Anxiety, depression, non-reading and the internet:  
a few considerations in developing an on-line resource for  
the teaching and learning of literature

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http://www.rdlthai.com/ellsa_index.html  

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It would seem that many of the web-sites on the internet are designed abitrarily,  
according to the flow of information that the web-author would like to represent. Some  
web-sites are graphically beautiful, some informational. Few educators have endeavored  
to integrate both pedagogically sound principles, strong navigation techniques,  
interactivity and aesthetic quality into their web-sites. There is very little research in this  
field and the research that has been carried out has not really focused on English  
language teaching.

Project ELLSA is, as a result, not only an opportunity to provide an on-line resource  
for the teaching and learning of literature, but an even larger opportunity to really look  
into the issues related to the development of internet-based educational resources. The  
evidence in support of using the internet as an educational medium is both compelling  
and intimidating. It is compelling in its scope. The internet is accessible all over the world  
and the communication potential is enormous.

However, the reality has a more sobering effect. Kraut, et. al. (Carnegie Mellon  
University, 1998) conducted a research project into the social effects of the internet,  
which was financially supported by Apple Computer, Hewlett Packard, Bell Atlantic  
and many other major corporations who have an interest in the field. The results reveal  
that the internet is a source of anxiety, depression and social alienation.

Without going too deeply into the reasons for this, we can assume that people are  
cutting themselves off from social interaction, by focusing for long periods on the  
computer screen, and the unlimited and unregulated flow of data on the internet means  
people spend long and frustrating hours searching for information that may not be  
accessible, may be badly written or represented, or may be of no use at all. It is common  
to hear comments of this nature and busy people often avoid the internet for these  
reasons. Bearing this in mind then, Project ELLSA would have to be carefully designed  
to reduce such anxieties and increase social interaction that may not be so evident in  
existing internet resources.

A revealing paper written by Morkes and Nielsen (1997) for Sun Microsystems (the  
creators of the Java internet development program), actually provides some insights that  
allowed me to interpret the issues of anxiety and depression from a reading-pedagogical  
point of view: internet users do not read when they are on-line, they merely scan text for  
the information they require and use hyper links to move on. The statistics offered by  
Morkes and Nielsen are valuable:

"...a web site scored 58% higher in measured usability when it was written concisely, 47%
higher when the text was scannable, and 27% higher when it was written in an objective style... Combining these three changes into a single site that was concise, scannable and objective at the same time resulted in 124% higher measured usability.

Morkes & Nielsen, 1997: 1

Morkes and Nielsen provided some strong indicators of why internet users were not reading while on line, that can be used to interpret some of the causes of anxiety and frustration found by Kraut, et. al.

1. Users want to search
2. Users like summaries
3. Text should be concise and scannable
4. Users want hyperlinks to move quickly to other pages
5. Graphics and text should complement one another
6. Credibility is important

These six points (not a verbatim list from Morkes and Nielsen, but considered important for ELLSA development), were the most obvious indicators of how well organised text, good graphic sense and strong navigation techniques could act as methods of reducing more immediate internet-induced anxiety, and at the same time increase readability of on-line text.

From this point I will indicate how these issues were dealt with, by using actual screen shots from the ELLSA web-site.
1. Users want to search

A literature site like ELLSA is not the kind of site where one would use a search function to find different documents. However, the provision of site maps for each level allows users to rapidly move around the site, which when completed, will total more than 130 on-line text pages. Each level of ELLSA has its own map which indicates every page included in that level. The maps are color-coded to show origin of pages and every indicated page has a hyper-link for rapid navigation. Each page is reciprocally linked back to one of the three maps, so it is impossible for users to get "lost" in the middle of the site.

Fig. 1. Map of ELLSA Level 1
http://www.rdlthai.com/ellsa_ellsamap1.html

Other ELLSA maps are located at:
http://www.rdlthai.com/t2/ellsa_map2.html
2. Users like summaries

As can be seen from figure 1, each of three ELLSA levels, American Literary Classics, Tales of Mood and Mystery and Being People, have not only their own map, but also their own contents page. The three contents pages effectively sub-divide ELLSA into three independent web sites that are linked only from the main home page. This is a further safeguard to prevent users from getting lost in amongst all the different lesson pages. The only way out is back through the contents page to the index page or through the map of each level (for quick cross referencing). The contents page of each level is provided in response to the fact that users like to read summaries before continuing into a site (Morkes & Nielsen, 1997: 8). A summary and overview of the aims and contents of each level is provided from the three contents pages. These pages also provide access to the peripheral pages to each level: teachers notes, self-study guidelines and downloadable lesson plans (also accessible from the "title page" of each lesson).

![Fig. 2 Contents of ELLSA Level 2](http://www.rdlthai.com/ellsa_contents1.html)

**Fig. 2 Contents of ELLSA Level 2**

http://www.rdlthai.com/ellsa_contents1.html

**Contents pages for Levels 2 & 3 are located at:**

http://www.rdlthai.com/t2/ellsa_contents2.html

3. **Text should be concise and scannable**

Text on the internet is generally characterized by long, scrolling pages written using the default internet font. An example of this style of page is illustrated below in a page written as part of a student project by technicians and economists at the Electricity Generating Authority of Thailand (EGAT).

![Sample from EGAT student team written web-site project](http://www.rdlthai.com/egat_intro.html)

**Fig. 3.** Sample from EGAT student team written web-site project

http://www.rdlthai.com/egat_intro.html

The index pages to this web-site and a follow project are located at:

http://www.rdlthai.com/egat_index.html
http://www.rdlthai.com/egat2_index.html

The sample page provided here indicates some possible reasons why readers do not read when they are on-line. Firstly, the default font, a serif font (with header and footer lines like the font you are reading now) decreases the amount of white space on the screen. It is also quite small which means the reader must be close to the screen. The text is layed out like an essay or report, which means readers must follow longer lines...
of text. The most significant problem with this style of page, however, happens when the user tries to resize the on screen window (narrower or wider): the text "jumps" and words move down to the next line. If this is done in the middle of the reading process, it is easy to "lose" the words that are being read.

In contrast then, text planning for ELLSA pages was much more rigorous in layout and design principles. The chosen web authoring tool, Go Live Cyber Studio 3.1 is much more powerful than Netscape Communicator (used for the first EGAT web site). A sans serif font, Arial, was chosen for its slightly larger size (at the same font point size), and the increase in empty space provided by its use. As a result text is much easier to read at a greater distance from the screen. Also, Morkes and Nielsen (1997: 6) found that users like a well-focused magazine style layout to increase readability: narrow columns, short paragraphs and plenty of white space (this issue will also be examined later in part 6: "Credibility is important"). Below is a behind the scenes shot from Cyber Studio that includes the lock-to-grid layout that is a feature of every ELLSA page, which consequently means that text can not be adjusted, along with browser size, on screen.

![Fig. 4. Title page layout grid for The Cask of Amontillado](http://www.rdlthai.com/t2/ellsa_cask1.html)
4. **Users want hyperlinks to move quickly to other pages**

The provision of hyper-links is what makes the internet so attractive, yet there are so many problems that can be caused by unnecessary linking. This was a major consideration in designing the layout of the site. As a result it has an index and administrative pages before subdividing into three separate sites (levels 1, 2 and 3). Each of those 3 sites further subdivides into at least five more sites (the lessons), all of which are cross linked to each other via the maps. Within the lessons we also find further links to answer keys and sometimes to external sites. The first of these, answer keys, proved another challenge in the design of an effective, easily navigable site. Below and overleaf (figs. 5 and 6) are examples of how a combination of text layout, user-interactivity, hyper-links and frames to provide answer keys can be used to maximize reader usability of a text about the life of Bienvenido N. Santos.

![Image of a computer screen displaying a text about the life of Bienvenido N. Santos](http://www.rdlthai.com/t3/ellsa_iblues2.html)
This choice of exercise type helps to break up a long text about the author into short paragraphs with an interactive exercise that can be checked (checkpoints 1, 2 and 3) as the user reaches the end of each section of the text. The use of the top answer frame means that the user does not need to leave the text to check answers, nor does he/she have to scroll to the bottom of the text (off the screen) before checking the answers, which means that the correct choices are immediately re-readable in context. Again the user is also able to see the meaning of incorrect words that have similar sounds and/or meanings.

Within Goodman's psycholinguistic model of reading (1988), a single exercise like this takes in all the considerations necessary (recognition-initiation, prediction, confirmation, correction, termination) to ensure that the user is able to work with the text in an interactive, anxiety-free (or reduced) manner. The immediate accessibility of links to other pages at the side of the page and again at the bottom, as the user scrolls down, ensure that termination of reading for whatever purpose, is an easy option at any point in the exercise.
5. Graphics and text should complement one another

Possibly the least pedagogical task in producing the ELLSA web-site is this combination of complementary graphics and text. However, the sample group in Morkes and Nielsen’s study (1997: 9) indicated such opinions as ”a graphic is good when it relates to the content, but many are just trying to be flashy”. The graphic choices made for ELLSA are firmly with the former point of that opinion in mind. Again, graphics that may not immediately appear to be related to this point, will be examined in the next section on ”Credibility is important”. A sample title page from one of the stories is presented below. Within this page, we find graphics for:

- text colors of the book cover of Being People (tangible identification with one of the books that the site is based on);
- Materials Branch: USIA English Language Programs Division logo—the source of the text;
- map 3—the universal icon that will allow the user to rapidly move through the 130+ page site;
- the download page symbol (an inverted arrow to enhance the lexically invoked, downward movement of a printable version of the lesson from the internet to an individual computer);
- recognizable links to the sequence of pages within the lesson;
- photograph of the author.

Fig. 7. Use of graphics to complement text
6. Credibility is important

Unfortunately, the vast majority of educational web-sites have not really considered the issue of credibility. In many cases, if the source is recognizable (a well-known university, a major company, a media source—TV channel or magazine), then it is possible to assume that the quality and reliability of the information is worth the time it will take to look through the site. Again Morkes and Nielsen’s study provides user opinions on reliability of information. It also goes one step further to suggest that such reliability also, significantly, includes overall quality of the site.

“A magazine that is well done sets a certain tone and impression that are carried through the content. For example, National Geographic has a quality feel, a certain image. A website conveys an image, too. If it’s tastefully done, it can add a lot of credibility to the site.”
Morkes and Nielsen, 1997: 6

The final choices and rationale for the design of ELLSA reflect this last point. The site must be predictable and reliable, users must be able to navigate rapidly, and the graphic sensibilities of the site must create an image for the site that are the equivalent, in internet terms, of the professional standards of educational book publishing and other visual and interactive media.

Summary: An invitation to participate in ELLSA research

Even though ELLSA has been developed with these principles in mind, an educational resource can not be considered successful in its objectives unless feedback is obtained and results considered and analyzed. Due to the nature of the medium and the fact that few concrete results are available on which to base the development of a site for the teaching and learning of literature, it is necessary to examine the effects these choices will have on the users.

We would like to invite any participating institutions to submit feedback in support of further development of ELLSA. This is not only important for the development of this site, but also important for further development of the internet as a medium for on-campus and distance education. This is evident not only for literature, as web-sites like ELLSA can be developed for any educational subject. It is also evident that these web-sites do not need to be in English. The interactive and information-based methodologies that may be designed for this type of resource are transferrable to any language.

References


