mistakes can inform the production of future forms of literature.

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At this point, we can arguably assert that electronic literature is a contemporary avant-garde literary movement, in that writers who are producing e-lit are working outside of conventional contemporary literary culture, pushing boundaries both of what literature can be formally and, in another perhaps more important sense, of what cultural functions the networked computer can fulfill. I confess I feel this situation to sometimes be counter-productive. The avant-garde in this context is not necessarily focused on the creation of meaningful literary experiences that enable the reader to see human experience from new and strange angles, but is instead manifested as a technological imperative, valorizing the creation of new forms. There is a danger in new media writing of valuing technical or formal innovation above all else. Occupying the space between the literary and the technological, it is possible to adopt too much of the technology industry's notion of progress, in which software quickly becomes obsolete and in need of replacement with a new version. Formal innovation is valuable in and of itself, but many forms of electronic writing have been created and almost immediately abandoned without ever being fully explored. A culture of one-off prototypes cannot ultimately become a rich tradition. Just as is the case with other cultural movements, at some point we will find that electronic literature is other-than-avant-garde. It will be part of, or perhaps even its own, institutionalized mainstream. Some of the experiments we conduct today will be abandoned, lost, or forgotten, but others might well be remembered as precedents to a matured literature that has ceased to be avant-garde, and has developed into a tradition of its own.

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