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Teaching Digital Literature

Didactic and Institutional Aspects

1.   Making Students Fit for the 21st Century

When Nam Jun Paik in the last two decades of the 20th century created video installations confronting the audience with multiple screens which the spectator had to follow by simultaneously jumping from one to another while scanning them all for information, Paik was training his audience for the tasks of the 21st century. With this notion, Janez Strehovec situates our topic within the broader cultural and social context of new media that redefine the areas of economy, sciences, education, and art, stressing the importance of new media literacy in contemporary society. Such literacy not only consists of the ability to read, write, navigate, alter, download and ideally program web documents (i.e., reading non-linear structures, being able to orient oneself within a labyrinthic environment). It also includes the ability to identify with the cursor, the avatar and with virtual space, to travel in spatially and temporally compressed units without physical motion, to carry out real-time activities, and to undertake associative selection, sampling and reconfiguration resembling DJ and VJ culture.

    In Strehovec's perspective (in his essay in Part One), the stakes are very high. The aesthetics of the web teaches the logic of contemporary culture but also the needs of contemporary multicultural society. The mosaic structure of a website with documents of divergent origin each with its own particular identity and time, the simultaneity of divergent documents, artifacts, and media teaches us, according to Strehovec, to live with the coexistence of conflicting concepts, discourses, and cultures. For this reason it will, as Strehovec holds, also teach us to accept the divergence of life we encounter spatially compressed in modern cities. Such a perspective suggests that the Internet is the appropriate medium for the ethical needs of a globalizing world. It should not be ignored that—in contrast to such rather positive accounts—some scholars have pointed out new forms of "segregation" and "balkanization" on the Internet which foster the "daily me" or "daily we" rather than the attitude of the polyvocal, multicultural, cosmopolitan person (Sunstein; Bell; Doheny-Farina). While this is not the place to debate the pros and cons of these

different perspectives,[1] we should pin down two important aspects regarding Strehovec's reference to art history.

1. When Paik remixed content taken from TV, he changed the nature of the material used; i.e., he turned it into art. The effect was the initiation of a meta-reflection about this material and consequently a deconstruction of its underlying claim to represent the truth. Shifting information from everyday life to the realm of art undermines any automatism and certainty in the process of signification effective in quotidian communication. The hope is that such de-automatization eventually also affects the non-artistic discourse and makes people reflect the matters of communication and representation in general; i.e., when they see similar material untouched by Paik next time on TV.

2. While Paik's installations of multiple videos invited questioning and mistrusting the material presented, such teaching took place in a "classroom" accessed only by the interested few of the art-world, especially the art of video installations. A similar paradigmatic role as Paik's video installations can be stated about the music video with its speedy transition between different images, though in this case the classroom was filled with a much broader audience. With the Internet, the classroom has moved to the "streets" and includes, in those countries where electronic media play a central role, everybody who does not shy away from new media.

The role of digital literature in this context may appear to be rather small, especially if one associates it with print literature in contrast to the entertaining mass media cinema, radio and television prevailing today.[2] As reports from the National Endowment for the Arts state, reading has declined among U.S. adults at a rate of 14 % between 1992-2002, in contrast to a 5 % rate of decline the decade before ("Reading at Risk" X). Even when reading occurs, it increasingly competes with other media; i.e., reading time is shared by watching TV, playing video games, or surfing the Web which "suggest less focused engagement with a text" ("To Read or Not To Read" 10). However, as the discussion in the first part of this book has illustrated, digital literature is very different from the old medium of the elite, uniting a variety of media with linguistic, not-just-linguistic and non-linguistic practices. It seems to be the perfect art for the "hybrid-culture," as Karin Wenz puts it in her essay, blurring the boundaries not only between media but also between high- and low-brow culture as well as between the two cultures Charles Percy Snow once distinguished with respect to the natural sciences and the humanities.[3] This hybrid, cross media artefact also seems to be the perfect place to teach

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transliteracy: the ability to read, write and interact across a range of platforms, tools and media.[4] As Dene Grigar concludes a discussion on the future of electronic literature:

> if indeed students spend 10 times more of their energy with fingers on a keyboard instead of a nose in a book, then it stands to reason that we should rethink our notion of literacy and advocate elit [electronic literature] as not only viable but also compelling art form for teaching all aspects of reading, writing, and communicating. ("Electronic Literature). ("Electronic Literature")[5]

In addition to blurring the boundaries between cultures, digital literature also blurs the boundary between the student and the teacher who, as Peter Gendolla, Jörgen Schäfer, and Patricia Tomaszek point out, is very often not much more advanced (if at all) compared to the students' knowledge about the subject. While the teacher may know more about the contextualization of digital literature within the history of literature and the arts, the students are likely to possess more *media literacy* regarding achieving, navigating, processing and manipulating data online. This has an enormous effect on the situation in the classroom. Teaching digital literature is not just the continuation of teaching conventional literature with other means; it aims at making the student fit for the 21st century multi-media society and it starts with making the teacher fit for meeting her students.

Given the students' interest in digital media we may, together with Astrid Ensslin and James Pope, also assume a great interest in digital literature as a narrative form which can combine attractive interactivity with engaging narratives delivered via digital media, encompassing the language of books, films, web pages, radio, etc. However, Ensslin and Pope are well aware of the problems that trouble this narrative form: a fractured narrative structure, a confusing navigation system, low level of reader absorption, and the question of narrative closure. While such problems have not allowed hyperfictions to become as popular as scholars expected and predicted in the 1990s, they are unknown in the less narrational genres of digital literature such as kinetic poetry. In contrast to many, though not all, examples of concrete poetry in print, kinetic poetry does not emphasize form and structure at the expense of play and pleasure; it rather allows the words to rediscover their power of seduction, as Alexandra Saemmer puts it in her discussion of Brian Kim Stefans' *The Dreamlife of Letters* (see her essay in Part One). Saemmer considers the acoustic, visual, kinetic and interactive voice of digital poetry more closely related to the Surrealist experiences than to Concrete or Lettrist

experimentations. In a similar vein, Strehovec (in his essay in Part One) understands Stefans' piece in terms of "voyeurism," for it is as interesting and seductive to the eye as is the naked body. Strehovec argues with Frederic Jameson who, in his seminal book *Signatures of the Visible*, considers the visual essentially pornographic because "it has its end in rapt, mindless fascination:" pornographic films are thus "only the potentiation of films in general, which ask us to stare at the world as though it were a naked body" (1). The endnote in *The Dreamlife of Letters*—"Thanks for watching"—seems to confirm the disconnecting of the (kinetic) visual from careful reading.

However, Saemmer's analysis in Part One demonstrates that it is still possible to undertake a careful reading of moving text beyond staring at it with astonishment and affection. In fact, since such amusing experimentations also more or less explicitly emphasize form and structure of the language involved, they seem to be a perfect link to the *Geist* of the new time: while still being involved in the concept of linguistic signification, with visual, sonic, performative and interactive elements they embed this old cultural practice in newer cultural practices, combining the joy of play with the opportunity of reflection. Digital literature, we may even state, is the inevitable link between the Gutenberg Galaxy and new media. As Noah Wardrip-Fruin puts it: Since computational systems are increasingly used as a means of expression, the careful reading of digital literature will help us understand how to make meaningful, sophisticated use of this means. Digital literature will teach us about our dealing with technology, about textual practices, and about contemporary understanding of art and culture. It does not signify a shift from traditional literary literacy to media literacy, as *information literacy* for the discussion of digital literature does not aim at the sufficient management of information but rather at the critical reflection of the ways information is presented.

While Strehovec points out the link between digital literature and contemporary pop culture, John Zuern holds that digital literature can break some of the powerful enchantments of a culture industry since it alienates our expectations about, for example, what constitutes literature and about how digital technology is supposed to work. As for Strehovec, the stakes are high for Zuern as well. He refers to James Engall's and Anthony Dangerfield's 2005 book *Saving Higher Education in the Age of Money* which urges recovering the university's fundamental mission—the cultivation of imaginative, compassionate, broadly informed citizens—from the increasingly utilitarian, profit-driven cooptation of higher education by commercial interests. Digital literature, Zuern even holds, is a good way to exercise *sophrosyne* because it requires a concentrated effort to assemble evidence, follow up on leads, and weigh alternative interpretations. In a similar vein Saemmer, underlining with

Jacques Rancière the "systematic difference" of art and literature compared to regular practices of communication, states that working with digital literature constitutes an excellent way of teaching students to reflect on the use of digital language, media and culture. In contrast to regular websites that confirm our reading habits, literary and artistic digital works make us aware of the automatisms and standardizations in digital media and let us question them— for instance by boycotting the common rule of immediate satisfaction of the customer's desire for information or by offering seemingly "irrelevant" links (as discussed in Saemmer's essay in Part One). Digital literature can offer a critical approach to the conventions of digital language indispensable for a concept of digital literacy that is not reduced to the mere management of information and acquisition of technical skills.

Such a focus on digital literature as an "alteration of likeness," to apply Rancière's definition of art and literature (14), suggests an analysis of digital literature in the spirit of a semiotic reading rather than with the focus on the social context. While questions relating to how a work of digital literature is produced and consumed—writing technology, authorship, copyright, distribution, access, etc.—certainly need to be raised and are well established as research methods in literary studies, the semiotic analysis is more formal and internally driven, drawing attention to characteristics of language in digital media (letters, links, colors, shapes, sound, processing, interaction) and to codes of meaning. The goal of this approach is to learn how to read a digitally produced sign, how to understand a specific performance within a piece of digital literature. The "reading" this book announces within its title aims at this kind of semiotic analys: reading a given text or artwork respectively for its meaning rather than reading for the social context of its production and perception. Needless to say, such an approach does not prevent the inclusion of the social context into the analysis of the meaning of a particular artwork. While consequently the agenda of this book can be seen in the tradition of hermeneutics typical of literary studies, it is obvious that the interdisciplinary nature of digital literature makes it difficult to locate the discussion of this subject within the traditional academic institutions of literature.

2.   Finding the Proper Institutional Home

It may not come as a surprise that a subject connected to so many areas, lacking—to put it this way—the discipline to fit into traditional categories (after all, it sometimes can't even decide whether it wants to be literature or art or just applied technology), is still in search of an academic discipline that understands it as its own genuine subject of research. The contributions in this

part of the book (and to a degree also in Part One) report on the institutional obstacles of this search as well as on the almost ideal situations in some other rare instances.

The nature of the obstacles is not only political in terms of institutional agendas and departmental identities, but also even in terms of national politics, as reported by Strehovec about Slovenia. This small nation whose language has always been under threat throughout the course of history is not at the forefront in implementing digital literature into the curricula of literary studies given the dubious relationship of digital literature to language, let alone its general leaning to English as the *lingua franca* of the globalized world. The issue is, as Strehovec points out, of a highly political nature. National ideologists consider national literature the only important subject of the patriotic intellectual and "good" Slovenian, which is in line with the great financial and mental support writers experience in Slovenia. In such a political environment, digital literature cannot expect governmental support and therefore relies fully on individual initiative and idealism.

In France, one reason for the reluctance of literary studies to embrace digital literature is, as Saemmer notes, the competitive examination. Most students in literature departments are being educated as primary and secondary school teachers and eventually have to pass a highly standardized examination, focusing on French language and literature, with a rigid corpus of literary works that contains only contemporary writers who are already canonical. Since digital literature is not based on a business model but is mostly available free of charge, the digital "novelties of the year" do not enter the spotlight of the "Rentrée littéraire"—an annual event in September drawing a lot of media attention to contemporary literature. Certainly, the wrong business model is not the only and probably not the central reason for the lack of attention. Of more importance may be the lack of (a) discipline, as Saemmer concludes her essay: Because of its multimedial, intersemiotic and technological character involving creative and interpretative abilities from text and film analysis to programming, from rhetoric to sound engineering, digital literature could have a place anywhere—and has one nowhere.

What Saemmer reports for France is also true elsewhere: In addition to the intermedial nature of digital literature, the specifics of its distribution turn out to be disadvantageous for its inclusion in literary studies. If then literary studies, as is the case in France and many other countries, is affected by the drastic reduction of financial support, the more likely reaction is the concentration on the "fundamental," classical content of the discipline rather than on new experiments the merits of which are not yet proven and officially established[6] and which, more or less, turn away from language anyway. It may happen, as was the case in German Studies at the U.S.-American Brown

University, for example, that a department of literary studies develops an interest in these new experiments precisely because of their experimental character, hoping to attract students by offering cutting-edge-classes on the latest developments in the field of literature. However, if the aptness of such a subject for a literary studies department is questioned, if the interdisciplinary nature of the subject collides with the established regulations for enrollments and course credits (e.g., if such a course on digital literature first of all attracts students from Computer Science, Media, Visual and Performance Studies who don't speak German and don't intend to major in German Studies), if the department realizes all the administrative difficulties and professional consequences of designing interdisciplinary and interdepartmental courses, it will rethink its aspirations to shake up the order of disciplines and refocus on classical, canonized content.[7]

It should be said that the obstacles of including digital literature into literary studies not only derive from the ambivalent role of text in digital literature but also from the organization of literary studies based on specific "national" languages. Works of digital literature very often use English as the *lingua franca* in accordance to the increasing importance of globally accessible cultural expressions and to the decreasing role of language in digital literature. Hence, many examples of digital literature by Germans, for instance, are not in German and hence it is not surprising that Koskimaa's course on digital literature contains only one lecture dealing specifically with Finnish digital literature. Nevertheless, the prevalence of English does not mean that English departments are more likely to include digital literature in their curricula. Thus, Grigar notes for the U.S.:

> English departments that rely on teacher training in secondary education for their bread and butter also neglect teaching elit because, frankly, the demands of testing and classroom instruction leave little room for non-conventional content.

The emphasis is on the delivery of traditional literary content; the lack of access to computers or an overhead projection system in the classroom counts, as Grigar knows from personal experience, for additional obstacles to discuss literature that can't be provided in print.[8]

The situation is easier at universities devoted to cross-departmental cooperation to the extent that courses have not only an interdisciplinary goal in mind, but are also planned and organized by a team of two or three colleagues, as Wenz reports for the Faculty of Arts and Social Sciences at Maastricht University and Maastricht University College. The situation is also easier at departments whose particular focus is, from the first day of their

foundation, on the technological and media context in which literary texts are being written, distributed, and read. This is the case with the Department of Language, Literary and Media Studies at the University of Siegen where such a focus soon included questions of how texts are transformed into other media such as film or radio play and, subsequently and consequently, into computer-based media as well as the internet. As a result, the department developed a distinctive profile within the new academic discipline of Media Studies, eventually leading to the foundation of the research group "Literature on the Net/Net Literature" aiming at the analysis of literature in computer-based and networked media. It is also consequential that this research group soon developed an international network and established a transatlantic cooperation with the research on and practice of digital literature carried out at Brown University, of which one result is a joint publication like this book, as well as mutual teaching activities described in detail in the essay by Gendolla, Schäfer and Tomaszek.

The implicit answer to Strehovec's account of the nationalism of literary studies in Slovenia is John Zuern's call (in his essay in Part One) for modernized comparative literature studies attentive to the various forms of expression and figuration not only in different national cultures but also in different media. Zuern underlines that both comparative literature and digital literature already have in common a retooled definition of literature: the former addressing the dominance of national (and more recently Euro-American) conceptions of literary culture, the latter the dominance of the linguistic dimension. Remarkable, though, is Zuern's analogy between the status of the "national" for comparative literature studies and the "digital" for research on computer-based literary texts. Both, Zuern's position could be paraphrased, are myths that need to be overcome for while the "national language" represents a set of linguistic skills all serious students of literature must master, it is also an ideological category configuring our research agendas. Similarly, though the codes and processes that comprise digital textuality are important to the understanding of the subject, the "special pleading for the digital impedes our access to each artwork's 'literary singularity'." According to Zuern, the preoccupation with the digital "limits the potential of our studies of digital literature to make meaningful contributions to the study of literature broadly conceived as an academic discipline."

Such concerns play less of a role if the study of digital literature is located not in the field of literary but in media studies, which by many scholars is considered the better, more appropriate institutional home for digital literature. While other aesthetic experiments in digital media such as digital composition, painting, animation, or installation are much more integrated into their

"natural" institutional homes (Music, Visual Studies, Film Studies or Performance Studies), the hybrid character of digital literature necessitates finding it a new home. The situation becomes clear with regard to the United Kingdom where, as Ensslin and Pope report, digital literature gained entrance to special interest groups of the Poetics and Linguistics Association on narrative and multimodality (PALA). The attention of the PALA, however, does not help the fact that the discussion of digital literature mostly takes place not in the English literature curriculum but in Media and Creative Studies departments.

A different way is pursued in Finland where Raine Koskimaa offers his class on digital literature at the University of Jyväskylä within the Department of Art and Culture Studies at the Faculty of Humanities as a part of the Master's Degree Program in Digital Culture. At this university, the education of techno-culturally savvy humanities graduates is closely connected to the traditional master programs such as art history, contemporary culture studies, or literature. Students majoring in those programs are able to add some digital culture specialization to their "traditional" degrees; i.e., graduating with an MA in literature with expertise concerning the role of literature and literary studies within the contemporary digital culture. This seems to be a promising model to settle the tension between the supra-departmental nature of digital literature and the departmental model of most academic institutions. It is important to note that the Faculty of Humanities at the University of Jyväskylä does not grant hospitality to digital culture as an act of generosity; it grants it in order to update its own structure with the aim of attracting more international students. Such updating seems to be the inevitable answer to the "increasingly flimsy shelter" academic institutions offer, as Zuern (in his essay in Part One) states, to the study of literature and the humanities as a whole. In the same vein as Zuern expects rescue especially from the "revitalization of comparative literature" through the inclusion of new forms of literature or "new horizons for the literary" (as N. Katherine Hayles subtitles her book on electronic literature), others, noting the struggling of English for survival and the rising enrollment in digital media programs, consider the incorporation of technology in English classes "one potent method for saving the Humanities" (Grigar).

The institutional in-between-identity of digital literature translates into every course on this subject concerning content and structure. This is already addressed when Koskimaa (in his essay in Part One), situates digital literature within the triangle of literature, cinema, and games, and admits that some literary cybertexts may be better classified as games or (interactive) cinema. Holding, as Koskimaa does, that "literature" should be acknowledged as a

historically changing concept and that the literary world should be kept open to new developments requests courses on the new developments of literature either in literary studies departments or, as is the case at Koskimaa's university, as part of an interdisciplinary digital culture program also offered to and required for majors in literary studies. However, the issue is not only one of different branches of the humanities but also one between the humanities and the technical sciences. Koskimaa asks whether the code is part of the work and to what extent it needs to be factored in to the reading of the work. The counterpart of this question reads: Is there any meaning in the code?

Computer Science teaches students about data structures and algorithms and limits the forms of interpretation to issues such as efficiency, maintainability, and elegance. So also is the observation of Wardrip-Fruin, who stresses that students must also develop "procedural literacy," i.e., be able to read computational processes through an interpretive lens and understand the meaning of computational processes rather than just the way they are programmed. Wardrip-Fruin knows that such literacy is hardly practiced in computer science classes and proposes courses like the one offered by Michael Mateas when he was at Georgia Tech with the goal of *procedural literacy*. To be sure, Wardrip-Fruin is in no way disregarding the knowledge taught in computer science classes, and he also underlines that in order to fully understand the meaning of a computational process, it is often mandatory to understand the technical specifics and to know how the particularities of the given software shapes the work we see. This position, which may appear as an objection to Zuern's warning against a "special pleading for the digital" (though Zuern would certainly agree on the importance of basic programming skills) and which, after all, is to be expected by a professor of computer science whose dissertation on digital literature is entitled *Expressive Processing*, is shared by Koskimaa, himself trained in literary studies, who equally stresses the importance of a general understanding of how computer programs work referring, like Wardrip-Fruin, to Mateas' concept of *procedural literacy*.

Such appreciation of the computational procedure is also the reason why courses on digital literature at Maastricht University offer an additional skills training course teaching the creation of ones own weblog, website, digital video or podcast. The practical experience, Wenz notes in this respect, provides students with a better understanding of both the possibilities and the limitations of digital technology. In contrast to colleges and universities in the U.S., however, Maastricht (and most universities in Europe) does not offer courses in creative writing which then could also include digital media, as is the case for instance at Brown University where a well-known fiction writer (Robert Coover) and a well-known author of digital poetry (John Cayley) organize and conduct classes on writing with/in digital media at the Literary

Arts department. As a result, students at Maastricht may increase their digital literacy attending skills teaching classes, but do not venture to produce their own works of digital literature.

While without doubt the understanding of the technological framework is important for an informed, thorough reading of a digital artwork, one also needs to know how to analyze aspects of the work due not to the particularities of the software but to the aesthetic and semantic considerations of the author. Students need to become familiar with the approaches and concepts in both fields—the humanities and arts as well as computer science. This is equally true for their teachers, though it is obvious that the generation of teachers educated in both fields has still to be raised, namely from the current generation of students taught by different teachers who themselves have not yet adequately bridged these two fields. Considering the probable situation in the classroom today, students in a course on digital literature may have to confront the fact that they often know more than the teacher. At the same time, the difference of expectable knowledge among the potential students in such a class presents an additional pedagogic challenge. While students of computer science, for example, will possibly know a lot about information technologies and electronic networks but little about literature and the arts, just as possibly students of literary studies will be familiar with literary theories and philosophical concepts but only have a vague idea of the impact coding has on writing and reading. The question is: How to make this situation productive within the course? What are the most effective steps to involve such student body in the reading of specific examples of digital literature?

3.   The Practice of Discussing Digital Literature

Since the 1990s, universities have gradually implemented courses on the general functioning of digital technology and media; i.e., the operating systems of the computer, word and image processing, data management such as research, creation, manipulation, presentation and archiving of information as well as video-conferencing tools. There are quite a lot of opportunities for students today to learn the basic skills of digital technology. However, as stated before, digital literacy must not be limited to the *practical* management of information but should also include the *semiotic* processing of information. In fact, this semiotic processing should be the central task of courses on digital literature: How are semiotic processes influenced by data processing and vice versa? The dual nature of digital literature thereby makes it important to teach a reflective engagement with both languages involved, the natural language that

makes the piece at hand a work of *literature* as well as the computational language that makes it a work of *digital* literature.

The task of combining the practice of hermeneutics and programming in courses on digital literature is well understood. Regarding programming skills, these are in many cases, if not in most, practiced during the creation of ones own example of digital literature as part of the class or in additional, parallel skills trainings. Regarding the hermeneutic approach, Wenz notes two general obstacles to the discussion of digital literature in the classroom:

1. The multi-linear, recursive and endless structure of hyperfiction results in different reading experiences regarding the sequence in which students have read the hypertext as well as the proportion of its segments visited.

2. There are hardly any thorough interpretations or commentaries by critics available yet so that students are left completely on their own, unable to confirm the validity and persuasiveness of their readings.

In this context Maria Goicoechea aptly states that the "disappearance of the fixed text" deeply affects the traditional reading pact between the author and her audience as well as the relationship between the teacher and her students. To rephrase the circumstances with respect to the pedagogic challenge: The teacher is left on her own to not only combine the different experiences of the work (in terms of navigation and interaction) but also to judge the different interpretations of these different experiences. This situation certainly requires didactic sophistication, including the ability to accept different answers and to leave questions open even (or rather: especially) after a thorough discussion with the students

This position is adopted by Zuern whose students raised, with respect to the discussed work *Hermeticon: Pop Spell Maker* by Jason Nelson, all the predictable questions: How are we supposed to read this? What does it mean? To what extent is this literature? As Zuern states, they (he and his students) were in the end "unable, and for the most part unwilling, to answer in any definitive way." What was more important was that the work discussed made everybody address these questions in the first place, and that the attempt to make sense of this work called upon skills in textual analysis, research, and reasoning important to any student of literature: to recognize instances of figuration, including literary tropes and tropes in the work's programming and interface design; to follow up on unfamiliar words, references, and intertextual allusions with research into the relevant linguistic, historical, social, and cultural contexts; to make adequately supported arguments about the implications of the discoveries. Zuern's description of his class on Nelson's *Hermeticon* provides a good example of how the main principle of literary-

critical training—to follow up on each aspect of a text that is unfamiliar and strikes us as significant—can be applied to digital literature. Remarkable is not only that Zuern's search for figuration in Nelson's *Hermeticon* looks beyond the text and includes the protocols of Flash's ActionScript programming to find more evidence of *Hermeticon's* tropological activity, but also that the text chunks triggered (together with images) by the user's keystrokes were finally googled. This leads us to Giordano Bruno and the era of Humanism, in which taking individual words and phrases from important literary works was common, reassembling them in new combinations and associating them with completely different persons or situations. With such a cultural background, the aleatoric combinations in *Hermeticon* eventually appear as an updated and ironic version of earlier attempts to read fate by submitting one's reading to chance.

A common starting point for the discussion of the meaning of a particular work is to assign students to explain what attracts them to this particular work. With respect to digital literature, students should also tell how (and how often) they have navigated the work, what they consider the core structure of it, what content they expect behind a certain link. As Ensslin and Pope demonstrate, one way of organizing this discussion is through the use of reading logs as for example Jess Laccetti created as part of her "education pack" for the multilingual and multimedial work-in-progress *Inanimate Alice* by Kate Pullinger and Chris Joseph. It is surprising that these "close reading logs"—which are to be filled out by the students—provide a column for "information" and one for "interpretation," helping students to differentiate between explicature and implicature, but no column for the specific categories of interactive literary hypermedia such as navigation, intermedial interplay and metatextuality. Despite this traditional methodology, which needs to be modified by individual tutors, Laccetti's course on *Inanimate Alice* illustrates very well how such an interactive literary hypermedia work allows discussing various aesthetic and poetic aspects of literature and art. Thus, students' attention is drawn to the timing, emotive effects, and meaning of auditory signals; the strategic location of directional arrows; the use of color; the interplay of music, sound and image; the narratological aspect of the autobiographical genre and the *Bildungsroman*. When students eventually generate (with a user-friendly software) an audio-visually annotated autobiography planner in storyboard form and fill in an autobiography reflection form, the course combines the reflective with the creative.

In a similar way, Koskimaa shows how the hyperfiction *These Waves of Girls* by Caitlin Fisher not only allows teachers to demonstrate hypertextual rhetorics; it also permits introducing modern and postmodern concepts such

as autobiographical pact, unreliable narration, dramatic irony, association and intertextuality. The example of digital literature leads to the discussion of aspects important to conventional literature as well. Thus, Goicoechea points out that the hyperlink only makes explicit the baroque use of intertextual allusions that was a general tendency in modernist and postmodernist prose prior to the advent of hypertext. In the same vein, Wenz introduces digital literature not with the focus on its contrast to conventional literature, but rather she uses the hyperlink—and other navigational tools in digital literature such as the threads in Michael Joyce's hyperfiction *Twelve Blue*—as a starting point to discuss the concept of textuality as "interwoven" semiotic structure. As Wenz points out, other hyperfictions—such as Esther Hunziker's and Felix Zbinden's *edingburgh/demon*—can, due to their "cuts"-technique, be discussed with respect to the tradition of film making (i.e., "directors cut," montage). It is obvious that the sonic, intermedial and performative elements of digital literature eventually lead to the question "What is literature?" and to the comparison of the narrative potential in different media such as written texts, images, comics, movies, hyperfiction and digital games. The various genres of digital literature also allow for the connection to other artistic experiments and cultural practices such as sound and visual poetry, happenings, theatre and DJ shows.

However, it is equally obvious that the hyperlink not only represents continuity between conventional and digital literature but also innovative reading experiences or "new reading pleasure at finding unexpected effects," as Goicoechea phrases it. Goicoechea examplifies her notion with the hypertext *Book-Butterflies* by the Argentinean writer Belén Gache, who states in the introduction that writing detains and crystallizes, "kills the words and keeps its corpse . . . like a desiccated butterfly" and then provides eight images of butterflies each linking to various quotes from literary works interconnected only through the reference to butterflies. In a way, this simple string of crystallized words about butterflies decrystallizes the linguistic "corpses" again by their endless combination and confrontation. The pleasure of this reading is—beyond Goicoechea's notion of combining the quotes and recognizing their sources—the endlessness and responsiveness (responding to the reader's click-action) of this combination that exceeds the effect of a similar listing of quotes in conventional literature.

At the Department of Language, Literary and Media Studies at the University of Siegen, the subject of digital literature is approached and discussed within a two-semester seminar. While the first part is an introduction to the role of media in the process of producing, distributing and perceiving literature (i.e., the net of literature or—to apply Pierre Bourdieu's language—the "literary field"), the second investigates the development of

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new literary forms under the influence of computer technology and discusses important epistemological concepts in this context such as intentionality/chance, performativity/performance, emergence as well as game/play (i.e., net-literature and its aesthetics). Interestingly, the first seminar pursues a top-down approach (introducing ideas and concepts to the students), whereas the second favors a bottom-up approach (allowing students self-exploring activities in class). Gendolla, Schäfer, and Tomaszek admit that due to the academic background of its teachers (coming from literary and media studies but not from computer science), this seminar is very much focused on historic contextualization as well as theoretical and aesthetical issues: authorship, structure, perception, meaning, evaluation.

Wenz underlines that teaching at the University of Maastricht is conceptualized as problem-based learning, which means that learning is approached as an enquiry-based, collaborative enterprise starting off with concrete problems and research questions. Part of this concept is, for example, the production of a journal on the subject of digital literature, with self-written articles whose drafts are peer-reviewed within the class. As Wenz explains later, the concept of problem-based learning includes informing the students about the problems the lecturers themselves encounter in their work as researchers. This frankness reflects the experiences inevitably made in a very young research field lacking not only thorough interpretations or commentaries by critics to check the strength of ones own reading, but also established criteria and methods to evaluate the quality of a digital work. The lack of commanding references and criteria on the teacher's side is accompanied by advanced media literacy on the student's side. This combination changes the classroom situation fundamentally and may appear frightening to some teachers. Others—the majority, we hope—will consider it a solid foundation for a long-lasting cooperation between students and teachers negotiating (by way of closely reading the artifacts of new technologies) the old hermeneutic question: What does it mean?

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1   For the relationship of Internet and democracy see my discussion of "Online-Nation" in Simanowski (216-45).

2   Of course, we must not forget that literature is a mass medium as well and that in the end of the 18th century its use as a means of distraction had caused disappointment and anger among intellectuals and thinkers of the Enlightenment.

3   Unless stated differently, references to contributors aim at their articles in Part Two.

4   For this definition of *transliteracy* and for its concept see the paper by Sue Thomas et al., Professor of New Media at De Montfort University, Leicester, UK, at: <http://www.uic.edu/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/2060/1908>.

5   It may not come as a surprise that, in its position statement of 2006 "Resolution on the Essential Roles and Values of Literature in the Curriculum" <http://www.ncte.org/positions/statements/valueofliterature>, the National Council of Teachers of English reacts to the decline in the reading of books by promoting the love of print literature rather than by extending its agenda to include non-conventional forms of literature in digital media.

6   The issue of merits or aesthetic quality is not new to literary studies, as we know from recurring canon-debates. However, while mediocre (or to put it this way: less relevant) conventional literature (and film) is more or less included into curricula on the ground of its popularity and suitability to address issues of form and content, digital literature obviously has to demonstrate at least relevance if it can't claim popularity. As understandable as this reaction might be, it is shortsighted not to discuss new forms of aesthetic expression in digital media until the "masterpiece" has arrived.

7   In the case of German Studies at Brown University, the aspirations originally had been very high and the department was fully aware of what was at stake stating, in its proposal for a new graduate program "German Texts in the Age of Digital Media" in 2002: "Should Brown—hopefully in the not too distant future—rethink the departmental model, we would be among the first ones to welcome such a change and adopt our program accordingly."

8   Grigar points out exceptions such as the English Departments at Duke University and Yale University that show commitment to digital literature by hiring noted theorist N. Katherine Hayles and Jessica Pressman, respectively (2008). We should add that the English Department at the University of California, Santa Barbara, is also aiming at the integration of digital culture, arts, and literature within the core work of a traditional humanities discipline: Alan Liu (chair of the department) in his 2004 study *The Laws of Cool: Knowledge Work and the Culture of Information* impressively demonstrates how, after Adorno, current cultural developments can be discussed critically in an up to date manner, and Rita Raley (director of the

department's Literature.Culture.Media center), with *Tactical Media* and other works, provides a critical exploration of art-activism and narratological innovations in new media.