Learning as you go: Inventing Pedagogies for Electronic Literature.

In a field like electronic literature, which is both well developed and always emerging, most teachers have faced the challenge of teaching material that is regarded as "marginal" within the Humanities but relevant in the classroom. Though the scholars that circulate around the organization tend to be very interested in literary approaches, most have found themselves working in roundabout ways, slipping electronic literature into literature surveys, media studies, fine arts, and computer science classrooms.

Indeed, as Maria Engberg notes in her survey of electronic literature pedagogy in Europe, there are a range of institutional obstacles to the teaching of electronic literature, and these obstacles differ depending on national, institutional, and disciplinary contexts. Citing Jorgen Schafer's experience teaching eliterature in Germany, Engberg points to the various places where electronic literature can fit into a broader curriculum: "1) literary studies; 2) communications or media studies; 3) art and design schools or creative writing programs; and 4) computer science departments."[i] In response to the scant attention to electronic literature in German academic settings, Shafer's recommendation is "to 'reanimate' the so-called *Allgemeine Literaturwissenschaft* (or 'general study of literature') of the 1970s and 1980s in German universities."[ii] The conclusion reflected broadly across the various approaches in Engberg's survey is that the electronic literature teacher must be open to a variety of approaches and opportunities, and must draw upon the community of international researchers, scholars, and institutions to support the work of teaching electronic literature.

While it might be daunting to participate in a field of practice that has very few established institutional homes, the capacity to teach electronic literature in dialogue with English, Media Studies, Fine Arts, Computer Science, Rhetoric, Performance Studies, and other disciplines adds value to existing curricula by opening up insights into technology through considerations of medium, form, language, poetics, narrative, semiotics, design, culture, etc. Beyond the *Electronic Literature Collection*[iii] and the activities of the Electronic Literature Organization, there is no central, universally acknowledged institution that is synonymous with electronic literature. In the American national context, literature's inertia coheres in the Modern Language Association, the Norton Anthology, and a number of high-profile programs that compete for top honors in English (Harvard, Yale, Berkeley, Stanford, Princeton, Cornell, etc.). For the scholar of electronic literature, there are not "programs," but an international network of practitioners and programs that are friendly to this work. Often, intrepid individuals are doing original scholarship with support from a committees and colleagues that are open to consider experimental works. For instance, a doctoral candidate in English at West Virginia University, Kwabena Opoku-Agyemang, is in the process of documenting an entire field of contemporary conceptual electronic poetry in Ghana.[iv] Reham Hosny, a professor from Minia University in Egypt (doing research at West Virginia University and now Rochester Institute of Technology) is developing a database of works in Arabic and

has organized the first conference on Arabic Electronic Literature at King Khalid University.[v] A common figure connecting both Hosny and Opoku-Agyemang is Sandy Baldwin, Vice President of the Electronic Literature Organization and a professor first at WVU and currently at RIT. Both Hosny and Opoku-Agyemang have presented their work at ELO conferences and have contributed to the ELMCIP Knowledge Base. I hold them up here not simply to highlight their contributions to the field, but because in a field such as this, the best work does not come from centralized "high profile" programs, but from a distributed network of scholars that are largely excited about new work.

As an emerging global field that generates expressions via increasingly decentralized media, the scholar of electronic literature must be mobile, flexible, and sensitive. The emergent character of this work is a benefit: While the professor can initiate the practice of reading works of electronic literature as *literature*, can provide institutional cover for the validity of this work, and can require documented outcomes of research and practice, 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. So, far from being at a disadvantage, the para-institutional nature of electronic literature curriculum is that which can keep the classroom nimble, dynamic, and fun.

The aspiring e-literature professor should consider a patient strategy of compiling research that speaks to the specific institutional context that one operates in, seeking areas in which electronic works complement or complicate existing curricula in a meaningful way, and work diligently to create places in the curriculum that can include electronic literature as a standalone subject or part of a dynamic portfolio of rhetorical, computational, and/or aesthetic practices that make sense within a broader educational setting.

In the end, the most convincing argument for *teaching* electronic literature is its effectiveness as a pedagogical tool. And the most convincing argument for *studying* electronic literature is the potential for knowledge production. Does electronic literature improve one's appreciation and understanding of the dominant codes of meaning in the 21st Century? Can electronic literature open up deeper appreciation and understanding of culture and history? Can electronic literature be used to develop student writing? Can electronic literature increase our awareness of and competence with digital technologies? Can electronic literature improve student engagement in the learning process? And, most importantly, can electronic literature open up a critical perspective on society during a period of radical historical upheaval?

Basic Strategies.

The obvious place to begin when discussing any new learning experience is to first and foremost begin with an encounter with material. For students who have no prior experience with digital arts or literature, an unprimed encounter with a new

text in a novel format offers ample opportunities for thinking about the work. And since there are powerful generational differentials in play regarding platforms, media usage, and user experience, even a naïve reading of a work of electronic literature can provide a rich learning experience.

Selecting a single work or a handful of works for a "cold" introduction and providing opportunities to navigate/experience the text in the fullest context available is often an eye-opening experience for students and teachers alike. The experience of the work as a phenomenon often opens up questions that lead into rich terrain, and the raw read through of a work in a classroom setting can sustain theoretically rich discussions. Basic phenomenological questions (like, What is this? Why would someone make this? What is the point?) lead readily into meditations on form, genre, intention, interpretation, politics, and poetics, and allow students to foreground their own intuitive understandings of the works in question and generate critical comments.

The key, however, is to select works that reward exploration and play. Selecting something with a big "wow" factor can provide an easy preface to deeper exploration of the broader practices.[vi] While the scholarship on these works probe the depth and sensitivity of practice that form them, they are good introductions because they are accessible. Such works touch on familiar cultural forms, communicate in strongly visual languages, are relatively intuitive to navigate, and have a disarming charm that draws many into conversation/controversy over the value and place of these works within broader schemes like film, literature, gaming, etc. The goal is to enjoy the first experience of the electronic literature and to establish interest before digging deeper into the field.

After introducing examples, the next step is to establish a basic definition of "electronic literature" and work through a variety of approaches to electronic literature. A good working definition, which has its roots in N. Katherine Hayles' foundational "Electronic Literature: What is it?", is the one offered by the Electronic Literature Organization:

> Electronic literature, or e-lit, refers to works with important literary aspects that take advantage of the capabilities and contexts provided by the stand-alone or networked computer. Within the broad category of electronic literature are several forms and threads of practice, some of which are:
>
> - Hypertext fiction and poetry, on and off the Web
> - Kinetic poetry presented in Flash and using other platforms
> - Computer art installations which ask viewers to read them or otherwise have literary aspects
> - Conversational characters, also known as chatterbots
> - Interactive fiction
> - Novels that take the form of emails, SMS messages, or blogs

- Poems and stories that are generated by computers, either interactively or based on parameters given at the beginning
- Collaborative writing projects that allow readers to contribute to the text of a work
- Literary performances online that develop new ways of writing

This little passage identifies a conceptual definition that marks "electronic" more than it marks "literature," is itself a powerful discussion starter, and leads through a range of questions about quality, cultural attitudes, formal practices, print traditions, etc. Secondly, it identifies a rough bundle of forms that scholars have identified in the field. If one wishes for a deeper or more sustained discussion of the definition and forms, Hayles' 2007 essay provides a very thorough discussion of the field that can quickly build an awareness of the origins of the field.[vii]

For theoretical reasons, I am a strong advocate of moving from the "estrangement" produced by the cold encounter and subsequent whirlwind tour of the field into zones of familiarity. Once the raw phenomenological response is registered, the return to the familiar offers students the chance to assert some order over a sprawling and often mystifying field. The quickest way to get people thinking theoretically about works is to draw out more deliberately formed responses that rely upon the critical experience of the student (as provided by personal research and structured curriculum). If your course is focused on a cluster of practices (for instance "computer generated texts," "glitches, errors, and accidents," "poetry: oral, print, digital," or "electronic gaming"), the texts selected will be more limited than a general course on electronic literature, but materials can be arranged in terms of their chronological order (first to last), by genre (hypertext, digital poetry, generative works, database-driven works, literary games, etc.), by comparisons to the extant knowledge of the audience (for example, as compared to genres of print literature, gaming, cinema, fine art, interface design, etc.). In any case, the goal is to present a variety of approaches and practices.

Once students feel reasonably comfortable talking about electronic literature, an extremely productive teaching strategy is to turn them loose on the field as a field in upheaval. Beyond the *Electronic Literature Collections,* a number of international database projects are busily trying to document the field of practice as it emerges. Through databases like the ELMCIP Knowledge Base, NT2, LIKUMED, Po.Ex, I <3 e-poetry, the Electronic Literature Directory, Hermeneia, ADELTA, and others, students can explore the field from a variety of perspectives. The SYNAPSE project will make all participants in the Consortium for Electronic Literature (CELL) searchable through a common interface, creating ample opportunities for budding researchers to gather, tag, and critique works of electronic literature.[viii]

Having surveyed the various established resources, the next step, of course, is to invite them to find (or make!) their own works of electronic literature, develop arguments that establish similarities and differences from recognized practices and

works, and to document these works in their research. Several of the CELL partners encourage user contributions of bibliographic data, descriptive content, and critical responses. A key benefit of studying electronic literature is the strong potential for meaningful research to contribute to the field. A number of professors in the field have seen students publish their contributions in databases and journals and/or to participate in creative projects. As a teacher, always emphasize the unsettled nature of the field, encourage students to take positions and ask questions, and view the occasion of research, writing, and argument as an occasion to contribute to the field of humanistic discourse during a period of upheaval.

Reading Works of Electronic Literature

If your goal as a professor is to provoke interactions with digital works that will contribute to the collective understanding of the class, there are some theoretical and methodological approaches that can be used to bootstrap readers of electronic literature into deeper engagement with the field. If literacy is a pre-requisite for the appreciation of print literature, commensurate "reading" strategies must be applied to the work of electronic literature to deepen one's understanding of the work. Just as the tradition of literary criticism has revealed that this deeper understanding can be supported by different kinds of depth (historical/cultural depth, linguistic depth, hermeneutic depth, etc.) and that there can be a variety of productive "serious" readings that are nevertheless limited, we can accept that there are a plurality of serious approaches to electronic literature that often produce readings that are simultaneously accurate with respect to their domain of analysis while being in tension with alternative approaches. The reading strategies a student might choose to adopt will likely be determined by their own competencies and the curricular demands, but it is absolutely important that critical readers of electronic literature take seriously the tensions that the work contains, even if they are unable to provide a full account of the work.

Ground zero for analysis is Media Specific Analysis. An approach that has precursors in phenomenology, cultural studies, and media ecology, Media Specific Analysis as it relates to literary criticism is most clearly articulated by N. Katherine Hayles, whose work *Writing Machines* "performs" MSA through both careful reading and provocative design.[ix] The basic gist of MSA is that one must not simply take the medium of transmission for granted, the scholar must consider the way the content of the text interacts with its existence as a material object. A number of writers (Johanna Drucker, David Jhave Johnson, John Cayley, and others) have identified various ways in which the text matters.[x] This media-reflexivity is critical to the definition of electronic literature that is employed above.

My preferred articulation of this question, the definition offered by Serge Bouchardon and Davin Heckman in "Digital Manipulability and Digital Literature," parses the digital work into three layers: content, form, and technical design.[xi] This tripartite model asks readers to consider what the work is about, what cultural form it employs (everything from tropes to genres, from styles to art forms), and how it is

constructed as a technical object.[xii] Bouchardon and Heckman note that these three categories exist in tension with each other in the literary work: What the work is about is often related to the genre of its expression. How the work is expressed is often as technical as it is aesthetic. The technicality of the work contributes to the "message" of its expression.[xiii] In teaching students to write about electronic literature, I ask them to describe its content, its formal aesthetics, and its technical specifications. From here, it is only a matter of time before the careful reader notices the degree to which these layers are entangled with each other.   A key question of "reading" in the 21st century is the role of the machine as an "interpreter" of the text, from the question of translating source code into output to the larger question of macroanalytic readings of human behavior. While the approach I outline is fairly formulaic as a writing prompt, the tensions lead into provocative research questions, and, in the best cases, explosive essays on digital culture itself.[xiv]

Making Works of Electronic Literature

While I do not consider myself an elit "author," I almost always offer electronic literature students the opportunity the opportunity to engage in a practice-based research option: 1) Start with a critical objective. 2) Follow with a selection of relevant examples of creative work. 3) Read the critical material that addresses the specific objective or mechanism. 4) Attempt to fulfill the critical objective through experimentation. And, 5) write a formal response to document the process.

It is often useful to establish some sort of constraint within which the student must explore the form.   The approach that I often use is to ask students to draft a narrative text for the medium that they are most comfortable with (often print or video) and then to prototype the project without access to their preferred tool. An alternate approach is to write supplementary materials for a central text (a movie, book, or poem) that does not exist. The goal is to tell a story or create a sensation without recourse to the typical tools of expression, probing the limitations and strengths of other media and to reflect upon the technical specificities, cultural codes, and content-level associations that accompany our modes of expression. While I leave the door wide open to explore "analog" media as well, one might prescribe an array of tools if specific skills are required by the curriculum. Other approaches involve more specific constraints: copy and adapt source code to create a transformative work, find an imaginative use for a tool or platform that you use every day, construct a collaborative project or participate in a netprov performance, etc.[xv] And, of course, students who are steeped in digital design and programming tools would be prime candidates for developing more complex works. Regardless of one's ability or experience, the key is to experiment.

Resources

An obvious way to extend one's teaching in electronic literature is to review syllabi and lesson plans from scholars working in the field. The fastest way to find these is

to visit the ELMCIP Knowledge Base, which is a treasure trove of teaching resources.[xvi] Rita Raley's "Electronic Literature" (Fall 2009) is a good example of a first-year writing course designed to satisfy general studies requirements,[xvii] while Jessica Pressman's "Digital Literature" (Fall 2010) is an upper level survey course in electronic literature.[xviii] Mark Sample's "Electronic Literature" (2015) is a massive online course, open to the public.[xix] The syllabus for John Cayley's "Writing Material Differences" (Spring 2012) explores "the material poetics" of writing within a transcultural context that considers calligraphy, print, and digital texts with a strong emphasis on Chinese writing.[xx] Nick Montfort's Comparative Media course, "The Word Made Digital" (Fall 2009) explores "non-narrative" forms of digital writing in the context of games, electronic literature, digital arts, online content, and code.[xxi] Talan Memmott's course, "Rhetoric and New Media" (Spring 2010) is focused on analysis and application of digital rhetoric.[xxii] While Aya Karpinska's "Electronic Writing" (Spring 2008) is a "project-oriented workshop to explore techniques for effective and innovative use of text in digital media."[xxiii] Lisa Swanstrom's "New Cyborg Theory" (Spring 2011) is a graduate course in science fiction that incorporates electronic literature to enhance a print-heavy reading list.[xxiv] In fact, a visit to the ELMCIP Knowledge Base's list of teaching resources includes over 40 syllabi, over a dozen exercises and lesson plans, plus numerous additional resources (to which I hope you will add your own!), that can help the prospective electronic literature professor build a plan that will suit the needs of students.[xxv]

For those who wish to participate in more participatory approaches to experimental pedagogy, UnderAcademy College and Meanwhile Netprov Studios offer opportunities for immersive play in the creation and analysis of digital texts. UnderAcademy features courses and seminars taught by leading artists and scholars in the field, typically around absurd provocations and prompts, and culminating in significant creative outputs.[xxvi] Similarly, Meanwhile Netprov Studios frequently opens its network-based improvisation performances to public participation, in many cases enlisting entire classes to participate in the creative practice.[xxvii]

Other resources include the network of databases represented by the Consortium for Electronic Literature.[xxviii] These databases provide free access to comprehensive information about works of electronic literature, scholarship in the field, artists' websites, and other resources. Soon, these databases will be linked under a common search engine, SYNAPSE, providing teachers and students with access to primary and secondary sources with which one can build syllabi, construct reading lists, and build research projects. More exciting, perhaps, is the possibility of contributing to partner databases. Many of these databases invite user contributions, both by individuals and by institutions, allowing students to contribute their research to the scholarly community.

Additional resources, many of which can be found through the SYNAPSE search tool, include artist websites, journals, videos, curated exhibits, and digital repositories that are available online.

Choose Your Own Adventure

While I recognize that my overview of pedagogy is going to be hampered by my limited experience relative to the ever expanding universe of electronic literary practices. I hope that in identifying basic approaches alongside a growing catalogue of resources that you will have (or be able to find) everything you need to teach a course in electronic literature. The most important feature of the electronic literature community is the enthusiasm of its members—from the authors who have invented and re-invented literary practices to the scholars who have greeted such work with curiosity and enthusiasm, from the pioneering teachers who integrate emerging practices into established disciplines to intrepid students who bring new works into critical consideration. So, yes, I invite you to engage with this enthusiastic community. But, more importantly, I invite you to become that community—to make your own way through the field of electronic literature.

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[i] Maria, Engberg, "Electronic Literature Pedagogies" in *Electronic Literature as a Model of Creativity and Innovation in Practice: A Report from the HERA Joint Research Project*, edited by Sandy Baldwin and Scott Rettberg (Morgantown: West Virginia University Press, 2014), 73.

[ii] Ibid.

[iii] *Electronic Literature Collection, Vols. 1-3.* Accessed December 5, 2016. http://collection.eliterature.org

[iv] Kwabena Opoku-Agyemang, "Magpie Poetry": The My Book of #GHcoats Project and African Conceptual Poetry," in *The Bloomsbury Handbook on Electronic Literature*. ed. Joseph Tabbi (New York: Bloomsbury Publishing, Forthcoming).

[v] *Arabic E-Lit.* Accessed 3 January 2017. https://arabicelit.wordpress.com

[vi] Depending on the context, works by Jason Nelson, Donna Leishman, Christine Wilks, Alan Bigelow, J.R. Carpenter, Nick Montfort, Serge Bouchardon, Rui Torres, and/or Stephanie Strickland can offer some strong starting points. While none of these writers can be characterized as "simple," many offer works that are rewarding for the naïve reader of electronic literature. However, the *Electronic Literature Collections* are filled with strong examples of electronic literature that can satisfy a wide range of readers.

[vii] N. Katherine Hayles, "Electronic Literature: What is it?" *Electronic Literature Organization* (2007). http://eliterature.org/pad/elp.html.

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[x] An excellent overview can be be found in N. Katherine Hayles and Jessica Pressman, eds., *Comparative Textual Media* (Minneapolis: University of Minnesota Press, 2013).

[xi] Serge Bouchardon and Davin Heckman, "Digital Manipulability and Digital Literature," *Electronic Book Review*, 2012. Accessed December 5, 2016. http://electronicbookreview.com/thread/electropoetics/heuristic

[xii] This threefold approach also resonates strongly with Stiegler's discussion of individualism and the productive dynamism of the psychic, social, and technical. This model of cultural production, long present, but rarely discussed, in the history of literary criticism gains greater visibility in this approach. In light of competing anxieties over social media and digital culture, it seems that teaching electronic literature not only revitalizes individual interest in literature, but that it re-establishes the critical urgency of Literature itself. See: Bernard Stiegler, *Acting Out.* Trans. David Barison, Daniel Ross, and Patrick Crogan (Stanford: Stanford University Press, 2009).

[xiii] For "close readings" of code, it is useful to expose students to some simple programming exercises to highlight the difference between what the machine

"reads" and what the human "reads." There are a number of works which make these differences visible as objects of consideration, and there is an entire community of scholars that are engaged in "Critical Code Studies," an approach that pays scrupulous attention to code. For more information on Critical Code Studies, see: *Humanities and Critical Code Studies Lab*, http://haccslab.com.

xiv I typically ask my students to start with this three layered description, then to identify the points of tension. As an added constraint (because I am often thinking of a database as a potential home for student writing or for condensed writing as building blocks for larger papers), I ask students to complete this task in 500 words of less, with multiple drafts to eliminate obvious or repetitious statements and to pack the micro essay with insights that move to describing the piece's tension.

xv Network Based Improvisational Performance, or Netprov, is an approach that relies upon group participation. Due to its open nature and the looseness of improvisational practice, it often relies upon platforms and tools that require little technical introduction. Netprov performances are often staged on Twitter, Instagram, Facebook, and other social media platforms. See: Rob Wittig, "Networked Improv Narrative (Netprov) and the Story of Grace, Wit & Charm," Master's Thesis and Creative Project (University of Bergen, Norway, 2011). http://robwit.net/?project=114

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