From Theo Lutz to Netzliteratur
The Development of German-language Electronic Literature

Beat Suter
Introduction

While it was obvious that a lot had happened in the nineties when it comes to German-language electronic literature, there were no representations thereof for an international audience.\(^1\) Scholars of electronic literature observed that it is equally difficult to get an overview of the events since then. This may be a communication problem. There are indeed numerous essays and reviews on German-language electronic literature, which run from the mid nineties to the present day. Most of these texts, however, are written in German – a language that is no longer accepted and common as an universal language for science. There are only a few articles available in the current universal language of English. Briefly, this may be so for two reasons:

1. The German-language area has a sufficiently large audience to describe and discuss new cultural phenomena in its own language.
2. Neither the Anglo-American nor the French-speaking scene ever showed an interest in German-language electronic literature. The only attempt at a more extensive discussion of German-language electronic literature in French is not from France but from Canada and was part of the extensive research project on new forms of literature by nt2 (Laboratoire de recherches sur les œuvres hypermédiatiques) at the Université du Québec à Montréal.\(^2\) Contacts were otherwise extremely rare. Really significant and reasonably successful approaches only took place in the context of international exhibitions, organized by Friedrich W. Block, led by the Poes1s exhibition in Berlin at the Kulturforum, Potsdamer Platz, from February 13 to April 4, 2004.\(^3\)

A group of Finnish scholars at the University of Jyväskylä has been researching the publishings of electronic literature in Europe, trying to collect information and offer overviews and insights. In 2010, the Finnish group of the HERA project ELMCIP with Raine Koskimaa and Markku Eskelinen was commissioned a study in order to collect all electronic literatures in a linguistically and culturally very diverse Europe. Markku Eskelinen was assigned the task to describe the German-speaking scene. He delivers a brief summary that describes the scene rather successfully. Eskelinen’s and di Rosario’s report is generally very interesting and quite unique to the scene, since it tries to draw a comprehensive picture of events in Europe and is not simply based on the dominant Anglo-American academic community.

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\(^1\) At the ELMCIP conference on Electronic Literature Publishing in Jyväskylä, Finland, in March 2011, Markku Eskelinen and Giovanna di Rosario presented a study whose objective it was to provide an overview of electronic literature in Europe. In the course of the event the general lack of information about non-English works of electronic literature was discussed. Gathering accurate information from the different language areas was found to be a very difficult undertaking. The international community would like to be able to access more information first hand. As a result, Eskelinen organized representatives of some eliteratures that ought to close these gaps and provide the sought information to the international community via the Finnish Cybertext Yearbook. Eskelinen specifically asked to include a historical overview of the German-language electronic literature. See: ELMCIP. Electronic Literature Publishing. University of Jyväskylä. 2011. <http://www.elmcip.net/event/elmcip-electronic-literature-publishing-seminar/>. (26.01.2012).


Finland for once has some interesting poetic works for the digital realm. Marko Niemi’s projects achieve a poetic and creative ludic quality that is very rare among the more popular works of electronic literature. But Finnish projects that are usually created in Finnish language do not have a big audience. Thus it happens that authors such as Marko Niemi start to create some projects in the English language or translate some of their own projects into English – even though this is against their nature. In the European context, this makes a big difference in perception. This applies not only for Finnish projects, but for all native-language projects, except for the really large language areas of English, French and German.

These three language groups seem to be large enough to produce significant electronic literatures, with the disadvantage for French and German, in that virtually no one else in Europe takes note anymore of projects in these languages. On the other hand, there is less pressure there than e.g. for the Finns, to transfer own projects into English, since due to the large number of speakers a fair size audience and community is still available to the authors.

Now that with ELMCIP, there is a European project, the idea of including electronic literature from Germany, Austria and Switzerland comes up from time to time. In 2011 Patricia Tomaszek who is part of the HERA programme at the University of Bergen drafted a lecture and an essay on the history of German-language electronic literature. Tomaszek based her investigation on the theory of action role by Siegfried J. Schmidt. Net literature is seen as a literary system. Post-processing therefore is the key to public visibility, according to Siegfried J. Schmidt, an important component in a literary system. The stated invisibility of German-language electronic literature is analyzed with post-processing mechanisms, that are in this case public reception, competitions and development of a literary community network. Tomaszek’s approach was clearly influenced by the American perspective of the Electronic Literature Organization, since she immediately referred to the death of net literature as it unfortunately was circulated in the German press some years ago. Tomaszek herself knew only some German-language projects of recent years and had been concerned primarily with the American electronic literature. This said, it is also necessary to add that Tomaszek was well aware of these premises and tried to research the subject diligently. This definitely is no easy task, since today there are virtually no forums and archives of German-language net literature existing anymore. Therefore it may not be possible to get an accurate picture of the last 20 years’ net literature. Many sites and forums have been deleted from the net, while others remain virtually inactive for years and have to be perceived as internet archive corpses. A few are still active and provide material for current discussions.

First of all you would have to sight what is still there: For one, there is the Mailingliste Netzliteratur. The list has existed since 1996 and was the main forum for discussion on German-language electronic literature and digital poetry for some years. The mailing list still exists, but is rarely used anymore for referrals, comments and discourse. An archive of texts does not exist. From here on you can easily find the websites of individual exponents of this mailing list. They are forming a not necessarily academic community of net literature. It includes writers Oliver Gassner, Dirk Schröder, Jan-Ulrich Hasecke, and others.

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Claudia Klinger, Regula Erni and many others. Furthermore it involves the web sites of internationally known writers and artists such as Friedrich Block, Florian Cramer, Johannes Auer, Susanne Berkenheger, Frank Klötgen, Esther Hunziker, Jörg Piringer, ÜBERMORGEN, AND-OR and others. Finally, the initiatives of individual researchers and research institutes should be included. Over the years, at least some major research projects and initiatives emerged: so at the ZKM (Centre for Art and Media) in Karlsruhe, under the direction of Peter Weibel, the PÖESIS exhibitions of Friedrich Block (Kassel Art Temple), the first bringing together of the scene in the symposium Digitaler Diskurs in Romainmôtier and subsequent events, the online journal Dichtung Digital with reviews, analysis and references, the large-scale research project media upheaval in Siegen with an international focus and several influential publications, the incipient net literature preservation project by the literature Archives in Marbach, the archiving initiatives of the magazine archive Innsbruck and the Web archive of important authors and articles of electronic literature and digital poetry by Netzliteratur.net. Especially in academic discourse, there were many individual initiatives, that proved to be very important for the development and history of electronic literature, such as the numerous works by Heiko Idensen, the research on network science by Reinhold Grether, research on computer poetry by Saskia Reither, the study of literature in electronic space by Christiane Heibach, the various works of Roberto Simanowski, the thorough investigation of digital authorship by Florian Hartling, and the work of Norbert Bachleitner and others. Finally, one could also consider the connections to net art, performance art, Locative Art, Game Art and similar movements, but this is beyond the scope of this review.

Eskelinen stated in his report, Electronic Literature Publishing and Distribution in Europe (2011) that the German-speaking area was one of the three centres of electronic literature in Europe, but it is virtually ignored by the others.

"Alongside France and the U.K., Germany or more precisely the German speaking region of Europe is the centre of European electronic literature. Interestingly, it seems to be more open to the two other European e-lit centres than they are towards the German region or each other. Its networked orientation is towards Anglo-American e-lit and e-lit-theory, but until lately this has been a onesided effort, as the scene in the UK has favoured its transatlantic contacts while also establishing some connections with the French e-lit scene."

Onesided efforts between the literatures as described by Eskelinen unfortunately lead only to isolation. How and where would we have to begin if we want to bring the rather diverse German-language scene of net literature to a closer attention of our European colleagues? Why not create a timeline of the important German-language net literature projects as a base for international researchers? Why not filter out some historical lines that may explain better how the development of individual genres came about? A good starting point may be the very first experiments of authors with computers to generate electronic poetry, a subject the international community mostly agrees upon.

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The Döhl Line: Concrete Experiments

The Stuttgart School around Max Bense was the background for the first computer-generated poem by Theo Lutz in 1959 and the subsequent experiments by Lutz, Reinhard Döhl and other concrete poets.9 The group was one of the first that concerned itself with new poetic and media emergences. In the late 1950s they ventured to use the ZUSE machines for their first poetic attempts by computer. The focus was their interest in combining artistic production with new media, inscription systems and discourse networks. With the help of Theo Lutz, Reinhard Döhl and Max Bense realized that a computer like the ZUSE Z 22 did not only offer a variety of possibilities and applications for practical mathematics but also provided you with properly interpreted mathematical functions for language.10 The subsequent first “interpretations” were of a scientific nature. And with the help of electronic computers the Stuttgartians put forth frequency dictionaries and used them for exact statistical and aesthetical text analysis. But soon a literary “interpretation” was added; Lutz, Bense and Döhl reversed the procedure of the production of word indices and instructed the computer, “to synthesize and issue texts with help of an entered lexicon and a number of syntactic rules”11. The first programme of 1959 with about 200 commands, that used sentences from Franz Kafka’s novel The Castle (Das Schloss) did not result in intoxicating poetry, but Lutz, Bense and Döhl thus had created an incubulum of artificial poetry that did lead to Bense’s important theoretical distinction of natural and artificial poetry. Consecutively, in the 1960s, experiments with computer-generated graphics, concrete music and the connection between language and electronics ran parallel to the experiments with concrete visual poetry, permutations, random texts and cut-up method. Döhl and Bense finally bundled all these experiments in their well known manifesto of the the Stuttgart group, state of the union (zur lage) (1964) but they added explicitly that they are not interested in these opportunities in a pure form, but much more prefer the poetry of the hybrids.

So they were among the spokesmen of the concrete visual poetry movement of the 1960s, an international literary movement, that arranged the linguistic materials with the terms “cybernetic and material poetry”12 in a new and different way.

“In place of the poet as a visionary, and a juggler of content, emotion and atmosphere, the craftsman re-entered. He handles the materials and sets the material processes of transition in motion and keeps them going. The artist today realizes accomplishments on the basis of conscious theory and deliberate experiment. [...] We speak again of a Poietike techne.”13

Eventually decades later in 1994, these experiments had paved the way for a new electronic literary movement with the Stuttgart exponents Döhl, Johannes Auer, Susanne Berkenheger, Martina Kieninger, Oliver Gassner and others.14

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13 Ibid. (English translation by B.S.)
14 Suter 2006: 274f. (See: Footnote 9)
Second Wave of the Stuttgart School

A symposium to Max Bense in 1994 started Döhl’s second phase of his pursuit of literature and computers. The symposium was held on September 9 and 10, 1994, in Stuttgart’s city library in the Wilhelmspalais and addressed the topics of semiotics and aesthetics, disobedience of ideas and results in Max Bense’s thinking. In addition to Elisabeth Walther-Bense and Reinhard Döhl, among others Eugen Gomringer, Helmut Kreuzer, Manfred Esser, Ilse and Pierre Garnier, Bohumila Grögerova and Josef Hirsal attended the symposium. In the audience was, among others, the Stuttgart artist Johannes Auer, who, as head of the artgroup Das Deutsche Handwerk (The German Craft Movement) just then prepared the first major exhibition at the Württembergische Kunstverein. He was particularly fascinated by the stochastic programming texts and experiments of Theo Lutz from the 1950s and 1960s, which were to be seen at the symposium in a PC-emulation, and were presented at a workshop by Lutz himself. This work became a double bridge: on the one hand, it showed that the group around Bense – especially with Lutz and Döhl – had already used the computer as a literary medium in the 1960s, and with Bense's distinction between natural and artificial poetry had theoretically reflected upon the topic. Within this context there was the opportunity to build on the knowledge and experience of Bense’s Stuttgart Group and tie in with new literary experiments involving the Internet that had only just been launched in the German speaking countries. On the other hand, they offered young people a common foundation on which they could build. After the talk, “Stuttgart – Tokyo and back” Döhl and Auer started their dialogue on digital poetry. Auer was particularly interested in the concept of the experiment and the harmony of experiment and reflection, which is so characteristic of the Stuttgart School. In the exhibition “8 Gruppen 8 Räume” (8 groups 8 spaces) at the Württembergische Kunstverein in December 1994, in which Das Deutsche Handwerk linked individual work, installation, self-curating and self-interpretation. The craftsman Frieder Rusmann (the former artist-pseudonym for Johannes Auer) at the same time appeared as bogus art historian who interpreted all parts of the exhibition for the audience, including his own. These interpretations in turn, were also included in the exhibition. Theory, as well as paint, canvas, or concepts can be used as material for art. This conviction was shared by Auer with the Stuttgart School, but mainly with Reinhard Döhl, who had lived this alliance of theory and practice all of his professional life in its properties as an artist and scientist. He also had an abundant wealth of experience in combination and interfacing of text and image.

In addition to the symposium Max Bense in autumn 1994 other events were organized with the mottos “max bense. zeichen und konkrete texte” (precise pleasure. max bense signs and concrete texts) and “Als Stuttgarter Schule machte” (When Stuttgart made the school). They showed cooperative and multi-media aspects of the artistic activities by this network around Max Bense: community readings by Esser and Harig, current literature by Mon and Döhl, a retrospective of typography at the Wilhelmspalais, an exhibition “Aus den Pariser Szizzenbüchern” (From the Paris sketchbooks) at Buch Julius with contemporary art. There were exemplary radio plays of the Stuttgart group from the 1960s broadcasted via Westdeutscher Rundfunk, and the Wilhelma theater featured a recent piece on Gertrude Stein, performed by the group Wortissimo led by Gerdi Sobek Beutter. This may show well how current the Stuttgart group and its influence was from the 1960s all the way to the early 1990s. And at the same time this may depict how logical and smooth the transition was from the concrete projects to the net projects of the Stuttgart group in the 1990s. Döhl himself interpreted this development always as a
consistent continuance and progress of the Stuttgart tradition of concrete and stochastic poetry. This way younger people gradually found an entry into the network of the Stuttgart School. A “school” that had always seen itself as an open and fluctuating group. On the basis of the Stuttgart School of Bense and concrete poetry, in the mid-1990s, a new group in Stuttgart started to develop, that dealt with experimental poetry and literature on the Internet. Besides Döhl and Auer, authors like Martina Kieninger, Klaus Thaler alias Klaus F. Schneider, Frank Amos, Dirk Schroeder, Bastian Boettcher, Oliver Gassner and Susanne Berkenheger belonged to this new group, that was able to shape the German-language net literature thoroughly, even if the media and the critics hardly took notice of them.

In 1992 Friedrich W. Block had turned his attention as curator and artist to e-poetry. Together with André Vallas he had organized a first exhibition of computer-generated poetry under the title “p0es1e” in the gallery on the market in Annaberg-Buchholz (Saxony), Germany. The shown works from Brazil (Augusto de Campos, Eduardo Kac, etc.), the U.S. of A. (Richard Kostelanetz, Jim Rosenberg) and Germany / Austria were part of the movement of concrete poetry and had a unique electronic background. Concrete poets had already worked with the topic of electronic poetry for some time. It is no surprise that precursors existed and that there was some kind of tradition in working with mechanical, electric and electronic elements in concrete art and poetry. Only in recent years some researchers have re-discovered this track and ventured on the task of describing the connections of electronic literature and the works of the French Oulipo movement (since 1960) and the Stuttgart School in more detail. An excellent work is the comprehensive presentation of computer poetry by Saskia Reither (2003). In her study of computer-based poetry that does not use the dispositif of the network or Internet, she chiefly traced the international character of this movement over a period of more than 40 years from the Stuttgart School and Noigandres, Po.Ex to OuLiPo and ALAMO, L.A.I.R.E. The actual precursors of the 1960s found the way into the memories of academics, mainly by contributions of Philippe Bootz (2006), with international appearances, and the Stuttgart artist and curator Johannes Auer with his replication and adaptation of Theo Lutz’ “Stochastic texts”, which he performs at various festivals since 2005 (Auer 2005, 2006). Oulipo’s first electronic work goes back to 1964, four years after its founding, and led to a movement with still active groups and literary activists like Bootz, who has dealt with the topic since 1977/78 as an artist and academic researcher and who might be considered to be one of the most active participants in the network of ELMCIP.

In the 1990s Döhl and Auer developed a series of collaborative works with artists and for artists of concrete poetry, and thereby manifested the proximity of the new digital poetry and the experimental movement of concrete poetry. This is how the open international works “H. H.H. – Homage to Helmut Heissenbüttel” (1996) and “Epitaph

Gertrude Stein”\(^{19}\) (1996) developed as Internet projects with participation of more than 30 poets each. These two projects show the importance of an intense system of dialogue for Döhl’s preoccupation with the Internet. Using simple means, he managed to transpose the dialogic approach of the \textit{Stuttgart school} into the new medium. For Döhl, this included the involvement of active fellow artists, a big reason why Döhl succeeded in establishing a seamless connection to the concrete poetry and to his numerous previous cooperations at the borderline of art and literature, of which especially the mail art projects had a clear influence on the new digital activities. The issue of cooperation between artists of different disciplines and alignments was the main topic for many other literary web projects too, such as the project “TanGo” of 1997, “ein schwäbisch spanisches Mehrautorenprojekt zwischen Stuttgart und Montevideo” (a swabian spanish collaboration of authors between Stuttgart and Montevideo)\(^{20}\), initiated by Martina Kieninger and developed in collaboration with Auer and Döhl. There was the multilingual project “Poemchess” (1997/98)\(^{21}\), that was based on a japanese chain poem. There was the project “Avantgardez vous! KettenmailsausderBadewanne” (Chain mails from the bathtub) (1998)\(^{22}\), organized by Klaus Thaler alias Klaus F. Schneider, that emerged by means of dialogic emails from five authors. And finally there were the tributes “Vorhang für Ernst Jandl” (curtain for Ernst Jandl) (2000)\(^{23}\) and “Trauerseite für Jiri Kolář” (Threnodical page for Jiri Kolář) (2002)\(^{24}\). The influence of these cooperative projects was so strong that even the younger fellow artists could not resist starting cooperative projects as a tribute to Reinhard Döhl. Thus the project “Uhutopia” (1999)\(^{25}\), “eine Klebcollage zum 65. Geburtstag” (a glue collage for the 65th Birthday), initiated by Auer and supported by 16 participating artists; and finally the spontaneously started “Denkseite für Reinhard Döhl” (Thinking (of) Reinhard Döhl page) (2004)\(^{26}\) initiated by Dirk and Franziska Schroeder shortly after Döhl’s death. The last collaborative net project that Döhl was involved in, was “The Famous Sound of Absolute Wreaders” (2003)\(^{27}\), in which the author Döhl as reader Döhl as well as a reading and read, a listening and listened to entity, was multiply and concreatively interwoven and made to disappear or dissolve in his acts as author and reader. Organised by Auer, this project involved six authors and resulted in an hour-long artistic radio broadcast\(^{28}\) that the \textit{Kunstradio} (art radio) programme of Austrian Broadcasting (Channel Ö1) emitted in fall of 2003, thereby also tieing in with the radio plays by Döhl in the 1960s and 1970s.

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Moreover, the same year, the concreative project was awarded the Audience Prize of the “Netzliteratur Wettbewerb” (net literature competition) of DTV and T-Online.

In addition to the cooperative projects, individual projects evolved as well. Döhl and Auer, both experimented with the new techniques and possibilities of the medium as much as it was possible at the time. Their kinetic experiments lived by a simple application with animated characters and an ingenious combination of hyperlinks and animated GIFs, which joined each other as dance partners and on a level of technical methodology started a tango on stage of the computer screen. The best known example is probably Auer’s visual poem “kill the poem” (1997), that appears in a precise formally stripped visual and auditory execution, which is also reminiscent of the Pop Art movement. A draft of this by Auer shows the gun and the outline of the victim with the pun “Gun – Gone”: Valerie Solanas shoots Andy Warhol. The tango is back. The dance becomes a shooting of the poem, the reader initiates it her- or himself: an active destruction of the text.

The prime example of “worm applepie for Döhl” by Auer offers concrete electronic poetry in perfection as well. This animated poem is based on Döhl’s concrete incunabulum “apple” (1965). This apple comes with the proverbial worm in it. The animated poem “worm applepie for Döhl” (1997) adds a playful aspect to the original work – not only in the title, which gives hope for a warm apple pie. Auer added a worm in the animated form of the word worm to the apple. This worm does not hide in the apple anymore, but starts eating the apple right before the eyes of the beholder. The red worm is getting bigger, and the apple smaller until it has been completely eaten up. But shortly after completion of munching, the game starts all over again and thus makes possible an endless repetition of this process. A process that also draws attention with a wink to the disastrous consequences of the apple/serpent mythology.

In his other works in the broadest sense, Auer revisits the conceptual art of the 1960s and 1970s. His performance projects always include algorithms and specific instructions. “The starting point,” Florian Hartling notes, “is a development of conceptual art that reduces art to an idea or an instruction for the beholder. Such instructions for the audience, however, are easily programmable via an algorithm.” By way of action instructions the performance has a direct connection to the algorithm. Projects like “The Famous Sound of Absolute Wreaders” or “Search Lutz” use and process these interconnections aesthetically and offer artistic reflection. Here, the concept gets a higher importance than the finished product. The idea of the concept dominates the physical product, and the recipient becomes part of the artwork. Right in all three parts of “Search Trilogy” (2006 - 2011), this shift towards the concept clearly occurs and the recipient is interactively integrated into a work of art as an assisting force. And finally, as an even more important component the computer-generated poetry in turn requires an interpretive component, in order to unfold its effect. The three works “Search Lutz”

(2006), “Search Songs” (2008) and “Searchsonata 181” (2011) show these conceptual components very clearly. All these works work with live streams of search terms from the Internet and input from visitors. They convert these data into language, into musical notation or convert them into encrypted sounds.

Towards Conceptual Art

The movement of this experimental line of net literature in the wake of the Stuttgart School grew more and more conceptual with Auer and was accompanied by a continuous development of events in the City Library and the house of literature of Stuttgart. The years 2005, 2008 and 2009 saw three net literature festivals with the title “Literatur und Strom” (Literature and Electricity)34. The first festival featured an award (“Junggesellenpreis”) for best net literature and may have been the signal for the second stage of the development of German-language net literature and digital poetry. Earlier in 2004 an event including the publication of the memoscript “$wurm = ($apfel>0) ? 1 : 0;”35 had been organized as a tribute to Reinhard Döhl, the concrete poet and thinker of the Stuttgart School, who had died the same year. A fourth net literature festival, which connects exponents of concrete poetry and experimental net literature, was held in May 2012 on the topic sound poetry with the title “Laut P”.

It may be added at this point of the essay that only a selection of all works of a specific historical line can be described and mentioned here. Surely works of Übermorgen, Sylvia Egger, Oliver Gassner, Joerg Piringer and various other authors may need to be included in this specific line. Unfortunately there is room only for a few more references. The artgroup Übermorgen from Vienna exerts a great influence on the conceptual branch of net literature. Übermorgen’s works all operate on a conceptual level. The group imports elements of media activism into net literature and Internet art. Inke Arns talks of the works “[V]ote-auction”36 (2000) and “Google will eat itself”37 (2005) as a “Detournement of digital technology”, that is an alienation and thus a re-appropriation in a situationist sense. In Übermorgen’s adaption this turns into a so-called “shock-marketing”. Hans Bernhard and Maria Haas achieve this by launching campaigns in media stories about media through media. They scatter their information in guerilla manner into mass and individual media channels and make highly regarded public controversies happen. At the end, the user and participant sometimes does not know anymore whether these stories are fiction, or whether the conceptual construct in the background does really exist. This shows that the conceptual aspect is by far the most important element of this art by Übermorgen. A similar but somewhat more concrete “Medienaktionismus” (media activism) is operated by Dragan Espenschied and Alvar Freude in their actions “insert_coin” (2000), “freedomfone” (2002) and “OmniCleaner” (2002), all belonging to their well debated “online demonstration platform for human and civil rights in the digital age ODEM”.38

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Sylvia Egger is also working with a strong conceptual approach, referring to the Dadaist movement with a special respect to Walter Serner and more current neodadaist poetry. Jörg Piringer’s works\(^ {39}\), though less conceptual, impress mostly with their playful and dynamic poetical approach. Piringer creates auditory and visual poetry mostly with individual letters, sounds or words, and many of his pieces are generative poetry. Some time ago Piringer started developing his own apps for his projects with which his readers can interact on mobile devices. Complementing this, Piringer operates as an experimental musician as well as a voice artist, and creates hardware applications and inventions, which he uses for auditory and interactive performances.

**The Idensen Line: Collaborative Writing and Authoring Environments**

At the same time as Michael Joyce and the *Storyspace*-team led by Mark Bernstein designed the literary hypertext, in the second half of the 1980s, some artists and writers in the German-speaking countries were working on their own digital works. For example Dirk Schroeder and Oliver Gassner, who experimented with electronic poetry since the early 80s and included some of the then current output devices photocopier, fax and printer as tools for their literary productions. Oliver Gassner says that he has been using the internet (more precisely: BBS) since 1988. He published the literary magazine “Wandler” (converter) and other periodicals and was one of the most active net writers in the mid nineties during the extensive net literature discourse on the web. For many years, Gassner managed the net literature mailing list and in 1999 he initiated the Ettlingen net literature competition. Today, he is one of the best known bloggers with a strong background in net literature. In the nineties, Dirk Schroeder was also very much involved with the online publication of literary magazines and online containers for new poetry and prose such as the “Textgalerie” (text gallery). As an editor and as a writer of net literature he was always at daggers drawn with the rather conservative intellectual property rights movement leadership and their handling in connection with the Internet. Consequently, almost all of his texts and works as a publisher and author over the years have disappeared from the net. It is as if he tries to delete all his literary traces, since he believes that everything has been written before anyway – and a new text will never be a new text again but only a patchwork of ideas and words thought and written before. His winning work “Macelib”\(^ {40}\) (Bachelors’ Prize at the Literature House in Stuttgart 2005) shows this conflict at best when it lets the reader experience the gradual disappearance of a literary text intuitively and very directly.

**From Punched Cards to Hypertext Experiments**

The French *Minitel* project for the exhibition “Immaterials” in the *Centre Georges Pompidou* in Paris in 1985 did not only attract attention from the French artists. Some of the German activists could draw inspiration from it as well, for instance Heiko Idensen and Matthias Krohn who have investigated the topic of hypertext since 1980 in an audiovisual laboratory at the University of Hildesheim. In 1989/90 they presented their

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“Imaginäre Bibliothek” (imaginary library) at the *Ars Electronica* in Linz and produced to the astonishment of the audience endless printouts of their linkages on a battery of noisy needle printers. Before the *Ars Electronica* installation, the imaginary library had been in development in the 1980s as a “processing pool”. During that time, Idensen and Krohn were in contact with the artist and university lecturer Kurd Alsleben. In the 1970s the Hamburg-based artist Kurd Alsleben had worked with so-called edge-punched cards. Using such punched cards, he had tried to make links tangible in a hypertext. The cards with two rows of holes were sorted by hand and with needles. “Those holes that are assigned with meaning may be notched with a special clamp so that they are open to the edge, the notched cards fall from the deck to be linked while working the needles and slight shaking of the cards.” As a result, during the academic years of Alsleben and Antje Eske in Hamburg, more interesting mechanical and electro-mechanical link-machines were created, such as a “Lerngerät Sound und Slide” (learning device sound and slide), that combined slide frames and audio disks and represented an interactive challenge for the participating students. Finally, a machine was built with a control unit (purchased from NDR), that made picture and sound jump at your fingertips so to speak with one click. Unfortunately, the machine was too big, too elaborate and too expensive to push the development further from the initial prototype stage.

In 1960, together with the physicist Cord Passow, Kurd Alsleben produced the first computer graphics on an analog computer. The computer was connected to a drawing machine, on which parameters of a differential equation for deviations and disturbances were changed. Today, this process would be termed an interactive situation. In the 1960s Alsleben explored the possibility of a dialogic work of art with reference to the aesthetics of communication. The development of participatory moments and ways of linking them was an important aspect of Alsleben’s and Antje Eske’s work and research in the 1970s and 1980s. At Hamburg University they were investigating and discussing this over the years in workshops with their students. They were also including aspects of telecommunication and later on Internet and Net art. Participants in this seminar were, among others: Heiko Idensen, Matthias Krohn, Klaus Dufke and Detlev Fischer.

With his experiments in seminars and workshops with students in Hamburg, Alsfeld paved the way to a better understanding and direct application of the principle of hypertext. Heiko Idensen continued this with his theoretical and practical combinations and consolidations and took it a crucial step further in his poetry of transport (theory) and in his imaginary library (applied work).

“Online texts shine less by stylistic and rhetorical figures, or the use of metaphorical terms, but rather by context-related activities, by switching back and forth between different levels, by cross-connections, by speed of exchange. They address the space inbetween text fragments, they orchestrate and process intertextual structures.”

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42 “Through direct input of our data via potentiometer we established a communicative pattern that is now known as interactive. We experienced the drawing computer not as our tool - not as a machine that generates autonomous works of art. We felt that the small or large disturbances, that the ‘thinking machine’ inscribed in front of our eyes, were to be interpreted as an expression of possible perception of an internal state. [...] The work was the beginning of a trend that started (other than video) from the computer (also unlike interactive art), deflected from the classic idea of a closed work. Today, it is multi-or hypermedial talk and conversation art in the WWW.” (Kurd Alsleben, Letter 1997) Quoted from: ZKM. Media Art Net. <http://mkn.zkm.de/werke/computerzeichnung/> (04.01.2012).
(Translation by B.S.)
43 Idensen, Heiko. Die Poesie soll von allen gemacht werden! Von literarischen Hypertexten zu virtuellen
Idensen’s understanding of media does not put the text at the centre. Two lines seem to cristallize or emerge from here: the collaborative hypertext and the hypertext of the individual. The collaborative hypertext proves to be an important line at an early intersection of electronic literature. In Alsleben’s group discourse, it was the dialogue within the creative and conceptual process, that was at the centre of attention. This was different for Idensen, who expanded on this perspective:

“Readers and writers alike are now connected with the same machines and tools, read and write simultaneously on a worldwide distributed and fragmented texture: copy/paste ... send / receive ...”

Idensen assumes that any text is inscripted in an intertextual ensemble of artistic, cultural, formal, canonical and biographical constellations.

“Every word produces meanings in its context of the surrounding linguistic units – all the writing is ‘quote’: misappropriation of read scripts. The only new concrete compilation is the interconnection of all reading and writing processes into a network – on a single surface.”

In the 1980s, together with Matthias Krohn, Idensen had started to set in motion an ironic, aesthetic and open approach to information and information media, with a project called “Pool-Processing” that was presented at media festivals. In 1989, it turned into the “imaginary library” with information processing by other means. At Ars Electronica, Idensen and Krohn staged a text/image archive with hypertext navigation processes, that were charged with poetic fragments of book culture. Finally, they created a prototype for dealing with electronic text fragments that realized various experimental literary forms (permutations, cut-up, visual poetry, etc.) on the surface of a hypertext programme. They transposed the built round library installation that they had presented at Ars Electronica 1989 in Linz, onto the World Wide Web. They created a rhizomatic online library with 460 hypertext nodes and 2635 links, that was more encyclopedic than literary. Idensen’s and Krohn’s goal was to entangle the user into a network of texts via associative reading, linking and navigating through branches, thereby simulating an immediate participation in the space of imagination of the project. The “imaginary library” was one of the first literary hypertext projects in German, it was accessible on the World Wide Web from 1994 on. Idensen characterizes it as follows:

“The reader as a traveler/Navigator/user becomes the new hero who leads a hopeless lonely battle against the mindless domination of designed screen-media.

The programming of the ‘imaginary library’ uses the metaphor of a labyrinthine library for his orchestration and follows the post-modern ‘language game’ of the active role of the reader, that recklessly poses as ideology of liberating the information medium computer.

It would be really wonderful, you could be present at the creation of ideas while weaving a hypertext structure – indeed even at a collaborative and communal process of screen-thinking.”

Detlev Fischer had participated in Alsfeld’s and Eske’s seminars in the 1980s in Hamburg. From 1988 – 1991 he developed the hypertext project “Schwamm” (sponge) .
in cooperation with friends and roommates. He used the Apple programme HyperCard. “Schwamm” was a complex network of text and images, which Fischer collected and wove together to threads. “Schwamm” was shown in several exhibitions, such as in “Welt als Schrift” (world as script) (Literaturhaus Hamburg, 1990), “Interface I” (1990, International Symposium for electronic art and creativity, Hamburg), “words do not need pages” (1993, Literaturhaus Wien), and “Künstliche Spiele” (Artificial Games) (1993, Literaturhaus München).47 “Schwamm” became an open multi-linear story, with many fabulous and absurd moments, some with mild horror elements. About half a dozen friends of Fischer worked on the story, on and off, over a period of two years, so there were many peculiar additions of text and drawings.

“In Schwamm various genres (narrative, sketch, game, puzzle, document, etc.) are created and designed into a web of images and texts. What emerges is a result of interactive, tactile reading. Schwamm is not finished, anyone can continue writing and this wherever in the work he or she wants to.”48

“Schwamm” was created by using Apple’s HyperCard programme (version 2.1 was required) and consisted of 19 HyperCard stacks with a total data volume of about 4.4 MB. In 2006, Detlev Fischer tried to get the old disks running again. His friend, filmmaker Peter Ott, supported him and supplied an old Mac Classic, but only one of the disks turned out to be still readable, it contained just two of the 19 original stacks. The rest of the disks would not run on other computers either. Fischer has documented the process of rediscovering and re-reading “Schwamm” with photographs that show the context of the rediscovery. The camera looks over his children’s shoulders when they try to read the old hypertext. This way the collaborative work gets read from double distance. And at the same time this opens the extant fragments of one of the first German works of electronic literature to the public in a documentary.49

Collaborative (Hyper)Texts for the Web

Another example of early staged collaborative writing can be found in the literature project “Absolut Homer” (1992), initiated by Walter Grond. Even the print version could be understood as an implicit hypertext. The project involved an entire production and reflection system that emanated from the debate about the then current literary world (in Austria). Grond presented his new odyssey as a kind of poetic relay race. On the one hand, he was involved as a writing manager in the Literaturfabrik Absolut in Graz. On the other hand, there were 21 authors on the road. The result was a collective novel, a travesty of the Odyssey.50

In 1995, the artist Gerfried Stocker took up the idea of distributed authorship in Grond’s project and developed it into “taxis”51, a project that was then visible on the Internet. It was also implemented as an audio performance and played on ORF radio (Kunstradio).

The 22 authors all contributed one of their texts. Thus, “taxis” has become a hypertext network developing from Walter Grond’s literary project “Absolut Homer”. In January 1995, Gerfried Stocker described the scenario as follows:

“Extracts of the novel written by 22 authors will be fragmented, distributed on the WWW server of Graz GEWI-Labs, and thus made available to the public. It is no more linear narrative text but text particles (linguistic units of information) compressed to sets of data that relate and develop via hyper-textual branches into fluctuating, situational correlations. "Attractors" are suspended over the net and lead via hyperlinks (branches and cross-references) into a dense associative network of geographic and contentual references.”52

The project “taxis” was accessible in the World Wide Web from 1995 to around 2006. In 2006, the GEWI-Lab at the University of Graz was closed and old data disappeared from the server. Andrea Ghoneim has followed up on the disappearance of this important project. Via the Wayback Machine of the Internet archive she managed to identify a version of “taxis” from November 15, 1995, of which some webpages and subpages were stored and thus still accessible for the public. In her study, Ghoneim further supplies a detailed structural analysis and a reading of “taxis”.53

Ghoneim finds that “taxis – an acoustic hypertext environment” was no real web collaboration54, since it merely transposed text from a book into a hypertext network. The actual collaboration of the 22 authors had taken place much earlier, in the late 1980s to about 1992. “Taxis” is therefore to be classified as a media re-enactment of the joint work “Absolute Homer”.

True Web-collaboration arose in the mid-1990s. Heiko Idensen initiated the online writing projects “Hyperknast” and “Hypertexttrees”. The project “Hypertext Trees” (1995/96) was an elaborate interactive writing system. Several authors were able to move simultaneously in the hypertext structure and write a story or continue writing on a storyline. The existing texts could be extended or modified in any possible branch and junction within the tree structure. There were seven main texts. The project “Hyperknast” (1996/97) worked in a similar way. Here the metaphor of “Knast” (Prison) was used to imprison the authors in a microcosm. This collaborative piece was also about making the dark side of text production tangible to the user, speaking of censorship, bans and deletion of text. Both projects were later merged into the site “Gvooon” with other experiments by the artist Arthur Schmid.

The best-known collaborative German text is the erotic story, “The Baker”55, which was initiated in 1996 and edited by Claudia Klinger. A total of 38 episodes of the story were written by 24 authors, some of whom only signed with a pseudonym. It was an exciting verbal exchange that revealed much about the group dynamics of the participating authors who fought tactical battles with behavioral changes in individual characters. “The Baker” was not an experimental piece, it was classically linear, and therefore

52 Quoted by way of: Ghoneim 2008, p. 185. (See: Footnote 50)
53 Ibid., p. 188ff.
54 Ibid., p. 196.
resulted in a traditional narrative. Its content was rather convincing and enlightening. Claudia Klinger completed the project in the spring of 2000. Around the same time, Roberto Simanowski wrote a long analysis of the collaborative project for his magazine *Dichtung Digital*\(^\text{56}\). His analysis explained the intertwined content well and nicely pointed out narrative twists and turns of the individual participating authors of Claudia Klinger’s interesting project.

Among the other collaborative projects in subsequent years Guido Grigat’s idiosyncratic project “23:40” sticks out. In the late 1990s Grigat managed the webring “Blabla” for net literature and contributed much to the development of the Netzliteratur community. “23:40” was started in 1997 as a collaborative project. A first phase was completed in 2002, a second phase has been in progress since 2006 and still exists today. The project’s goal is to create a collective memory in the form of one whole day. Entries can be made for each minute of the day. However, only the record of that moment (that specific minute) of the day that has just begun, is accessible and visible to the reader. In Phase I, 902 of the 1440 minutes of a day were filled. In phase II, up to now, there are 276 remembered minutes.\(^\text{57}\) The exciting part of the concept is that, in the always accessible Internet, it denies the reader a text temporarily. Because every reader can read only a short text that is designed exactly for this 60 seconds, a patience-demanding reading experience comes into effect. This reading experience is contrary to the usual zapping through text on the Internet. A thorough and expectant reading is required. And if the reader should encounter a blank minute, now, she or he will be in a better mood, to be active as a writer of her or his own memories.

Finally, there were two large-scale collaborative authoring environments and projects that kept the Netzliteratur community busy for some time: the “Assoziationsblaster” (Blaster of Associations) by Dragan Espenschied and Alvar Freude, and the complex collaborative writing platform “Nic·las” of René Bauer and Joachim Maier.

Together with “23:40” the “Assoziationsblaster” (1999) received the award for best Netzliteratur project in the Ettlinger competition (1999). It constructs an interactive text network in which all texts entered automatically connect to each other. Again, any Internet user may enrich the database with his or her own texts. The individual contributions cannot be read sequentially, but via the implemented links. Thus the reader jumps from one text to another and develops endless chains of associations. Freude and Espenschied have sorted the database by keywords. Each text is associated with a particular keyword. These keywords serve as connections between the texts. Users have the ability to enter new keywords, and thus change the whole fabric of the existing texts. Today, the “Assoziationsblaster” is still active. Since its inception in January 1999, in 13 years, 1,034,278 associations with 76,778 keywords (count from 08/01/2012) have been entered.\(^\text{58}\) The Blaster is less a literary tool, but basically a word-based machine for association that is able to link anything with anything else. It allows the reader to easily navigate, modify data and add more data within its wide parameters. Using the blaster is always a playful act. A reader explores and is amused.

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and surprised about some of the content, and soon he or she finds herself adding witty wordplay and expanding the associative play.

The collaborative writing environment “Nic-las” (1998) has a similar character as a machine for ideas. “Nic-las” is a web-based collaborative and autopoietic card index box that was developed since 1998 for use by individuals and small communities. The digital card index slip box (Zettelkasten) was developed by René Bauer and Joachim Maier in Zurich and is based on the idea of Niklas Luhmann’s “Zettelkasten” (slip box). “Nic-las” enables collaborative communication and organization of knowledge. With this alignment the writing environment “Nic-las” was one of the first advocates of social software (later summed up under the term Web 2.0). “Nic-las” also has automatic, algorithmic functions that manage independently and organize text (autopoietic functions) or irritative features like the “digital subconscious”, which brings deleted data back to the surface and often carries an unexpected creative potential. In addition, “Nic-las” features several extensions, so that communites may be able to view the world through their terms, or may be able to surf (looking-glass) the net with their community glasses or pull fitting external content into “Nic-las”: Subcontext and Subvisuals generate automatic context from the Internet. Recognition for the amazing Nic-las came in 2005 with an award from the “Junggesellenpreis” for Netzliteratur at the Literaturhaus Stuttgart. The jury then noted:

“Nic-las is a social software, that is used for collaborative and concreative work, but it can also participate in suggesting and creating content; this way it becomes an autopoietic network project. […] Author and reader are equal in using the electronic slip box. Both are able to participate in the formation process of the text and receive a range of new tools, that automatically organize conceptual structures, produce context from external and internal sources and incorporate objects into its structure. The "digital unconscious" suddenly shows things that have been deleted. The "Looking Glass" makes it possible to write annotations and comments to other web pages. The medium is a participant, it is an agent in reading and writing, it becomes a social sculpture, that earns its structure and substance itself.”

After the first versions 1.0 to 3.4, which were in use from 1998 to 2010, there is a version 4.0 of Nic-las in development, it will come with a total overhaul of the technology and an adaption of some of the major features and extensions.

It's not as if, today, there are no other attempts to create collaborative network environments for literary projects or (creative) writing projects for that matter. Most of those attempts, however, are taking place in a tightly controlled and standarized world of blogs, wikis, Twitter, Youtube and other social media platforms. These attempts often are less experimental than the described projects. But mostly unknown to the public, there are many collaborative efforts; they take place in creative writing courses and related academic modules of different disciplines – as in modules by the author of this essay. On the website iStory.org, the student projects of the last few years are represented. They range from Choose your own adventure books and booklets and multilinear Youtube videos to simple and practical tools for collaborative storytelling. A good example is the tool “Zweimal” (twice), giving the user a smart overview of the

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possibilities of linking to the existing text-units. And there is the successful application “Fairypaint” in which the user can not only continue or extend narrative texts, but also draw and illustrate freely with a brush or pencil. An exciting project is “Lines”, a new development that emerged in 2011 as a graduate thesis at the University of the Arts in Berne. Anton Alstom and Lukas Zimmer as “Café Society” continue to work and refine it in their Zurich atelier. Lines comes as a kind of fold-out digital papyrus. The wide roll supplies space for an infinite number of annotations and tags and also makes text-units and paths always traceable.

The Hypertext Line: From Hyperfiction to Net Literature

In the German-speaking world, the hypertext line set in with the same people as in the collaborative development of digital texts and writing environments, here designated as the Idensen line. The works of Friedrich Kittler and Rainer Kuhlen and mediation by Florian Rötzer (founder of the online magazine Telepolis) and ZKM director Peter Weibel were important for the early theoretical discourse. The immediate starting ground for first hypertext experiments was Kurd Alsleben’s discursive theory in Hamburg. In the 1970s, he had created and used edge-punched cards as so-called “linkers”. Together with Antje Eske, from 1986 – 1991, he had also produced various HyperCard correspondence and experiments. Some of his students came up with the first German language hypertext experiments, thus Heiko Idensen and Matthias Krohn, who created the “Imaginäre Bibliothek” (1985 – 1990 /web version 1994), Klaus Fischer with “Schwamm” (1988 – 1991), and Detlev Dufke, who developed Proteus (1991). Dufke’s project was an interactive hypertext installation as a reconstruction of a novel and a city. His hypertext was developed with the HyperCard programme for Apple Macintosh. In the 1990s, Dufke led a studio for interactive media in Hamburg, and since 1999 he is a professor of Multimedia Design in Potsdam, Germany.

Unfortunately, literary hypertext works of the years 1990 – 1995 are only poorly reviewed and processed or have not at all been recorded. It is suspected that some work did already disappear from the records during those years and may be irretrievably lost. Most of the few directories and lists of those years do not exist any longer. There are few exceptions like the hyperfiction lists of this author. Unfortunately, even there are only brief descriptions of the projects of those years to be found. After all, there are records there of projects like “Die letzte Reise des Blauen Falken” (The Last Voyage of the Blue Falcon) by Sven Sander (1994/95), that now are only available on a CD-ROM that Heiko Idensen created in Hildesheim in 1996. Sander’s hypertext consists mostly of egocentrical snapshots, short emotional sentences and everyday stories that are interconnected. Sander uses vivid metaphors in the text, and graphic images that support the text. The text units are relatively small and easy to remember. Thanks to its implementation of simple hypertext format (HTML 1.0), it is still perfectly readable.

In the years 1994 to 1996, a networked scene of interested readers and writers began cooperating in the German-speaking countries. This scene started emerging parallel to the first phase of the rapid spread of the World Wide Web. Projects of pioneers of hyperfiction, digital poetry and Netzliteratur emerged in the Internet. Authors and editors of those projects were among others: Sven Stillich, Martina Kieninger, Dirk Schroeder, Hartmut Landwehr, Burkhard Schröder, Claudia Klinger, Olivia Adler, Olaf Koch, Martin Auer, Sven Sander, Reinhard Döhl, Johannes Auer.66

In late 1995 and early 1996, the production of such texts was stimulated by the well known German newspaper DIE ZEIT, that announced a call for an Internet literature competition, in collaboration with IBM, Radio Bremen, and other sponsors. As a by-product of this competition, a lively debate developed among the participating authors. This, in turn, led to the creation of various discussion forums and collective sites that spread like a spider web and formed the very foundation of the German “hypertext fiction scene”.67

Patricia Tomaszek interprets this correctly in 2011, when she writes:

“At an early stage in the 90s, German net literature became a subject of a controversial debate between artists, theorists, and literary critics. A strong community evolved in which net literature was embedded in an infrastructure that made net literature publicly visible. Everything started with a call for a competition whose jury hardly defined what it was looking for; consequently, a critical study on terminologies and definitions unfolded. I regard competitions as public, peer-reviewed mediators for net literature. The advents of the German Pegasus-Award that launched in 1996 were of crucial importance for the community and its emerging field.”68

1994-96 was the beginning era of the World Wide Web. You had to dial into the Internet via slow modems. Hardly anyone knew the Internet. Instead, the Internet’s content was mediated to the public through the old media! The hierarchical selection process of content was still working. This meant, on the other hand, however, that the hypertext pioneers of the Internet at that time had a relatively large importance. This is why net literature was able to achieve a wider impact. The literary world, however, had become clairvoyant; it felt threatened and saw the book as endangered. Consequently, it rejected new digital forms of literature and refused the digital poets’ entry onto the traditional literary world. With the growth of the Web and its conversion to commercialism in the years prior to 2000, the community of digital poets soon became insignificant. The literary world saw its scepticism confirmed. It has since been very successful in consciously ignoring the Netzliteratur.

One of the most important steps for the development of German net literature was the

66 This paragraph and some of the following text paragraphs are carried over in part and translated from the article “Fluchtlinie”, written and published in 1999. See: Suter, Beat. Fluchtlinie: Zur Geschichte deutschsprachiger Hyperfictions. In: Dichtung Digital, 26. Nov. 1999. <http://www.dichtung-digital.de/Autoren/Suter/26-Nov-99/index.htm> (10.01.2012). Also to be found in: Auer, Johannes, Heibach, Christiane und Beat Suter (ed.). Netzliteratur.net. 2002 – 2012. <http://www.netzliteratur.net/suter/fluchtlinie.htm> (10.01.2012). The article “Fluchtlinie”, does not want to be understood as an obituary, as Tomaszek (see: Footnote 5) suggests in her essay of 2011. On the contrary, the article intended to point out how quickly the focus of the scene was able to change, how dynamic and progressive authors were, and how skillful they were in trying to evolve their creations in step with new evolving network technologies. With their versatile curiosity for Internet and new media technologies, they were able to define and shape a new genre.

67 Ibid.

68 Tomaszek 2011, p. 1. (See: Footnote 4)
reasoning power of the “Mailingliste Netzliteratur”\textsuperscript{69} by Sven Stillich in 1996. This mailing list was probably the most active discussion forum on “Digital Literature” in German. In early 1998, Dirk Schröder took over the administration of the list. Since 1999, Oliver Gassner is responsible for it. At its high time in 1999, an average of 500 messages per month were distributed to all members. The list still exists, but for several years it has been quite inactive with some exceptions. Unfortunately, so far the contributions to the mailing list have not been processed into a public archive as other lists like “Nettime” and “Rohrpost” have done.

Rather important for the scene was Guido Grigat’s Internet Literature Webring “bla”\textsuperscript{70}, in the years 1997 to 1999, it had 120 affiliated websites and contributed much to the networking of the Netzliteratur community. With “[OLLI] Olivers Links zur Literatur”\textsuperscript{71} from 1995 Oliver Gassner composed a professional and very comprehensive website on net literary activities. In subsequent years his site expanded into advanced projects and networks like “AleXana”\textsuperscript{72} and “Carpe” in combination with other websites. Gassner is still very active as a networker and blogger. Responsible for the successful dissemination of Netzliteratur were also persistent writers like Claudia Klinger, Jan Ulrich Hasecke, Regula Erni, Werner Stangl, Odile Endres, Sabrina Ortmann and Enno E. Peter – the latter two, the longtime operators of the “Berliner Zimmer”\textsuperscript{73}. All these writers were advocates and public promoters of Netzliteratur with their detailed websites, the resources they offered and their intricate networking. While most of the authors are still active today in one form or another, some of the projects like the “Berliner Zimmer” had to be closed down after years of successful existence, since their operators underwent professional changes or could not afford the financial means any longer.

The use of the word “Netzliteratur” by 1995 for hypertext literature and hypermedia poetry and literature in the German-speaking world was rather significant, since all literary experiments emerged for the net and were placed in the Internet. German speaking authors did not use specific authoring tools like many English-speaking authors, who first worked with Apple’s HyperCard software and then experimented with the commercial programme Storyspace, and were loyal to those programmes for years to come. German authors used plain HTML, played with Meta-Tags and animated GIFs and delved into Javascript instead.

The Net Literature Competitions

The call for an Internet Literature competition by the established German weekly newspaper \textit{DIE ZEIT} in the years 1996, 1997 and 1998, got many creative efforts going. For one thing, it was unique that the competitions were not addressed to a specialized audience, but to everyone. Correspondingly, the response rate was large: a total of 700 projects were submitted for all three events together. The response triggered by the


\textsuperscript{72} Also merged with Carpe and Literaturwelt.

\textsuperscript{73} Peter, Enno F. und Sabrina Ortmann (ed.). \textit{Berliner Zimmer}. Der Salon Im Netz. 1998 – 2006. \texttt{<http://www.berlinerzimmer.de/>}. (11.01.2012). Closed down in October 2006, but the website is still in the Internet.
competitions was large and diverse. It included the formation of a very active community and a public debate on all aspects of the competition and a new genre for a new medium. The old media, however, did not adjust to the new phenomenon and were very skeptical. Some critics felt tempted to call the Netzliteratur an aberration. There were only a few friendly comments. The role of DIE ZEIT as main sponsor was rather suspect: On the one hand, the paper encouraged the then unknown Internet literature with competitions, that allowed the paper to advertise specifically for a new, younger generation of readers. On the other hand, their own Web project never received much space in the print product – and if so, often was expressed in a highly critical and skeptical manner as in the article by Christian Benne, appearing shortly before the award ceremony in 1998 in DIE ZEIT74 with the following wording:

“Reading on the Internet is like listening to music over the telephone. [...] Literature on the Net is a stillbirth. It fails even as an idea, perhaps because its absurdity is matched only by radio plays over the phone. [...] Literature [...] can only be passed in writing from generation to generation. Littera scripta manet. [...] Even much less than the book will the internet literature be able to create a modern literary audience. In spite of all chat networks, good editing and constructive criticism is not conceivable – as much as a WWW equivalent cannot measure up to the promotional table with new publications. It is randomness that rules the gigantic mess of the Internet, not quality.”75

From today's perspective (2012), these lines seem rather ironic and amusing. Not only has listening to music over mobile phone established itself, but reading via iPhone, Kindle, iPad, and Co. as well. Also, the promotional table with new books found its better and bigger equivalents on the web a while ago. It is no wonder that this fundamental misunderstanding of the critics threatened to break apart the alliance between the established cultural traditionalist DIE ZEIT and its co-organizer IBM several times and finally and inevitably had to be ended after the third competition in 1998. The dissolution of the competition therefore was in no way associated with quality and quantity of the entered projects, but it was caused by the unwillingness of main initiator DIE ZEIT and the critics of the old media to adequately respond to a new cultural phenomenon, and at least give it some room to breathe and develop.

In 1999, Oliver Gassner stepped into the breach and introduced a new competition as part of the Baden-Württemberg Literature Festival in the town of Ettingen.76 Gassner, one of the most active exponents of Netzliteratur in the 1990s managed to provide the necessary space to breathe for the artists and writers. He also succeeded in appointing for the first time several experts and exponents of the new scene to the jury. Moreover, for the first time, there was a diversification of the awards in various categories, and for the first time, there was a real symposium with fruitful presentations and discussions rather than just a plain award ceremony for the media's sake.

“It is remarkable that net literature in Germany has been stronger when its post-processing mechanisms were active: when juries from magazines called for submissions for an award in net literature. In Germany, prizes for works (of net literature) were awarded between 1996 and 1998 (Pegasus) and 1999 (Ettinger Prize for Literature). Later, occasional calls for works within a competitive infrastructure were processed. Even though interesting works have been submitted and awarded, these competitions did not become institutionalized events (like the Catalan Vinaròs Prize for digital literature) and were not

74 Suter 1999. (See: Footnote 66)
While Tomaszek’s argument of the post-processing is quite evident, it should also be noted that the Pegasus competition calls by DIE ZEIT were not made via professional journals, but by means of mass media, they had been tendered as a random shot. The first competition in 1996 did not have a community. At that time, there were only some specialists: insiders, artists and researchers. The community was only about to emerge. The announcers of the competition were not experts and specialists, but journalists who had a hard time to justify their call and did not know what to expect. The call was a trial balloon, a competition for everyone, a mainstream competition, that should reel in the younger generation. This is why there were very diverse contributions, differing greatly in their quality. And this again caused the emergence of persistent discussions on the meaning and quality of the competition. This means that mainly through the call’s vagueness and its broad approach, numerous reactions were triggered that eventually led to the development of a community for Netzliteratur with mostly young and unknown writers, who were not in league with the academic system. This was a very different situation from what helped establish electronic literature in the U.S., where awards, contests and calls for publication were always intended only for a small academic community. The German-speaking world, however, in 2001 and 2003, continued trying to establish net literature with a contest called Digitale Literatur by T-Mobile and DTV (publishing house Deutscher Taschenbuch Verlag). Almost in imitation of the Pegasus competitions, again, it aimed at activating the mainstream literary community and not the now established community of writers.

The Ettlinger Award 1999 and the Junggesellenpreis 2005 were the only competitions geared to the Netzliteratur community. Both awards were connected with festival events (of a literary festival or a literature house) and featured juries with experts in net literature, that led to a higher credibility. The public, however, took much less notice of these awards, since the voice of mainstream mass media did not comment on them. Generally, it is not necessarily to be regretted that no institutionalized competition came about for more than three years. On a positive note, this meant that new competitions were able to position themselves differently in each case and rethink their premises. This also opened more possibilities of change and development for a genre that had yet to carve out its definite shape. And after all, from 1996 - 2005, there were more than ten well-known internet literary competitions in the German speaking countries.

The changes of the net literature competitions in the four years from 1996 - 1999 represented the development tendencies of German net literature quite accurately. In 1996, clearly the debate on text/ hypertext was the dominant element of net literature. In 1997, the aspect of fiction was at the centre of attention for the authors. In 1998, authors made a first step from text media to multimedia and adopted programming skills that enhanced the dynamics of their productions. And 1999 in Ettlingen, the efforts were toward interactivity, respectively asynchronous interactivity. Authors were inviting the reader to participate in the production of the work similar to a workshop. A retrospective analysis of these years and competitions should consider that 1999 was an end-date, which was also incorporated into the development of net literature and may have accelerated its development. After those four years the experiments were not completed in any of the directions, but it seemed as if after completing the end of the

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77 Tomaszek 2011. (See: Footnote 4)
millennium one had arrived all over again at the departure. After all, there was a dominant aspect as a common thread all through the short history of the early phase of hyperfictions or German hypertext literature: an innovative, both linguistically and technically skillful and trained use of narrative strategies in new patterns and forms.  

Further Works by Award Winning Authors

No doubt, during this phase of net literature it was mainly about hypertext literature. Subsequently, the winners of the awards were all able to convince their audience with further works and start a net literary career. Susanne Berkenheger had received a first award in 1997 for her hyperfiction “Zeit für die Bombe” (time for the bomb). Her project focussed on text as fiction on a practical and a metalevel. Narration and aberrations were linked together by way of intrigue. Hyperlinks and minimal short cinematic elements were used as technical effects and integral literary elements. In her further works, Susanne Berkenheger tried to extend her narrative strategies carefully with small innovations. The reader of her text never really knows how much control he really has over the text and the rest of the story. In the two works “Hilfe! Ein Hypertext aus vier Kehlen” (Help! A hypertext with four voices) (1998/2000) and “Die Schwimmmeisterin” (Bubble Bath) (2002/2005), Berkenheger creates an ambiguous game with the reader. In one sequence, she implements a second cursor that takes over and deprives the reader of his choice and decides for him by faster accessing a different link.

Besides the works of Berkenheger, the projects of Frank Klötgen are among the most important works of German hypertext literature. Frank Klötgen and Dirk Günther won an award in 1998 with their picture-drama “Die Aaleskorte der Ölig” (Ölig’s eel escort). The reader has 20 scenes to choose from, he can put them together into a movie by means of picking photographs of the actors and by stage directions. Each time the picture-drama is put together, it may be “filmed” in a new version. All in all, it is possible to get 6.9 billion different movies. Klötgen’s project was not just hypertext anymore, it clearly moved in the direction of multimedia, although the multimedia elements were very rudimentary. The next project “Spätwinterhitze” (Late Winter Heat) was a major enterprise. Klötgen worked on it for five long years and in it developed a stronger multimedia approach. The formats used for film and audio as well as the browser technology had changed so much in those five years that Klötgen constantly had to fix his technical implementations or change parts of it completely. An amusing report of this difficulty during and after the publication of his net mystery piece can be found in Klötgen’s essay “Das Siechtum nach der Deadline” (Lingering Illness after the Deadline)

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78 See: Suter 1999, last paragraph. (Footnote 66)
The interactive mystery was released in 2004 on CD-ROM and had a good response, it was also reviewed in online technology magazines. The net mystery was perceived, not least, as a game. Finally, some scientific studies emerged that provided analysis and discussion of “Spätwinterhitze”. Thus, the dissertations of Dorota Piestrak (2009)\(^86\) and Karen Stiewe (2011)\(^87\), both extensively discuss the exceptional interactive mystery by Klötgen.

In 2005, Klötgen published the online musical “Endlose Liebe – Endless Love” on the web.\(^88\) The net literature project is a successful parody of a love tragicomedy. One can play it in two, three, four or more acts. Endless Love is equipped with 19 songs of love and suffering, played by the band Marilyn’s Army and sung by Klötgen as its singer. Tuneful and bizarre props complement the reduced stage of the on-musical designated as “Trashical”. Songs and music were composed by Joachim Schäfer. In “Endless Love” Klötgen shows that he is one of the few German net literature writers who are very able to passionately weave together dramatic and narrative skills for the internet and mainly focus on story line and action. Klötgen’s musical was one of the winning entries at the Junggesellenpreis (Bachelors’ Prize) in 2005. He was best not only at bringing together music and drama, but because he also knows how to successfully use the common resources of the Internet for his whimsical stories. Klötgen “does not work with high-resolution 3D graphics, nor with Flash animation or code-effects, but with our expectations, wishes, desires and vices”\(^89\). “Endlose Liebe – Endless Love” in many ways is double play, it uses the performative means of the computer and directs the screen as a proscenium stage. And this is where scenes and acts are played. The characters are all sketched with white chalk on a blackboard base. Individual dialogues are assigned to individual pop-up windows. The seven characters of the play deliver amusing love entanglements and struggles all the way to murder. Thereby Klötgen plays with bilingualism (German and English, sometimes mixed) and creates witty and humorous scenes. It is not easy to find the exit from the maze of emotions that is created in “Endless Love”. At some points seemingly unpredictable, the story features several different courses.

The latest project “TRAIN” by Klötgen, a new interactive mystery, will be launched on the net in late 2012.

At this point, it should be noted that in this essay, descriptions of individual works have to be rather brief, since this text serves to give an overview of the development of the most important works of German net literature. That may be unsatisfactory as the narrow selection cannot take into account other important works for lack of space. As a compensation, some references are added that lead the reader to the sources of more detailed descriptions, reviews and analysis.

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(15.01.2012).

89 See: Literaturhaus Stuttgart e.a. 2005. (Footnote 60)
Another important work is Bastian Böttcher’s from 1998, for which he received an award the same year. Böttcher aimed at a multilingual media presentation of his poetic piece and made the transition from hypertext to hypermedia. Like Klötgen, for years, he has been on tour as a slam poet in Germany, Austria and Switzerland. “Looppool” is distinguished by the fact that the reader directly participates in the work and that plain text is pushed back in favor of other media (audio and visualization). The borderline between text and multimedia presentation on the one hand and computer games on the other hand seems dissolved in Böttcher’s project. Thus, “Looppool” is a prime example of how authors who have gained more technologically advanced media skills increasingly move from text-based hypertext to intermedia projects, thereby using more programmed elements in their works.

A nice example of this is “Yatoo”, an audio-visual hypertext by the Zeitgenoosen (contemporaries), Ursula Hentschläger and Zelko Wiener. “Yatoo” uses rollovers for fields of color that fold like petals and and transform it into a love poem. “Yatoo” means nothing other than “You are the only one.” The text reveals itself to us through mouse over in the form of five spoken words, that combine into a sentence. The sound activation, initialized by touching, at the same time, becomes a visual event by moving individual shapes and reshaping it. The interaction of sound and visual effects seems to play together perfectly. A detailed description by Roberto Simanowski of the Flash-Poem shows various stages of the love blossoms hypertext and the paradox of talking to and past each other very nicely. A brief analysis on “Yatoo” by the author of this essay is found on Netzliteratur.net.

Since 2000 the Basel-based artist Esther Hunziker has been creating net-literary projects. The development of her work also shows a tendency to move from hypertext to more complex forms of net literature and media art. In 2003 she won the jury award of the DTV/ T-Online competition for digital literature. Her work “nord” (north) is a digital implementation of a novel by the writer Felix Zbinden. Before that, she had experimented with digital rhetoric in “UnFocus” (2000), a work, that involved both visual and auditory elements. In Hunziker’s as in Berkenheger’s work, there is an affinity to the concrete experiments of the Döhl line, but in Hunziker’s work, the element of rhetoric dominates, that features a highly iconographic character. In Berkenheger’s work, the narrative and dramaturgical keeps the upper hand. “Nord” is a transposition of a detective novel. The text is set in scene with four windows as multimedia and broken up into fragments. “Nord” shows affinity for video art. Besides the digital rhetoric, this project focusses on dramaturgy and narrative as well. “Nord’ does not have a logical course of action and no clear end, but it narrates in an associative, fragmentary and repetitive manner. These qualities can also be found in her...

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[Hunziker’s] other work [...]99, says reviewer Mirjam Weder. More recent works of Hunziker oscillate between video art and hypertext fiction too, and certainly show a critical perspective of media. “Dump” (2011)100 is a hypertext fiction trash collage that uses spam, meaningless characters and speech consciousness impairment in the form of text, lists, data, unfocused moving images and auditory voice overlays. Thus, it triggers a confusion in communication with reader and viewer and causes overstimulation.

Berkenheger’s other works101 also show the appropriation of new media technologies and patterns as part of her artistic development and a separation from pure hypertext projects. The collaborative project “World Watchers” (2003)102 works with blog and web cams. It is discussed in more detail on page 30 in the chapter on the blogger line. Berkenheger likes to exceed the limits of the medium and knows in particular how to use the communicative channels well. The staged chat-theatre by Tilman Sack, “Der Kampf der Autoren” (the struggle of the authors) (2000)103, where Berkenheger played a big part, consisted of partly staged chat conversations in the Internet that were then brought to the stage of the theatre. Finally, she continued her dramatic vein into virtual world of Second Life, where in 2007, she founded the “movement for account corpses” (Accountleichenbewegung)104, which played with the fact that in Second Life many avatars were abandoned by their users and therefore appeared only in statistics and databases and were in fact nothing but account corpses. From there it was only a short turn to the net art project “The Last Days of Second Life” (2009)105, where she organized preventive demonstrations against the closure of Second Life or any part thereof. Her project played on the theme of virtual heritage protection and thus brought irony back into netart. Her latest project is partly removed from the virtual world. “Augmented Bombings” (2011)106 zeroes in on the trend of augmented reality games. It stages personalized and directed bombs that can be placed by Berkenheger’s 3D bomb placement service with friends or enemies. This shows that even in the earliest work Berkenheger’s main topic was not necessarily the hypertext and its associative links, but rather the production of fiction in a new virtual context. Hypertext, weblog, Second Life and Augmented Reality become Berkenheger’s framework, that supports her dramatic and staged fiction. This mostly happens in a reverse mode when a narrative is consciously sabotaged as in the “Bubble Bath” (2002/2005).

The Cramer Line: The Code Work

For the Netzliteratur Festival “Literatur und Strom” in 2005 at the Literaturhaus in Stuttgart, Johannes Auer coined the title “code, interface and concept”. If we use this distinction, the dominant aspects interface (Idensen line, hypertext line) and concept

(06.02.2012).
(Döhl line, Idensen line) have already been covered in this essay, the only missing aspect so far is code. The so-called Codework are works of digital poetry, that self-referentially stage source codes, programming and interfaces. It is the software that is at the centre of creation. Namely, the software is also considered as text. Therefore we have our surface text on the screen – and underneath, there are other layers of text hidden. These hidden layers enable this same surface text to be on the surface. The hidden text layers underneath are the ones getting all the attention of the code workers. The stratification gets broken. And the lower layers of text, the code, will now be brought to the surface to produce a new kind of poetry. According to Friedrich Block and Florian Cramer, the term Codework was coined by Alan Sondheim who, in this respect, may have been inspired to do so by the poetry of e.e. cummings.

“Codework refers to the use of the contemporary idiolect of the computer and computing processes in digital media experimental writing, or [net.writing]. Some of the prominent practitioners include Alan Sondheim, who has given the practice and genre its name, Mez (Mary-Anne Breeze), Talan Memmott, Ted Warnell, Brian Lennon, and John Cayley.”

In the German-speaking world, Florian Cramer is representative of this creative movement. He has also repeatedly pointed out that programming and poetry were present in older poetic forms. Thus, permutational poetry may be traced back all the way to the 16th century. However, Cramer is quick to clarify, that there is an important difference between permutational poetry and digital Codework:

“Compared to earlier poetics of formal instruction, like in La Monte Young’s Composition 1961, in Fluxus pieces and in permutational poetry, an important difference can be observed in the codeworks: The Internet code poets and artists do not construct or synthesize code, but they use code or code grammars they found and take them apart. I agree with Friedrich Block and his “Eight Digits of Digital Poetry” that digital poetry should be read in the history and context of experimental poetry. A poetics of synthesis was characteristic of combinatorial and instruction-based poetry, a poetics of analysis characterized Dada and its successors. But one hardly finds poetry with an analytical approach to formal instruction code in the classical 20th century avant-garde. Internet code poetry is being written in a new – if one likes, post-modernist – condition of machine code abundance and overload.”

Cramer is a literary scholar and media artist at the same time, and he probably is one of the most active protagonists of Codework in German-speaking countries. In 1998, he won an award for his “permutations”, including various historical adaptations, then in 2005, he won a major award for his exceptional project “plaintext.cc“. The researcher Cramer is not ranked behind the artist Cramer. Florian Hartling points to the fact, that Cramer also presented the first elaborate study on the genesis and poetics of Codework with his 2006 doctoral thesis that was finally printed in 2011. In Codework, it is all about reflecting internal textuality of computers. As already mentioned, it is not about working with the top layer of the text, which is represented on the screen, but with one or more lower layers: the respective code that runs the upper layer of text and makes it visible as such. It is about “playing with the confusions and thresholds of machine
language and human language, and [about] reflecting the cultural implications of these overlaps.”  

Cramer sees an excellent example of this kind of poetry in the “mezangelle” poetry by mez / Mary Ann Breeze, “which mixes programming / network protocol code and non-computer language to a portmanteau-word hybrid.”

“The diverse processes and events inside the computer are made visible on the screen. Located at the interface between the aesthetics of interface and aesthetics of code, they are challenging not only the user’s traditional understanding of art. They force the users to reflect upon seemingly self-evident facts. Codeworks often appear as rare system disorders and put users in all sorts of confusion. These disorders can be films, alienated beyond recognition (“ascii history of moving images”, 1998), deconstructed computer games (“Untitled Game”, 1996-2001) or even viruses (“biennale.py,” 2001).”

This statement by Hartling indicates not only the process of the creative body Codework at the interface with visual representation, but also frames a subdivision of Codework into three subgenres (in terms of authorship). Those are the types “ASCII art” (some in running order), “Broken Codes” (not in running order) and “Algorithms” as executable programmes.

Unfortunately, there are only a few exponents in German-speaking countries doing Codework. This leads even German scholars and critics to quoting international examples like Jodi or mez when talking about Codework. More on this subject can be found in research by Hartling (2009) and Cramer (2011). Besides Cramer, in German-speaking countries, there are Joerg Piringer and Johannes Auer, who have an affinity to Codework, and respectively include code into their interfaces and concepts therefore making it visible as a literary element. Other than that, over the years, there were repeated attempts to create text generators like “Günters Gedicht Generator” (now: “Poetron Generator”), which can be found in the Internet since 1995 Günter’s poetry generator designs humorous poems based on random numbers that integrate the inputs of the user. And Manfred Arens’ “Untexte” (since 1997) have interesting visual coding experiments, with nonsense poetry based on aleatoric and mathematical patterns, including linguistic and nonlinguistic signs. Arens calls them arrays or arrangements of signs with a poetic intention. Lyrics that don’t follow common semantic meaning.

Cramer’s work “plaintext.cc” from 2005 is a prime example since it shows where code-driven storytelling with a clear concept and interesting aesthetics can go. The jury’s report at the Junggesellenpreis (bachelor’s award) in 2005 leaves no doubt open about the excellent quality of this special Codework project.

"Florian Cramer has built a small autopoietic bachelor machine, which ironically stages a 'short circuit when needs occur'. The fragile narcissism, with which the programme generates text from other texts according to certain rules, nonetheless, is able to cast a spell over the user. It lures on the wrong track, which leads to surprising discoveries if only followed with enough perseverance.

The machine – three little machines in one – contaminated digital code with poetic text: real-time data by

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112 Cramer 2002. (See: Footnote 109)
113 Ibid.
114 Hartling 2009, p. 282. (Translation by B.S.) (See: Footnote 32)
115 Ibid.
116 Ibid. p. 282ff.
119 Ibid.
the computer system on which it runs with passages from George Bataille's "Story of the Eye" and an e-mail dialogue between Florian Cramer and the Australian poet Mez. Each newly created text has undergone a number of transformations and typographic formatting. Visually, this is a reference to the manuscript of George Perec's radio play "The Machine", in which a text generator is also longing to consume itself.” (Literaturhaus, Höllerer et al., 2005)

Cramer succeeds in plaintext.cc to generate continuously new and intriguing texts from a pool of very diverse written content. "These texts are very reminiscent of concrete and visual poetry, but they represent 'code art'," establishes Hartling. "By mixing elements of software and programming with pornography [Bataille's text], Cramer plays with an ironic distancing from the concept 'bachelor'."120 This gave Cramer not only his own version of the 2005 literature competition, advertised as a first Bachelor's award for net literature but also made clear that this was a tribute to OULIPO, the classic modern workshop for potential literature. And it clarified that "plaintext.cc" belongs to the same poetic tradition and uses a similar approach for processing language.

The Blogger Line

There is still one historical line missing, it is a line with works that remain very close to traditional literature. This line may be important for the understanding of the whole movement of the blogger-, twitter- and poetic librarian literati. This involves a fundamentally different understanding of literary elements. The four lines described so far, all assume that the material, literature is produced from, could be extended technically, structurally and conceptually. The new material was either concrete linguistics and digital structuring, or use of databases and thereby enabling networking structures, or use of hyperlinks and their consequences, or use of code structures and lifting them on to the stage of poetic text. The works of the blogger line are primarily about content and its distribution. In which case, at least, the extension of distribution, may similarly be considered as new literary material, including here the reflection on distribution that flows into the creation of texts and sometimes leads to new tools or tool extensions for production and reception. The best-known vessel for the writer-bloggers might be "Litblogs.net", founded in 2004 by Mark A. Hediger and Hartmut Abendschein and managed since 2008 by Abendschein and Christiane Zintzen. "Litblogs.net" has the status of a literary journal. It includes 25 established authors and features their writings on a daily basis.

It is rather difficult to set a beginning for this historical line, and it risks contradiction in any case. If we consider the public debate, it would not be wrong for the German-speaking countries to start with the project “Abfall für alle” (Waste for everybody) by Rainald Goetz, 1998. It is sort of a public-run diary full of transient fragments and ideas of daily life. From February 2, 1998, to January 10, 1999, the writer Rainald Goetz had maintained a virtual “daily praying text” (tägliches Textgebet) – as he called it – on his Internet address "www.rainaldgoetz.de". This proto-blog consisted of the third power of seven episodes. It has been divided into seven chapters, each of which lasted seven weeks, (which of course consisted of seven days). In total there were 343 episodes or entries. Even the title of “Abfall für alle” was pragmatic, for first it simply meant that fragments, thoughts and waste facts from Götz’s life were visible in the Internet for everyone. The reader found shopping lists, literary tracts, daily reports, correspondence

120 Hartling 2009, p. 287. (See Footnote 32)
and thoughts, he witnessed tantrums and computer problems and of course the political,
personal and poetic practice of Götz. The publication of a CD-ROM with the
accumulated entries of "Abfall für alle" was originally planned. It should have drawn
attention to the paradox of the daily volatility of Götz’s aphorisms in a very volatile
medium. This unfortunately did not happen. The Suhrkamp Verlag turned the diary
entries into a book with the subtitle “novel of the year”. The book was rather successful.
In addition, all entries were deleted from the website. Today, there is no virtual image of
the work accessible to the public. Not even the Internet Archive has a copy of the website

Thomas Hettche’s “NULL” (ZERO) (1999) is another well-known promotional project
from the pre-blogging era. Hettche and Jana Hensel produced a publication for the
Dumont publishing house with texts by 38 authors and presented it on a website. The
theme was the year before the millennium. Hettche intended to allow comments by
email and mutual responsiveness to other texts, but the publisher wanted to put
together a conventional anthology. Thus, it happened that there was almost no
communication between the various positions. Neither the production nor the
publication format was altered and even the editorial control remained as is common
for printing publications. The only change was related to the distribution of the
product. The Dumont publishing house, whose webmaster received the texts from
Hensel and Hettche, placed them on the website. Dumont used the Internet as a
promotional vehicle. The site was visited 2,000 times a month and had advanced into
the discussion forums of the traditional literary establishment. Finally, the project was
turned into a successful book. The consequence was, that the publisher’s website was no
longer updated from 31.12.1999 onwards. The web pages were kept running for some
time as a text museum or archive. Today, a copy of those web pages can be found on
Hettche’s homepage. “It is not surprising that the project was conceived from the
beginning as a normal book published in the prestigious publishing house Dumont. And
indeed, this was also a prerequisite to gain participation of enough traditional authors.
This fixation on names by authors of print may be justified with the gratification system
of the literary market,” says Florian Hartling in his discussion on authorship. He
points out that authors who are part of the traditional market for literature like to stage
themselves on their personal web sites. A very good example of such a print-author for
Hartling is the writer Alban Nikolai Herbst, “who uses the Internet as an additional
consistent and broad publication channel.” Furthermore, Herbst uses his blog as a
communication platform to communicate with his readers. This circumstance brings
him one step closer to netliterature, since, to a certain degree, he gets involved in
interactions with readers. In some cases, these interactions may then generate feedback
- and this on both sides of the communication. This way, it is possible for Herbst to take
on suggestions or even receive stories from readers and include them in his prose. On
the other hand, it is also possible that he gets real worldly feedback from readers, who
go as far as sending him financial contributions and becoming his sponsors or even meet
him for a talk, a dinner date or a visit or a concert.

(http://www.satt.org/literatur/00_10_abfall_1.html). (19.01.2012).
122 Ghoneim 2008, p. 115/116. (See: Footnote 50)
124 Hartling 2009, p. 271. (See: Footnote 32)
125 Ibid.
Herbst is a prolific blogger who keeps his extensive literary weblog “Die Dschungel. Anderswelt” (The Jungle. Different world.) since 2004 and writes almost daily entries. This “Dschungel. Anderswelt” is quite unique in the German literary world. Herbst lives as a freelance writer who is deeply rooted in the traditional literature system. He is therefore primarily perceived as a writer for print by the reviewers of the art sections of newspapers, radio and television. Besides this, Herbst may also be appreciated as one of the first active and most consistent German weblog writers. Since September 2003 Herbst has been blogging online. On 12 June 2004, he joined the web service provider twoday.net. Since then he uses the weblog application with a remarkable consistency and makes virtually daily entries. Hartling points out that Herbst's first motivation to use a weblog system probably was "the easy upkeep of the system that was possible without any knowledge nor much understanding of markup languages and coding." For Herbst's working methods, the Weblog technology is ideal. He does not need to worry about the vast extent of his material. The daily records for the past 2779 days (21.01.2012), can be continued forever and categorization, tagging and indexing support him almost perfectly in his work, and in addition to various forms of text, he also has the possibility, to incorporate objects in his collection as visual simulacra. It is very important for Herbst that his operation as writer takes place in a quasi-public space. This way, he gets in touch with his readers while writing a new book. He keeps literary work diaries, in which he tries to condense his many materials into outlines and designs that he then discusses with his readers, his publishers and other interested parties. He may alter or slightly change course while developing the book.

This idiosyncratic working method and production by means of a blog, which is supported on networking and mutual feedback, move Herbst as into the realms of a digital author and bring him quite clearly close to net literature. Hartling states this as well with the following wording:

"Even if the texts, Herbst published on his website, are all reproducible in the traditional print medium, his poetics reflect structural and self-reflective characteristics of the Internet as a dynamic network. In fact, the net literature community perceives Herbst as a representative of a unique digital literature. He works as a blogger for Literaturwelt – and he was invited for presentations at the 2005 net literature festival Literatur und Strom."

The temporary blogging project "World Watchers" by Susanne Berkenheger and Gisela Müller (2003) was even more unconventional. It grew out of Berkenheger's critical literary pursuit of current media opportunities. The starting point was the idea of monitoring the monitor. Surveillance cameras are everywhere, the authors noted.

127 Hartling 2009, p. 228. (See: Footnote 32)
128 Ibid., p.228.
129 Ibid., p. 229.
“This has to concern us. Literature is challenged.” That’s why there are now so-called World Watchers, who sit in their tower and monitor the monitors and their countless cameras in public spaces. Over four months in 2003, every working day, a new text was manufactured. “Literary texts. Strictly according to the roster.” Each day, another webcam’s secret was snatched. Besides Berkenheger and Müller who created the project, the two authors Klaus Unger and Walter Grond participated. The four authors played specific roles as members of a forgotten colony of research that was able to perceive the world only by Internet. The authors oscillated between fiction and reality. All texts were translated by a free online translation software into English, a kind of English with lots of syntax errors and faulty meanings. The project was limited to four months and was then completed with different readings of the writer-actors.

“Literaturwelt.de” is a blog that has existed since 2005. In it, about 20 authors are gathered, of which the majority work in net literature or have dealt with net literature in the past, says Oliver Gassner, the founder of this blog. Gassner, always at the forefront of events, says of himself that he had already written blog entries since 1999. Other active blog authors of “Literaturwelt.de” are the aforementioned Herbst, Regula Erni, Odile Endres, Christia Köllerer.

The mentioned “Litblogs.net” is a portal for literary weblogs in German. The makers write that their focus is on the one hand presentation, distribution, archiving and documentation of literary writing processes, and on the other hand, the exchange among the authors. And finally, the continuous media upheaval should be integrated into the context of literary discourse. “Litblogs.net” is an exceptional project that is diverse and rich in content, it is also organized and categorized well. As a portal, it serves as a launching point to the blogs of the individual authors, on the other hand, it collects books and reviews of their works and contextually relevant reviews of topics and discussions. “Litblogs.net” is guided by the two publishers and editors Hartmut Abendschein and Christiane Zintzen and should certainly be considered a very professionally managed platform for presenting small publishers and their works in the commercially difficult literary milieu of the German language area. With “Litblogs.net”, the publishers and authors have created a promotional format or tool that supports the distribution of their works very well and shows useful and clear librarian and archival structures. In this regard, this project is absolutely crucial to the production and promotion of literature, though not specifically for net literature.

**Historical Lines**

When reflecting on the central works of German-language net literature, it quickly becomes clear that there has been a very large variety of works during the last twenty years. Many works differ fundamentally from each other, not just in technical terms, but also in ideational and conceptual aspects. A chronological timeline alone therefore may not be enough for a good description of the phenomenon. Drawing a line of conceptual

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132 Ibid.
development and intertwining it with the chronology may help. This paper attempts to do this, but it certainly can't do justice to all creative works of literature in the field of electronic literature. Question marks appear in all corners. To what line do Stefan Schemats pervasive works belong? What impact did Olia Lialina's older and more recent works have on the German-language net literature after her move from Moscow to Stuttgart in the 1990s? Where do you put the varied work of Jörg Piringer? Or the game art projects of AND-OR? Can we still ascribe the works of Übermorgen to net literature? How much influence did the figures of thought and actions by Reinhold Grether have? Where do we draw the boundaries to net art and media art? Or can we trust ZKM-director Peter Weibel, when he says that net art is also net literature? Is everything really net literature?

Basically, a model should remain as open as possible, so that it allows different views and changes. In recent years, several such models have been proposed. Norbert Bachleitner (2010) in his investigation, for example, divided net literature into five areas: 1 Hypertexts, 2 Multimedia texts (visual, kinetic), 3 Permutative generators, 4 Literary computer games, 5 Programme Code Poetry. For Bachleitner, the dominant element of a work is the criterion for inclusion in one of the five genres. This is particularly easy to show with hypertext. But as multimedia texts, Bachleitner classifies such diverse works as the concrete digital experiments of Reinhard Döhl, the narrative and sequentially visual Flash piece “Red Riding Hood” by Donna Leishman, and Mark America’s “filmtext”. Bachleitner uses primarily English-language works and, unfortunately, integrates only very few examples from the German-language area in his study. Collaborative projects and the literary blogger movement are completely missing. The whole thing is in itself still a fairly obvious division up to the genre of literary computer games that does not quite fit in. In this category Bachleitner mentions works that are mainly narrative Indie Games. These are projects from a different realm; they are not grown out of the net literature community, but originate in the independent developer community for computer games and also have a completely different audience. But if we question this category, there would be netliterary works that very playfully deal with their material and stretch out their tentacles towards videogames. Good examples are Frank Klötgen’s “Spätwinterhitze” (late winter heat), Susanne Berkenheger's “Schwimmmeisterin” (Bubble Bath) and Nika Bertram's “Kahuna Modus”.

As mentioned earlier, the Stuttgart-based artist and curator Johannes Auer crystallized the aspects “code, interface and concept” for the net literature festival in Stuttgart, 2005. These aspects may also be seen as a continuation of the network theory “Tech / Desk / Soz” by Reinhold Grether. Grether came up with these terms for net literature in 1998, but he tried to separate the individual aspects from each other. For Auer however, it matters at what level a project mainly works or communicates: at the level of the code that is brought to the surface of the work; at the level of the interface, the user interfaces; or at the level of the concept, the artistic concept as a guide to action. And unlike Grether, Auer understands these three terms quite as cooperative aspects of an artwork.

136 In 2003, Reinhold Grether deleted all his personal data and his texts from the Internet. Today, only a very few references to the extremely active net scientist Grether may be found. Some references to Grether's theory “Tech/Desk/Soz” for example can be found in: Heibach, Christiane. Literatur im elektronischen Raum. Suhrkamp: Frankfurt a. M. 2003.
“Code and Interface often behave antagonistically in the practice of net art and net literature. One side believes that hackers are the real artists, and the screen is only a secondary event, the other side considers the code as a mere means to an end and is convinced that the programmers are the artisans of the digital world. Code and interface are but two sides of a coin. The two camps are also connected by the dematerialization of the artwork as a product and thus are inevitably tending towards Concept.”

By and large, Hartling (2009) joins this model and goes on typologizing the individual genres (such as Codework) further. In doing so, above all, he emphasizes the dissociating authorship and the performance of net literary projects that have become increasingly important in the recent works of Piringer and Auer in the years since 2005. Auer and Hartling do not forget nor underestimate the subgenre of collaborative or concrentive projects which were rather important for the early development of net literature. Hartling is convinced that the communicative potential of the Internet is clearly reflected in the collective literary production. Consequently, Hartling suggests four genres of net literature under the dominant aspect of authorship:

(1) Classical Internet literature projects with a strong concept of author.
(2) Collaborative projects with a collective authorship model.
(3) Code Work with marginalization of the traditional concept of authorship.
(4) Net literary concept art and performative elements and 'dissociated' authorship.

From here it is a short step to outline the historical development of German language net literature and digital poetry. This paper divides net literature into five historical lines of development for the time being. Four of these may correspond approximately to the authorship allocations by Hartling, even if they are not really congruent. The classical net literature projects show proximity to the hypertext line. The collaborative projects can be found in the Idensen line, Codework corresponds to the Cramer line, and conceptual art with performative elements for one may be assigned to the Döhl line, but it is also found in the Cramer line as in the Idensen line. The fifth line is primarily a reduced version of the classic net literary projects with a clear focus on literary content and distribution techniques. Nevertheless, it should be considered here as an independent new line, which shows a strong literary commitment and opens new communicative perspectives to authors. In analogy to the outline of this paper, the following model of historical lines of development is suggested:

- **The Döhl Line** (Concrete Experiments)
- **Idensen Line** (Collaborative Projects)
- **Hypertext Line** (Idensen, ZEIT, Berkenheger, Klötgen)
- **Cramer Line** (Codework)
- **Blogger Line** (Herbst, Litblogs)

This historical analysis shows that these five lines of net literature are based upon two prior German strands going back to philosophical, poetical and artistic experiments in the 1960s: On the one hand, the Stuttgart School by Max Bense with exponents Reinhard Döhl and Theo Lutz, the latter producing a first example of digital poetry in 1959. On the other hand, the computer graphics experiments of 1960 and the punched-card linker projects by artists Kurd Alsleben and Antje Eske in Hamburg.

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137 Auer, Johannes. In: Literaturhaus Stuttgart e.a. 2005. (See: Footnote 60)
138 Hartling 2009, p. 31/32. (See: Footnote 32)
Figure 1 shows the two basic strands that were leading up to the development of digital poetry and net literature and the suggested five historical lines.

In Figure 2 prime examples of works shall be inserted as representatives of the five respective historical lines and their emerged present lines. The tables of the reduced model show that the development of digital poetry is progressing and may indeed allow finer subdivisions, now and for the future.
In figures 3 and 4, international influences on the development of net literature in the German speaking world are outlined. It is striking that the authoring software Storyspace that was very important for English-speaking writers, had been virtually unknown and had no practical influence on the development of electronic literature in Germany. In the mid-1990s there was only one attempt to translate Michael Joyce’s work “Afternoon, a story” by Doris Koehler at the University of Bremen. Otherwise, there were only a few scattered trials to use Storyspace in workshops like the one the author of this essay did at the University of Zurich in 1997. In contrast, Apple’s HyperCard was used from the outset and became a popular tool among the first writers in the circle of Alsleben and Eske in Hamburg. But most important was probably the cross-fertilization of the exponents of concrete poetry like Noigandres, Oulipo and the Stuttgart school, which had already started in the early years of the 1960s and certainly continued throughout the 1960s and 1970s into the 1980s and early 1990s.
Figure 3: Integrating international influence on to German-language net literature/digital poetry.

Figure 4: Interactions between the individual lines of development.
Epilogue

Finally a few remarks on the very interesting thesis by Patricia Tomaszek (2011) that the German net literature has failed in particular to the lack of post-processing:

“Critics are tasked with not only understanding a work of net literature but also with contextualizing, explaining, and critically discussing it. In Germany, critics from the literary tradition failed in giving an appropriate account to the new emerging field.”

The literary world in Germany, Austria and Switzerland has never really given a chance to net literature. The new movement was ignored from the start and suppressed by the critics. The exceptions that few authors of net literature had been added in mainstream literary competitions like the televised public readings for the Bachmann Prize in Klagenfurt, including Martina Kieninger and Nikolai Vogel, unfortunately only confirm the rule. In contrast, some exponents of literary studies, such as Uwe Wirth, Friedrich Block, Reinhard Döhl, Johannes Auer, Roberto Simanowski, Georg Tholen, Peter Gendolla, Jörgen Schaefer, Christiane Heibach, Florian Hartling, Fotis Jannidis, Simone Winko, Jürgen Daiber, Georg Jäger, Thomas Dreher and others, were very much preoccupied with net literature for years.

“Nowadays, only occasionally competitions take place. The honored works are of quality but the impact of these competitions is low and does not reach many recipients. Additionally, there is (almost) no post-processing devoted to works of German net literature anymore. In fact, net literature in Germany became as invisible as its community.”

The contests were indeed more important for the German-language net literature, but this literature may also work without awards and competitions, as the American community of electronic literature shows us so well. Competition always means selection due to certain criteria: separating the wheat from the chaff. Net literature has grown up, so now, it prefers other public vehicles. In recent years, the competitions were replaced by net literature festivals (for example: “Literatur und Strom“ (literature and electricity): 2005, 2008, 2009 and 2012 in Stuttgart’s Literaturhaus), events and exhibitions that entail quite a bit of post-processing, both in the press and in periodicals.

“[...] the international community is strengthened by post-processing activities carried out through i.e. the bi-annual festival “e-poetry”, the international Vinaròs Prize for digital literature, and the endeavours by the Electronic Literature Organization [...]”

Tomaszek argued that events such as the Vinaròs competition strengthen the post-processing effects in the international community. There, the American author Stuart Moulthrop and the Australian Jason Nelson won two awards each in 2006 and 2008. However, the German author Susanne Berkenheger won the very first award in 2005. The fact that her work “Bubble Bath” in English – previously exhibited in Amsterdam –

139 Tomaszek 2011. (See: Footnote 4)
140 Ibid.
142 Tomaszek 2011. (See: Footnote 4)
was a translation of her piece “Die Schwimmmeisterin”\(^{144}\) from the year 2002, escaped the attention of most members of the international community. The awarding of “Bubble Bath” shows that the German-language net literature may well claim its place in the international scene. But even such a remarkable prize did not draw more attention from the international community. Berkenheger had some engagements after, but she has not been invited to any events in the wake of ELMCIP. The Electronic Literature Organization published a first collection of electronic literature in 2006 that consisted of 60 selected works\(^{145}\). There are only two non-english works by French authors Philippe Bootz/ Marcel Frémont and Patrick-Henri Burgaud and one translated work by the Finnish author Marko Niemi that found acceptance in the collection. The Electronic Literature Collection 2 which was released in 2011 consists of 61 selected works\(^{146}\), three of which from German-speaking countries: Susanne Berkenheger’s “Bubble Bath” in the English version, Christoph Benda’s “Senghor on the Rocks” (in German) and Joerg Piringer’s “soundpoems” (language not relevant, but the sounds are intoned in German). There is a stronger European showing in Collection 2. There are Spanish and Portuguese authors to be found in this collection and two French works. The keyword index shows that 11 of the 61 works are either “multilingual or non-english”. This may probably be due to the involvement of the Catalan researcher Laura Borras, the initiator of the Vinaròs award, in the selection process for Collection 2.

Jörgen Schäfer is co-founder and exponent of the Siegen research project media upheaval. Since 2007 his job has been to research net literature. In his speech on “Search of Sustainability”\(^{147}\) at the ELMCIP meeting in Karlskrona 2011, he pointed out that many of the German “scholars” from the electronic literature realm either migrated to other countries or to neighboring disciplines or, in recent years, they have refocused their research topics considerably. According to Schaefer, the reason for this shift may be the failure of establishing electronic literature in academic teaching at the universities in Germany, Austria and Switzerland. In particular, it has not been possible to integrate the electronic literature into the curricula of the German literature and language departments, although several bold attempts had been made: at the Universities of Munich, Zurich, Hamburg, Hannover, Hildesheim, Stuttgart, Giessen and Siegen. The individual scholars were therefore forced to adjust and change the orientation of their research and teaching topics, just in order to survive and continue their career in the academic environment. Their focus would be forced to deviate from net literature to neighbouring fields like media studies, art history, interdisciplinary studies, or game studies.\(^{148}\)

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\(^{148}\) A very good example for this are the members of the study group “Hyperfiction/Netzliteratur” under Professor Michael Böhler at the German department of the University of Zurich. The group existed from 1997 to around 2004. None of the seven core members of the group today have a job in a German department, even though all of them have a ph.D. or/and a Master degree in German literature and linguistics. Today, five of them work for University of the Arts in fields like Game Design, Game Studies, Linguistics, Art Mediation and Education. Two work as journalists. The next academic generation did not have a chance to get a job inside German departments with their focus of topic on electronic literature.
The proclamation by the old media that German net literature was dead, set in around 2004/05. This was also the time when observers noticed a sharp drop in post-processing. Print press, radio and television criticized the disappearance of net literature. But as so often, the media did not look closely enough. Thus, it is not the lack of new net literature, but the lack of reviews and the lack of academic analysis and discourse that caused a death rhetoric. And reviews and analyses are missing because experts migrated into adjacent areas to secure their own professional existence, as Schaefer rightly noticed. Also closely correlated with the declining post-processing approach is the new alignment of important vessels and instruments of German literature towards Anglo-American projects and events and towards media art and game studies. A good example is the online journal Dichtung Digital, that devoted itself almost exclusively to German-language net literature until 2002. From 2003 on, Game Studies, Media Studies and discussions and reviews of Anglo-American electronic literature have been dominating the magazine. Other magazines such as Literaturkritik.de (with issue 4/2000 on net literature) and the dedicated Munich-based project IASLonline moved away from net literature toward processing of well established literature and its connection to Internet and digitalisation in their online vessels. For example they forced a discourse on electronic editions and publications of traditional writers’ works and oeuvres.

Since about 2004, the experts primarily focus on international works. In most cases this means that they deal with American, British, Canadian and Australian works. They may include some works from other areas like Scandinavia, if they are written in English. This tendency may be observed especially well in the online magazine Dichtung Digital and in the publications on net literature and media art by the research project Media Upheaval (Medienumbrüche) from Siegen. The book “Beyond the Screen”, published in Germany in 2010 by Gendolla and Schaefer,\textsuperscript{149} consists of a total of 24 papers (all in English) with 560 pages. Only three of those essays with a total of 50 pages deal with the topic of German-language literature. The two books, “The Aesthetics of Net Literature” \textsuperscript{150} and “Reading Moving Letters” \textsuperscript{151}, also published by Schaefer and Gendolla, similarly feature predominantly Anglo-American electronic literature. They contain some comments and marginals on German-language projects. No more than three papers per book – including an essay by Susanne Berkenheger – have some paragraphs that deal with German-language works and topics. Dichtung Digital as the key online magazine for net literature and digital poetry, features only very few articles on German-language net literature from the year 2003 on. An estimate suggests that just 10 percent of the content deals with German-language net literature. This development is quite logical: By addressing the international community reviewers and scholars are able to reach a larger audience. There is more potential for appreciation and new opportunities for development to open up, and possibly there are new career opportunities with the international community, since institutions and universities in Germany, Austria and Switzerland do not offer any careers for experts of net literature. Above all, Dichtung Digital and the research project Media Upheaval by the university of Siegen were able to establish themselves in the last five years with cooperation and

\textsuperscript{149} See: Schäfer, Jörgen and Peter Gendolla (eds.). Beyond the Screen. Transformations of Literary Structures, Interfaces and Genres. Bielefeld: Transcript Verlag 2010.


participation in major international events. On the other hand, they are not directly involved in the European network of ELMCIP. Of course, it is in everyone's interest to find a lasting international connection. On the other hand, net literary productions in one's own language area should not be forgotten or ignored. Instead it would be important to put projects from the German-speaking world into an international context and make them better known. Unfortunately, this was completely ignored in recent years. One very notable exception is Friedrich Block with his "Poes1s" exhibitions and the event series "3 by 3" (3 durch 3). Block tries to integrate the German digital poets into the international context. In "3 by 3" he brings together three artists from three different countries and lets them perform and discuss their poetry. As an example, on February 9, 2012, he brought together the well-known French computer poet Philippe Bootz, the German slam poet Bas Böttcher (author of "Looppool") and the Swiss net artist René Bauer (AND-OR) performing at the Kunsttempel in Kassel, Germany.152

At this point, a reappraisal of the curatorial and academic occupation with net literature in the German-speaking world would be important. Over the years, scholars sent out very strong requests for attention in their studies of net literature and digital poetry. Unfortunately, this article can't accomplish this, but it can refer to an excellent study that deals with this important aspect of the history of German-language net literature: Florian Hartling has precisely done this in the introduction to his unique and meticulous investigation in "Digitale Autorschaft" (Digital authorship). On ten pages of his introduction, Hartling discusses "research literature on the phenomenon of net literature and authorship in the Internet"153 (2009), works through all the researches on net literature and its German-language discourse and paints an accurate picture of the status of net literature. Hartling's chapter on research and also his whole study on digital authorship may serve as a useful foundation, if it comes to the question of vitality, importance and appreciation of net literature.

The critical historical perspective of Tomaszek's154 article is unfortunately solely founded on the competitions by the magazine DIE ZEIT from the years 1996 to 1998. These three events, important as they were at that time for the development and discourse, make up only a small part of the whole German-language net literature. Fifteen years later, we should find it easy to look back on these contests with a critical eye and be better aware of what was happening at that time and subsequently. That is what this essay attempts – and not just with a chronology of events that would be more than appropriate here, but with a reappraisal of the development lines of German-language net literature and digital poetry, that may show better how many different works emerged and continue to emerge. In this respect, the history of German-language net literature is far from finished, only now has an awareness been achieved among scholars that there is an interesting line of development there that may progress further. The defined and described historical lines of development of net literature and digital poetry no doubt lead to further motion, extended, supplemented, amended, revised, and perhaps even overthrown and rewritten lines of development. The authors, coders and performers are raising the banner and will continue to hold it high!

153 Hartling 2009, p. 12 – 20. (See: Footnote 32)
154 See: Tomaszek 2011. (Footnote 4)
// Note from the author. //</br><br>This paper has been created at the suggestion of Markku Eskelinen. Together with Giovanna di Rosario, in a ELMCIP research project at the University of Jyväskylä, Finland, he endeavours to get a plausible overview of the electronic literatures in Europe in their respective language groups.<br><br>The essay of Patricia Tomaszek who attempted a first analysis of the history of the German net literature in 2011 under the title “In Exile of the Invisibilty” was inspiration and motivation to start a discourse on this issue.<br><br>The author is grateful to Johannes Auer and Florian Hartling, who discussed the project of an empirical history of German-language net literature with him in detail and offered useful support with advice and critical feedback.<br><br>A German version of this paper will be available on Netzliteratur.net. The English version was written for the Finnish Cybertext Yearbook, issue 2012.<br><br>The author is grateful to Jane Bishop and Helen Hirst for proofreading the English version.<br><br>In addition, together with Johannes Auer and Florian Hartling, the author may plan a reader on the history of German-language net literature with existing texts from the past two decades, based on the historical lines that were outlined in this text.<br><br>// In February and May 2012. //</br>