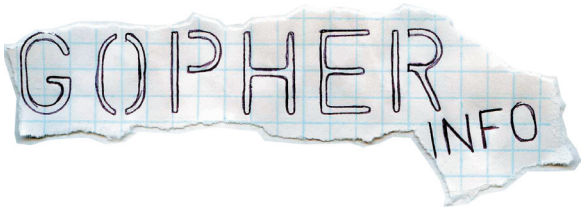

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Abstract

Middle school students (6th – 8th grade) are at an important development stage where they are learning how to conduct advanced information seeking assignments. These students are being introduced to the vast array of sources and methods of retrieving information via online search engines and databases. From my research I have found that many middle school students have a difficult time finding relevant and comprehensible information when using Internet search engines. Even if they are able to find relevant and comprehensible information they will still need the skills to organize, evaluate and use it correctly. To aid in information problem-solving activities, I have created GopherInfo.com, a web-based application with tools that students can use to find, sort, organize and evaluate information they find through online search engines. By evaluating content through an online collaborative and peer mentoring environment, students can better understand and benefit from the overwhelming amount of information on the Internet.

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Introduction

"As a result [of the increasing amount of information available online], no education is adequate today unless it helps to increase your ability to deal with the vastness of information." [1]

Before the introduction of the Internet in educational settings, learning how to find information was as difficult as any new learning situation can be. However, the information available had its limits, because the students never went outside of the school or local library. The entire information retrieval process for middle school students was confined to a controlled space where all the materials available had been categorized and chosen for their age and comprehension level. The Internet is not as easily digestible as the school library, making the task of retrieving age appropriate, relevant and comprehensible information that much more difficult.

Having the Internet in schools is just one part of a larger issue surrounding the use of computers and digital technology in education. I have researched the current state of technology in education today and have realized that there are not only many skeptics but also many people who are very excited about the possibilities computers and digital technologies can bring. My concerns for this thesis are in the area of using the Internet for educational purposes. If the Internet is to be used in the education of middle school students than it must have a defined and appropriate purpose. My thesis, in the following pages, will address these issues and include my recommendations for how the Internet should be incorporated into current educational settings for middle school students.

For the product component of my thesis I have created a web-based application were students find, sort, organize and evaluate information they find through online search engines. Through this web-application middle school students can search multiple search engines at one time allowing for exposure to many different websites. In addition to the ability to search students will be able

to save websites that they want to refer to later where they can add comments and evaluate it. Evaluations will be added to a database called “Sourcebook” where other students can read them. If students wish they can complete a peer review of the evaluation giving positive or negative feedback. Based on these peer reviews and the amount of evaluations completed students can earn points to gain special privileges. The entire web-application has been created with the idea that middle school students with some involvement from teachers and librarians can mentor each other in learning the best practices for navigating and evaluating content found on the Internet.

Inspiration for the idea

For a long time I have been interested in designing educational technologies, having immersed myself in books, articles and job opportunities that related to that topic in some way. Knowing that I would pursue this topic for my thesis I thought it best to read about the current state of educational technologies and its effects on public schools. This lead me to a book called “The Flickering Mind” by Todd Oppenhiemer. It was filled with research about educational technology going back almost a century. It was interesting to learn about the different initiatives people have tried in the school system with the idea that they could use technology to reform education. In particular I was drawn to what has happened with the introduction of the Internet into our daily lives.

This quote from “The Flickering Mind” sums up the phenomenon that followed the introduction of the Internet into mainstream society. “Before long, such cultural luminaries as John Perry Barlow, a former songwriter for the Grateful Dead, were calling the Internet ‘the most transforming event since the capture of fire.’ For a while, it seemed as if the country had fallen into a permanent state of technological obsession.” [2]

I found it disturbing that this obsession with the Internet and computer technologies in general had led to a new way of thinking about education. People were, and still are, putting a lot of faith in new technologies that have yet to be

proven useful for educational purposes. A poll in the beginning of 1996 asked teachers to rank computer skills and media technology on importance compared to learning things such as biology, European history, practical job skills and reading Plato and Shakespeare. The teachers felt computer skills and media technology was more important than any of the above-mentioned skills. [3]

Because of this attitude that computer technology was essential to a modern education, many organizations, the government included, have pumped billions of dollars into purchasing computers and providing Internet access for public schools in the United States. Many school budgets have changed to provide funding for new digital technology while taking away other traditional education programs in the process.

How technology should be used in school

"The question of course, is the value of what's been lost compared with what's been gained." [4]

Any technology used in an educational setting should not replace existing methods that are more effective. Digital technology in the classroom, instead of replacing effective teaching methods, should make it easier to learn or make knowledge more accessible. The Internet is one way in which knowledge can be made more accessible. When incorporating the Internet into educational settings though, it is important to not believe in the idea that it can replace valuable resources offline, such as the local library. It should instead be an addition to the curriculum and be taught with the idea that there are many ways in which to retrieve information, each having appropriate methods for use.

I was recently in a 7th grade classroom talking to the students about how they use the Internet and computers in school. As they responded to my inquiry it became clear that they used a few search engines that are popular and a few created especially for kids. I was disappointed that they weren't doing much else with the Internet at school. This experience made me wonder if there

was anything out there for this age group that could be used for seeking out information on the web as well as provide more meaningful learning activities for doing research.

These students go to a progressive private school and in a lot of ways are very much ahead of their peers who attend public or traditional private schools. Even though they are advanced they still have the same tools for searching on the Internet that every other student in the United States has. The tools I am referring to are search engines such as google.com and yahooligans.com.

The Internet in academic settings

Because of the use of the Internet as a primary research tool many middle school students are not able to filter the many disparate sources that are now available to them. The enormity of the information from just one web search makes it overwhelming for students to sort through what is useful and what is not. I believe two things are happening. First, students are not learning proper research methods because of the instant gratification of web searches and therefore are quick to pick the source with the most information. Secondly, that they are not always receiving information that is within their comprehension level.

Before the Internet arrived in public schools and in homes many students found content for school assignments through the library at school or in the family encyclopedia. In this scenario the information available was limited and focused on what the students needed and could handle at each level in school, especially in terms of the school library. The information was also coming from validated sources so there was little worry whether it was correct and appropriate for the child's purposes.

Now though, when a child uses the Internet to search for a given topic they will need to sort through many sites that could potentially have incorrect information, comprehension levels that are too high (or too low), and/or too much information. The child, by using the Internet, is now being asked to filter through and deem what they believe is the right information, something they may not be capable of doing until they are taught tactics to do so.

How teachers feel about the Internet in school

It has been established previously that middle school students need to learn how to better access information online, but what about the teachers who are supposedly responsible for teaching these skills? David Pratt, in his thesis, “Understanding the Role of Self-Efficacy in Teachers’ Purposes for Using the Internet with Students”, set out to learn why, with 99% of schools having access to the Internet, teachers have a hard time incorporating meaningful assignments like learning about accessing information on the Internet. This study set out to prove that the reason for this hesitation to use the Internet for meaningful class assignments was because of the self-efficacy of the teacher.

The report on teachers’ self-efficacy on using the Internet suggests that teachers with higher belief in their own abilities were more likely to use the Internet in their assignments and with higher-level thinking purposes in those assignments. “Interview data analysis of 23 4-8th grade teachers who currently use the Internet reveal that they vary in the types of purposes they have for using the Internet as well as in the confidence they have related to that use.” [5] Even though many schools have access to the Internet and popular search engines, many teachers do not feel comfortable designing assignments that further explore the ways in which their students can learn more advanced searching and critical thinking about content they find on the web. If the teacher is hesitant to incorporate the Internet into class assignments beyond simple searching then important learning opportunities will be lost.

Thesis Project Concept

My thesis will aid in information problem-solving activities and address teaching critical thinking skills when accessing information on the Internet by providing a website with tools that students can use to practice finding, sorting, organizing and evaluating information. A database will be created for users to evaluate content they have found during searches on the Internet and will make that information available to all. In addition to this database the site will have tools that allow the students to save and organize information from search results, better interpret data, as well as give and receive feedback about content and searching.

The largest, and possibly most important, component of this web application will be the way content is brought in and made available for searching in the database. Content will be entered into the web application to be evaluated the users of the site. The evaluations are designed in a way that encourages critical thinking about the source because it is comprised of open-ended questions that inspire the students to evaluate content thoroughly. The purpose of the questions is to provide a starting point for the student to get their thoughts about the source organized and realized.

By having the evaluations written by students available to all, the web application provides a way in which to open discussion about the content that is being accessed. This is a unique opportunity for middle schools students from all over the United States and the world to mentor each other. I am not concerned with the evaluations being accurate, but more as an experience for students to exercise critical thinking abilities. Even evaluations that are not fully realized by the student can be an important learning objective for others because one way to determine if you have learned something is to compare yourself to others in a similar situation.

In addition to being able to evaluate content that is then added to the database in the web application, each user will have individual tools available to them. Every user has a personal profile that provides tools for organizing, sorting,

and commenting on data they search for. This section also provides tools that aid the user in learning how to best organize information for their purposes. By using these tools the user will understand how to organize the information not by following a specific formula, but by defining what process works for each type of outcome that they want. This provides a flexible way for the user to explore their individual systems for organizing information.

Why my project is relevant today

Before the Internet, using information from an author meant you needed to copy the passage by hand or by typing and then credit the person for their work. If you can download the content or copy it with a swift move of the computer mouse it is easy to add the information to the paper you are writing and not credit the owner. Even more than easily copying passages of information, you can find and download a paper already written for you.

It is true that copying and using information without giving credit to the creator is a very easy task that many do everyday, but what if you are trying to do the right thing and use information appropriately? It is easy to believe that you are getting the correct information if you do not have the critical thinking abilities that enable you to know the difference between what is credible and what is not.

If teachers are not discussing how the Internet works and that the way content is published online is different from how a book gets published, then where will these students learn this concept? It is important that as a part of a middle school education students are introduced to the concepts of why information needs to be credited and evaluated. This is important because students are already using the Internet for the majority of their schoolwork and we need to make sure they have the correct skills to use this device responsibly.

> "More than 2/3 of teens said within the last year that they use the Internet as their major resource when doing a big project for school." [6]

In a study of 500 sites used by Colorado high school students to do research, only 27% of the sites were judged to be reliable for academic research!" [7]

With the use of the Internet for academic research in middle and high school there have emerged new issues on what are appropriate methods of use that can be employed by students. The Internet brings about an instant gratification that is hard to ignore. It is easy for anyone to take for granted that the information they can get from a search engine is accurate. Information literacy supporters believe that if we teach students how to appreciate the intellectual property they are finding and using than we can prevent or curb problems such as plagiarism and use of non-validated content. Others believe that denying or policing use of the Internet will prevent such issues.

By denying access to students it may temporarily stop the problem but it will not make it disappear. The Internet is a large part of our daily lives and it is unlikely that it will faze out like many digital technologies of the past. "Lee Rainie, director of the Pew Internet and American Life Project, has written that daily use of the Internet is now the norm, not the exception, in the United States. He says we give no more thought to jumping on the Internet than we do to brushing our teeth, driving a car, turning on a television set, or fixing a meal." [8] If this is true then by denying students access, and policing what content they are allowed to view, we are not preparing them for the future where knowing how to effectively find and use information on the Internet will be a necessity.

Information Literacy has the answer

Information literacy is a concept, created primarily by librarians, which can address the problems students and teachers face when accessing and using content found online.

Below is a definition of information literacy created by the American Library Association:

> "To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information." [9]

In the context of information literacy, the term literacy has come to mean more than the ability to read and write. It also means that you are able to understand the meanings behind what you are reading as well as the best practices for its use. To be an information literate person you must have the abilities to think critically about information you are accessing as well as effectively locate that which is relevant to your purposes.

What it means to be an information literate person

According to Ann Marlow Riedling in her book "Learning to Learn" there are nine information literacy standards. Because being an information literate person is not confined to the Internet and crosses so many disciplines I cannot, in the scope of my thesis, create a system that will enable middle school students to get the full skills necessary to become information literate. Of the nine standards there are three that pertain to this thesis.

The first standard states that the student will be able to access information efficiently and effectively when they are information literate. With the vast amount of information one can get from any search engine it is important to have tactics that enable you to narrow down your topic and scope in order to get the most relevant results. My thesis will enable the user to effectively sort through many different search engine results at once in one cohesive interface. This will help in narrowing a topic or scope of information needed because it will be easy to see how much or how little information is available on a given topic without needing to visit many different search engines. This also encourages students to look

for information in multiple places making them aware of how different search engines can provide different results.

The second standard outlined in Marlow's book states that the student should be able to evaluate information critically and competently. This skill is important because with the Internet anyone with the correct equipment can post information, making it increasingly difficult to determine what is valid. Information in print sources have gone through an evaluation process in order to be published and made available to the public, however on the Internet that may not be the case. It is important that everyone who accesses information on the Internet become an evaluator. As stated earlier my thesis will use a system for evaluating content in order to better determine the validity of content found on the web thus encouraging students to become critical evaluators of the content they access.

The last standard that my thesis is concerned with states that the information literate person contributes to the learning community and understands how important information is in our democratic society. The second part of this standard is unrealistic for my purposes, but being able to understand the importance of contributing to a learning community is crucial for this thesis. This web application encourages individuals to contribute to the larger community through peer-to-peer learning activities such as reviewing evaluations written by others and answering questions posed by other students.

Internet in classrooms (technical issues)

Many of the schools in this country have access to the Internet in some way while there are still schools needing more resources. Many educational programs are being cut in order to pay for new computer technology. This has good and bad implications. When choosing my thesis topic one thing I promised myself was that whatever I chose I would not create any additional undue burden on schools.

By making a product that is web based it opens up doors for many to access it. It also can be a problem in that not everyone will have the Internet available. At this point this web application can rely on the fact that more than not middle school students are fairly likely to have some access to the Internet either in the home, in school, at a friends house or an after-school program. This trend will only increase as my thesis increases in popularity in the coming years.

Why evaluations will work

Current search engine technology can filter for inappropriate language, but for a higher level of filtering that enables evaluating comprehension and relevance, people are needed. If the actual users of the content were to write comments on whether or not it was useful we will better be able to find valuable content. By using these evaluations any user will have an additional way to determine if the information will be useful for them because someone has given his/her opinion based on his/her own experience.

Now it could be said that this method of evaluating content and making it available to every user could just add to the problem of sorting the vast amount of data when doing a web search. This can be a valuable layer of information that will not hinder access to the original information because the interface can be designed in a way that prevents this. The information will be presented in a way that will not interfere with the student's ability to access a source, but it will be available to add value to the searching process, acting as a way to filter search results for relevance and comprehension level.

There needs to be a place for students to go on the Internet that offers a more productive experience for academic work than search engines currently offer. The popular triad of major offerings, Google.com, AskJeeves.com, and Yahoo.com are doing no more than gathering and presenting resources with the sorting of useable data being left to the student. What is needed is a tool to help the students find the useful information within the larger scope of results. My thesis project will fill this missing need by allowing the students to have

access to all the popular search engines and databases in the public domain accompanied by tools that will help to sort through all results. They will have the opportunity to evaluate the content found from these search engines. By going through this evaluation process the students will begin to understand the value of the information they access and help to mentor their peers at the same time. This is an extremely important component of my thesis because most middle school students are using information they find through major search engines for academic purposes while not truly knowing if that content is valid.

By doing evaluation exercises of content found on the web, students will become critical thinkers who can understand the information, as well as use it in meaningful ways. This goal is common to information literacy and information problem solving models because being able to evaluate information critically is an important aspect of being an information literate person.

Additional research showed that by critiquing sources students learn what is credible information and what is not. Involving the student directly in the management of information sources also helps to avoid frustration and confusion when using search engines. A project implemented in a middle school, entitled "It's All The News: Critiquing evidence and claims" demonstrated the idea of the student as evaluator. "[S]tudents are asked to critique the information they view, with the goal they develop an understanding of why some information may not be credible, scientifically valid, or methodologically sound." [10] The students tend to be motivated to do critiques because they feel good about helping. It also gives the students a sense of responsibility for the data that they have critiqued.

The teachers in this article created a class assignment where the students were given content from a fake science tabloid whose goal was to become a more credible source. The students were asked to help them determine what information was valid and write recommendations for making content better. The goal of this assignment was to have the students develop a critical way of thinking about information on the web. My goal is the same in having the students evaluate sources on the web. The authors of the article even admit that the principles of their project can be easily applied to web site evaluations.

Will Students want to use this website?

Why would any student want to use my web application? There are already search engines out there, why not just use those and be done with it? This web application is different than search engines in that it is a set of tools that foster information literacy principles. In the process of becoming an information literate person you must practice activities that are connected to searching for information on the Internet.

Even though I believe my thesis to be unique and necessary I still must consider a more instant gratification for students to use it. Middle school students and their motivations for using this may be a little difficult to describe because they are not necessarily concerned with developing critical thinking skills. These students will probably not see the value in this website that I hope they will receive in the long term. Many might argue that this age group is not interested in doing anything that isn't fun or isn't a game. My site is clearly not a game, but I believe it can be fun as long as I create ways for the students to understand what is in it for them.

Getting a chance to voice an opinion about something learned about is sometimes the only motivator someone needs and this can be accomplished through evaluations of web content. If that is true than many students will be excited to do that and will need nothing else. Others may like the idea that their peers have provided the sources with evaluations and find it fun to read what others have said. After using the various tools, some students will come to see the value in how it aids them in completing schoolwork.

The process of creating evaluations takes a longer commitment than some of the other tools in this web application, so the benefit for doing one will be much harder to understand for middle school students unless they see an instant benefit that is measurable and immediate. One such tactic is the ability to have different privileges on the site by completing a certain number of evaluations.

Current ways of searching and what this thesis is doing differently

There are major search engines that students go to for obtaining information for academic purposes such ajkids.com. Ajkids.com is structured in a similar way to the main askjeeves.com search engine were you can search by typing in questions instead of a keyword. The adult version is somewhat helpful when it is difficult to come up with keywords for a particular inquiry. The version for children is not useful for academic research because it does not give many results when doing a search. The amounts of results that are provided from a question the user asks are very few because the company has filtered the content down to what they think are the most relevant sites.

Another child-focused search engine with similar filtering to ajkids.com is yahooligans.com, which is a kid version of the popular search engine, yahoo.com. The about section of the website claims yahooligans.com to be “a browsable, searchable directory of Internet sites for kids. Each site has been carefully checked by an experienced educator to ensure the content and links are appropriate for kids aged 7-12.” [11] It is hard to understand what is meant by appropriate in this situation, but I can assume that this goes not much further than making sure the content is free from foul language. This type of search engine is a problem for middle school students using this for academic research because there are not enough resources available to them and the content may not be up-to-date.

My thesis will have a section that works in a similar fashion to ajkids.com and yahooligans.com in that it will contain a database that is not searching the entire Internet when a user types in a keyword. What is different is that the users of the site will constantly update the contents of this database, because they will be bringing more sites to the database by creating evaluations. It will not have a representative checking to make sure every site is appropriate so this will make the involvement of teachers very important. In order to add a source to the database an evaluation process must be completed by the submitter, which

can be time consuming and may help to deter users from adding inappropriate content.

In addition to the child focused search engines there are many engines that are also accessible to all. Google.com, which uses a script that crawls the entire web to get search results, is not made specifically for children but they do have a content filter with two levels; moderate and high. The only way the filter will work is if you know to go and activate it. This is great for most users because they want to find as much information as possible without any restrictions. But this can be seen as a bad thing for children because they may have access to inappropriate content and not have the ability to handle such a situation. This same problem exists for other search engines that do not have a content filter, such as snap.com (tracks what sites users go to and ranks them based on which sites are more frequently used) and profusion.com (searches many websites at once and displays the results in one place).

Over-protectionism

It seems like the only way to protect children from inappropriate language and content is to deny them access to it. Unfortunately this takes a lot of time and relies on people to evaluate the web which is difficult when new information is being added to the Internet every second. Keeping children away from questionable content and language is an important accomplishment, but in the case of these search engines we are asking economically motivated companies to determine what children should be looking at for information. As is the case with ajkids.com and yahooligans.com they cannot be relied on to keep their database updated and filled with enough sources to use for valuable academic information seeking activities.

There are pros and cons to both methods of searching the web. An argument can be made that children are more likely to go to a website with inappropriate content when there is no filter whatsoever. However, online search engines that scan content ahead of time are not necessarily good because of

who might be making the choice of what to include and not include. It may be free from explicit content, but how will you know the content is valuable? On the other hand, searching without pre-scanned content runs the risk of providing content that is not appropriate.

This leads to the conclusion that instead of trying to protect middle school students from inappropriate content on the web we should be teaching them valuable lessons about what is out there and how to deal with it. Middle school students are at an age where they can be introduced to ideas about inappropriate content and have meaningful discussions about why this exists and how easy it is to find information that may not be something for them to see. It is inevitable that these children will be exposed to things in this world we don't want them to see so it is important that we provide opportunities to discuss the best way to handle these situations before they happen.

What other initiatives are lacking

Models like the Big6 (a program designed to apply information literacy principles into classrooms, which I will describe later) tend to be designed with the idea that the process of becoming information literate is confined to the individual. I believe that becoming an information literate person is an individual accomplishment that can be helped by learning from and with others. With this in mind this web application establishes a model encouraging users to add experiences that have helped them on their quest to be more effective at searching for and evaluating content on the Internet so that others can benefit.

Another way this thesis will improve on existing materials used to aid in the information seeking process is by tools that allow students to save searches and comments they have compiled while searching specifically on the Internet. This is different because many of the materials available at the moment are worksheets that the students or teachers usually print out. This web application will be more efficient in organizing sources because it can all be contained in one place.

The Big6 Applies Information Literacy Principles

There are a few ways in which teachers and librarians across the country are implementing lessons to teach concepts of information literacy. There are two people who have been instrumental in creating awareness and models for adding information literacy to school curriculums. These two individuals are Michael Eisenburg and Bob Berkowitz who, as part of their initiative to create awareness, have developed the Big6 model for information problem solving.

These two educators/librarians have created a step-by-step system that is a guide for anyone who is interested in finding best practices for information-seeking activities. According to the website, the Big6 is "the most widely-known and widely-used approach to teaching information and technology skills in the world." They claim that when you apply the Big6 steps, you have an "essential framework to approach any information-based question." [12]

The Big6 consists of steps that one must go through in every information-seeking task. Under step one, task definition, you must first "identify information needed in order to complete the task". Step two, information seeking strategies; states that you need to "determine the range of possible sources" you will look through as well as "evaluate the different possible sources to determine priorities". In step three, location and access, outlines that you will then need to "locate sources, intellectually and physically" and that you should be able to "find information within sources." Step four, use of information, wants you to "engage in the information" in a source and requests that you also "extract relevant information." Step five, synthesis, asks that you "organize information from multiple sources" and also requires that you to have the ability to "present the information." And finally, step six, evaluation, requires you to "judge the product's effectiveness" and wants you to also "judge the efficiency of the information problem-solving process". [13]

Many colleges and universities around the country are conducting research and developing tools to aid people in their online research endeavors. Ithaca College Library has a guide on their website outling ways to think critically

when accessing information online. Cornell University and The Sheridan Libraries of John Hopkins University both have similar criteria for evaluating online content on their website. Many of these universities also have worksheets were individuals can fill out information about content they find, some are printable and some are online forms. I have not found too many differences with each university's approach to web evaluations many opting to give straightforward advice.

Websites that inspired technology design

There are many websites in cyberspace that have search capabilities, user defined ratings and evaluations. For the purposes of my thesis I have highlighted a few that have inspired some of the design decisions I have made for my project. Features that are important for my design are search engines, product ratings, user feedback, user created content, user obtained statuses, organizing information, saving links, and formatting sources. Below is a list of websites and descriptions that depict features that have inspired my design.

A9.com

A9.com allows users to search multiple engines at once, tracks website user's visit to visit, contains tools to organize information and provides a journal to record thoughts and comments.

Amazon.com

Amazon.com is a website where users can purchase products that range from books to home appliances. What is unique about purchasing products on this website, as opposed to going to a store, is that you can view comments made by users about the products in addition to overall ratings.

Epinions.com

Epinions.com is a platform for users to write reviews of products they purchase or consume. It is an interesting way to hear real opinions about popular products from real people who use them. This site allows users to make informed decisions about products they purchase.

Ebay.com

Below is the philosophy that ebay.com has outlined for its community.

> "EBay is a community that encourages open and honest communication among all its members. Our community is guided by five fundamental values:
>
> - We believe people are basically good.
> - We believe everyone has something to contribute.
> - We believe that an honest, open environment can bring out the best in people.
> - We recognize and respect everyone as a unique individual.
> - We encourage you to treat others the way you want to be treated." [14]

Ebay.com has created user-rating systems that give benefits to those who get positive feedback; because of this it is of more value to use the site in an honest and respectful way.

Wikipedia.com

Wikipedia.com allows anyone, with the benefit of publication credit, to create new content, as well as edit or add to existing information provided by other users. Wikipedia.com is an interesting environment in that when incorrect content is created other users who care about the site are very quick to correct it.

Experts-exchange.com

This website is a pay service where people can come and ask technical questions and have "experts" answer them. Anyone can become an expert by

answering a question, but there are incentives to answering many questions with useful and relevant answers. There are positive statuses that experts can gain from answering questions, which encourages a respectful community.

About.com

About.com believes people are great guides to the Internet, which is why they have created a website where people who are experts in their fields create content and answer questions.

Snap.com

Snap.com is a new type of search engine in that it tracks where users go after they have clicked on a link from a search query to find out how long they spend at the website. The longer a user spends at a website as well as how many pages they access will determine the ranking the result receives when others search.

Refworks.com

Many colleges subscribe to refworks.com. Refworks.com provides tools for saving citation information from sources such as books, magazine articles and websites. The site has features that allow you to organize the sources in folders and will format and export them in almost any citation format.

Software Development Process / Methodology

Requirements

Product Overview

GopherInfo.com is a web-based application for middle school students. It allows students to create a user account where they can search for websites and books, save URL locations and descriptions, complete an evaluation of content saved from the Internet, and write a peer review of an evaluation by another student. Students can earn points for creating and receiving positive feedback for evaluations and for peer reviews they complete. Teachers and Librarians can create accounts to sign up students, view student work on the site, and recommend sources.

Student, Teacher and Librarian registration

Teachers will have a form in which they can enter information about their school, grade level and information about their students. When the teachers have finished filling in all the information they will receive a verification code to distribute to students to complete their registration in the system. Librarians can also register students the same way.

There is a possibility that if there is a way to authenticate users without teachers, librarians or parents, students will be allowed to register without this code.

Student login

Students can create a unique username or use a current email address for their login. They will also create a password to be used each time they want to access the website.

Teacher / Librarian login

Teachers and Librarians can create a unique username or use a current email address for their login. They will also create a password to be used each time they want to access the website.

Searching All users of the site will be able to use the search section of this web application, but for any other features they will need to login. If users type a search term in a text-field the system will look for results in the Sourcebook, Goggle, Yahoo and Amazon books at once. Below is a description of what types of search engines will be used. The users will also see a list of related search terms (keywords) when they enter a search term.

Sourcebook

The sourcebook will contain sources (URLs of web pages) that have been evaluated by student users. It will also contain reviews of evaluations, articles and published lists also created by the student users. The users will have a way to view the evaluations and reviews as well as view the original URL. See profile description for more about saved sources.

Google

The users of the site will be able to retrieve search results from Google's main engine.

Yahoo

The users of the site will be able to retrieve search results from Yahoo's main engine including images, news, local, video, and web.

Amazon

The users of the site will be able to retrieve book results from Amazon's main engine.

Evaluations

These will be a list of questions that ask the student users about a source (URL from a search) they have saved. Included will be a way to add keywords that will be used to identify the source in the sourcebook. Here are the questions used for testing and will be revised for future versions:

1. Briefly describe what the content in this source is about
2. Sum up what this source is about in one sentence.
3. List three words that would describe the content of this source. (These words will help others to find this source when they do a search)
4. What is your purpose for the information in this source?
5. Do you feel that the information in this source was helpful for your purpose? Why or why not?
   useless - - - - - useful
   Please explain:
6. Is it clear who is publishing this information? not clear - - - - - clear
   Why do you feel this way?
7. Does the webpage clearly state its purpose for this content?
   not clear - - - - - clear
8. What is the purpose of this source?
9. How do you know what the purpose of the content is?
10. How is the content produced?
11. Was the contact information to easy to find?
    difficult - - - - - easy Why do you feel this way?
12. Is it clear what type of organization, individual or group is producing the content?
13. What in the information provided tells you the type?
14. Where the authors of the content listed and easy to find?
    difficult - - - - - easy
15. What type of domain does the information come from?

16. Does the domain extension match the purpose of the site? Why do you feel this way?
17. Would you recommend this for:
18. Why did you choose the age group(s) above?

    Add any additional information about this source here:

Peer Reviews

Student users will review evaluations based on how well the author answered the questions about the source etc.m Here are the peer review questions used for testing and will be revised for future versions:

1. Do you think the evaluation accurately described the information in this source?

   Yes, Maybe, No, Not Sure

   Why or why not?
2. Do you agree with the keywords that describe the information?

   Yes, Maybe, No, Not Sure

   Why or why not?
3. Does the author of the evaluation give good arguments and reasons for the answers to the questions?

   Yes, Maybe, No, Not Sure

   Why or why not?
4. Did you find the evaluation to be helpful for you?

   Yes, Maybe, No, Not Sure

   Why or why not?
5. Would this evaluation be helpful for others?

   Yes, Maybe, No, Not Sure

   Why or why not?

Add any additional information about this evaluation here:

Profile

Each user will have a profile that will contain access to a list of their saved sources, site privileges, messages and personal score.

Saved Sources

When a student user finds a source (URL from a search) they want to save it will go into a saved sources section under their personal profile. From there they can evaluate the source at which time the source will be added to the sourcebook.

Messages

Teachers, librarians and students can send messages to each other. Students can send questions to Experts. Experts can receive messages asking questions and respond to them.

Personal score

Each student user will gain points based on the amount of evaluations and peer reviews they complete.

Example:

20 evaluations (5 points each)	100 points
5 peer reviews (3 points each)	15 points
10 peer reviews received	70 points
(Maximum 10 points per peer review)	
Total	185 points

Privileges

Students will have an opportunity to earn points that will give them privileges in the web application. Below are the privileges and their descriptions.

Ask an expert

Any user can ask an expert a question. These questions could be about how to find the best resources in a certain subject area. It is unclear at this time how much freedom will be allowed in the type of questions that can be asked.

Need at least 2 evaluations to receive this privilege and 1 peer review

Answer questions by users

If a user has received enough points they can become an expert and help their peers by answering their questions. They need to complete all evaluations in one topic area in order to gain this privilege. The system will keep track of topic areas based on folder names that students create in their profile.

20 evaluations in same topic area, 15 peer reviews, 40 positive peer review points = 185 points to receive this privilege

Publish Lists

If a user has received enough points they can create a list of links about a subject area where others can view them. This will be possible because in the user's saved sources section they can create folders to categorize sources. When they receive this privilege they can publish one of there folders.

Every time 5 evaluations and 3 peer reviews are complete a new list can be published.

Teacher specific features

Student list

Teachers can view all the saved sources, evaluations and peer reviews by their students.

Recommend Sources

Similar to the evaluations, teachers can recommend a source after it has been entered into the sourcebook.

Additional features

Teacher / Librarian network

Through this network teachers and librarians can swap tips and tricks on how to teach the skills their students need to better navigate the Internet.

Track User History

Each user can see all the websites they have visited.

Specifications

PHP

PHP is a server-side, cross-platform, scripting language that can contain or generate HTML. PHP pages act like HTML pages so that a web browser can read them. PHP allows you to create code that interacts with databases.

MySql

MySQL is an open source relational database management system (RDBMS) which uses Structured Query Language (SQL). SQL is a language that is used to access and process information in a database.

HTML

Hypertext Markup Language that is used to create hypertext documents for publication on the World Wide Web.

CSS

Cascading Style Sheets are a feature added to HTML that allows for control over how pages are displayed when alignment and text display criteria can be defined.

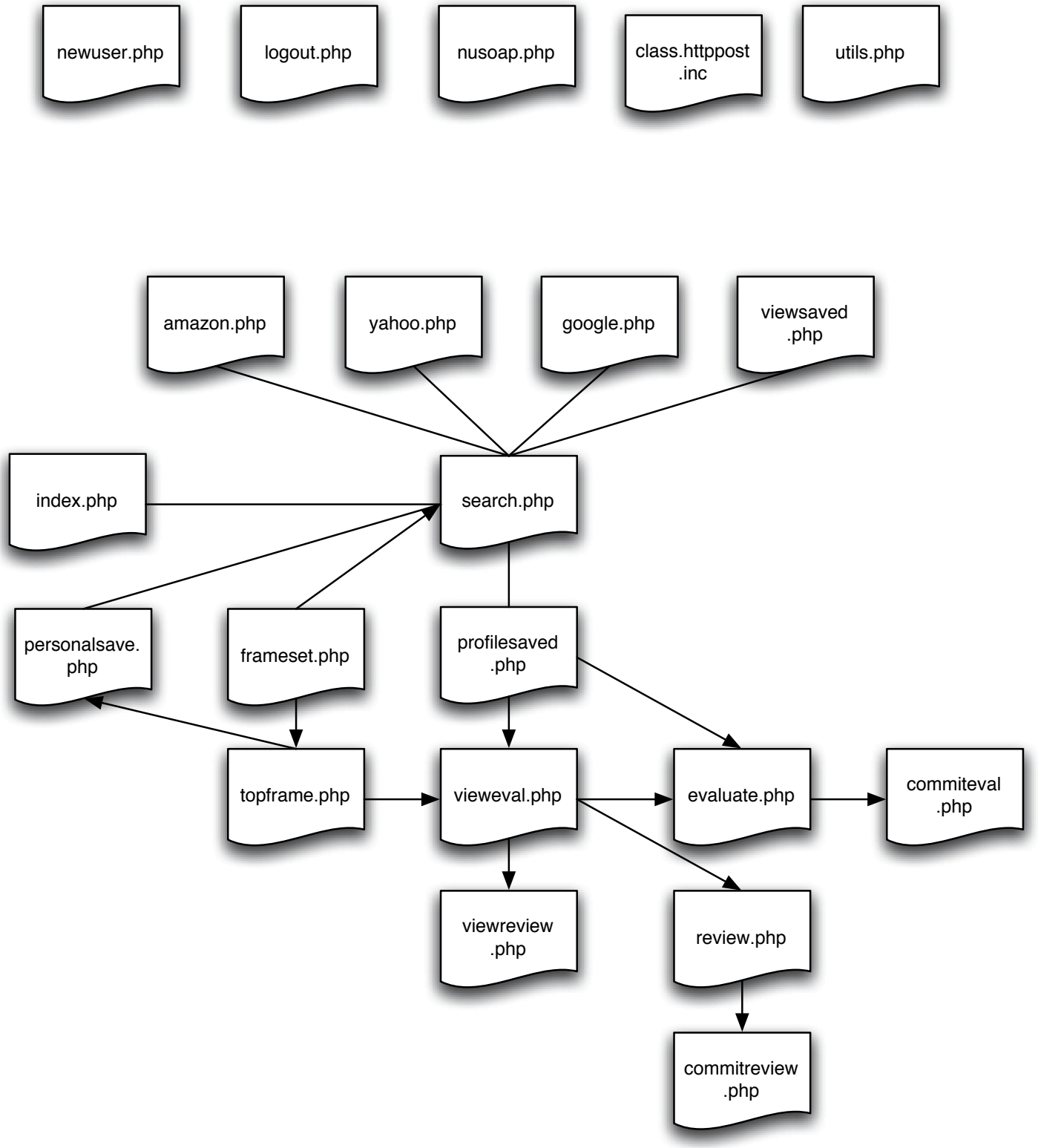
API

An API or application program interface is a tool for building software applications. Google, Yahoo and Amazon APIs provide all the building blocks to build applications using their databases and servers.

SOAP

Simple Object Access Protocol is a way for a Web server to call on another Web server, and receive results in an XML format.

Backend Development



Index.php

•Login page

• Forwards successful login to search.php

Search.php

• Takes keywords from search dialog box, retrieves results from google.php, yahoo.php, amazon.php and viewsaved.php

• Displays results back to user

• Creates links to URLs

• Displays results from one search engine at a time if user requests it

Viewsaved.php

• Searches sourcebook, returns keywords and entries that match search term

• Only returns keywords from sourcebook entries

Logout.php

• Logs out user

• Available on every page

Google.php

• Uses Google API to Search Google databases, returns results that match

Yahoo.php

• Uses Yahoo API to Search Yahoo databases, returns results that match

• Returns keywords from Yahoo, Google, Sourcebook and Amazon using Yahoo Content Analysis API (a.k.a. Term extraction)

Amazon.php

• Returns book results from Amazon API with author, publisher and publish date

Profilesaved.php

• Displays saved sources

Newuser.php

• Registration form

Utils.php

• General utility functions

Nusoap.php

• implements SOAP protocol used by Google, Yahoo and Amazon API

Class.httppost.inc

• Allows PHP to “post” form, used for yahoo content analysis

Vieweval.php

• Displays evaluation for a source

Evaluate.php

• Displays evaluation form for input

Commiteval.php

• Saves an evaluation to the database

Frameset.php

• Creates frameset for viewing source

Topframe.php

• Menu bar for viewing source

Viewreview.php

• Displays reviews

Personalsave.php

• Saves a source to the database

Commitreview.php

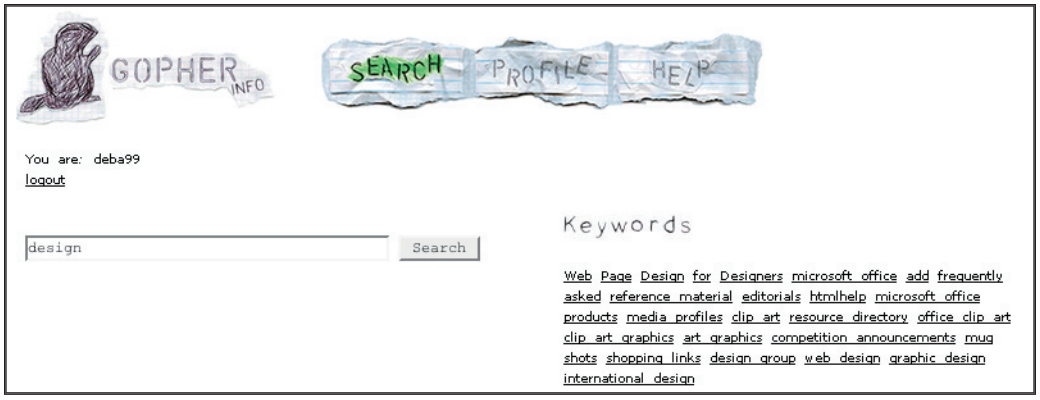
• Saves a review to the database

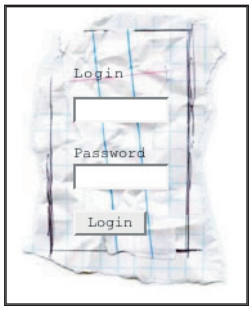
Review.php

• Displays review form for input

Visual Concept

The hardest part of the visual design of this web-application was using an appropriate metaphor. I chose to use elements that were familiar to traditional paper research and academic activities such as highlighters and lined paper because they have great visual appeal and invoke a sense of familiarity. I used techniques of ripped paper and hand traced stencil typography. I created many of the graphic elements on grid paper and composition paper, and chose to scan them in to the computer. This method added a unique look and character that is difficult if not impossible to achieve from computer-generated images. Because my audience could be using many different types of computer hardware and software with various Internet connections I needed to be conservative with the visual technology I used. I was able to create an interface that would work on almost any type of system yet still looks appealing and exciting to my audience.





Usability Studies Description / Results

My goals for the design of this product included having ample contact with my audience. During the entire thesis process I was in contact with a local 8th grade teacher and her class. In order to design an effective product such as one that involves middle school students there is no way to know if you are designing it to meet the goals set forth unless you can understand the current environment you are designing for. By observing this class while they conducted research projects I was able to take what I saw and to develop a product that could meet the specific needs of middle school students.

Overview of plan

There were two schools that agreed to join the study. One school was a progressive private school in New York City. This class was part of my observation studies throughout the thesis process. The second school was a public high school in a suburb of Boston, MA. I felt it was important with the limited about of time and resources that I try to get schools that were very different in make-up and philosophy in order to best represent the population that would be users of the web-application.

Observations of 8th graders at progressive private New York City school

In the first week of April I visited this school where I explained to the students that I needed their help in testing out a new product I had created. After they created usernames and passwords, each student proceeded to type keywords in the search dialogue on the web-application based on their individual research assignments.

I noticed after receiving search results that it was obvious to the students that the results were coming from multiple search engines, but they seemed to skip over the alternate search terms. Once I mentioned that there were additional keywords they were surprised and some stated it was a really good idea.

Another observation I had at this time was that it was a little unclear which link and which description were related. They had a problem understanding what they were saving when selecting the save button. This could be because the interface was not completed and was at a skeleton stage of visual development

These students completed evaluations of one website they saved while I was there, though I did not read any of them until later. It was interesting because some of these students took the assignments pretty seriously, while others wrote inappropriate responses. I believe that part of the reason for this is because these students probably did not see any value in doing a good job because they were not going to be rewarded.

Example of a student evaluation at New York City school

1. **Briefly describe what the content in this source is about**
   This source is about Marcus Garvey and all of the stuff about him. It is very informative and has been helpful in my research.
2. **Sum up what this source is about in one sentence**
   A informative site on Marcus Garvey's life.
3. **List three words that would describe the content of this source.**
   (These words will help others to find this source when they do a search)
   informative, quick, boring:0
4. **What is your purpose for the information in this source?**
   Itt was a skoul asseingment

Observations of 8th graders at public suburban high school

There were many more students in this school and I was given the opportunity to work with two class periods or approximately 40 students. We ran in to a problem with the school Internet security and the students were not able to login which made it impossible to save a URL and complete an evaluation. However I was able to spend time observing the student using the searching features. These students had all of the same problems mentioned earlier with the

search interface as the students in New York City.

Some of these students logged into the web-application from home and completed evaluations. They were given extra credit from their teacher for doing so which I believe contributed to the higher level of sophistication in their responses to the questions in the evaluations. This showed me that when the students use gopherinfo.com and learn they can earn points for completing evaluations and peer reviews they will be motivated to be responsible and put thought into their answers.

Example a student evaluation from public school

1. **Briefly describe what the content in this source is about**
   The content is about what illuminated manuscripts are. It explains why they came into being, and the proccess for making an illuminated manuscript.
2. **Sum up what this source is about in one sentence**
   This source is about illuminated manuscripts.
3. **List three words that would describe the content of this source.**
   (These words will help others to find this source when they do a search)
   illuminated manuscripts, their purpose, description

User Study Conclusion

From the observations and surveys I was able to retrieve from these students, and from my personal observations, I have concluded that the major change that needed to occur was the wording and structure of the questions in the evaluations. Many of the responses proved that the students did not understand the questions being asked. Every student unless otherwise instructed did not understand how to create keywords that could be used to describe the content.

Evaluation

My main goal has been to create a product that can be used to teach concepts and ideas on the computer that are impossible to teach in any other form. Teaching about the Internet via traditional educational methods doesn't make sense because in order to learn about the Internet one must use it. This thesis is an example of a successful educational technology because it does not replace an existing and proven method, but instead creates a framework for a new paradigm in how information literacy is taught.

An additional goal of this thesis was to create a flexible system that teachers could use to create assignments about information literacy and the Internet. The tools this web-application contains are open-ended allowing for adaptation to many different learning goals. I believe that this thesis is successful in creating a peer-mentoring environment where students can learn from other students while teachers and librarians can use the available tools to create lessons that fit the needs of their students.

Predictive analysis

One shortcoming of this project is the fact that I was unable to spend enough time talking with and researching the needs and concerns of librarians and media specialists. I want to have an opportunity to include these experts in the development of future features as well as improve current tools. Currently there is no way for librarians to become involved differently than teachers. I feel that many librarians and media specialists are at the forefront of teaching information literacy and should have tools that allow them to impart knowledge and suggestions to all students.

Another area I would like to work on more is the questions for the evaluations and peer reviews. I feel that because I am not an educator of this age group and subject matter I could not effectively create age-appropriate content. I worked with an educator, but we did not have enough time to really create great content. I believe I underestimated the amount of time and expertise it takes to create such materials.

Post Critique Analysis

The suggestions for improvement that were mentioned at my final critique were in line with ideas I had about future modifications. Some interface additions and customizing options were offered up, such as adding more tool tips giving the users more explanations. It was also suggested that I have features where the users can choose different search engines to be used at one time and that is something I would love to add in the future. In fact this was originally suggested to me by one of the student participants in my study who showed much interest in this web-application.

I believe that my presentation went very well and I felt very confident that my project was a success. It seems as though I was not the only one feeling this way about my project; the critics agreed that my project had a great concept and was well executed. I worked very hard on this project and I feel, as most perfectionists do, that I could do much more. I am satisfied with the stage it is at and excited to see that others are just as enthusiastic. I just hope that the future of this project is as successful if not more than this first stage.

Conclusion

As we know middle school students have an enormous task of not only finding the content they want online but also deciding what is of value and what is credible. These students are at an important age where they have an opportunity to learn the best ways to find information and develop their critical thinking skills. If they are given the correct tools and instruction they can develop the skills and abilities that are needed for them to become great surveyors of the Internet such that they can quickly find what they need and assess its value.

This thesis has been about creating a product that can meet the needs of today's middle school students and teachers while accessing information online. By creating a platform where students can evaluate not only the content they find, but others opinions about it they will be better prepared to find relevant and credible information for their purposes. It is hard to know at this stage if this web-application will be able to help students and teachers in the ways outlined in this paper. What can be said is that this is a great start towards a new product that will continue to evolve in order to meet the ever-changing needs of education in an information rich world.

Source Stream

Endnotes

01. Riedling, Ann Marlow. Learning to Learn. 1st ed. Vol. 1. New York: Neal Schuman Publishers, 2002 1.
02. Oppenheimer, Todd. The Flickering Mind The False Promise of Technology in the Classroom and How Learning Can Be Saved 2003 49-50.
03. Oppenheimer 49-50.
04. Oppenheimer 100.
05. Pratt, David. Understanding the Role of Self-Efficacy in Teachers' Purposes for Using the Internet with Students 2002 2-4, abstract, 16-17.
06. Lester, Will " High School Students Love Net for Research." Syracuse Post Standard, 8/21/01 (from AP)
07. Ebersol, Samuel, "Uses and Gratifications of the Web among Students," Journal of Computer-Mediated Communication, 6(1): September 2000, www.ascusc.org/jcm/vol6/issue1/ebersole.html
    Calhoun, Alexander. "But I Found it on the Internet!" Christian Science Monitor. 25 April 2000:16
08. http://www.fact-sheets.com/internet-technology/news/jan03/internet_importance/
09. American Library Association, 1989
10. Davis, Elizabeth A., Kirkpatrick, Doug. It's All in the News: Critiquing Evidence and Claims 2002 32-37.
11. http://www.yahooligans.com
12. http://www.big6.com
13. http://www.big6.com
14. http://www.ebay.com

Books, Articles, Dissertations, and Reports

Oppenheimer, Todd. The Flickering Mind the False Promise of Technology in the Classroom and how Learning can be Saved. First Edition ed. New York: Random House, 2003.

Alagbe, Agodi F., and Johanna K. Lemlech. Middle School Teachers' use of on-Line Communications. San Diego, CA: Information & Technology (IR019135), 1998. ERIC. Ebscohost, New School University. October 2004.

Bilal, Dania. "Perspectives on Children's Navigation of the World Wide Web: Does the Type of Search Task make a Difference?" Online Information Review 26.2: 108-108-117. ERIC. Ebscohost, New School University. October 2004.

Davis, Elizabeth A., and Doug Kirkpatrick. "It's all in the News: Critiquing Evidence and Claims." Science Scope 2002: 32,32-37. ERIC. New School University. October 2004.

Eagleton, Maya, Kathleen Guinee, and Karen Langlais. "Teaching Internet Literacy Strategies: The Hero Inquiry Project." Voices from the Middle 2003: 28,28-35. ERIC. New School University. October 2004.

Gencarelli, Thomas (guest editor). "The New Jersey Journal of Communication." 6.2 (1998)

Kirman, Joseph M. "An Activity for Critical Thinking and the Internet." Southern Social Studies Journal 1998: 3,3-10. ERIC. New School University. October 2004.

Levin, Douglas, and Sousan Arafeh. The Digital Disconnect the Widening Gap between Internet-Savvy Students and their Schools. Washington, D.C.: American Institutes for Research, for the Pew Internet & American Life Project, 2002. ERIC. New School University. October 2004.

Paul, Richard, and Linda Elder. “Critical Thinking: Teaching Students how to Study and Learn (Part III).” Journal of Developmental Education 26.3 (2003): October 2004-36-37. ERIC. New School University. October 2004.

Pratt, David. Understanding the Role of Self-Efficacy in Teachers’ Purposes for using the Internet with Students. University of California, Santa Barbara, 2002 Santa Barbara ERIC. New School University. October 2004.

Riedling, Ann Marlow. Learning to Learn. first ed. Vol. 1. New York: Neal Schuman Publishers, 2002.

Santerre, Mary. “One Teachers use of Computers and Technology: A Look Inside the Classroom.” Voices from the Middle 2000: 33,33-40. ERIC. New School University. October 2004.

Spitzer, Kathleen L., Michael B. Eisenberg, and Carrie A. Lowe. Information Literacy: Essential Skills for the Information Age. Ed. Eric Plotnick. 1st ed. Vol. 1. Syracuse, New York: Clearing House on Education and Technology, 1998. ERIC. New School University. October 2004.

Websites

http://www.thinkquest.org/

http://www.sparknotes.com/

http://www.google.com

http://ww.about.com

http://www.yahooligans.com

http://craphound.com/kahleweb20.txt

http://www.snap.com/

http://www.ajkids.com/

http://www.profusion.com

http://sunsite.berkeley.edu/KidsClick!/

http://searchenginewatch.com/links/article.php/2156191

http://cybersleuth-kids.com/

http://www.kids.net.au/

http://www.safekids.com/search.htm

http://www.usatoday.com/tech/news/2004-12-06-complicating-things_x.htm

http://members.iglou.com/ariedling/index.html

http://www.nycenet.edu/teachlearn/literacy/literacy.html

http://en.wikipedia.org/wiki/Main_Page

http://www.ithica.edu/library/Training/hott.html

http://www.library.cornell.edu/okuref/research/webeval.html

http://www.libray.jhu.edu/elp/useit/evaluate/

http://www.edchange.org/multicultural/net/comps/eval.html

Credits / Thanks

Andrea Deszo

You have been the best thesis professor I could have asked for. You have helped me to remember that the best and most creative design is more possible when you are in a supportive environment. Thank you for all of your encouragement and wise words.

Thesis Studio Classmates

You guys were great thanks for all the feedback, ideas and all of your patience as I rambled on in class.

Arthur Nguyen, Writing Tutor

What can I say? You have been so encouraging and supportive of my ideas and writing. I was so discouraged about my writing abilities when we started and you helped me realize that with some work I could be a pretty decent writer and I think I am now. Thanks for all your patience.

Louisa Campbell, Writing Spring Semester

I know we have only worked together for a short while but I am glad I had an opportunity to have you as my writing instructor. You have been supportive of my writing efforts and I appreciate that. Thanks.

Melissa Radcliff, Writing Fall Semester

Thank you for your concern and interest in my progress during the start of my project. It is always nice when I teacher is excited about what a student is working on.

Steven Goldberg, Development advisor

I really could not have done this project without you. I am not a programmer or engineer and this project needed both in order to be completed and successful. Thank you for going above and beyond the call of duty.

Ann Roberts, City and Country XIII's Teacher

I want you to know how much I benefited from your support and wisdom. I learned so much from your experience dealing with these issues on a daily basis. I surely hope I have created an application that will benefit you and your future students.

Todd Rosenthal, City and Country Librarian

Thank you for meeting with me and introducing Ann to this thesis. You really set this thesis off in the right direction with your ideas and suggestions back at the beginning when I had no clue what path to take.

XIII's at City and Country

You guys were so great to let me follow you around and ask you crazy questions. I hope that someday you will know the full impact of what you did to help this project. Thanks for being so cool.

Joyce Fricault, Marlborough High School 8th Grade Teacher

If not for you I would not have the insightful knowledge of what public school teachers have to deal with. You really are a trooper. So many people were delighted that I was able to work with public school students because they like I realize how valuable that experience is. Thank you for making this possible.

Periods D and F at Marlborough High School

I am sorry about the technical problems we had. I really appreciate that some of you volunteered to help me out after school. I want you to know that you really helped me to create a great website. Thanks for going beyond the call of duty.

Appendix

For more materials from this project visit:

http://www.debradesign.com/thesis

Summary of materials

User Testing Materials

- Participation contract
- Survey Results

Copies of Original Artwork and Sketches

DT Blog Excerpts

User Testing Materials

Participation Contract

The text below outlines the user testing process as it relates to my thesis. Please take a moment to read through it completely and email me with any questions you have before going on to complete the online contract.

Goals of User Testing

The goal of user testing is to see how well the product meets the needs of the intended users. In this case my users are middle school aged students and their teachers. I would like to see how well this product fits within a typical school day with assignments requiring students to find information online.

Research Results

The results I receive from working with the students and teachers will help to inform my design as I complete my thesis for my degree. Being able to observe my target audience using my prototype will make the final version much more robust in design and relevant to the needs of future users.

Confidentiality

The only personal information I will need from students is a working email address and a first name. These will be used to identify them in the system. Email correspondence from me will be to confirm registration in the system and anything else related to the testing sessions. The emails and first names of the students will not be viewable to anyone but me and will be destroyed upon completion of my thesis. All students will be seen as anonymous users to other registered participants. I will not be recording any audio or video of the sessions.The students will provide feedback to me orally and written (using online forms).

Commitment

There is minimal commitment on the parts of the students and teachers because I can complete most of what I need in a one-hour timeslot (or during one class session). Any follow-up can be completed using email or other online correspondence.

During the one-hour session I am requesting it will work best if the students can link it to an existing assignment they are doing. Any assignment where they need to find information online will work for this. My hope is that the students will be productive on their schoolwork as well as help me in designing my product.

Payback for Participants

The participants in this study will be instrumental in developing and designing a product for their peers. My hope is that they will be excited to participate for that reason. While using this product and commenting on how it works the students and teachers involved will be gaining a unique opportunity to learn about the design process of an educational software product.

Students and teachers will be allowed to continue using the product when completed as long as the service is running under my control.

Participation Contract

I agree to participate in all aspects of this study.

I will not disclose any specific information about the ideas or design of this project to anyone not participating in the study.

I understand all materials used or data collected, other than my personal information, belong to Debra Michalides.

I understand that my participation in this study is entirely voluntary and that I may discontinue taking part at any time without obligation to explain why. If I decide to discontinue, there will be no penalty whatsoever.

Survey Results Data

Do you evaluate the content you find online?

User 1. sometimes

User 2. no

Do you have any methods you use to tell if a website is good or bad for school assignments?

User 1. I check numerous sources and compare the facts.

User 2. um.. well if it's clear and simple information, its good.

How do you feel about the evaluations you completed?

User 1. pretty good.

User 2. bored.

Do you think you would do an evaluation again? Why?

User 1. Maybe, if a source was really really good.

User 2. no way! cuz they're boring as F***!

Would you be more or less motivated to complete an evaluation if there was some reward?

User 1. If there was a reward then, yes. Not to be greedy or anything, but if I have no motivation whatsoever.

User 2. yes. if it was a cookie.

Which, if any, of the following rewards / privileges would you be interested in getting for completing a certain number of evaluations? (select as many as you like)

User 1. Becoming a site moderator where you can correct errors made by other students.

User 2. COOKIES.

Are there any rewards or privledges you would like to see that are not listed above?

User 1. nope.
User 2. no.

Did you find out anything about the source (URL) you evaluated that you didn't know before?

User 1. No. I checked out books before I went online.
User 2. no!

Anything you wouldn't have learned if you didn't do this evaluation?
User 1. No.
User 2. SHUT UP!

Was there any value for you in doing this activity?
User 1. Sort of.
User 2. i thought they were annoying.

Links I have yet to read

Posted by Debra Michalides on Mon, 07/26/2004 - 05:37 :: SourceStream: Works Cited
Digital Technology and its Impact on Education Joseph Hardin & John Ziebarth National Center for Supercomputing Applications University of Illinois at Urbana-Champaign http://www.ed.gov/Technology/Futures/hardin.html U.S. Government to Giveaway Billions in Grants to Citizens who Know How to Ask For It. http://www.top-reviews.com/grants/start.php?cbid=vcg10 Institute of International Education http://www.iie.org/ FY 2003-2005 Discretionary Grant Application Packages http://www.ed.gov/fund/grant/apply/grantapps/index.html Grants for Teaching and Learning Resources and Curriculum Development http://www.neh.gov/grants/guidelines/teachinglearning.html Topics Education - Curriculum Development http://www.topicseducation.com/Services/curriculum_development_adwords2.htm

Topics I am interested in
Posted by Debra Michalides on Mon, 07/26/2004 - 05:57 :: DailyStream: Thoughts
I have been interested in education as long as I have been interested in design. I have been teaching most of my life, either formally or spontaniously. It would only seem natural that my life mission would be to combine the two. I love to teach, I love knowing that what I am doing is helping someone to achieve their goals. Its great to be good at something and to see the results of it happen in front of you. As a designer I find myself drawn to the same ideas, I want to teach people things and help them achieve their goals. I have struggled in my design world to find ways to do this. As a teacher its simple, you show them stuff, they hopefully learn stuff, if they are having trouble and you are good at what you do, then you can adjust your methods as needed and immediatly. If I design a product I can't always know if its working and change it that quickly mainly because I don't always have access to the users. I think the risk in design is muich greater this way. Sure I can test it a billion times with a billion different people but unless I can be involved directly with everyone who will use it then its still a big gamble that anyone will find my product useful or productive for them. As a teacher I know how important it is to have personal contact with your students, to be able to see expressions on there faces and to learn about their lives. These things give you clues to know how they may need to receieve information and how best they will digest it. As a designer for technology I know the great things technology can do, I know that many computers know act more human and are continuing at a great speed to inherit more human characteristics. But there is a huge conflict within society and within myself. How can "technology" with "design" enhance learning experiences in a traditional educational setting? I am reading a book right now that so far says it can't. It says that traditional teaching methods are best and that computers only make learning worse. I have to yet to read the final conclusions, but this author makes some disturbing points. Its making me think that my ideas are not as good as I previosly thought. Which though a little devestating is probably a good thing I learned this early. Its good I didn't go to far with incomplete or medioker ideas. So here begins the challenge.

Really this story relates to thesis
Posted by Debra Michalides on Tue, 07/27/2004 - 20:18 :: DailyStream: Thoughts
I was in Boston meeting with my client, I missed my train and took one that didn't get off at my stop (Brandeis University) so I got off at the Waltham stop and waited for the bus. I waited...and waited....so a half hour later a young guy walks up to me because I was the only one left at the stop, (I swear like 5 #70s went by but no #553) and asked if the #553 stopped here. In my sarcastic way I said "Its supposed to". He seemed confused not catching my lame joke so I explained that yes it did. Not sure how but we realized we were both living at Charlesbank apts and he of course just graduated from Brandeis, who hasn't in this town? I told him my story about going to Parsons. I told him I was into interface design and he told me about this project he was working on while in school and that was still going on. He told me about how this project is about using "games" to teach. So as we were talking we got on a bus, and after getting to the first stop realized it was the wrong bus, got off went back and he called his friend to come get us. Ok so female getting in car with two guys she doesn't know, not my smartest move, but they were harmless and I can sream loud and bite hard! we exchanged numbers and email. He emailed the professor on the

project and me to get us together. The professor emailed me to set up a meeting when he got back from vacation. i emailed him around the time he said he would be back and sense then nothing. Originally he was going to give me summer work in regards to the project, but I mostly want to talk about what he's doing as research for my project. His name is Jordan Pollack (Dynamic & Evolution Machine Org Computer Science Department) and his website is: http://www.demo.cs.brandeis.edu I don't know much more than that and I am hoping to get more from him. I haven't heard from him in almost a month so hopefully another email will get it rolling. So do talk to Strangers!

What to do next
Posted by Debra Michalides on Wed, 08/04/2004 - 15:44 :: DailyStream: Thoughts
I feel like I should be doing more about my thesis but it seems hard to not feel overwhelmed at this point. How can I narrow down a large subject area? It seems like there are many battles to be fought and I am pondering which are more important. I feel quilty picking one thing because then it means I am excluding something else that may be just as important. I just need to find a way to do what I am capable of doing and that will hopefully make the largest impact in a positive way. I know I am sounding very vague, but in a way this blog thing has made it harder to tell of my ideas because they seem so personal and I'm not sure I am ready to let them out for public ridicule. I went to the local library and they don't have much for current reads on education and technology, and I'm not doing well on the cash front to buy books. I guess for now I will stick to the internet being that it's basically free. I know there are some recommended books from the dept. on how to do research but again, the no money thing is holding that up. Anyone know of any great web resources on doing research for thesis?

Usability bootcamp
Posted by Debra Michalides on Wed, 08/04/2004 - 15:58 :: DailyStream: Thoughts
We are not the only ones doing bootcamp! I would really LOVE to go to this next spring: http://www.bentley.edu/professional/programs/usability.cfm?program=in&pagetitle=infodesign&CFID=247011&CFTOKEN=84426869

Wacky idea
Posted by Debra Michalides on Wed, 08/04/2004 - 19:11 :: DailyStream: Thoughts
I've been reading a book called "The Child and the Machine: How Computers Put Our Children's Education at Risk" by Alison Armstrong and Charles Casement" It talks a lot about what is wrong with computers in schools and as I said in an earlier post its kinda depressing. A lot of things I thought were good ideas are apparently not, like using computers istead of textbooks. Students loose the tangibility of it and the internet never provides enough information. well here my late night wacky idea. I saw this at the thesis show, it was a book that had movies and images projected on paper. I wonder if there is a way to make a cd or something basically "project" onto a blank book. This way the student could still have the tactile expereince needed and still be able to recieve up to date text. hmm...maybe the info could be downloaded from a database from the publisher in which the library subscribes and put onto a disk that can be kept and used with the blank book. The student would only carry the blank book and the various disks that house all the subject materials. This way once in a while the could receive new disks with up dated info and the publishers could just be always adding new content. I think that textbook publishers tend to research and write all the time but then have to cut stuff out when they go to print. In a way it would be like never going to print. I wonder if this could also be a way for teachers to filter what they need each student to have. I always hated skipping parts of the text because we didnt have time or it wasn't part of the lesson. Maybe teachers could create their own archives for students based on lessons. I like the idea of teachers customizing as much as possible. The book I'm reading talks about how children need guidance with research and finding good content, this would be way to control how much is given at a time, and you could slowly add more content based on what can be handled at each grade. The way in which the teachers make the archives would need to be fast and efficent

because we all know that teachers dont have a lot of time. Maybe it comes with lessons planned you can pick from and either use as is or customize as you need to. This needs more thought and research to see if it makes sense or if its been done.

Got a new book
Posted by Debra Michalides on Thu, 08/05/2004 - 18:23 :: DailyStream: Thoughts
I found this book called “The Flickering Mind, the False Promise of Technology in the Classroom and How Learning Can Be Saved” by Todd Oppenheimer. It’s funny how similar this book is to the other book I’m reading called “The Child and The Machine”. The big difference is this one seems to be more promising in regards to how technology can still be used dispite all the problems currently. Both books start with all the history of computers rather annoying to be getting it again, after all the first year readings explaining LOGO and such. The Flickering Mind is more about what technology has been used in school, it talks about how people have tried for a century to find the new fix for education. How Edison thought that motion pictures would replace textbooks. hmm yeah that happened.

The porfessor got back to me
Posted by Debra Michalides on Tue, 08/10/2004 - 07:49 :: DailyStream: Thoughts
I just had my wisdom teeth out yesterday and I’m doing really well. They gave me percocet, the good stuff! The bad part is that The Professor from Brandeis got back to me and said the project meets every Tuesday night, well I can’t go tonight even though I feel good, there is just to much to do with the rinsing and the penicillin and the percodet, I am very busy! I am excited to finally be going to this meeting and hearing about what they are making. I think I’ll try to go every week before I move back to NYC in a few weeks.

Thoughts Notes from meeting to Edutech group
Posted by Debra Michalides on Tue, 08/17/2004 - 12:27 :: DailyStream: Thoughts
At 12:30 today I met with four interesting people. One was Jordan Pollack, professor and the other three were students at Brandeis. They are all working on a project called Edutech. This project was started about 5 or 6 years ago by Pollack. He explained briefly about his ideas being based on evolution. I need to have him elaborate more on this. His theory from his research is that he can use interactive computer games to have students teach each other. He beleives that 1) you can’t force teachers to use technology, 2) you can’t learn unless you are motivated, and 3) you can’t make anything that the schools can’t fit into what they already have. it needs to fit into the system. He talked about schools as running like the ford manufacturing model, you finish one grade and move to the next, not adding much that is new so not to break the assembly line. It was interesting to here it explained this way. I thought it was very good, I have always known that schools are hard to change and that new technologies are hard to add, but I never thought of it quite like this. So the idea with the project is that you can have students play each other online by having them create games or challenges for the other student. One such game is a trangram. Now I don’t know much when it comes to math so I didn’t know what a tangram was, but its basically a puzzle.In this game you have an cutout of a shape that when the pieces are placed onto it, they all fit inside. You can make a puzzle and send it to a student who sends one to you. You score points based on how difficult you make it and how many you are able to complete. They have other games with a similar idea for motivation is learning. Pollack feels that you can’t learn unless you are motvated, so here in lies the motivation. They have tested some of their work. One such instance was with students in Trenton, NJ. There was a boy who was basically the class bully and no one wanted to work with him in class and he was not motivated to do any class work as well. When they used one of their online games this boy improved in the game and I beleive in school. Because no one knew who they were playing it was easier to stay in the game. They need to do a lot more research but that is promising. I asked about any readings for the project and Pollack said they are under published but was more concerned with me reading stuff he hadn’t yet proven. I am not concerned with that I am more interested in the ideas and the research behind them. But I can understand the concern. He did direct me

to a former students thesis: http://www.demo.cs.brandeis.edu/papers/author.html#sklar I was excited to be there and hear about this ideas, its giving me a lot to think about.

Why digital technology?
Posted by Debra Michalides on Wed, 08/18/2004 - 10:46 :: DailyStream: Thoughts
My major studio project for last semester was a short film about a preschool classroom. I was hoping to find out if adding more digital technology would be beneficial. The teachers only used a computer with some “educational” games, they had students sign up to use it, if they weren’t on the computer they were playing with non-digital items and in groups. Its funny that when I did this project I was told I should have informed the preschool teachers of what great technology is out there, the kindertable project being one of the suggestions. As the reason they didn’t use it was because they didn’t know about it, and of course money was another reason. It was assummed that was the reason, but could the reason also be because it was either worse than what they were doing or not really any better? The preschool teachers said some interesting things, they explained without knowing it how unimportant the technology was for preschool. I think its a situation were there is nothing to fix, and yet I feel like I am being pressured to find a way to save the world with technology, that nothing is great unless digital technology is being used. Is is ok to say, “Nope can’t do anything here, its pretty good the way it is”? I keep reading about how bad computers have been for many fundamentals in education. It makes it hard to still be in favor of computers in the classroom. I am torn really. I love computers and digital technology. I beleive it had helped me in many ways academically, but not until high school because we didn’t use computers much. I know it helped me, but I wonder if I am an exception? Plus how it helped me may be the same way it harmed someone else. I really don’t want to contribute to a problem, I can’t make something that could cause more trouble down the line. I can only do so much to make sure what I do doesn’t hurt anyone, but there is always a risk. I’m afraid of coming up with an idea and getting so involved and attached to it that I lose sight of the big picture.

Blogging as writing development?
Posted by Debra Michalides on Wed, 08/18/2004 - 11:06 :: DailyStream: Thoughts
I wonder if anyone has done studies with students using blogging as a way to develop writing skills. When I was in elementary school we did projects were we needed to keep journals. I wonder how the skills would change if it were on a computer. I know kids who use IM tend to have poor spelling .... hmmmm

Quote
Posted by Debra Michalides on Wed, 08/18/2004 - 11:47 :: DailyStream: Thoughts
“When work gets simplified, however, something is always lost. The question of course, is the value of what’s been lost compared with what’s been gained.” Todd Oppenheimer The Flickering Mind

Another wacky idea
Posted by Debra Michalides on Tue, 08/24/2004 - 10:14 :: DailyStream: Thoughts
i’m sure this is taken or being done to some extend. I haven’t looked into it but I wanted to make a note of this. Many teachers face problems with technology of differing levels, but one that they all have trouble with is the training needed to use the equipment that they are required to use in their classes. Maybe there is a way to create a community either online or whatever that connects these people to professionals who can answer questions or provide workshops. maybe they also need to be in contact with other educators with similar problems. like a experts exchange for teachers and school admins.

What does this have to be?
Posted by Debra Michalides on Tue, 08/24/2004 - 10:20 :: DailyStream: Thoughts
I am sure everyone is going through this in their heads or will be soon. I am wondering what my thesis needs to be. I have thought of product ideas, community ideas, creating a new organization. As a graphic designer

I beleived in physical design problems, but can creating an organization be a soluntion to a design problem? It can be for some but can it be for me? Can i still be a “designer” in the graphic and visual sense and be responcible for creating something that isnt concidered graphic and visual. I know that doesnt make much sense. I guess I’m still grappling with the idea that design is not always something that can be mesaured the way a printed poster can be. That the design can be the unseen part of a project. Someone very smart and dear to me once said, “Design is everything”. nuff said.

Peter Drucker
Posted by Debra Michalides on Wed, 08/25/2004 - 09:55 :: DailyStream: Thoughts
This guy is known as a business guru. He beleives in high technology in the business world and in school. He sees technology as a way to rid mindless drill work from teachers so they can give more individual attention. page 178 flickering mind http://www.peter-drucker.com/ I am myself have had these same ideas. I want to focus more on using technology for the teachers advantage so they can have more contact with their students. Many schools accross the country as I have read in The Flikering Mind have used the web and email to communicate with parents even having them ask for parents opinions about assignments.
I am thinking there may be a way to expose this to a farther level so that teachers can use computers to assess students and share that information with parents and administrators etc. I had thought it would be interesting to make a program that could recognize behavior patterns of students and give feedback to the teachers about their progress. I don’t think computers should be used to substitute what traditional methods are doing just fine. Maybe there is something to using them as making mandane tasks easy without losing the academic achievement needed. Maybe you learn math with paper and pencil but take your test on the computer where its calculated for the teacher with a summary or something. This may be done already. Math is an easy thing for computers to calculate. English would be difficult, considering the spelling and grammer checkers out there.

Learning disabilities
Posted by Debra Michalides on Wed, 08/25/2004 - 09:57 :: DailyStream: Thoughts
I am wondering how computers can help with learning disabilites. i know that some studies have said that they usually help kids with LD more than others. Maybe there are things I can develop that exploits this. I have to find more studies about this. I know as someone with dyslexia the computer has made writing easier for me. I am not sure if thats true for others or just me.

Quote
Posted by Debra Michalides on Fri, 08/27/2004 - 12:30 :: DailyStream: Thoughts
“It would be nice if the challenges that parents and policy makers face when confronted with fads like school technology consisted of nothing more than the basic pedagogical questions: What is the purpose of school? What is the true nature of academic work? If that were the case, education’s problems could be solved by reviving a few long-forgotten guidelines about how people learn.” Todd Oppenheimer The Flickering Mind

How do I break it down?
Posted by Debra Michalides on Mon, 08/30/2004 - 10:43 :: DailyStream: Thoughts
I was told that maybe it would be better to break down my research into smaller “gulps” in hopes that I might find something worthwhile to work with. My problem is that I always see the big picture and have a hard time realizing the small parts that I can change to effect the whole. I am interested in so many aspects of my domain but I am not sure what is the best place for me to work. I think games as educational tools are fascinating, but I myself have never cared about games so I am not sure I can be passionate enough about it. But I am not ready to count it out yet either. I am interested in how technology can help with learning disabilites I myself having one often regognize how technology has helped me now as an adult and if it would have helped me earlier. Maybe I can create ways for adults with LD to better their lives. I have to

remember I don't need to make things for children, adults need help too. Aids for teachers are also things to look at. Computers are great at "computing" thats what they are in the core sense. They can crunch nummbers. Maybe computer-aided assesments will be better than standardized testing. I personally don't beleive in the standardized test as it stands today. I can't deny that we need ways to measure progress in students and that individual assestment is difficult to do. Now I have wondered if it really costs more to hire people who make individual assesments go around the state than to have a standardized test given to every student on paper? I was thinking that the testing software I make could be made in a way to show the individual progress of the student. So if they are not doing well on word problems the computer will give them more of a different type of question and show in the results, this student was given the same content in two ways yet answered better when it was one, etc, etc. It would be able to track schools as a whole yet give an individual assesment at the same time. The program wouldn't cost much, software is cheap, and even schools without a computer could give the test in shifts.

Form and Genre
Posted by Debra Michalides on Sat, 09/04/2004 - 06:27 :: DailyStream: Thoughts
Is there a particular genre I want to work in (narrative film or animation, physical computing, performance and computation, design activism, learning tools, games, abstraction, etc?) I am not sure of a particular genre, I am more interested in finding a proper solution to my design problem. That may fall within learning tools because of the subject I have chosen. ---------- Am I telling a story, expressing an emotion, synthesizing data, providing a tool, creating an experience? I can guess I will be providing a tool of some sort. I tend to think of ways I can help people and for me it generally is a tool, but I am open to it being soomething else. ---------- In what medium (or media) am I interested in working? I am not sure, but maybe software with some hardware. ---------- What domains of art/design/technology do I wish to work within? (New Media installation, animation, educational software, conceptual products, typography, interface design, game design, information architecture, usability, tactical media, branding, interactive narrative, etc) Educational software, interface design, usability ---------- What artists/engineers/programmers/animators/etc have influenced your work and ideas? Which ones do you wish to refute or challenge? Build a personal library that includes examples of these people's work. Make notes about why they are important to your and your thesis. Todd Oppenheimer - Writer He has some amazing research into the state of technology in education. i want to use some of his research to look further into my own interests. His book "The Flickering Mind" is more of an otherall view with specific cases, I need to find my niche within this subject. Jordan Pollack - Professor - Computer Science He has some interesting ideas about how to use what he knows about people and learning. He has created some computer web-based games that demonstrate hie ideas. I want to explore this further to see if there is a part that is either missing or needs to be exploited further. Steven Goldberg - Software Engineer He is a software engineer at a data storage company called EMC. I am influenced by him because he shows me an engineers point of view to my design ideas. He helps figure out ways to demonstrate my ideas better. I can tell him something and he can help me figure out if its possible and how to do it. ---------- Is there a piece of software, a sensor, a tool I want to explore? There are many different technologies that are interesting to me. I want to explore web technologies that connect people, like online games for learning and online classes.

Content and Experience
Posted by Debra Michalides on Sat, 09/04/2004 - 07:49 :: DailyStream: Thoughts
Is there specific subject matter I want to explore? Who and what are the best sources of information for this content? I want to explore educational technology. For now the best sources have been writings on the state of technolgoy integration within traditional learning environments. ---------- Is there a certain kind of experience I want to create? Write narrative scenarios that describe the qualities and characteristics of the experience you envision. I want to create a learning experience or learning aid. ---------- What is it I want to communicate through my project? What is my message and for whom is it intended? I want to

beleive that technology in education is a good things and find a way to best represent how it can be used effectively. ---------- Do I want to educate, entertain, disturb, assist, clarify, or confuse? I want to educate and assist. ---------- Do I want my work to be easy to make sense of, perplexing, or opaque to all but a small audience? Answering the previous three questions helps you define communication strategy for design projects. I want my work to be easy to make sense of and open to a large audience. ---------- Consider content together with form: to what end could I use the form and function of the medium(s) I am considering? What do I want my design “to do”? I want my design to educate, assist, or enhance a current experience. ---------- Why would the form and contest I have chosen be the best way to work with chosen content? Is my choice of technology appropriate?

Context and Audience
Posted by Debra Michalides on Sat, 09/04/2004 - 07:53 :: DailyStream: Thoughts
Is there a particular context (museums, galleries, public spaces, schools etc) in which I want to work? Schools ---------- Is there a particular audience for whom I want to create? What are the defining characteristics of my potential audience (age-level, expertise, interests, demographic-socioeconomics, culture, language) etc. Educators, students, school officials, parents, anyone involved with the education system. ---------- Where will my “design” be used? maybe in schools or after-school programs. ---------- Is my design for individual or group use, or both? ---------- What level of help or training is required to use or experience my design? None, some. hopefull the product itself will be the training.It’s

nice to be back
Posted by Debra Michalides on Wed, 09/15/2004 - 08:37 :: DailyStream: Thoughts I haven’t had internet access at home so posting to the stream has not been easy. I have been trying to narrow down what areas i want to focus on in the whole technology in education debate. Here are three areas I was thinking about: testing / assesments learning disabilities / dyslexia curriculm development I am interested in how I can make tools that are flexible and adaptive to the user. I want to research the different ways people learn and hopefully find ways in which the tools I create can adaptive to those styles.

ETIPS
Posted by Debra Michalides on Wed, 09/15/2004 - 08:41 :: DailyStream: Thoughts
http://www.etips.info/ “One of the most appealing features of the ETIPS cases is their flexibility. ETIPS cases cover a range of instructional topics and school settings for use in a variety of teacher education courses. Assignments are easily custom-made to meet specific curricular and student needs and to accommodate a variety of implementation strategies.” http://www.swaydesign.com/ they worked on the design. I sent them an email asking if I could talk to them about it.

Vsmile
Posted by Debra Michalides on Thu, 09/16/2004 - 08:58 :: DailyStream: Thoughts
http://www.vtech.com/ This is a game I saw on tv. Its claims are that it is combining video games with educational goals. They say kids love video games and adults want kids to learn, so they can learn from the games. Its ages 3-7. I am not sure if its true that you can learn preschool skills and get ready for school from this device as they claim.

Dyslexia aid
Posted by Debra Michalides on Thu, 09/16/2004 - 09:23 :: DailyStream: Thoughts
tinted contact lenses help some read better http://news.bbc.co.uk/1/low/health/141334.stm I find that when the background on certain websites is too bright I have a hard time reading, but not so much now that I spend lots of time online. It’s true that certain typesetting in books makes it harder for me to read. I know that ins and outs of typesetting from a formal education, but i also know what I can read. i wonder if on the

computer being able to have more control over your view of the type, like colors, spacing, size etc would be helpful for dyslexics.

Play
Posted by Debra Michalides on Thu, 09/16/2004 - 17:38 :: DailyStream:
Thoughts so I was thinking about how the Vsmile and similar products for learning at a young age rarely require children to move around. Most young children move all the time for various reasons. Many educators beleive it is inmportant for them to do so. If that is the case why aren't there more things like Dance Dance Revolution for educational learning? I am reading about how important "play" is for preschoolers and how the ability to act out situations is important to do this to test out ideas and to learn how to handle things. Why not a product that encourages acting out and movement. maybe instead of being passive in front of the Tv or game console they are in a virtual world that allows them to act out situations and explore cause and effect. Its facinating that kids take everyday objects and pretend they are other things. Maybe this virtual world is made up of objects where they can move them around and see what happens in different situations. It could even go further to teach about safety, like what happens when you put something metal in the microwave. It can show cause and effect in a safe environment.

Dealing with Emotions
Posted by Debra Michalides on Thu, 09/16/2004 - 18:02 :: DailyStream: Thoughts
When you have Dyslexia there are many emotions and situations to deal with throughout your life. Many of the aids provided for people with LD treat the issues like reading and spelling. What if there was a way to use play to act out issues surrounding a LD and to learn how to cope with the emotions and stressfull situations. Many children with LD usually become behavior problems because they get stressed and don't know how to handle the situation. If I was having a problem in school I tended to give up and not try anymore because the pressure was too much. Dyslexics have to work twice as hard in some situations in order to compete, it is draining on many levels. Many a way to learn how to handle things and test out ideas in a non-threatening way is through play activities. I am reading "The Secret Life of the Dyslexic Child" and it has talked a little about the emotions you must deal with. Its to help parents to understand what to expect. The author says that you need to work twice as hard to get the same results and that parents need to understand this and how frustrating it is to not be done with your homework when everyone else is outside playing.

Teaching math
Posted by Debra Michalides on Sat, 09/18/2004 - 10:48 :: DailyStream: Thoughts
So my engineer boyfriend says the only way he can do math in his head is to imagine objects to represent the numbers or letters etc. I wonder if a software program can simulate this process thus giving you a visual

association to the math problem, that hopefully you can do later without the program. i know in elementary school we used blocks to do math, but it stopped after a time and we didn't use the object metaphor. I had an easier time with math when I could count blocks and use objects. He also comes up with rules instead of memorizing. So he doesn't know the multiplication table, but he knows that 10 is near 9, so if he can multiply by 10 and subtract 9 hes got the answer. There are many other rules but along those lines. A=B B=C A=C he took three objects that were the same and used them to describe this equation, until that point I didn't know what the equation meant having never done much algebra and never "getting it". In order to explain my mastery of this concept I would need to do the same thing, show it in a object related world.

Anger and LD
Posted by Debra Michalides on Mon, 09/20/2004 - 13:55 :: DailyStream:
Thoughts http://www.ldpride.net/angermanagement.htm I am really interested in emotions and LD. Its interesting the stuff I'm finding right now is for adults to deal with the anger and frustration. I wonder if we focus on helping kids who are first learning of their LD and how to help them deal with the emotions then maybe they can battle the challenges better. What can virtual spaces provide in learning about your emotions that other forms have not? A journal is not realistic for many dyselxics, the act of writing is the cause for emotionsal distress. A tape recorder would be good, but its hard to find a quiet space to talk outloud. Plus what kind of feedback or analysis can you get? When dealing with emotions its beneficial to have feedback, to reflect on progress etc. This is from personal experience but I'm sure I can find some research about it. http://www.amoodjournal.com/ I need to get a copy of this book. I want to know what the "tools" for dealing with your emotions are that are so different than other methods. I wonder if this is moving away from an educational tool. I think maybe not, learning about your emotions and how to deal with them is an extremely beneficial experience. I think when it comes to delaing with a cronic issue in your life its value becomes that more important. Maybe the tool(s) I develop are used in conjunction with an evaluator who also teaches you about the challenges you are a dyslexic will deal with.

Written prototype 1
Posted by Debra Michalides on Tue, 09/21/2004 - 04:54 :: DailyStream: Thoughts
How can digital technology aid people grappling with dyslexia? 1) Website tools that allow the user to customize elements so that they can access the content in way that most benefits them. a) text formatting b) change colors c) user defined style sheets that can be applied to webpages d) audio translation of text 2) Webspace where people of all ages dealing with dyslexia can communicate. The tools used to communicate would be designed in a way that would allow different reading and writing levels access to the site. a) audio text entry b) audio translation of text c) submit video / images d) variable content formating 3) Create a play experience were the user could learn about emotionally charged situations that dyslexics often face. This would be a way to experience the emotions in a safe environment such that when the real situation offers the user has tools to positively react to that situation.

New direction
Posted by Debra Michalides on Fri, 09/24/2004 - 12:03 :: DailyStream: Thoughts
as I think about my project i realize working within learning disabilities is proving to be very emotional and difficult. For now i want to focus on some other aspects of educational technology that is of interest to me. i have been reading about how computers and video games and tv tend to stop children from being mobile and exploring their world. most kids don't go outside much. Many parents buy all the newest gadgets and create immobile unimaginative kids. I have been thinking of this idea of play materials that encourage movement and imaginative play. All the objects would be manipulatable. Colors can be changed, sounds can be combined and shapes can become other shapes. I was thinking about that material for shirts that changes color when you touch it and about boards that use different sounds when you touch different parts. I would want to create a play space that has materials that have no know style. Many kids toys have

pictures that demontrate how to use the “creative” material and I beleive this closes off creative paths for the child. I created a kit that had raw art materials, the packaging did not have any set style as to how to create invitations, it gave you the materials and you had to decide how to move forward. I want to explore this idea of raw materials to motivate imaginative play.

Impetus Paper
Posted by Debra Michalides on Tue, 09/28/2004 - 17:09 :: DailyStream: Thoughts
I have been interested in education as long as I have been interested in design and I have been teaching most of my life, either formally or spontaneously. It would only seem natural that I would combine the two. I love to teach. I love knowing that what I am doing is helping someone to achieve his or her goals. It’s great to be good at something and to see the results of it happen in front of you. As a designer I find myself drawn to the same ideas. I want to teach people things and help them achieve their goals through design. I have struggled in my design endeavors to find ways to do this. As a teacher, it’s simple, you show the students how to do things and they hopefully learn it. If they are having trouble and you are good at what you do, then you can adjust your methods as needed and immediately. If I design a product I can’t always know if it’s working and change it that quickly mainly because I don’t always have access to the users. I think the risk in design is much greater this way than in traditional teaching. Sure I can test the design a billion times with a billion different people, but unless I can be involved directly with everyone who will use it then it’s still a big gamble that anyone will find my product useful or productive. As a teacher I know how important it is to have personal contact with your students and how important it is to be able to see the expressions on their faces and to learn about their lives. These things give you clues to know how they may need to receive information and how best they will digest it. However, as a designer for technology I know the great things technology can do. Technology currently can create individual learning experiences that don’t require a human being, but this causes a huge conflict. How can technology with good design enhance learning experiences in a traditional educational setting? Is technology harmful or helpful to the learning experience? I am interested in finding ways in which software can modify itself, its methods of delivery or the individual lessons based on how the student is using it. For instance, if the child responds well to spoken content then the software would provide more of the content in that way. This cannot replace the teacher experience, nor should it, but it can aid when the teacher is not available. I can see this being of most benefit to children with learning disabilities because they tend to need more individual attention than is usually available in a typical classroom. Technology as it stands today is not the savior of education that many have said it would be. I have been reading about how computers, video games and TV tend to stop children from being mobile and exploring their world. Most kids don’t go outside much anymore. Many parents buy all the newest gadgets and create immobile, unimaginative kids. I believe there are many opportunities for learning by exploring one’s environment. I have been thinking about how Vsmile and similar products for learning at a young age rarely require children to move around. Most young children move all the time for various reasons. Why aren’t there more things like Dance Dance Revolution for educational learning? Dance Dance Revolution from my understanding is a plastic pad on the floor that connects to your TV. It has a software component that gives instructions for dance moves and to prove you know them you need to step on the pad in the correct hotspots. Why not a product that encourages acting out and movement like Dance Dance Revolution but with an educational theme? Maybe instead of being passive in front of the TV or game console they are in a play-space that allows them to act out situations and explore cause and effect. It’s fascinating that kids take everyday objects and pretend they are other things. Maybe this play-space is made up of objects where they can move them around and see what happens in different situations of their own creation.
An idea for encouraging movement and imaginative play is one where all the objects in this play-space would be manipulative; colors can be changed, sounds can be combined and shapes can become other shapes. Some of my inspiration comes from that material for shirts that changes color when you touch it. This material changes colors, but what if you could change patterns as well? Maybe there is also the ability to combine sounds to create new sounds and lights that can change color and patterns. What learning

opportunities could come of this? I am interested in researching more about learning applications that work with ideas of how to motivate learning and imaginative play. I would want to create a play-space that has materials that have no pre-determined style or proper way to use the product. Many kid's toys have pictures that demonstrate how to use the "creative" material and I believe this closes off creative paths for the child. In order to create the play-space I envision the materials would need to be presented in a "raw" form, one that shows no ideas or rules of how to use it. In order to continue with the idea of objects that change colors, shapes, patterns etc., I need to learn more about physical computing. Physical computing consists of hardware and software design. I personally have dealt with mostly software-based products so I would have a lot to learn. I want to learn more about how children learn and what tools are used to create imaginative play before I learn about circuitry because I may find that I am on the wrong path. For the ideas of flexible software, I need to look into how computers can be programmed to adjust the content based on user responses. At this point I am more concerned with finding out if my ideas match those of how people learn and what is appropriate at different stages of life. In conclusion, I believe that this area I choose to work within is important because education is important for the advancement of humanity. In higher education you have a choice in what you want to be educated. As a child you are dependant upon the experiences that your parents, teachers and others expose you to. Therefore the education of children bears great responsibility for those involved in the process. If I am to be involved in that process then I need to make sure I have done my homework and can say at the end of my thesis process that I made the right choices and created something that has furthered the field. My hope is that my thesis will be useful to the intended audience and that it will fulfill a need within the field of educational technology.

Computerized Toys
Posted by Debra Michalides on Tue, 09/28/2004 - 17:40 :: DailyStream: Thoughts
These [computerized] toys are the opposite of what children need," said Joan Almon, the U.S. coordinator of the Alliance. "They need simple, openended toys that leave room for the child's own imagination." page 194 of The Plug-In Drug Marie Winn

Video games
Posted by Debra Michalides on Tue, 09/28/2004 - 17:46 :: DailyStream: Thoughts
Here's the good news: video games do allow more leeway for mental activity and even the discharge of fantasy than simply staring at a TV set. Kids get to do something, and something happens as a result. Nevertheless, as a form of play these games fall short of many pastimes of childhood. Among these are activities that develop manual skills (making model airplanes, for instance) or foster interests the child might carry into adulthood. Preferable are forms of play that allow for conversation and discussion and the acquisition of social skills (playing cards or board games) or team play that involves cooperation. page 194 - 195 The Plug-In Drug Marie Winn

Kid's Search engine
Posted by Debra Michalides on Wed, 09/29/2004 - 08:47 :: DailyStream: Thoughts
I was at a 6th grade class room today talking to the kids about how they use the internet and computers. At school they use the internet for research, their version of research was google or askjeeves. I am reading about how educator and parents are upset with the lack of valuable content students can get from the internet, a lively debate for college students as well. i was thinking it would be great to have a kids search engine that could be used for school reports. This would be content that was approved by educators and would be inline with grade level standards. It seems so simple, why isn't it out there? Maybe Google will

want to develop it.

Google Site Flavored Search
Posted by Debra Michalides on Wed, 09/29/2004 - 08:57 :: DailyStream:
Thoughts Google has something were you can pick a topic area and it will generate the code to put a custom google search on your site. So you can pick “Kids/Teens” and it will only search within that section. This is along the lines of what I want to do, but with more controlled content and possibly with publishers sponsoring it and using content they usually print for the online search. http://www.google.com/services/siteflavored.html

Project Idea
Posted by Debra Michalides on Wed, 09/29/2004 - 09:08 :: DailyStream: Thoughts
my search engine could be a game that teaches kids how to search for content for their reports. At the same time it can be a search engine they can use seperate from the game. I guess the games is a like a tutorial, but instead of just teaching how to use the internet to search it teaches you how to do a research paper. My collab is working with a 6th grade class and they are studying ancient greece for the whole year, maybe it could be themed on that. If all goes well it cna be expanded to more subjects. I am also playing with the idea of making a wikipedia. wikipedia.org

Computers to Blame?
Posted by Debra Michalides on Wed, 09/29/2004 - 18:29 :: DailyStream: Thoughts
In the book “The Plug-In Drug” the book discusses the effects of television on children. It traces poor SATS scores and lower verbal capcity to the introduction of the television. The same argument for poor education is given to computers. Are computers being blamed for problems introduced by television?

New direction for my thesis
Posted by Debra Michalides on Thu, 09/30/2004 - 19:08 :: DailyStream: Thoughts
teach research, repurpose internet content for kids? I was thinking about my idea of a kid specific search engine. i think it is a great way to solve issues I have been reading about within schools. One of the problems educators find is that research skills amoung students are week because of the internet. They feel that children search the internet and get back unreliable content and content that is not in a format that is appropriette for their age group. What if this search engine worked like a wikepedia with ever evolving content, but was written in a format for each grade level. It would be that you could find content on anything, within reason, but it was written for children. This way it is different than a physical library, and its different than the internet alone because of the legitimate content. It could also house other types of media such as movie clips and images. If I am to pursue this for my thesis I will need to research some specific things. 1) how research methods are taught in elementary school 2) what kind of content is needed for each age group 3) would elementary schools embrace this? 4) what do educators feel are the best ways children should do research, and at what grade levels would this make sense 5) search engine technology 6) how systems like wikepedia work to create content 7) what is the current thought on the internet and researching in regards to children 8) does it make sense to use this for both teaching research methods, with an online library catalog and have it as a wikepedia type search engine?

Search engines and info
Posted by Debra Michalides on Thu, 09/30/2004 - 20:10 :: DailyStream: Thoughts
http://www.ajkids.com/ http://yahooligans.yahoo.com/ http://sunsite.berkeley.edu/KidsClick!/ http://searchenginewatch.com/links/article.php/2156191 http://cybersleuth-kids.com/ http://www.kids.net.au/ http:

//www.safekids.com/search.htm

Thesis plan
Posted by Debra Michalides on Fri, 10/01/2004 - 19:25 :: DailyStream: Thoughts
when doing web searches students are presented with material that is not appropreite for their comprehension level. (This is paraphrased from The Flickering Mind) solution: provide content filtered by comprehension level implementation: wikipedia based website where content is reviewed by participants who are knowledgable about different comprehension levels of children. Each would be rated based on an average of reviewers recommendations. content would be from web sites and participants who add their own.

Page 196
Posted by Debra Michalides on Sat, 10/02/2004 - 18:14 :: DailyStream: Thoughts
As national spending on school technology has increased, some states have shifted portions of their book funds into computer funds. Ironically, one of the states that has been the most aggressive in this regard is Texas. As noted in the first chapter, Texas education officials decided in the early 1990s to let schools spend book budgets on soon to be obsolete videodisk technology. In 1998, just a few years before Texas gave up on videodisks, Jack Christie, then chair of the state board of education, proposed (unsuccessfully) that schools stop buying books altogether and replace them with laptops. page 196

Page 197
Posted by Debra Michalides on Sat, 10/02/2004 - 18:31 :: DailyStream: Thoughts
The further irony, of course, is that in today's world, computer access is becoming ubiquitous, while access to tools and other materials needed to build physical things has become almost extinct in the schools. and policy makers continue to accelerate this trend. In the fall of 200, Tom Ridge, then-governor of Pennsylvania, made news with a dramatic initiative to spend $3.2 million over the next two years to put toddlers on the fast lane by giving computers with internet access to more than four thousand day-care centers. THe director of the program (this one called CyberStart) went so far as to argue that tots would develop their fine-motor skills as they learned how to use a computer mouse. "It's as simple as this," Ridge said. "Children who understand computers and the Internet are more likely to succeed in the new technology-based economy of the 21st century." 3 Parents certainly have been sympathetic to this view. As evidence, the hottest selling toys in 2002 were high-tech gismos designed to give young children a leg up- talking books and robots, beeping alphabet boards, and the many other computerized products that the industry calls "electronic learning aids." 4

Endnote 49
Posted by Debra Michalides on Sat, 10/02/2004 - 18:38 :: DailyStream: Thoughts
"How Important is the Internet" by Ted Landphair, Voice of America News, January 25, 2003. (This article refers to comments that John Perry Barlow originally made about the Internet in 1995.)

Page 48-49
Posted by Debra Michalides on Sat, 10/02/2004 - 18:47 :: DailyStream: Thoughts
Then, in the mid-1990s, the nation discovered the Internet. Before long, such cultural luminaries as John Perry Barlow, a former songwriter for the Grateful Dead, were calling the Internet "the most transforming event since the capture of fire." 49 For a while, it seemed ad if the country had fallen into a permanent state of technological obsession. In a poll taken early in 1996, teachers ranked computer skills and media technology as more "essential" than the study of European history, biology, chemistry, and physics; than dealing with social problems such as drugs and family breakdown; than learning practical job skills; and than reading modern American writers such as Steinbeck and Hemingway or classic authors such as Plato and

Shakespeare. 50

Xiv & xv
Posted by Debra Michalides on Sun, 10/03/2004 - 12:40 :: DailyStream: Thoughts
A decade in his book being digital...computerized media was becoming so prevalent that it is “being taken for granted by children in the same way adults don’t think about air (until it’s missing). It is recasting the relationships that schools strike with the business community, warping our beliefs about the demands of tommorow’s working world, and reaframing our systems for researching, testing, and evaluating achievement, not only in individual students but also across state school systems.

Page 41
Posted by Debra Michalides on Sun, 10/03/2004 - 12:57 :: DailyStream: Thoughts
With the proliferation of word-processing software, a number of teachers found that students were getting engaged in writing projects that had never much interested them before. As researchers looked more deeply into the phenomenon, they found that while computers clearly boosted enthusiasm for writing, the quality didn’t necessarily follow.

Page 69
Posted by Debra Michalides on Sun, 10/03/2004 - 13:13 :: DailyStream: Thoughts
When students first started connecting to the Internet from I.S. 275 (and every other New York public school), they quickly discovered they were blocked from legitimate sites as well as undesirable ones. As recenlty as 2002, problems of this sort were still plaguing schools across the country-so much so that some districts resisted investing in filtering technology altogether, despite a new federal law requiring schools to install filters if they accept federal funds for Internet systems.

Page 100
Posted by Debra Michalides on Sun, 10/03/2004 - 19:16 :: DailyStream: Thoughts
Henry might benefit by putting more effort into his own research and analysis. In fact, that endeavor would stand a somewhat better chance if he were cripping from written reports. Even if a student borrows liberally from those documents, the act of physically transcripbing the material requires that he read and think about it, at least temporarily, word for word. And even if he doesn’t adjust much of the language, that physical task forces a student to run the material through his head, which gives its meaning a chance to stick. Not so today. The computer’s copy-and-paste function has tossed that process onto history’s scrap heap, next to manual typewriters and buggy whips. Technology’s supporters of coure hold a different view, countering that with the Internet, especially in library-poor schools, Henry has access to many more sources of imformation than just an encyclopedia or a few magazine articles. That may be right or wrong, but the essential choice is no different than it has always been-breadth versus depth. When time is limited, a researcher has to choose one of the other

New Impetus Paper
Posted by Debra Michalides on Mon, 10/04/2004 - 16:57 :: DailyStream: Thoughts
My chosen thesis project is a website that allows students to find comprehension-level filtered content for research through exploration of many forms of media. Ã¢Â€ÂœWith the proliferation of word-processing software, a number of teachers found that students were getting engaged in writing projects that had never much interested them before. As researchers looked more deeply into the phenomenon, they found that while computers clearly boosted enthusiasm for writing, the quality didn’t necessarily follow.Ã¢Â€Â Having students interested in new forms of expression is a very rare phenomenon that should not be passed by. Unfortunately, because of the use of the Internet as a primary research tool many students are not able to filter the many disparate sources that are now available to them. Because of the enormity of the information

from just one web search students are overwhelmed and unable to sort through what is useful and what is not. I believe two things are happening, first students are not learning proper research methods because of the instant gratification of web searches and therefore are quick to pick the source with the most information and secondly they are not always receiving information that is within their comprehension level. Before the Internet arrived in public schools and in homes, many students found content for school assignments through the library at school or in the family encyclopedia. In this scenario the information available was limited and focused on what the students needed and could handle at each level in school, especially in terms of the school library. The information was also coming from validated sources so there were no worries about if it was correct and appropriate for the childÃ¢Â€Â™s purposes. Now though, when a child uses the Internet to search for a given topic they will need to sort through many sites that could potentially have incorrect information, comprehension levels that are too high (or too low), and/or too much information. The child, by using the Internet, is now being asked to filter through and deem what they believe is the right information, something they may not be capable of doing until they are older. In fact, if given the option children may resort to copying directly from a single source, as Oppenheimer quoted in his book: Ã¢Â€Âœsurveys indicate that as internet connections have become more common in both schools and students homes, so have incidents of scholastic plagiarismÃ¢Â€Â. Now, with computers in many public schools there are many critics who feel there is a great deal of money potentially wasted on technology that has yet to prove its worth. Although I see this point of view I am not ready to give up on using technology, the Internet in particular. I believe that if the tools that students have are designed to best fit learning goals outlined by the curriculum and the individual studentÃ¢Â€Â™s comprehension level, then technology such as the Internet can become a valuable resource. The Internet is not designed for young children; it was originally for university academics to share information. The Internet since its creation has been supplemented with sites for children though this was not the original intent of the web. Of the many websites out there for children some are search engines that filter content. Of the search engine sites I have seen all of them are concerned with shielding children from pornography, crude language and subject matter. I have not found any that are concerned with comprehension level of the child. I feel this is an important overlooked area of Internet use. If in the past we have given children filtered content through special libraries and encyclopedias so then why not do the same with the Internet? If you enter an elementary school library you probably will not find War and Peace because the students do not yet have the tools to understand such writing. If a child went to the Internet and clicked around for a while he may happen upon War and Peace when looking for something on war in general and not understand what to do with that information. Even while looking for information on the war, the child may find accurate information, but not understand it because a doctorate candidate at the UCLA might have written it. In order to create a website that can filter the comprehension level of the content in addition what is existing in filters, I will need to research search engine technology, such as the backend programming that they use. I have ideas about how to include new functions, such as turning text into images so that the viewer could not just copy and paste, but they would need to write down the information they need. This is in response to a passage in The Flickering Mind about the act of copying down information instead of copy-and-pasting. Oppenheimer states that the act of writing down the information gives it a chance to be understood because you must read it fully to copy it by hand. I am thinking that in order to filter content based on comprehension level that the evaluating of content will need to be done by real people, not a machine. I will need to find ways that will get individuals to become evaluators of websites and compile average scores on what comprehension level each site receives. I am also interested in using the format of a Wikipedia (website where users write passages and anyone can edit and add to them) where there is an evolving amount of material written for children that can be from anyone on the web and evaluated by the same people who evaluate websites to include in the database. Because of the enormity of the task I have set forth I have chosen to narrow my target audience to the middle school years (6th grade to 8th grade). I believe this age group is at the cusp of learning the true power of information and its effects. They are not in high school were they need to create in-depth research reports, but are given tasks with enough complexity that they will need to find different sources. Why is this

important to me? I love to teach and as a teacher I know how important it is to have personal contact with your students and how important it is to be able to see the expressions on their faces and to learn about their lives. These things give you clues to know how they may need to receive information and how best they will digest it. But we must be realistic and realize that we can not be there all the time to watch what children are doing. We must be able to give them good tools that will teach them the correct way to use the powerful mediums that they will encounter as they become adults. Bibliography Oppenheimer, Todd. The Flickering Mind, The False Promise of Technology in the Classroom and How Learning Can Be Saved. New York: Random House, 2003

Teaching Internet Literacy Strategies: The Hero Inquiry Project
Posted by Debra Michalides on Tue, 10/05/2004 - 15:19 :: DailyStream: Thoughts
Navigating the Internet has become an essential literacy task for today's middle school students. The World Wide Web is a uniquely rich resource for authentic inquiry, but students must learn to orchestrate sophisticated strategies to become literate in this complex environment (Eagleton, 2002). Although many middle schoolers may be fluent with word processing or instant messaging, we cannot assume that students know how to find information efficiently on the Internet, and students who cannot find relevant information quickly will be disadvantaged in today's information society (Leu, 2000). Author(s): Eagleton, Maya; Guinee, Kathleen; Langlais, Karen Source: Voices from the Middle v10 n3 p28-35 Mar 200

A Case Study of Attitudinal Effects of Internet Use in a Middle School Integrated Science Curriculum.
Posted by Debra Michalides on Tue, 10/05/2004 - 15:39 :: DailyStream: Thoughts
Because pedagogical issues can have a tremendous impact on the success or failure of any new technological innovation it is necessary to really look closely at how the use of the World Wide Web classroom is affected by how it is implemented by teachers and used by students (Kedar at al.,1996) Author(s):O'Hara, Susan P.

Thoughts on prototype 2
Posted by Debra Michalides on Tue, 10/05/2004 - 16:14 :: DailyStream: Thoughts
I hope to create a website that teaches middle school students how to properly conduct research. I want my site to limit the information available to the students so they can learn to do research within a controlled environment much like their own school library is a controlled source of information. If you want to teach a child to understand the mechanics of how something works you start by giving them a small task and when they complete it you give them a more complex task. You do not give them anything they can not handle until they learn the tools to handle it.

Posted by Debra Michalides on Tue, 10/05/2004 - 17:00 :: DailyStream: Thoughts http://www.google.com/appliance/ “Now the same reliable results you expect from Google web search can be yours on your intranet or public website with the Google Search Appliance. This combined hardware and software solution is easy to use, simple to deploy, and can begin providing great enterprise search results in just a few short hours.”

Snap.com
Posted by Debra Michalides on Tue, 10/05/2004 - 19:41 :: DailyStream: Thoughts
http://www.snap.com/index.php Instead of just relying on computer algorithms to rank search results, Snap also uses click-stream information from a network of one million Internet users. By recording and processing which Web sites these users spend time on, and which sites they quickly leave, Snap improves the likelihood that the search results you get will be the results youÃ¢Â€Â™re really looking for.

Universal Access to All Human Knowledge
Posted by Debra Michalides on Wed, 10/06/2004 - 12:21 :: DailyStream: Thoughts
http://craphound.com/kahleweb20.txt Universal access to all knowledge is possible, and it’s not a non-profit goal. Google announced that it will digitize in-print material and out-of-copyright works (like AMZN’s thing). A group in Toronto is doing a robot-scanner that will bring the cost in the industrial world -- where labor is more expensive -- to scan books for $10. At $10 per, that $260 Million to scan all the books.

Google Print
Posted by Debra Michalides on Wed, 10/06/2004 - 19:12 :: DailyStream: Thoughts
http://print.google.com/ Google’s mission is to organize the world’s information and make it universally accessible and useful. Since a lot of the world’s information isn’t yet online, we’re helping to get it there. Google Print puts the content of books where you can find it most easily; right in Google search results. To use Google Print, just do searches on Google as you normally would. Whenever a book contains content that matches your search terms, we’ll show links to that book in your search results. Click on the book title and you’ll go to a “content page,” where you can see the page containing your search terms and other information about the book. You can also search for other topics within the book. Click on the “Buy this Book” link and you’ll go straight to a bookstore selling the book online.

More features for my project
Posted by Debra Michalides on Fri, 10/08/2004 - 19:42 :: DailyStream: Thoughts
Kids can rate websites and sources as well as teachers, parents which will change the order of results given when searching. The evaluation will include questions like: Was this helpful? Was it is easy to read or above your head? etc etc similar to sites like MSN who ask if this article was helpful for you, but maybe a little more indepth. kids can create their own content for the Wikipedia. Maybe posting content they needed for a report but didn’t find online at the time. create a check for teachers to see if students plagiarized their work from content on site. create a group space for specific classrooms to share resources, similar to Classmates.com have students able to register and save searches, add comments and share them with classmates create an assignment swap for teachers who have trouble coming up with assignments requireing the internet

This proves my thesis argument
Posted by Debra Michalides on Sat, 10/09/2004 - 09:56 :: DailyStream: Thoughts
“While students rely on the Internet as a virtual textbook and reference library, it can also be a cause for furstration and anxiety. Perhaps the single greatest irritation facing students is their use of search engines that point them to online information that is not trustworthy or understandable to them. Students said that it is often hard to find information online that is specifically related to the topic they are exploring and comprehensible to their age and grade level. “I once took notes and wrote an essay from a ‘perfect’ site for a biography I was supposed to write on a famous person. All the information turned out to be wrong, and I had

to do it all over again. We need to be protected from those embarassing situations!" -Middle School Girl The Digital Disconnect The Wideing Gap Between Internet-Savvy Students and their Schools Pew Internet and American Life Project prepared by Douglas Levin and Sousan Arefeh American Institutes for Research

Sites used for study guides
Posted by Debra Michalides on Sat, 10/09/2004 - 10:10 :: DailyStream: Thoughts
http://www.sparknotes.com/ SparkNotes has more than 1.75 million books in print. SparkNotes.com gets over eight hundred million hits per year. After only five years of existence, SparkNotes is the same age as the average kindergartenerÃ¢Â€Â”yet we're helping make education more fun and enriching for people everywhere, and schooling every other study guide shop on the block. http://www.pinkmonkey.com/ PinkMonkey.com features over 400 booknotes/study guides/chapter summary online. In the past, your parents used Cliff Notes Ã¢Â„Â¢ book summaries to understand complex literature. Those were the old days. Now, thanks to the Internet, we can offer you hundreds of our exclusive MonkeyNotes and Barron's Booknotes literature summaries at any time day or night for free. You won't find a better site. Save time; Save money, Save gas. We have hundreds of free booknotes online all the time. No hassle, no mess. They are never sold out. We are a child safe and "G" rated site for everyone!

Page 24 The Digital Disconnect
Posted by Debra Michalides on Sat, 10/09/2004 - 10:38 :: DailyStream: Thoughts
Students urge that there be continued effort to endure high quality online information to complete school assignments be freely available, easily accessible, and age-appropriate-without undue limitation on students' freedoms. Even students with strong skills say that finding the right information in the Internet can be frustrating and time-consuming. Most students who spoke with us expressed frustration about finding quality information to help them complete their school assignments. Here are some of their complaints: Search engines regularly retreive too many references for common Internet searches. Authorship of Web sites and timeliness of posted information is often not disclosed; the information on many Web sites can be biased or incomplete; and, the reading level of the best information may exceed the capabilites and comprehension of students. In addition, visitors to many sites that offer usefull information for free are inudated with commercial advertisments, and trusted sources may charge fees for their information.

Teaching Internet Literacy Strategies: The Hero Inquiry Project
Posted by Debra Michalides on Sat, 10/09/2004 - 12:41 :: DailyStream: Thoughts
Searching the Internet for relevant information is a challenging literacy task for anyone, and is particularly difficult for middle school students. It involves choosing topics, setting goals, asking questions, applying search strategies, selecting keywords, analyzing search results, evaluating Web site relevancy, documenting sources, notetaking, synthesizing, transforming, and presenting findings. Fortunately, most students are motivated to learn how to search the Internet more efficiently because they view computers as essential tools for communication and research (Eagleton, 2002). Teaching Internet Literacy Strategies: The Hero Inquiry Project Maya Eagleton, Kathleen Guinee, and Karen Langlais Voices from the Middle, March 2003 page 28

Submit your site tool
Posted by Debra Michalides on Sun, 10/10/2004 - 19:46 :: DailyStream: Thoughts
if you are browsing web and find a site to add to the search engine there can be a button in the browser that will send it to a "approval" bin to be added to the site database.

Pg 39 + 40
Posted by Debra Michalides on Wed, 10/13/2004 - 19:03 :: DailyStream: Thoughts
Adults are getting used to the fact that they are "immigrants" in many a domain where their own children are

“natives” (specialists). The lifeworld-the domain in which people can claim to know and understand things as “everyday” people and not as specialists-is shrinking, not just under the attack of specialist domains like science but because our children are creating and mastering so many specialist domains themselves. If learning is to be active, it must involve experiencing the world in new ways. I have spelled this out in terms of learning new ways to situate the meanings of words, images, symbols, artifacts, and so forth when operating within specific situations in new semiotic domains. Active learning must also involve forming new affiliations. Active learning in a domain also involves preparation for future learning within the domain and within related domains. But for critical learning, the learner must be able to consciously to attend to, reflect on, critque, and manipulate those design grammars at a metalevel. What Video Games have to teach us about learning and literacy James Gee

Page 16
Posted by Debra Michalides on Wed, 10/13/2004 - 19:06 :: DailyStream: Thoughts
One Key question for deep learning and good education, then, is how to get producer-like learning and knowledge, but in a reflective and critical way. What Video Games can teach us about learning and literacy James Gee
Pg 232
Posted by Debra Michalides on Wed, 10/13/2004 - 19:10 :: DailyStream: Thoughts
The first generation to grow up with the Internet faces an all too similar danger. What first promises to be an extraordinary intellectual expansion is quickly, by virtue of its popularity, undermined by the market’s inclination to reduce the sophisticated to the homogeneous. Coming of Age in Cyberspace David S. Bennahum

Pg 2 & 3
Posted by Debra Michalides on Sat, 10/16/2004 - 12:48 :: DailyStream: Thoughts
Understanding the Role of Self-Efficacy in Teachers’ Purposes for Using the Internet with Students David Pratt, University of California, Santa Barbara, 2002 “Billions of dollars have been spent in recent years to assure that schools are connected to the vast resource of the World Wide Web (Ballard, 2000). This appears to be an important resource for students, as many researchers have noted its potential to challenge users to use higher levels of thinking and help prepare students for the Knowledge Age (Doherty, 1998; Maddux, 1998) As part of the growing use of technologies, access to the Internet has recently become a resource rapidly being incorporated into schools. Recent national surveys suggest that 99% of American schools have some kind of access to the Internet (QED Report, 2000; FRSS, 1999) Researchers have characterised the nature of this inclusion of new technology, particularly the use of the Internet, as being more conducive to individualized, inquiry based learning (e.g. Love & McVey, 2000). Less than half of the teachers who had Internet access in thier classrooms had their students use the web as a research tool on at least three occasions during the year.

Page 7
Posted by Debra Michalides on Sat, 10/16/2004 - 12:56 :: DailyStream: Thoughts
“It’s probably one of the few places I could figure out where to stick the Internet in my curriculum where it made sense. It makes sense as we’re using it as a source of information. It makes sense that we’re in the library anyway, the computers are there, the books are there, even if they’re not enough computers that day the kids can go to books.” Understanding the Role of Self-Efficacy David Pratt

Pg 10
Posted by Debra Michalides on Sat, 10/16/2004 - 13:03 :: DailyStream: Thoughts
“what were some of your purposes for this lesson?” “I just think they need to be critical thinkers. They need to be people who can gather information but can process it into something else.” - Colleen, p.3 “...you give

them instruction about how to judge what information they're looking up. How to search..how to judge the material and how to organize it and how to use it." -Mary, p.3 "Just being able to access the Internet, which most of my students don't have that opportunity in their own home." -Michelle, p.4

Page 16 & 17 & 19
Posted by Debra Michalides on Sat, 10/16/2004 - 13:15 :: DailyStream: Thoughts
David Pratt While higher level ITE participants included students' basic use of the web, they also typically reported the importance of using the Internet to support higher level thinking. Many times they mentioned the importance for students to understand "how" to search by using appropriate terms or selecting which information would fit a particular topic. Additionaly the notion of information literacy was included in the purpose statements of several higher ITE Respondents. "there is a whole discussion about what is out there and why will you read something one and might read another over here. Again...history, if you are doing something on Rome and the web site says this is what happened and another one says this happened...who is right? And that's why I like teaching 6th grade becasue you can really discuss something like that and talk about how people misinterpret information and perpetrate them on those web sites. I think that's a really important thing for kids at my grade level to get out of the Internet." ...Donna could not envision her students learning how to decide what information is of value. Instead, she believed she would have to take that role for them. page 19 "So, at the begining of the year, we are just saying, 'type in this URL, here are the questions'. And we try to get a little more open-ended as the year goes on. So that they are to try to problem solve,"what kind of search engine should I use, What should I type in, as to what would access this information. Whoah, I've got a thousand sites, how can I narrow that down. So we are trying to get them as independent as we can."

Midterm Questions
Posted by Debra Michalides on Mon, 10/18/2004 - 15:22 :: DailyStream: Thoughts
What is its purpose? (What essential idea does it demonstrate?) My project is a tool that helps students and teachers become literate with the Internet in regards to research and writing development. What is its structure? (How does it work?) search feature (including ways to save results) website evaluations (made by students) wiki (for writing development) private section for individual classes teachers and students can communiate through message boards/chats teachers can communicate with other teachers on ideas for using the Internet in this lessons students can communicate with each other for help with assignments What are some potential models or applications? (How used/in what setting/by whom/for what use?) used by middle school students and their teachers in a classroom and home to search for information that is filtered by grade level from real users evaluations teachers will be able to provide feedback on searching methods enployed by students provide a way for teachers to teach information literacy by guiding them while they are searching How can it be evaluated? (What can be used to help us understand how well it is meeting its stated purpose?) I want my site with be assesible to teachers and students of all levels of proficiency with the Internet. Teachers who value themselves as being able to use the Internet well come up with better assignments, and that the best way to become better is through feedback and modeling. My hope is that by connecting teachers they can mentor each other. My hope is that the students will be able to think critically about information they access and be able to more readily find works within their comprehension level and that is relevant to their studies.

Search engine?
Posted by Debra Michalides on Wed, 10/20/2004 - 18:12 :: DailyStream: Thoughts
Do I make a search engine or do I make a database collection? Making a search engine is not in my best interest, that's been done, I think it will be more useful to create a database that is filled from the users. I imagine my users submitting sites they have found elsewhere and writing evaluations, then everyone can search my site for sites that have been evaluated. The kids who have access to google and other searches

will feed my site with additions. I can see teachers having students go and search for good sites to add and evalutate which will keep the site submissions going. Otherwise once my site is filled with a lot of sites it could be said that no one will go and add more sites. But then again kids may find it fun to find more sites to add much like a game. Kids could get certain status for bringing lots of good sources to the site. Much like on message boards you get more stars or something for having lots of posts.

Ways of sorting
Posted by Debra Michalides on Wed, 10/20/2004 - 18:32 :: DailyStream: Thoughts
grade level (Would you recomend to others in your grade?) relevancy (How helpful was to you, scale of 1-10) subject (what category does this fit other) Once an evaluation is made others can edit and say no, this belongs here, not there. this means you need to be thinking critically about the information. on Wikipedia you can challenge content if you feel if something is wrong, maybe my site will have something similar

What is ThinkQuest?
Posted by Debra Michalides on Sun, 10/24/2004 - 18:06 :: DailyStream: Thoughts
http://www.thinkquest.org/ ThinkQuest is an international website-building competition, sponsored by the Oracle Education Foundation. Teams of students and teachers are challenged to build websites on educational topics. These websites are published in the popular ThinkQuest Library and top-scoring teams win valuable prizes.

Midterm Response
Posted by Debra Michalides on Sun, 10/24/2004 - 18:09 :: DailyStream: Thoughts
I think my midterm presentation went well. I think I made a nice slideshow demonstrating what I wanted to do. What I didn't do effectively is talk about what the problem I was trying to solve was. I have done a great amount of research that demonstrates a problem and I didn't include much of it. I'm not sure why, I just got a little overwhelmed and wasn't sure what to include. I will need to work on making clear statements about the problem I am solving.

What is a graduate thesis?
Posted by Debra Michalides on Thu, 10/28/2004 - 17:53 :: DailyStream: Thoughts
My professor for my media studies class defined a graduate thesis as this: you become a "mini" expert in a very narrow area, you are continually moving towards a narrow area of interest and becoming an expert in that. He also said that there are two ways to approach a thesis subject, 1) you can form an opinion that matches with your research or 2) come in with your own conlcusions and work towards proving them or disproving them.

What my class thinks my project is
Posted by Debra Michalides on Fri, 10/29/2004 - 18:55 :: DailyStream: Thoughts
I asked my thesis class to tell me what they believe my project is and here is the response: 1) something about education and the Internet 2) search engine for stuents to get more accurate information 3) skill for research in internet in a structured environment 4) smart search tool with filters for kids 5) learn better and get feedback 6) teachers work with students to find information properly 7) tool to get more out of their studies 8) use in class and at home to help with research 9) for assignments from teachers 10) specific to a school 11) any public school with customizable features 12) teachers can talk to other teachers to help find info 13) info evalutated by teachers? 14) where does it start, where does my site get the info? 15) how do the teachers evaluate everything? 16) different searches for grade levels 17) how will teachers evaluate work by students who use my site? 18) databases for middle school, like we have in college? 19) making an application or a new method? 20) something used during computer time at school? 21) www or site specific place, intranet or just in library? 22) why would they use it? 23) how are middle schoolers ideas of internet

different? 24) students evaluate sites? 25) possible to build it or need to use open source? 26) is it of benefit to focus on one sample group and say how it would work for others, like a specific assignment or subject that exists. 27) proposing a new project or an old assignment in a new way? Andi's comments Debra needs to narow down her project and answer some important questions that came up last Thursday during a questions session we did as a group. Debra has to figure out by next week all her basic questions like will she make this piece for one particular school, one class, one goal or for a more general audience like all the public schools 6th grade history classes. Debra needs to also know if she will piggyback an existing kind of class within the public school's curriculum or create a new class, a new assignement type within an existing class, etc. For ex: Debra could say this will be an assignement in 6th grade history where kids won't learn about ancient Egypt from their textbook but will do this online thing instead where they will combine quasi-web research, etc etc to learn about Egypt. At this point I am inclined to think that a good way to go would be to work with one particular school and tie it to one particular class, chosing a smaller scope that can be done well, tested and considered for expansion but I'm open to other options too.

What is the Big6?
Posted by Debra Michalides on Sun, 10/31/2004 - 14:02 :: SourceStream: Works Cited
http://www.big6.com/showarticle.php?id=415 The Big6Ã¢Â„Â¢ is an information literacy model. Some people call it a metacognitive scaffold, or an information problem solving strategy. When you apply these stages, you have an essential framework to approach any information-based question. Here are the six stages we call the BIG6. Two sub-stages are part of each main category in the Big6 model: 1. Task Definition 1.1 Define the information problem 1.2 Identify information needed in order to complete the task (to solve the information problem) 2. Information Seeking Strategies 2.1 Determine the range of possible sources (brainstorm) 2.2 Evaluate the different possible sources to determine priorities (select the best sources) 3. Location and Access 3.1 Locate sources (intellectually and physically) 3.2 Find information within sources 4. Use of Information 4.1 Engage (e.g., read, hear, view, touch) the information in a source 4.2 Extract relevant information from a source 5. Synthesis 5.1 Organize information from multiple sources 5.2 Present the information 6. Evaluation 6.1 Judge the product (effectiveness) 6.2 Judge the information problem-solving process (efficiency) People go through these Big6 stagesÃ¢Â€Â”consciously or notÃ¢Â€Â”when they seek or apply information to solve a problem or make a decision. ItÃ¢Â€Â™s not necessary to complete these stages in a linear order, and a given stage doesnÃ¢Â€Â™t have to take a lot of time. We have found that in almost all successful problem-solving situations, all stages are addressed.

Questions I have asked myself
Posted by Debra Michalides on Mon, 11/01/2004 - 17:24 :: DailyStream: Thoughts
1. Were does my project fit within 6th-8th grade curriculum? 2. Can my site teach something? 3. Can I provide tools that fosters learning? 4. Will teachers want to use it? 5. Do teachers have the skills to use it effectively? 6. Can the teachers customize the tools to their needs? 7. Will the search results be safe? 8. Can the students use it effectively? 9. Will the students want to use it? 10. What benefit will my users get out of it? 11. Can this teach kids how to think critically about information on the web? 12. What skills will my users need to have in order to use it? 13. Will the students want to write evaluations? 14. Will the evaluations be a helpful filter? 15. Will teachers be able to communicate effectively with other teachers? 16. Does peer-to-peer mentoring work in this format? 17. Will the students be helpful to each other? 18. Can the kids use this seriously or will they just post bad things? 19. Will teachers allow them to use it in class? 20. Will the teachers allow them to chat in school on this? 21. Will schools find any value in using it? 22. Would anyone be willing to pay for this? 23. Can I get a grant to keep it running? 24. Should I sell it to a company to develop further? 25. Should I create my own company to keep it going? 26. Is sponsorship ok? 27. Can I build it so it can run without much interruption? 28. How can I prove it will be safe? 29. Who do I need to convince that this will work? 30. Do I need to match it with school standards? 31. Can I adapt it for each environment it gets used in? 32. Will it be stand-alone at each site that uses it? 33. Can it be built? 34. Can

teachers who donÃ¢Â€Â™t know much about the web easily use it? 35. What are the standards in public schools I need to consider if itÃ¢Â€Â™s to be used there? 36. Does my solution even solve the problem? 37. Am I creating a tool in which to use for many activities? 38. Am I creating an assignment that is part of a curriculum already in place? 39. will anyone make time to use it? 40. will it be too cumbersome to add into a daily routine for any of my users? 41. Am I reasearching the right things? 42. am I going to be able to prove my argument with the research I am doing? 43. can my writing be published? 44. will my project fit within academic circles? 45. will education people respect it? 46. does it fit within current theories about internet and information literacy? 47. who will be able to hold me accountable? 48. how will I know that the research is good? 49. what people do I want to evaluate it? 50. how can I get my writing to a good level?

Questions answered (hopefully)
Posted by Debra Michalides on Mon, 11/01/2004 - 17:48 :: DailyStream: Thoughts
What are the specific needs?Middle School:-have difficulty finding relevant and comprehensible information on Internet -need information literacy skills (like Big6) in regards to Internet searching and evaluationing contentTeachers of Middle School Students:-their own ideas of how capable they are at using Internet prevent them from creating valuable learning experiences using the Internet -create lessons that do not incorporate higher-level thinking skills, such as information literacy skills when using InternetHow can these needs be met? (big design idea)Middle School Students:-create a webspace where they can use tools to find relevant content, find comprehensible content, evaluate text, catagorize it, understand how it is produced, and recieve feedback and instruction on these tasks. Teachers:create a place where they can communicate to students about their searching and evaluating habits and talk to other teachers about valuable learning experiences they have created in regards to information literacy What does it allow users to do?Middle School Students:-answer questions about information found on Internet -recieve feedback from teachers and other students on searching -save searches with comments -add new websites and content from other sources -get special status for bringing good content to site -be media creators of web content on subjects they have learned about -understand the process of searching online and be able to use a diverse skill set to locate information Teachers:-have a window into the searching habits of students -be able to provide feedback to students on searching and evaluating habits -post ideas and recieve feedback from other teachers -create valuable lesson plans based on tools site offers (wiki: for writing assignments, evaluations: structured for a particular subject) -aid students in articulating their evaluations in a way that would be helpful for others How do they do this? -message boards -online evaluation worksheets -wiki (public and private) -send private messages to individual users to feedback -search database by a variety of methods, includes: keywording, subject, grade level, date, popularity (most positive evaluations)

Meeting with Todd from City & Country
Posted by Debra Michalides on Thu, 11/04/2004 - 18:18 :: DailyStream: Thoughts
Wednesday I met with Todd Rosenthal the librarian at the City and Country School on 13th street. I told him about my project and he was really excited about it. He said he would love to be part of the process and follow it along. He said that the teacher for the 13's (they dont go by grades) is a big advocate for the Internet in the classroom. He is going to get me in touch with her. Todd told me that the research process starts in the class and moves to the library after they have decided what they want to learn and what questions they want answered. He also told me of a women at the Little Red School who held a workshop in teaching internet searching last summer and gave me the handouts from that workshop.

Meeting with Ann and Todd
Posted by Debra Michalides on Fri, 11/12/2004 - 17:12 :: DailyStream: Thoughts
I met with Ann Roberts and Todd Rosenthal from the City and Country school on 13th street today. Ann teaches the 13s (approx. 8th grade) and told me how they conduct research in their lessons. What she

described is the ideal situation that does not happen in most schools. This kids are doing better research assignments than we are as thesis students! I am not kidding. They find sources from online databases, like LEO and they search the library of congress and get inter-library loans from all over the country. Its really unbeleivable. Ann is of the school of thought that the Internet works as a cataylist to find more knowledge. i think that can be true if the students are inspired by the right teacher or circumstance. I am worried about using this school for my project because it clearly doesn't represent who will be using my site. They are good candidates to populate it in the begining because they have already come through the process I hope to inspire. I figured out from talking with them that it would make sense to not have a "wiki" but to instead have a forum where the students can discuss experiences and topics that other kids can read as a "primary" source.

New thoughts on prototype 3
Posted by Debra Michalides on Sat, 11/13/2004 - 14:42 :: DailyStream: Thoughts
as I was talking with the librarian and the teacher and reading some more about information literacy I realized there are a few things I have not considered enough. This came up in my midterm review and I had thought that I only cared about website sources. As a information literate person its important to understand the value in a diverse amount of sources. How will my site do that? Am I concerned with that? Maybe I encourage searching through access to online databases (can I subsribe to them?), other libraries, books (google, bn, amazon). To what extend to I need to provide the means to find information beyond websites? How can that be organized on my site. Does each source use the same evaluation form, maybe it changes based on the source you have? When you search my database later you can say you only want to see book entries or journal articles.