

Guide to New Media Writing

trAce Online Writing Centre

opening

Don't wait until you think you know what you're doing. You'll never take the plunge. The best way to learn is to do, to teach what you do to others, and to collaborate. Be prepared to learn new things and challenge your preconceived notions of your art. Don't consider it second-best. Use the technology. Think - what can I create that couldn't be done in print? Don't be put off by Luddite responses. Edit yourself: think radio not print. Get a high-speed connection. Back up your data. Get a web site, simple but professional looking, and keep it current. Give your writing away for free. Electronic work is shaping a brand new language of literature. Be connected to a writing community. The net conquers geographical or cultural isolation. Get a virus detector and keep it up to date. Learn basic HTML or Dreamweaver and web authoring. Learn to refine criteria when using a search engine. Investigate numerous sites in order to find those you initially feel comfortable with. Bookmark them. Use chat rooms and discussion groups to learn the conventions. Lurk for a while before you post. Organise your bookmarks/favourites well so you can find those valuable web pages again. Search for it/save it/organise it. Planning the project or site is very important. Good planning is essential to maintain direction. Read as much online work as you can. Try to solve technical problems before asking others. You'll discover that you are much more capable and knowledgeable than you imagined. Every problem attacked means an increase in your skill level even if you need help to solve it in the end. Each new writer coming to the web could be the one to show others the way. It's an exciting place to be. Learn to program. Learn to read. Learn to write.

the space

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Introduction

When you compose in or into hypertext, the space literally opens up. You live and read differently in the space between print and online.
Stephanie Strickland

This combined Toolkit and Guide provides inspiration, skills and support for writers working online with new media. It offers useful information for everyone, whether new or experienced, and is available in two parts in PDF format and online at <http://trace.ntu.ac.uk/transition>

Inspiration

"Be prepared to learn new things and challenge your preconceived notions of your art."

Consult the Guide to find out about new media writing, see what others are doing, and develop your own creative ideas. Visit the Toolkit to hear interviews with writers working in the field and read advice by the many writers who responded to our online survey on how they are using computers and the internet.

Technique

"Don't consider it second-best. Use the technology. Think - what can I create that couldn't be done in print?"

The Toolkit will help you to build a portfolio of technical expertise suited to the kinds of work you wish to make, whilst the Guide will introduce you to some of the best online writing and help develop your appreciation of this new form.

Connection

"Each new writer coming to the web could be the one to show others the way. It's an exciting place to be."

The web is vitally useful for connecting creative and imaginative people across physical and cultural boundaries. The Toolkit contains information on interactivity – how to connect with others, and how to support online collaboration as we meet, work and learn together on the web.

This short guide aims to provide a brief and jargon-free introduction to New Media Writing. It considers:

- What is new media writing?
- Reading print
- Reading new media writing
- Origins
- What to install
- Reading list

For those who wish to make the work themselves we also recommend our Online Toolkit, a comprehensive resource of tools, advice and support for the new media writer.

What is new media writing?

In recent years the literary world has enthusiastically adopted the benefits of the internet, using email, websites, discussion boards, and in some cases publishing work online. But most remain unfamiliar with new media writing and its variations: digital fiction; hypermedia; flash poetry; electronic literature; hypertexts; eliterature; multi-media texts; web-based narratives . . . the list is long and esoteric.



Of course, new media writing itself does not yet know what it is. For example, the 100+ submissions to the 2001 trAce/Alt-X New Media Writing Competition featured 70 different namings (see end of this page for some of them) of the types of work submitted, and the entrants proposed an equal number of self-titles for their artistic profession, ranging from *hacker/poet* to *hypertextualist*.

Despite their persistent identity crisis, all new media writings do have at least one thing in common – they must be viewed through the medium of an electronic display, usually a screen but sometimes just audio, via a PC or Mac, a laptop, a PDA, a mobile phone, data projector, or perhaps even a giant outdoor image. Their unifying characteristic is that the computer is an essential component of the writing and without it the work would not exist.

Another common feature of much, but not all, new media writing is hypertext, a method of structuring information in such a way that related items are connected, or threaded, together by links called hyperlinks. The items so linked may be text, but increasingly include other media, such as graphics, sound, animation or video, and in this way hypertext becomes hypermedia.

E-books are generally not considered to be new media writing because most are simply digitalised versions of conventional linear print texts. A few are experimental in nature, such as distilled miniaturised hypertexts, or downloadable origami-type texts to be printed out, cut and folded, but for the most part e-books have arisen from print culture and have little connection with new media writing.

The first electronic literature texts accessible to general readers were created in the mid-1980s, and since then there has been a proliferation of stories, poems, and multimedia works both on the web and on CD-ROM. This guide provides an introduction for those new to the form and points to a number of starting points. However, it does not claim to provide an exhaustive list and readers are encouraged to pursue their own strands of enquiry in this very diverse field.

Hypertext : active text : web-specific writing : new media work : new media writing : net literature : Net Art : feminist hypermedia : poetry-multimedia installation : web integrated writing : moving poetry : storytelling : multimedia : hypertext poem : net-art-writing : Linguistic Aestheticism : journalism : new horizon breakthrough idea exposition : internet based narrative : net.art : Possible Art : hyperfiction : Interactive Fiction : Hypertext Fiction : hypermedia : digital literature : lit[art]ure : net.lit : Hypertext Art : post-ultra modern digital art

Reading print

It is made of wood pulp. We mark it with a coloured liquid, using agreed signs we are all taught from an early age. These patterns of marks enable us to communicate with one another without having to be in the same room. The system has worked quite well for a number of centuries. If you like, I can show you how it works.

Gregory Woods

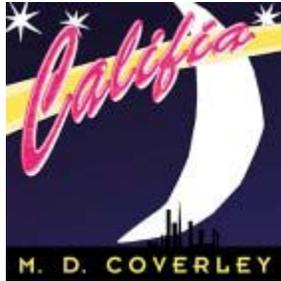
Books have had several centuries to evolve and we, as book-readers, have reached a place of great sophistication. We no longer 'see' the technology involved in book production and, in many cases, we no longer 'see' the printed word on the page, but a continuous stream of images and scenes conjured by the writer. The way books feel and smell plays a role in our reading experience, whether we've bought a brand-new hardcover, or borrowed a dog-eared paperback from the library.



When reading a novel we can easily assess where, exactly, we are in the text overall. You know when you've just begun, you know when you're half-way through. If the book is really good, you are filled with dread as you approach the ending – you don't want it to end, but you can't help yourself from continuing to turn the pages; you may speed up, or you may slow down. But years of practice have made you able to 'read' where you are in a book whilst reading the words on the page.

But even before that, there is the cover. Books are marketed to readers in subtle and persuasive ways and readers can assess a book's place within that market at a glance. When you stand in front of a bookshop display, you know what kinds of books you are looking at almost immediately. Without actually reading any of the text – including the title and the name of the author – you are given a large amount of information by the size of the book, the colours on the cover, the cover images, the type-face, etc: in most cases, the book cover shouts out, for example, 'thriller', or 'chick-lit', or 'serious high-brow fiction'. So, to a certain degree, the reading experience is predicted and augmented by the expectations aroused by the object of the book itself. The design of the pages – the font used, the number of words per page, etc – all have a bearing on the physicality, the body language, of the artefact of a book.

Reading new media writing



The problem with getting inside the act of reading, is its ubiquity - there's no escaping it, and, like any environment that we are overly familiar with, we no longer see it. When we read print narratives we arrive already equipped with a full repertoire of reactions and strategies....We never come face to face with the ground zero of reading.

J Yellowlees Douglas

None of the conventions we are accustomed to with books are present in new media writing. At the outset, there may be no way to determine how large or complex the work you are looking at is: this is where authorial interventions such as help-files or site-maps can come in handy. Once you begin to navigate through the text, the level of complexity becomes clear quite quickly, but there is still no obvious way of assessing the length of a piece. In many cases, this is like asking 'how long is a piece of string?' as many hypertexts are, quite literally, what you, the reader, make of them. Whilst a book might contain 400 numbered pages, a website might contain 400 files (or pages) linked to each other in multiple ways. But length quickly becomes irrelevant because new media works often do not reach an ending or resolution in any conventional sense. Some narratives end by taking the reader back to the beginning; others do not end at all, but rely on the reader to find a sense of completion through exploring all the links via their own self-created pathways through the work.

New media writing relies on reader input to a far greater extent than print fiction. This is not true of all works – with some new media pieces the only 'input' the reader has is the electronic equivalent of turning pages, clicking the mouse to move forward or clicking to begin an animation. But others offer myriad alternate routes for the reader, generally through the device of highlighted, hyperlinked, words and/or images. Each screen may present between one and a dozen or more opportunities, each highlighted word or hyperlinked image taking the reader in a different direction, adding layers to the text. Some of these works rely on the reader navigating through the piece by choosing words to click on, thus moving from one linked text to the next. Others play out on the screen once the reader has entered the text, like a kind of animated word movie. Some pieces reside on the web and can be read by anyone who has internet access and the appropriate downloaded plug-ins (see What To Install). Other texts are published on CD-ROM.

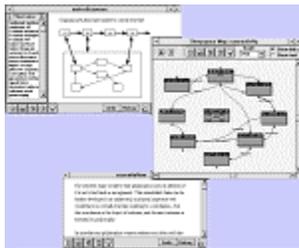
The range of work available now is vast. There is non-fiction, short fiction, novels, poetry, and works that fuse all of these forms. There are pieces that use sound as well as moving images. There are interactive pieces that require the reader to contribute to the text. There are literary games, collaborative works, and works that continue to grow after they come online. You may be asked to contribute something of your own – a fragment of text, a sound, a memory. You may be asked to provide your email address so that the characters can interact with you beyond the confines of their website. Indeed, the text you're reading may be written by hundreds of other people, sometimes anonymously, sometimes named. Quite possibly there won't be any text at all until you have helped create it.

New media writing is often experimental and non-linear, the newness of the technology attracting writers who are interested in the potential fluidity and complexity of the form.

Much of the work is playful, flirting with form, content and language but beneath the playfulness is a serious commitment to the form. Reading new media writing is all about exploring – exploring the web to see what's out there, exploring the new technologies and how to use them, exploring new ways of reading, new ways of telling stories. Like any kind of reading, it's about looking for things you like, looking for writing that - whatever the interface, however complex or simple – is a pleasure to read. Check out the Reading List for examples.

*Readers need to find out that "what counts is no longer the 'result' or content of the reading, but rather the process of reading in itself."
Elizabeth Kalstrup*

Origins



*.be a][h!][ware that the texts make use of the polysemic language/code system termed _mezangelle_, which evolved/s from multifarious email exchanges, computer code re:appropriation and net iconographs.
mez*

New Media Writing began as hypertext, which in turn began as a concept for the organisation of information. In 1945, Vannevar Bush of the Carnegie Institute published in *The Atlantic Monthly* an article entitled *As We May Think* in which he called for scientists to find new ways to store, process and access the massive amounts of knowledge available and constantly growing in the world. Libraries and their traditional methods of indexing and classification are no good for the navigation of such large data stores, he said, because they are not sufficiently intuitive:

"The human mind operates by association. With one item in its grasp, it snaps instantly to the next that is suggested by the association of thoughts, in accordance with some intricate web of trails carried by the cells of the brain.. the speed of action, the intricacy of trails, the detail of mental pictures, is awe-inspiring beyond all else in nature."

His proposed device, called a memex, was never built, but the concept was further developed twenty years later when American programmer and designer Ted Nelson invented a system called Xanadu because, he realised:

"We need a way for people to store information not as individual "files" but as a connected literature."

Bush created the idea of the massive information store, but Nelson understood the imperative to find ways to connect and cross-reference the data within it. It was he who coined the terms hypertext and hypermedia. But it would be twenty more years before, in 1987, the first Hypertext Conference was held. Some of the best known names in the

literary hypertext world appear in the conference list, most notably the developers of Storyspace hypertext software, Jay David Bolter, Michael Joyce, and conference organizer John B. Smith, as well as developers of other other hypertext systems such as Mark Bernstein, (Hypergate), and George Landow (Intermedia). This same year saw the development of the Apple-based Hypercard system, developed by Bill Atkinson. Many early hypertext writers developed their work using the Hypercard system but it is now used much more rarely, although elements of it remain in some Apple programming. It's important to note that all these systems happened in computers, but offline. They were pre-web. Michael Joyce's *afternoon, a story*, was distributed at the 1987 conference as a Storyspace reader and when the first Eastgate edition appeared in 1990 it was still available on disk only.

In 1991 at Cern, in Switzerland, Tim Berners-Lee developed the first global hypertext, which he called The World Wide Web.

Today hypertext, once a revolutionary concept, is now just one of a number of colours in the new media writer's palette. New kinds of programming and multimedia applications all contribute to contemporary web-works, and academia, the original breeding ground for experimental hypertexts, has given way to a broader range of practitioners ranging from professional programmers and designers to freelance writers and artists, mostly self-taught. Some use commercial design tools, others write their own code, and others collaborate to share skills. As with any research and development projects, processes are constantly being examined and refined. Whether it's with a fountain pen or light pen, we continue to apply technology to art to make new meanings and to connect.

What to install

I like to write at three different levels at once: to have something interesting for a new reader who has never tried this stuff, some hidden material for more experienced readers, and lots of in-jokes and techniques for those who want to look for them . . .
Deena Larsen



As you read new pieces, you will notice that sometimes the writer has included information on how best to read the work. These suggestions come in the form of introductions, artist's statements, help-files, site maps, contents pages, etc. Although it is not necessary to read this additional material prior to looking at the work, it is usually advisable, especially if you are new to the conventions of new media reading, as the guidance offered will usually enhance the reading experience. Sometimes it's fun to play first and read the guidance second....

It helps to set your computer preferences appropriately and make sure it is equipped with the appropriate free downloads.

You should try to have:

- Sound card
- Speakers (and remember to turn them on when looking at a multimedia piece!)
- Good quality monitor with good graphics card
- Recent version of browser, at least version 5 or above, preferably IE 6 or Netscape 6

Many works include links to the plugins required. The kind of plugins you might need to read a new media work include **Flash or Shockwave player** (it's recommended that you keep your version up to date), **Adobe Acrobat reader**, **QuickTime 4** for some animation, sound and audio clips, an **MPEG video player**, **I-tunes** (for playing Mac audio), **Windows Media Player** and/or **Winamp**. **Real Player** is ubiquitous on the Web. The Online Toolkit accompanying this guide has links to sites where you can download these plugins.

Your computer's security settings may also need to be adjusted. For example if you have a firewall, it may need to be configured to play audio or video files. Cookies are required for some interactive works. Popup windows are often used creatively and if you have popup ads disabled you will not be able to view these works. Javascript should be turned on in your browser, and Java enabled.

Reading list

The most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it.
Marc Weiser



Electronic writing in all its forms continues to develop. The following is a list of works that have won prizes in recent years, as well as a list of ezines that publish new media works. We stress that this is only a small proportion of the work available and suggest the reader adopts the role of web flaneur and browses their way from one to the next in a leisurely fashion.

trAce/ALT X New Media Writing Competition 2001

Winner Talan Memmott: 'Lexia to Perplexia'

<http://trace.ntu.ac.uk/newmedia/lexia/index.htm>

Shortlist <http://trace.ntu.ac.uk/newmedia/shortlist.cfm>

Electronic Literature Organization Poetry Award 2001

Winner John Cayley: 'Windsound'

<http://www.eliterature.org/Awards2001/poetry-CayleyJohn.shtml>

Shortlist <http://www.eliterature.org/Awards2001/poetry.shtml>

Electronic Literature Organization Fiction Award 2001

Winner Caitlin Fisher: 'These Waves of Girls'

<http://www.eliterature.org/Awards2001/fiction-FisherCaitlin.shtml>

Shortlist <http://www.eliterature.org/Awards2001/fiction.shtml>

E-MAGAZINES & JOURNALS THAT FEATURE NEW MEDIA WRITING

Alt X

<http://www.altx.com/>

Where the digerati meet the literati.
Founded by Mark Amerika.

Artifacts

<http://webdelso.com/Artifacts/>

Exploring the varieties of multi-media art
using computers and the internet.

Beehive

<http://beehive.temporalimage.com/>

Hypertext/hypermedia literary journal

Born

<http://www.bornmagazine.org/>

An experimental venue marrying literary
arts and interactive media with a focus
on collaboration.

Cauldron & Net

<http://www.studiocleo.com/cauldron/>

Verbal, aural, visual, confluence.

Drunken Boat

<http://www.drunkenboat.com>

Online journal of the arts

Eastgate Hypertext Reading Room

<http://www.eastgate.com/ReadingRoom.html>

Sample reading from hypertext
publishers Eastgate

Electronic Book Review

<http://www.electronicbookreview.com/>

Promoting print/screen transformations
and weaving new modes of critical
writing into the web

Electronic Literature Organization

<http://www.eliterature.org/>

Facilitating and promoting the writing,

publishing, and reading of literature in
electronic media

Electronic Literature Organization Directory

<http://directory.wordcircuits.com/>

Descriptive guide to over 2000 works of
electronic literature

fineArt forum

<http://www.fineartforum.org>

One of the longest-running websites for
art and technology news

frAme

<http://trace.ntu.ac.uk/frame/>

Journal of Culture and Technology
published by trAce

Hypertext Kitchen

<http://www.hypertextkitchen.com/>

Fresh news about the craft of hypertext

inflect

<http://www.ce.canberra.edu.au/inflect>

Journal of multimedia writing based at
the University of Canberra

Iowa Review Web

<http://www.uiowa.edu/~iareview/mainpages/tirweb.html>

New Media literature, experimental
writing and art. Interviews with
innovative writers, critical articles and
essays.

Poems That Go

<http://www.poemsthatgo.com/>

Exploring the intersections between
motion, sound, image, text, and code.

Rhizome

<http://www.rhizome.org/>

New media art resource

Snakeskin

<http://homepages.nildram.co.uk/~simmers/>

Poetry webzine.

trAce

<http://trace.ntu.ac.uk>

Articles, reviews, new media writing projects and online courses

Voice of the Shuttle: Technology of Writing

<http://vos.ucsb.edu/browse.asp?id=2733>

Comprehensive list of resources on new media writing

Webartery

<http://www.webartery.com/>

Collaborative site by the artists

Whitney Artport

<http://www.whitney.org/artport/>

Portal to net art

Credits

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Screenshots used in the Guide

The Berth of V.ness, Talan Memmott, <http://memmott.org/talan/bov/>

Califia, M. D. Coverley, <http://califia.hispeed.com/califia1.htm>

A Poppy, Peter Howard, <http://www.hphoward.demon.co.uk/flash/poppy.htm>

trAce Online Writing Centre, <http://trace.ntu.ac.uk/>

Read This, The Women's Library, <http://www.thewomenslibrary.ac.uk/readthis/>

Storyspace, Eastgate Systems Inc, <http://www.eastgate.com/Storyspace.html>

Mapping the Transition from Page to Screen was managed by the **trAce Online Writing Centre** at The Nottingham Trent University. trAce was founded in 1995 and offers original new media writing, creative online courses, incisive articles, innovative webdesign, and a broad range of resources, news, discussions and research. **The trAce Online Writing School** offers web-based courses for writers working in print and new media.

<http://trace.ntu.ac.uk>
<http://tracewritingschool.com>

