

# **Teaching Electronic Creative Writing: A Report from the Creative Industries Frontline**

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Whether or not books and other traditional literary technologies survive, the dominant medium in the foreseeable future will be electronic, digital, with the Internet the probable universal provider. I anticipate that literary artists will gravitate toward this powerful medium. But if they do not, if literature does not in fact find a place there, then the vast majority of the human race will simply do without it, and thus, whether the new generations know it or not, they (all of us) will be greatly impoverished.

– Robert Coover (qtd. in Electronic Literature Organization 2003)

## **Introduction**

Since 2000, we have developed and taught a course at Queensland University of Technology (QUT) in Brisbane, Australia: *KWB370 – Electronic Creative Writing*. The course has run in each first semester (February-July) since then, as part of the undergraduate Creative Writing degree and is now offered to postgraduate students as well. The course was developed partly in response to demands for more technological literacy skills to be embedded in key courses across the university, but a more significant motivation was our desire to embrace, represent, and contribute to the then still-emergent genre of literary hypertext as a valid and viable option for writers both as creative artists and industry professionals. This desire was also in line with our home faculty's re-orientation from a Faculty of Arts to a Creative Industries Faculty, which includes a strong interest in professionally relevant graduate outcomes and with QUT's overall focus on providing its students with skills useful outside academia.

Although hypertext writing has been taught in U.S. colleges for almost a decade, we could find few Australian models apart from the visionary work of the Media Studies programme at Royal Melbourne Institute of Technology, Melbourne, which has been teaching hypertext theory and practice since 1995, and the School of Arts, Griffith University, Gold Coast, which has also offered a CyberStudies major within its undergraduate Creative Writing degree since 1999 (Zervos 2001). While we were interested in these local and overseas approaches, we also experienced this relative lack of models as an advantage, enabling us to explore the teaching of what we knew was a new media art form in an equally new way. We felt, and remain, excited and privileged to be working in such new territory. While the existing body of literary hypertexts (as well as the critical and theoretical work on them) is growing, we

were always cognizant that the recognised first literary hypertext experiment, Project Xanadu, was only imagined by Ted Nelson in 1960 and not really published until a decade later (Project Xanadu 2003).

Although certainly admirers of such past achievements, as well as the vibrant current state and future potential of literary hypertext, we were not working from a blindly utopian position. In developing and later reworking this course, we have kept in mind hypermedia author Michael Joyce's warning that:

[I]n coming to teach with and talk about electronic forms of writing and discourse we must be aware of our desires and wary of what we are rapidly becoming used to in their representations, for what we are used to we often become used by. (1998: 164-5)

In other words, there is a danger in limiting the inherent possibilities of hypermedia writing through the very act of teaching it. This could happen if the teaching methods and tools used solidify into a set of routine practices that do not encourage conceptual, practical, and theoretical exploration by the students, or expect students to aim for a narrowly defined standard creative format. In our view, the best way to avoid such stagnation is to combine practical, skills-based work that can provide a production framework without limiting creative opportunities with a theoretical and critical approach that looks at hypertext both as an industry and a creative genre. In the design of this course, this meant that we wanted to enable students to acquire the skills to locate, analyze and critique, as well as write and publish literary hypertexts. Thus, from the beginning, this course aimed at three kinds of students: those who wanted to work towards vocations involving professional writing in industry or the professions, creative artists, and those planning a portfolio career mixing the two.

### **Defining Electronic Creative Writing**

The range of creative writing formats on the World Wide Web is broad and varied. It includes forms from relatively basic multilinear storytelling in the "choose your own adventure" mode to multimedia-enhanced hypertext poetry to immersive 2D or 3D virtual reality environments that are used for digital storytelling. Additionally, of course, the subject matter and literary styles in hypertext writing are just as varied as those in other forms of creative writing and run the gamut from poetry to prose fiction and nonfiction. Although using a hypermedia platform and sophisticated IT infrastructure, we chose the name *Electronic Creative Writing* because we wanted a key focus in the course to remain on the content creation component of literary hypertext writing (seeing this course as "creative writing" as much as "electronic" and our students as content creators for digital media first, and electronic publishers second).

In designing a course to teach electronic creative writing, it was first necessary to arrive at a working definition for this form of literary hypertext production. More specifically,

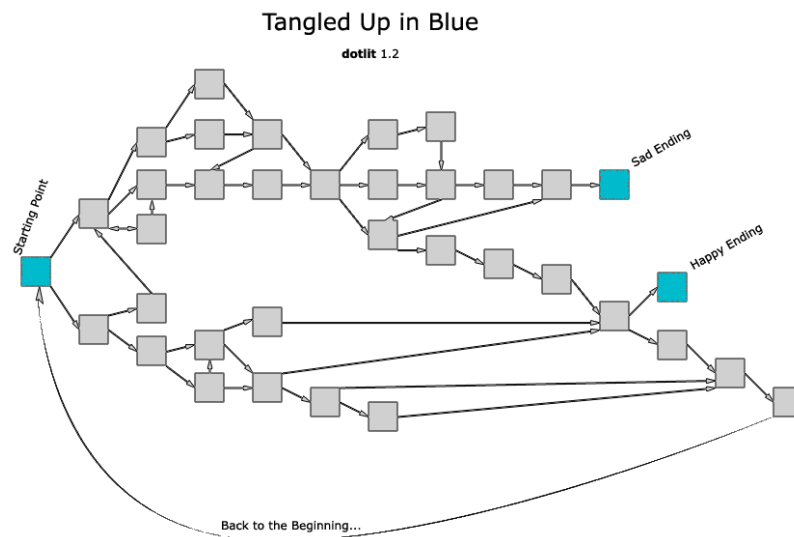
we define electronic creative writing as *creative works whose constituent lexias are arranged in multi- or non-linear patterns using the interconnection mechanisms of networked electronic media* (namely, hyperlinks in HTML). This definition breaks with the traditional linearity of print (as well as radio and TV), where texts are by and large encountered in a sequential manner. Here the work of Roland Barthes was highly useful. In *S/Z* (1974), Barthes explores and dismantles the common assumptions of print storytelling and breaks down his source text into its constituent elements. These elements, which Barthes calls 'lexias', are the "blocks of signification" (13) that join together to create a coherent story and, as hypertext scholars such as Ilana Snyder (1996) have pointed out, they are also the basic units of hypertext writing. So, in converting a print piece to hypertext, one would break it up so there is one lexia per hypertext page and link these together sequentially. In order to create a multilinear story based on this linear source, one could then add further storylines that branch off from selected lexias, returning eventually to the main storyline or developing into entirely new narrative territory.

Explaining creative hypertext writing in this way means that we are not confronting our students with an entirely new mode of writing but, instead, are building on their established knowledges and expanding these further to suit the new medium (in fact, this is not unlike how linear stories themselves may be expanded into multilinear pieces). However, this does not cover the entire range of possibilities offered by electronic creative writing and so our definition also extends further to include hyperfiction forms which break with linearity altogether. The course is offered in the final year of studies in order to utilize the practical skills and conceptual background students have previously acquired in writing linear narrative. This positioning is important, as the course presupposes that students understand what traditional linear narrative is, and have had extensive practice in writing traditional linear narratives. The class does not have to spend valuable time defining traditional narrative, and can build on and expand these knowledges and abilities. The lexia model remains useful even for these texts as single pages tend to continue to contain topically unified segments of such pieces which are then linked to other segments in a variety of ways. Further, by pointing out that blocks of signification can also be non-textual (in the narrow sense of the word, meaning literal text), we are also able to account for images, animations, and sound and video elements that some students may hope to include in their works.

Key representative examples used in the course include Eileen Salisbury's "Tangled Up in Blue" (one of the first hypertexts produced by a student in the course) and Geoff Ryman's hypertext novel *253*. These texts are used to demonstrate the wide range of lexia arrangements that are possible even with relatively basic hypertext design skills. "Tangled Up in Blue" presents a multilinear love story (see the lexia map below) that depending on the reader's choices may take one of several paths towards a "happy" or "sad" ending, or could return the reader to the start of the piece for a new iteration. This model is perhaps the most common for multilinear hypertext storytelling. By contrast, *253* breaks with linearity altogether: here, one lexia is allocated to each of the 253 passengers of a number of carriages on the

London underground, and describes that passenger's outward appearance and current activity or thoughts. These lexias are connected in various ways, along lines of shared activities or attitudes, or simply because passengers are sitting next to each other. Therefore, in navigating 253 readers develop their own storylines much as occupants of a real subway carriage might do as they imagine the lives of their fellow travelers. While the fundamental idea for this form of hypertext is very simple, the strong effects that pieces based on this model may nonetheless have on their readers help demonstrate to students that content, not technical skill, remains the crucial factor in writing creative hypertexts.

Because of the networked nature of hypertext works, we also stress very strongly the use of lexia maps in analysing and developing electronic creative writing pieces. While more linear texts can usually be represented in the form of an outline, with headings and subheadings, such representation is less useful for multi- or non-linear works as such texts create a network of elements that can be traversed through a variety of alternative pathways. It must also be kept in mind that HTML links are generally uni-directional (unless we take into account the 'back' button on Web browsers), which means that readers will move through a hypertext on their own account, but largely using one-directional connections made by the text's author. Lexia maps (see below) therefore must also show the direction of any connections between lexias, to enable us (as teachers and editors) to identify the paths through a hypertext piece that are truly available.



**Figure 1: Map of “Tangled Up in Blue” by Eileen Salisbury; text published in *dotlit* 1.2 (2000) <<http://www.dotlit.qut.edu.au/200002/tangled.html>>. This map is used in lectures to demonstrate multilinear storytelling.**

### **Working within a Creative Industries Environment**

From its conception, *Electronic Creative Writing* was compulsory for students enrolled in the undergraduate Creative Writing degrees (now renamed the Bachelor of Creative

Industries and the Bachelor of Fine Arts). *Electronic Creative Writing* is in line with the fundamental motives for the establishment of Creative Industries at QUT (which in 2002 superseded the previous Arts Faculty). Many graduates in arts and media fields increasingly find themselves in jobs that require a vast range of distinct, but interrelated, skills across the so-called creative industries (those industries centred around activities based on individual creativity, skill and talent, and that have the potential for wealth and job creation through generating and exploiting intellectual property). The new degree structure in the Bachelor of Creative Industries degree options available recognizes this by breaking down students' allocation to only one or two discipline areas during their studies, replacing this with inherently interdisciplinary degree offerings where students cannot help but encounter common issues of importance to *all* creative industries practitioners (such as questions of how to develop or enhance their personal creativity, to apply it in a practical and commercial setting, to explore new media production and transmission modes, and to work interdisciplinarily in convergent and hybrid media contexts) as well as experience aspects of a wide variety of CI disciplines. So, in our course, students work within varied disciplinary approaches of (chiefly) creative writing and communication design as well as visual arts, communication, and media studies, an experience that stresses the importance and value of acquiring interdisciplinary skills.

In line with this approach, this course is team-taught by staff from the disciplines of Creative Writing, Media & Communication, and Communication Design—each discipline contributing essential skills and key knowledges to the course. We also believe team teaching sets up a dynamic of approaches that sometimes compete or contrast, underscoring the range of choice for possible writing and publishing strategies. Thus we consciously incorporate a high level of collaboration into the course's teaching and learning strategies. Peer review and workshopping is a central methodology used to generate increased self-awareness of problems and possibilities, and collaborative work often comes about spontaneously in the laboratory sessions where students frequently assist and advise each other.

Students are also able to see some very practical uses for their newly developed content-design synthesis skills in the "real world" workplace, where many creative writing students (as other graduates) will work in, or with, electronic media. One very practical outcome for many of our students is the publication of their finished work in *dotlit: The Online Journal of Creative Writing*. At the start of 2000, early conceptual work on this course coincided with, informed, and was informed by the development of this online journal (located at <http://www.dotlit.qut.edu.au/>). *dotlit* is a refereed twice-annual journal publishing poetry, fiction, and creative nonfiction as well as commissioned works and reviews; Axel Bruns, a co-founder and Web developer for the highly successful *M/C Journal* and its companion publication *M/C Reviews* (<http://www.media-culture.org.au/>), served as the chief designer. While not primarily a student journal, each year we select the best hypermedia works by students in *Electronic Creative Writing* to be published in *dotlit* (and the page templates used by students are already prepared to enable a speedy transition from final student projects to

publication in the journal). This publication of their work in a refereed academic journal constitutes a very useful CV reference for the selected students, of course.

### **Course Content Structure**

Early experiences with hypermedia work published in *dotlit* made it clear that teaching electronic creative writing would need to include conferring basic skills in the industry standard Web design application Macromedia Dreamweaver. However, in designing *Electronic Creative Writing*, one of our fundamental principles was that we would value content over design. Such a concern emerged out of an observation that in many hypertext and hypermedia *design* courses students were primarily taught practical literacies in key design tools such as Dreamweaver, Flash, and Photoshop while failing to address the fundamentals of effective story development, or that they covered such content development issues as little more than an afterthought. Students focused on building their skills in the relevant applications without considering the uses of programme functions for their own creative work, and only later would devise a more or less creative piece to showcase as many of their newly acquired design skills as possible. The resultant works would often be technically impressive but creatively inconsistent and uninteresting.

In order to avoid such pitfalls, students in *Electronic Creative Writing* focus on the creative development of their story ideas for throughout roughly the first half of the semester, *before* they enter the computer labs. Therefore this course is not concerned first and foremost with teaching hypermedia design *literacy*, but rather with what might be termed “hypermedia design *creativity*”. While this must necessarily include teaching some design skills, we consider such to be secondary to solid content development skills. Such an approach is also in line with the overall placement of this course in the various curriculum options that are now offered through the Creative Industries Faculty: increasingly, many incoming students will have developed some hypermedia design knowledge already through an earlier course (*KKB818 – Introduction to Multimedia Technology*) and will have also attended introductory creative writing courses. We can therefore focus on interweaving and enhancing existing creative and design skills.

In essence, then, our course takes in a group of creative writing students (many of whom have little or no experience in reading, let alone writing, literary texts on the Web) and ends with a group who can not only plan, develop, create and publish their own literary hypertext works, but can also locate, analyse, and critique non-linear hypertext narratives and possess an informed perspective on the electronic publishing industry. Our students focus on the conceptual rather than the technological; instead of relying on design gimmicks, *Electronic Creative Writing* student pieces such as “Townsville” by Daniel Pollard or “Pax” by Diarmid Bartlett” (both published in *dotlit 1.2*) use only basic formatting options (font faces, font sizes, italics, bold) to create an array of various document types in their lexias, which taken together develop into intriguing stories. Even the more elaborately designed “escape” by Kerri Ullrich

(*dotlit 2.1*) uses only HTML layers and various font formatting effects to display its hypertext poetry. Lexias in these pieces were developed by their authors as textual constructs and part of a greater whole, and only then implemented using the appropriate hypertext design technologies.

The content of *Electronic Creative Writing* is therefore divided into two parts, the theory and practice of creative hypermedia *development* (or perhaps more precisely, the theoretical and conceptual work that underpins electronic creative writing) in the first section and the practical and technical *writing and design* work in the second.

### *Theoretical and Conceptual Work*

Very early in the course, our students are asked to begin to develop their story concepts (“story” here being used in the widest possible sense, as the range of acceptable works contains not only hyperfiction, but also hypermedia nonfiction, poetry, and other Web-based installations). We encourage the exploration of a great variety of published creative hypertexts, from the classic *253* to works by Stuart Moulthrop, Michael Joyce, and other noted authors, and also to include the large number of hypertext works we have published in *dotlit*. Regardless of their technological support structures, these works serve as inspiration for our students’ own story ideas, and we ask students to examine their narrative structures rather than the technologies used to create them. Again, this reflects our fundamental view that encouraging students’ creative exploration must come before their application of technical skills.

In particular, the theory component of the course involves a discussion and investigation of non-linear literary narratives on the Internet and in non-electronic forms. Alongside the students’ examination—critiquing, reading, planning, and writing of non-linear narratives—students also engage in a program of reading and class discussion which addresses electronic publishing as an institution, looking at its short history, its current operation, and its possible futures. Students note that electronic writing is highly “malleable” and allows for mixed modes of writing: authors can theoretically change already published works, publish their comments alongside fiction or nonfiction texts, and can easily include links to (their own, or other authors’) published works. A sophisticated advantage of hypertext writing often identified near the end of the course is that non-linear writing can encourage non-linear thought. Thus, even students who do not want to pursue further work specifically in hypertext writing feel that they have increased their creative capital and abilities.

As a class we engage in wide-ranging discussions about films, television programs, and computer games which feature non-linear modes of storytelling. This allows students to begin to list various nonlinear narrative strategies and to analyze the ways nonlinear forms function in each of these texts as well as the various creative, artistic, and interactive possibilities they offer authors and readers. The class usually has a common knowledge of a body of relevant media texts which may include films such as *Groundhog Day*, *Sliding Doors*,

*Memento*, *Magnolia*, *Run Lola Run*, *Rashomon*, and television shows like *24* and *Boomtown*. In these discussions, students also begin to discover which types of nonlinear narrative appeal to them and what kind of stories they are interested in telling. The most popular of these approaches feature multiple story lines, multiple points of view, multiple or indeterminable endings, circular story forms, the ability to display characters' inner thoughts, and temporal and spatial dislocations as well as the inclusion of multimedia forms and graphic design elements that function beyond "illustration" to become story-telling elements in themselves. Students often identify the labyrinth, maze, quest, journey, or encyclopedia/library as ways in which they are thinking of their story at this stage, and some begin to express the desire to use their work as a metatextual comment on the form itself.

We move quickly from students' own experience of "choose your own adventure" books to use Murray Bail's novel *Eucalyptus* (1999) as a text for class discussion. At heart, *Eucalyptus* is about stories and storytelling. We look at the various stories and how each works as both a complete tale in itself and an intrinsic part of the novel as a whole. We count up how many different stories are told (there are more than 200) and discuss how these are linked together. Students then work in groups to map these stories and their linkages, each group coming up with their own schematic way of expressing this. The issue of devising a beginning, middle, and end (one of the traditional definitions of a story) is also discussed and interrogated in relation to the non-linear hypertext story.

About a quarter of the way through the semester, students also begin to work on their story proposal, including a lexia map of their finished work, and then draft and rewrite several versions of the content of their story. The development of the proposal and the various drafts of the content are undertaken both individually and in class with feedback offered within a series of peer review workshops and written feedback from staff (on the proposal) and oral feedback (through an in-class workshop) on this content. Basically, students are asked to present their proposals to a small group and "pitch" their idea. The other students locate the strengths and potential weaknesses in the proposal, commonly identifying where the story is still actually linear, where the progression through the work seems unsatisfactory, or where the student has been too ambitious in the number of storylines, characters, technical elaboration, and other aspects of the work.

#### *Practical and Technical Work*

While content development is under way from the early stages, we only introduce the technology of electronic creative writing when students have already begun to sketch out some of their ideas and need to begin to explore how such ideas may be realized. Here, again, however, we prevent students from simply applying available technology to their story ideas in a way which would lead to creative ideas being subsumed by students' growing technical skills. Rather, the technologies of Web design (and to a lesser extent graphic design) are introduced but kept separate from the creative work.

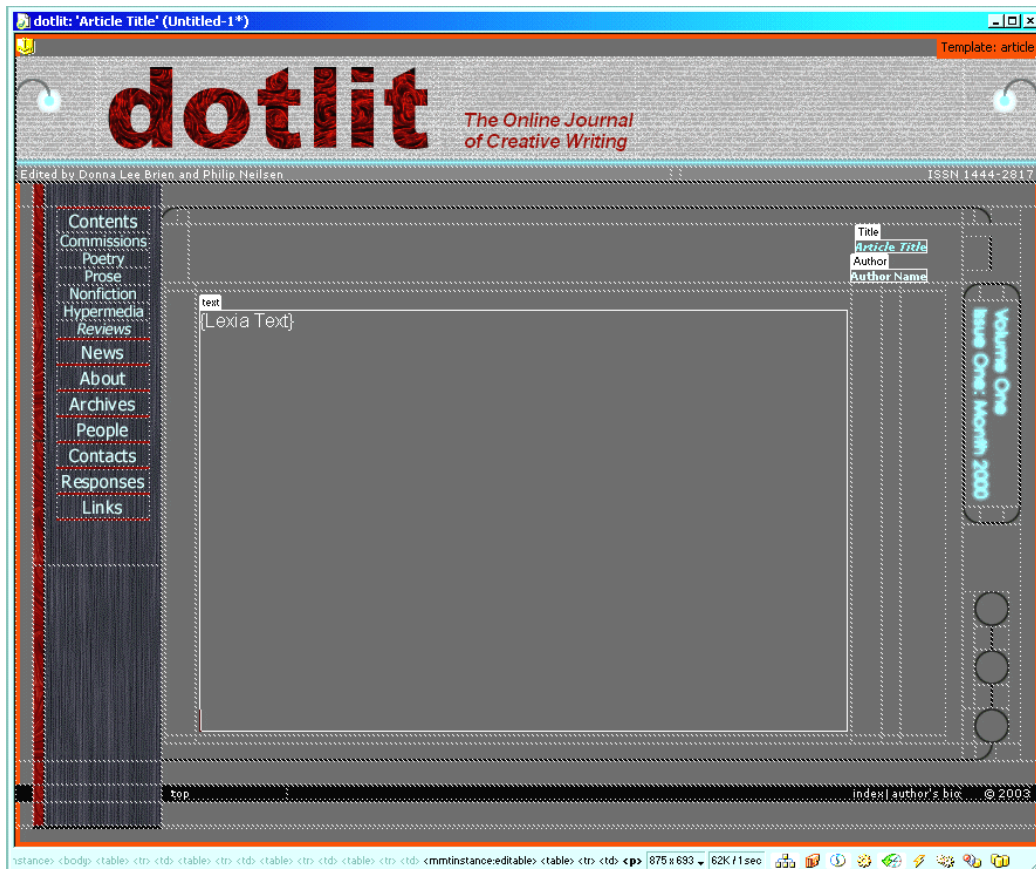
Teaching the practical aspects of creative hypermedia work for the Web begins with a workshop in week four of the semester. In this two-hour computer lab session, students are introduced to Dreamweaver. During this session, however, we make no direct reference to students' own creative work, nor to the page templates which will ultimately be used in the creation of students' hypermedia pieces. Rather, we introduce basic tools for hypermedia development in Dreamweaver (focusing on text formatting, image use, and hyperlinking) and also briefly explore the underlying structure of the HTML code which is created in the process.

While in the following weeks the focus of teaching returns to theoretical and critical issues and creative content development, students are expected to explore the tutorials included with Dreamweaver in their own time during these weeks – either in the labs or by using the free 30-day trial version available from Macromedia on their private computers. They are asked *not* to begin the design work on their main project and, indeed, cannot do so without an introduction to the page templates that they will need to use. Again, this serves to focus students' creative energy on story development in and of itself, rather than compromising their creative work by tying it too closely to technological foundations. However, their developing practical skills can now begin to inform their development of the structure of their works, and they are better able to judge the feasibility of their creative ideas.

Students return to the computer labs in week eight. Following a lecture the week before on translating the structure of their stories into a hypertext page structure, and, having submitted their story proposal including a structural map of their intended lexias, students are now able to begin work on converting the creative content of their stories into hypermedia works. This class introduces the *dotlit* page templates which will be used to create these pieces.

The page templates themselves serve a number of purposes. They do of course enable an easy transition of selected high quality student works into future issues of the journal. Furthermore, they also provide some basic common structures which are highly valuable to students confronted for the first time with creating hypertext works. The templates prescribe certain fundamental layout and formatting conventions, including the font, color scheme and overall page layout. This means that students are able to build on an existing design paradigm rather than having to devise their own; the use of ready-made templates also removes a need to teach students how to create their own templates within Dreamweaver. At the same time, there remains considerable design flexibility *within* the overall design and this can be utilised by students where appropriate.

Fundamentally, the use of templates highlights the questions about design choices that students will have to address in creating their hypertexts. When are alternate font faces, font or background colors, or other formatting choices appropriate? What purpose do they serve? How do they contribute to effective storytelling? Whereas starting from a blank page may encourage students to experiment to a point where stylistic effects can overwhelm their content, beginning within a common template ensures that introducing of idiosyncratic design elements is properly justified.



**Figure 2: The *dotlit* template, highlighting three editable areas: story title, student name, and body text. Inside the body text area, changes to font and background colors, font faces, and other formatting options are enabled. (Dreamweaver screenshot)**

After this first template session, students are able to transfer any already completed text for their story lexias into the page templates and to continue this process outside class. During this transfer, they will also encounter further problems where text that seemed effective in the word processor is unconvincing in its new format and needs to be reconceptualized: formatting in word processors is fundamentally geared towards the printed page, while hypertext must be designed for the screen. This means students must adjust to a different page format (landscape rather than portrait), and a light-through rather than light-on medium (where color combinations such as light text on dark background are possible and common). The screen-based medium also introduces a desire to avoid excessive page scrolling; such formatting concerns are further complicated by the fact that screen resolutions and browser window sizes may vary significantly from one reader to the next, which means that authors cannot and must not rely on the availability of specific display space. Additionally, students are able to explore formatting options where appropriate, for example by displaying different points of view in different fonts or colors, or by formatting different document types within their piece in different ways. Students may also want to include images or sounds.

Any problems are dealt with in subsequent lab sessions during weeks nine through thirteen. Week nine focusses on linking together the lexias that have been created, and on evaluating the effectiveness of intended lexia structures. Much of the teaching work in these weeks consists of working with students individually by providing help and advice where problems occur and by catering to specific needs such as help with scanning and editing images or creating basic animations using Flash, Photoshop, or similar software. For smaller groups of students whose knowledge is advanced enough and whose projects warrant this, there is also an opportunity to learn further Dreamweaver skills. For example, students might learn how to use layers or cascading style sheets to create specific effects in their hypertexts. During these weeks, there exists no set lesson plan and teaching staff must respond to student requests as they emerge. Clearly, this requires a well rounded knowledge of Dreamweaver and other applicable softwares. Again, in these lab sessions students also frequently develop and apply their skills by helping one another and commenting on one another's works. We facilitate this interaction by instigating a round of peer review of students' works in progress by asking them to swap places with a fellow student to critique their work.

### **Assessment Approach**

Our assessment approach largely mirrors the overall focus on content *and* design. Assessment-wise, students are first asked to complete a purely analytic assessment item, which requires them to evaluate an existing piece of creative hypertext work on the World Wide Web (excluding pieces published in *dotlit* for obvious reasons). Their analysis is shared with the class in brief oral presentations in weeks 3 to 7. We teach in a multimedia-equipped classroom, so students can locate and project the site to illustrate their analysis, which is later also submitted as a written assignment. If suitable, this analysis may be published in the reviews section of *dotlit*. This exercise aims to improve students' knowledge of the range of existing hypertexts, enabling them to critically engage with the various pieces they find, to identify genre possibilities and limitations and locate some inspiration for their own work. This reviewing task also helps students identify potential publication venues for future work and is a key step in the development of critical skills that can then be directed to their own work. This hypertext analysis exercise is worth 25% of the total marks for the semester. It should be noted here that reviewing has already been an assessment item in a previous (and compulsory) course, so students begin this task with a set of standard skills in this area.

Students must also submit a project proposal by week eight. This proposal outlines both the creative content of their suggested piece and its hypertextual structure and must include a graphical map of their intended lexias. Beyond its immediate role in assessment, this map is a key visualisation tool for students and teaching staff. It helps students identify possible pathways a reader can take through their piece and how individual elements of the piece connect to one another. It also enables students to keep track of what work they have done already and what is yet to be completed. The map also allows teaching staff to get a

clear overview of the project, to evaluate its scope, and, especially, to ascertain that the project proposed truly moves beyond basic linear storytelling towards multi-linear or nonlinear hypermedia.

Both the project proposal and the completed project are team-marked by two teaching staff, who respectively assess creative and technical merit. In this, creative merit covers aspects such as quality of the writing, story structure, and other creative writing elements. In themselves, the criteria employed here are quite similar to criteria which are used for marking creative writing work in other media forms. We do, however, also assess the degree to which a piece is suitable for the hypertext medium and utilizes that medium's specific opportunities. By contrast, technical merit refers to the quality of the submitted HTML files themselves, and includes criteria assessing students' compliance with the templates, their use of formatting options, links, images and other hypertextual elements. Here, the underlying principle in marking is one of appropriateness to the content. So, for example, students can gain maximum marks for their use of images even if they have refrained from using any images at all *if* this lack is appropriate to their piece. Conversely, they will lose marks if their hypertexts are overloaded with superfluous formatting choices (different font faces, sizes, and colors; images; sounds; etc.).

Creative and technical marks each make up half of the total for each of the assignments with the project proposal worth 25% and the final hypertext 50% of the total marks for the semester. In line with QUT's overall assessment policy, then, the first two assessment items constitute formative assessment (serving to contribute to student learning and to inform their further work), while the final project is summative in nature (presenting a conclusion to the learning process in this course).

Creative Writing / Content Criterion	Max. Marks	Marks Awarded
<b>7</b> The piece is original, evocative/ resonant and almost flawless in technique. The main ideas are insightful and persuasive, the style is original and graceful, description and dialogue totally convincing, and the piece, without any significant revision, would be publishable in our literary magazine <b>dotlit</b> (or equivalent) or could be submitted in a portfolio of best work for a undergraduate writing program.	22-25	
<b>6</b> A sophisticated piece, the ideas are persuasive, the style is graceful, and there are very few technique/technical problems with the writing. Editorial changes we suggest have to do solely with the stylistic concerns that would make this work as polished as a 7 (i.e., some sentences, though technically apt, can be compressed, or can have more evocative images, or a specific idea or moment or character might be developed more). Demonstrates insight. Useful in a portfolio.	18-21	
<b>5</b> The piece is very competent — adequately constructed and focused and shows talent, but some of the writing lacks verve and sophistication, and the ideas, though potentially interesting, have not been developed in such a way to make them sufficiently engaging. There are a few technique/ technical problems, such as overuse of vague or generalised writing, choppy prose due to repetitive simple sentence structure, imprecise word choice, passive construction, and occasional passages that are flat, or overwritten or spelled out.	16.5-17	
<b>4</b> The piece is competent and passable, and has definitely met the basic requirements, but a considerable amount of the writing and ideas are flawed as in 5 above but more so. More technique/technical problems, and flat or incoherent passages.	12.5-16	
<b>3</b> Almost a 4.	11-12	
<b>2, 1 Failing grades</b> The overall structure of the piece is haphazard, the ideas lack focus, concepts lack originality, and the writing is full of typos and spelling errors, and serious writing problems like tense shifts, point of view shifts, subject-verb agreement problems, and sentences that simply do not make sense.	6-10	
<b>Automatic failure</b> For plagiarism.	0	
Possible Maximum	25	

Technical Criterion	Max. Marks	Marks Awarded
Technical Setup		
File naming	1	
File structure	1	
File interlinkage	3	
Consistent author name and article title attribution	2	
Aesthetic Presentation		
Page layout	2	
Use of colours	3	
Use of fonts	3	
Use of images and other multimedia content	3	
Content		
Lexia choice	4	
Lexia interlinkage	3	
Total	25	

Figure 3: Final Project Marking Criteria (left: creative merit; above: technical merit)

## Course Outcomes

We believe that this course delivers a variety of beneficial outcomes both for our students, for ourselves as editors of *dotlit*, and for our university as a whole. The first is partly evident from the consistently positive responses that we have received from students, personally and through formal course assessment mechanisms. Student remarks on these questionnaires often describe how they initially felt reluctant, unconvinced, intimidated, and/or uninterested in hypertext, but, as the semester progressed, became increasingly involved and began to understand the worth of this course to the portfolio of skills and abilities that they will soon turn into their employment resume. We find this response even among students not particularly interested in pursuing literary hypertext authorship. Student results in this course are also well above average despite our highly critical marking approach – all the more remarkable given that many of our students begin with no practical Web design experience.

First and foremost, this course's success can be measured by the quality and range of the student hypermedia pieces we have published in *dotlit*. At present, some 50% of all final projects in *Electronic Creative Writing* now qualify for publication in *dotlit*, to the point where – with the course running in first semester – we are now in a position of holding over some articles for the second issue each year, in order not to overload *dotlit* with hypermedia works.

Student works that have been published range from Angela McIlveen's hand-drawn and digitized hypermedia cartoon "angel" to Florence Fong's "Reunion Dinner," a work that investigates the inner workings of an Asian-Australian family complete with recipes. They also include Kerri Ullrich's experimental "escape," taking a non-linear approach to its subject, and Daniel Pollard's "Townsville" which uses varied formatting options to put its reader on the document trail to unravel a mystery. It is perhaps unfair to single out specific pieces over others. It is the combination of all of these works that demonstrates best the wide range of approaches and ideas that our students have been able to apply in their electronic creative writing endeavours while remaining within the overall design parameters established by us as teachers and by the *dotlit* page templates.

At the very least, this course provides students with a number of advanced technological literacy skills, abilities and outcomes that they can add to their employment resumes and creative portfolios and will use in their working lives after leaving QUT. Current university data on graduate destinations (QUT Careers and Employment Graduate Destinations Survey) reveals not only that a high number of Creative Writing graduates have found full-time employment in writing-related occupations as diverse as speech writing to cultural administration, but also that they are earning a very high average income. While such figures can only reflect on the Creative Writing degree as a whole, in which this course is only one of twenty-four completed by students, anecdotal evidence suggests that a number of past graduates are directly employed on electronic publications as copywriters, editors and in other

positions, while many attest to using their skills in areas such as writing and editing for electronic media, multimedia design and editing, electronic publishing, and online research, analysis, and critique daily in their jobs. Such graduates are currently working in publishing, literary and arts administration, journalism, digital and multimedia industries and other related communication areas, including positions in local, state and federal governments.

Two thirds of graduates who completed their Bachelor degrees in 2001 responded to the survey: 64.28% of these were in full-time work, with only two ex-students working part-time but seeking full-time work, and only one unemployed. Their average salary was A\$39,100. Although the postgraduate coursework student response rate was only 37.5%, the results reflect those above, with no one reporting that they were unemployed or working part-time but seeking full-time work, and an average income of A\$47,333. All these figures are significantly above the university's and national averages. High satisfaction with university performance was perhaps best reflected in the fact that all past undergraduate and postgraduate survey respondents who were undertaking further study were studying at QUT (QUT Graduate Destinations Survey 2002).

A number of ex-students have also developed and published their own hypertext work outside *dotlit* and/or developed their own online publications as a direct result of this course. So far, one student has proceeded to honors work in hypertext writing, and there is current interest by two potential Masters students in taking on such work as a major research project in 2004.

## **Outlook**

The lecture/seminar component of this course, focusing on creative content development, has, to date, taken place in a single group, but increasing class sizes (partly caused by strong demand for the new Creative Industries degrees) may mean that a reorganisation will be necessary for 2004. Further, we have noted that students are entering the course each year with an increasing level of knowledge of literary hypertext. While these hypertext-savvy students are still a minority of the class, we feel this may change in the future with the ever increasing presence (and popularity) of literary hypertext on the Web, as well as an increased commitment by high schools to teach this genre. For instance, the Board of Studies of New South Wales which defines studies for high school students in that state, decided in 2002 to include hypertext fiction in its new "Stage 6" secondary school curricula with Shelley Jackson's *Patchwork Girl* and Deena Larsen's *Samplers* among the prescribed texts. Further, the role of *Introduction to Multimedia Technology* as a core course in the Creative Industries undergraduate degrees will also have an impact on the foundational skills of incoming students. The writing of and about hypertext is in such a state of surging growth that we will obviously have to continue to update class content to keep abreast of developments and of the increased sophistication of knowledges students bring with them to the class.

The ever-changing nature of the electronic environment and the need to develop mechanisms of coping with increasing student numbers are not the only factors affecting the course's further development. QUT's reconfiguration of its Faculty of Arts to develop the world's first Creative Industries Faculty has brought about some significant changes. The Faculty now combines a range of arts and media disciplines from dance, drama and creative writing to communication design, journalism, and media & communication. Furthermore, the new Faculty takes a flat structure in which there are no independent and isolated schools, only disciplines which are designed to be open and transparent to one another and which are strongly encouraged to take interdisciplinary approaches to research, teaching, and learning. Such a structure is in recognition of the changing nature of arts and media or more precisely *creative industries* workplaces in the new economy. The Faculty recognises that most graduates in this area will find themselves doing predominantly project-based work in a variety of related areas and will need to develop what we now call "portfolio careers" that demonstrate their ability to work in a range of environments and with a range of partners.

*Electronic Creative Writing* was in the fortunate position of prefiguring many of these changes. Its content and teaching team were already highly interdisciplinary in nature. While Donna Lee Brien is a creative writer and academic, she also has a strong background in literary studies and the visual arts as a curator, art historian, and project manager, and is based within the Creative Writing and Cultural Studies discipline at QUT. Axel Bruns is a media studies scholar specialising in Internet studies as well as a professional Web developer. He is located within the Media & Communication discipline. In terms of content, our course combines material from both our disciplines and also includes some communication design, visual arts, and even music and video knowledges. It is therefore very much at home in a Creative Industries Faculty.

Our students, too, benefit from this embedding in the creative industries in a variety of ways. First and foremost, the electronic creative writing skills they develop will stand them in good stead even beyond the immediate area of self-motivated creative writing: many creative writing graduates will continue on to positions in industries that rely on their creativity in devising attractive and inventive texts and increasingly these texts will be developed especially for the online medium. Conversely, hypertext approaches to creative writing are also increasingly evident even in fundamentally linear media such as print and broadcast. For example, TV shows such as *24* or *Boomtown* or films such as *Timecode*, *Magnolia*, or *Run Lola Run* break away from standard linear storytelling in a variety of innovative ways, interactive TV seeks to converge broadcast and Internet media, and computer games blend storytelling and user-driven action.

It is also obvious that our students' technological literacy is much improved by developing their active literacy as media producers through this course, in addition to more passive literacies as consumers or critics. This reflects university policy:

Universities assume a significant responsibility in identifying technological literacy as a generic capability that all graduates should possess and be able to use effectively

as appropriate to their professional and discipline areas ... What is clearly anticipated is the need for students and staff to be sufficiently prepared in a technological world to cope with changing technologies and to incorporate a critical perspective on the application of technology in their current or future professional lives. (Rossiter & Watters, 2000: 52-3)

Finally, students who take part in projects that are as inherently interdisciplinary and collaborative as this course are also well prepared to serve as project coordinators in industries where they will have to manage teams of contributors from a wide variety of different disciplinary backgrounds. For better or for worse, such project-based work in temporary employment for the duration of the project, is now a common pattern for work within the creative industries, and project coordination is a major area of employment for multi-skilled graduates.

Therefore, while already preparing students in these aspects we will continue to build the interdisciplinary aspects of this course. There is a possibility of direct collaboration with students in another course, *Interaction to Multimedia Technology*: as a practice-oriented course, *IMT* focusses on teaching active technological literacy, with less emphasis on content, while *Electronic Creative Writing* emphasises the creative skills of hypermedia writing over pure design skills. So, in semesters when both courses run simultaneously, there are obvious options for allowing students to collaborate across courses, creating joint works which are assessed according to each course's criteria.

Other potential opportunities include separating into two *literary fiction* and *creative nonfiction* electronic creative writing courses. Creative Nonfiction is already an area of significant teaching and learning in our degree and nonfiction electronic writing course could address a general problem with much nonfiction publication on the World Wide Web, where authors fail to connect their own articles with the wider array of information on their topic that is available online. By encouraging good referencing and interlinking practice in nonfiction authors (whether writing what would be defined as creative nonfiction, or working in journalism or other media industries), the quality and user-friendliness of their work could be much improved.

Five students in the 2003 class have already worked on an early prototype for this new course. They have been commissioned by the 9th Battalion of the Queensland Army (Royal Queensland Regiment) to research and write lifestories of members who served in the Second World War. These stories are creative nonfiction in genre, hypertext in nature, and were presented in *dotlit 4.1* as a special section, forming the first product of an ongoing relationship with the Army which will result in a large-scale resource site telling the past, present, and future stories of the 9th Battalion. This type of project, utilizing students' creative, imaginative, writing, research and hypertext skills is the very kind of "real world" outcome that the Creative Industries Faculty promotes. It not only engages students in very real learning experiences but produces outcomes that have an immediate and real audience. As course

developers, it provides the chance to tailor an academic course to suit project- and publication-specific outcomes without sacrificing any academic or intellectual aims.

## Conclusion

Judged on the basis of student outcomes (in terms of creative work produced, practical skills acquired, and overall knowledge generated), evaluation responses, and ongoing enrollments, we believe *Electronic Creative Writing* to be a significant success in curriculum development. We know of few courses at Australian universities that cover a similar range of topics and skills and produce comparable outcomes. *Electronic Creative Writing* is also a highly important course in preparing students for the workplace environments they are likely to encounter, and we would encourage more universities to introduce electronic creative writing courses into their creative writing degrees rather than to teach writing and design skills separately.

Sadly, there are to date very few academic teachers who combine the diverse disciplinary knowledges required to teach an electronic creative writing course; creative writers experts frequently do not possess sufficient hypermedia development skills, while hypermedia designers are not often experienced creative writers. Here, the team teaching approach taken in our course is invaluable, as it combines and integrates the expertise of different staff members. As creative industries concepts begin to reshape our university's environment, team teaching also allows us to lead by example: the interdisciplinary cooperation that students encounter through this form of teaching demonstrates the increasingly interdisciplinary nature of any workplace in the creative industries. Whether they refer to it as 'creative industries' or not, it seems highly necessary to us that universities recognize this interdisciplinarity and prepare their students for this environment. To ignore it would be to do a significant disservice to their students.

We do not claim that our approach is unique, but we do believe it provides a useful template for teaching electronic creative writing. Perhaps most importantly, it should be stressed that teaching electronic creative writing in any of its forms is not an exercise in obscurity. While not yet a major industry, creative hypermedia is a growing and important form of creative work – especially when considering the role its practitioners will also play in ancillary industries like communication design, advertising, scriptwriting, computer game development, and others. Much like creative writing overall, electronic creative writing is a key creative endeavour in the new, networked and computerized creative industries environment. It has real relevance and real applications in a wide range of professions. And, as Jach points out, by teaching electronic creative writing, we can contribute to the future of this emergent artform: "to be an artform rather than merely a function, an artform needs its own aesthetic language, which multimedia is in the process of developing. An advantage of this point in time in terms of multimedia is that we can have a say in the development of that aesthetic vocabulary" (1997: n.pag.).

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