

Hypermedia

The Technology and Its Implications

Introductory Handouts

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Hypermedia: The Technology and Its Implications

Introduction

Welcome to the Fall 1999 session of one of the offerings of *Tutorial* from Grinnell College's Department of Mathematics and Computer Science. The title of this particular tutorial is *Hypermedia: Some Technology, Some Implications*. You can find out more about this particular tutorial from its blurb and about the tutorial itself from an explanatory document.

In short, this semester we'll be working on building your skills in thinking, writing, reading, and speaking while studying hypermedia and considering its implications.

Because of the *skills/subject* pairing, we will split most class sessions into two parts: for the first fifty minutes we'll discuss some issue pertaining to academic skills (e.g., a particular aspect of writing or editing); for the last fifty minutes, we'll discuss some issue pertaining to hypermedia, its technology, or its implications. The first part will typically be held in the MathLAN (Science 2417) and the second in our assigned room (Science 2424).

In an attempt to provide up-to-date information, and to spare a few trees, we are making this as much of a "paperless" course as we can. At the beginning of the semester, I'll provide a few basic handouts in paper form. For the rest of the term, you should look for things on the course web at <http://www.math.grin.edu/~rebelsky/Tutorial/> or <http://www.math.grin.edu/~rebelsky/Courses/Tutorial/99F/>. You may also want to read the basic instructions for using this course web.

Because hypermedia is the focus of this tutorial, you will be required to post all of your work online. This means that it will be accessible to your fellow students and to the broader Web community. If you have difficulty with this requirement, please discuss it with us.

Meets: TuTh 8:00-9:50 in Science 2424 and 2417.

Instructors:

- Samuel A. Rebelsky, Science 2427. Office hours MWF 11:00-12:00; Tu 10:00-12:00; by appointment; walk-ins. Tutee meetings, Th 1:15-3:15, F 9:00-10:00.
- Rebecca Stuhr. Burling Library. Office hours M 3:00-5:00 and by appointment.

Grading:

- Class participation: 10%
- Questions on the readings: 5%
- Introductory essay: 10%
- Academic honesty exercise: 5%
- Teaching and learnign web: 10%
- Bibliography: 10%

- Reaction to hyperfiction: 15%
 - Introduction to research paper: 5%
 - Annotated bibliography for research paper: 15%
 - Research paper: 15%
-

When you read a computer manual and it says silly things, please remember that it needn't have been like that. Somebody designed the program, and they did it a silly way. Don't be embarrassed that you can't understand Word [or any other program]; it isn't your fault, it's theirs. (Harold Thimbleby, "Spare the rod, spoil the computer?".)

About the Tutorial

The Tutorial serves as a linchpin of your Grinnell education. While there are many purposes to the Tutorial, they all relate to a simple purpose: *The Tutorial starts you on your path as lifelong learner*. To be a successful learner and thinker, you must develop a number of requisite skills. These include:

- the ability to *read critically* and *analyze* what you have read;
- the ability to *formulate useful and interesting questions*, based on ideas you encounter;
- the ability to *develop coherent and compelling arguments*, in both written and oral form;
- the ability to *find and identify appropriate evidence* when conducting research and developing arguments;
- an understanding of the purpose and components of a successful *liberal arts education*; and
- an understanding of *intellectual property* and its effect on your academic endeavors.

The advent of large-scale hypertext systems, such as the World-Wide Web, have not significantly changed the needs for such skills. However, the applications of these skills have expanded. For example, some claim that modern thinkers now need to be able to develop arguments not only in “linear” written form and oral form, but also in new hypertextual forms. Similarly, you need to be able to analyze hypertexts. The relationship between these various forms will be among the topics we study this semester.

Tutorial also has a second important purpose: tutorial creates the relationship between students and their first advisor. While we expect that you will form many close relationships with your faculty, Grinnell feels that it is particularly important that you form such a relationship as early as possible.

Tutorial, like many classes at Grinnell, also gives you the opportunity to study a topic in depth with a small cohort.

Tutorial Description

Hypermedia, particularly in its incarnation in the World-Wide Web, seems to be changing the way many people write, read, interact, teach, and go about their daily lives. Are these changes improving or detracting from our lives? Is hypermedia also affecting the way we think? Can it have a positive impact on social structures? Is hypermedia really new, or does it just recast older ways of thinking and writing? In this tutorial, we will consider questions like these. Along the way, we will investigate some of the technologies underlying hypermedia systems, discuss relationships between hypermedia writing/reading and “linear” writing/reading, and develop our own hypertexts.

More information on this tutorial can be found on the World-Wide Web at <http://www.math.grin.edu/~rebelsky/Tutorial/>.

Course Syllabus

*This is a highly **approximate** syllabus. While the first few weeks are fairly-well fixed, the later weeks contain rougher notes on the topics. Expect topics, assignments, ordering, and almost everything else to change.*

- Week One: Introduction
- Week Two: World-Wide Web Technology
- Week Three: Background
- Week Four: Hypertext Nonfiction
- Week Five: Hypertext Fiction
- Week Six: Communities in Hypertext: Local and Global
- Week Seven: Reflections on Race
- Week Eight: Commerce
- *Break*
- Week Nine: Does Hypermedia Change the Way(s) We Think?
- Week Ten: Adaptive Hypermedia
- Week Eleven: Hypermedia in Education (Background)
- Week Twelve: Hypermedia in Education
- Week Thirteen: Can There Be Hyper-Music?
- Week Fourteen: Artistic Hypermedia
- Week Fifteen: Wrapup

Week One: Introduction

Class 01 (Sunday, August 22, 1999) **What is Hypermedia?**

- What is *Hypermedia*?
- What is *Tutorial*?
- What is a *liberal arts education*?
- Nitty-gritty details (registration et al.)
- Assigned:
 - Introductory readings on hypertext (due Thursday, August 26):
 - Bolter, Chapter 1 (Introduction)
 - Bush, “As We May Think”
 - Landow, “The Definition of Hypertext and Its History As A Concept”
 - Reading assignment: Williams and McEnerney, “Writing in College: Some Crucial Differences Between High School and College Writing”.
 - Writing Assignment (due Thursday, September 2): Is the Talmud a hypertext? (400-600 words).
 - Draft due Tuesday, August 31.

Class 02 (Thursday, August 26, 1999) **What is Hypermedia? Revisited**

- Technical details:
 - Getting online in the MathLAN
 - Using the Web
- A short history of hypermedia
- Discussion of paper topic
- Due:
 - Bolter, Chapter 1 (Introduction).
- Assigned:
 - Bolter, Part 1.

Week Two: World-Wide Web Technology

Class 03 (Tuesday, August 31, 1999) **Technology: Representing Hypertexts**

- Computerized representations of formatted texts
 - Should computerized representations be in a form that humans can read?
- WYSIWYG vs. markup languages
- Logical vs. physical markup
 - Should markup of document elements reflect their underlying purpose, their intended appearance, or both?
- HTML: The HyperText Markup Language
- The evolution of HTML
 - Controversies
- The future of web markup
- Assignment: Web of teaching techniques
 - Due: Thursday, September 9

Class 04 (Thursday, September 2, 1999) **Technology: Representing Document Styles**

- Logical vs. physical markup, revisited
 - Can the appearance of documents tell us about their intent?
 - Can/should the “same” document have multiple appearances?
 - Can/should the “same” document have multiple contents?
- Designing a language for marking styles
- WYSIWYG vs. manual design of style sheets
- Cascading style sheets
- Reading Assignment (due Tuesday, September 7): Selections from Nelson’s *Literary Machines 93.1*.
 - Questions due by noon, Monday, September 6

Week Three: Background

Class 05 (Tuesday, September 7, 1999) **Intellectual Property**

- Skills
 - Definitions of intellectual property
 - Proper use and citation
- Discussion
 - Ownership of links
 - Transclusion and inclusion
 - Ownership of databses
- Due:
 - Selections from Nelson's *Literary Machines 93.1*.
- Assigned:
 - Sample bibliography for research paper (Due Thursday, September 16, 1999)
 - Citation exercise (Due Tuesday, September 14, 1999)

Class 06 (Thursday, September 9, 1999) **Historical Foundations**

- Technical track: Library orientation
 - FirstSearch
 - Library orientation
- Transition
 - The library catalog as hypertext
 - Hypertext and libraries
- Historical track
 - The evolution of reading and writing

Week Four: Hypertext Nonfiction

Class 07 (Tuesday, September 14, 1999) **Writing and Reading Hypertext**

- Due:
 - Citation exercise.

Class 08 (Thursday, September 16, 1999) **Some "Serious" Hypertexts**

- Due:
 - Sample bibliography for research paper

Week Five: Hypertext Fiction

Class 09 (Tuesday, September 21, 1999) **Writing and Reading Hyperfiction**

- Assignment (due Thursday): Spend 30 minutes reading "afternoon, a story" or *The Patchwork Girl*. You'll find them installed on the Glimmer Mac. A signup sheet is available. Feel free to read in groups.

Class 10 (Thursday, September 23, 1999) **Discussion of Sample Hyperfictions**

- Due: Hyperfiction reading.
- Assignment: Reaction to and analysis of a hyperfiction story (Due Thursday, October 7, 1999)

Week Six: Communities in Hypertext: Local and Global

Class 11 (Tuesday, September 28, 1999) **Building Communities with Hypertext**

- Types of electronic communities
- Can hypertext help build communities?
 - What is a hypertext community?
 - How does our definition of hypertext affect these questions?
- Electronic vs. physical communities
 - Are there other kinds of communities?
- Reading: Carnegie-Mellon study
- Reading: Lee Sproull and Samer Faraj. 1995. Atheism, sex, and databases: the net as a social technology. In Brian Kahin and Jim Keller (eds.), *Public Access to the Internet*. Cambridge: The MIT Press, pp. 62-81

Class 12 (Thursday, September 30, 1999) **National Online Communities**

- Observation: members of many nationalities now in the U.S. have formed electronic communities and web sites (e.g., Vietnamese web site mentioned on NPR in March, 1999)
 - What does this mean about national boundaries?
 - Are there virtual nations?
 - How do the various members view these communities?
- Observation: Many “disappearing cultures” are creating Web sites and other hypertexts to document themselves.
 - When a culture reflects on or documents itself, does it change itself?
 - Reading due: Palattella, John (1998). “Pictures of Us”. *Lingua Franca*, 8, 5.
 - Question: Can building hypertexts affect native communities?

Week Seven: Reflections on Race

Class 13 (Tuesday, October 5, 1999) **African-American Hypertext Communities**

- Reading: Work from Linda Jackson at Michigan State on Race/Ethnicity on the Web
- Reading: Part of the CMU HomeNet project

Class 14 (Thursday, October 7, 1999) **Is Hypermedia a White-American-Male Enterprise?**

- Historical perspective: who’s been involved in the development?
- Societal perspectives: what claims are there about how different peoples think?
- Is hypertext hierarchical?
 - Are hierarchical structures more predominant in some cultures?

- Due:
 - Reaction to and analysis of hypertext fiction.

Week Eight: Commerce

Class 15 (Tuesday, October 12, 1999) **Technology, Knowledge, and Growth**

- Reading: Portions of the World Bank's *World Development Report 1998/1999: Knowledge for Development*
- Assigned:
 - Thesis paragraph for research paper (Due Tuesday, October 26, 1999).

Class 16 (Thursday, October 14, 1999) **Paying for Hypermedia Resources**

- Are hypertexts different than other documents (in terms of payments)?
- Paying for links
- Transclusion
- Micropayments

Break

Break runs from 5:00 p.m. on Friday, October 15, to 8:00 a.m. on Monday, October 25.

Week Nine: Does Hypermedia Change the Way(s) We Think?

Class 17 (Tuesday, October 26, 1999) **Does Language Influence Thought?**

- Readings
 - Bolter
 - McLuhan
 - Devitt and Sterelny
- Due:
 - Thesis paragraph for research paper
- Assignment
 - Annotated bibliography for research paper (Due Thursday, November 4, 1999)

Class 18 (Thursday, October 28, 1999) **Does Structure Influence Thought?**

- McLuhan's "The Medium is The Message"
- At 4:15 in ARH224, Mills Kelly of Texas Tech will be speaking on his use of hypertext in teaching history. You are *strongly* encouraged to attend.
 - We'll be talking about related issue in weeks eleven and twelve.

Week Ten: Adaptive Hypermedia

Class 19 (Tuesday, November 2, 1999) **Making Hypertexts Adapt to Their Readers**

- Reading: Something by Brusilovsky
- Due
 - Annotated bibliography for research paper
- Assigned
 - Final research paper (Draft due Thursday, November 11, Paper due Thursday, November 18)

Class 20 (Thursday, November 4, 1999) **Technology: Adaptive Hypertext**

Week Eleven: Hypermedia in Education (Background)

Class 21 (Tuesday, November 9, 1999) **Distance Learning**

Class 22 (Thursday, November 11, 1999) **Computer-Based Learning Systems**

- Due:
 - Draft of research paper.

Week Twelve: Hypermedia in Education

Class 23 (Tuesday, November 16, 1999) **Current Techniques for Hypermedia-based Education**

Class 24 (Thursday, November 18, 1999) **The Future**

- Due:
 - Research paper.

Week Thirteen: Can There Be Hyper-Music?

Class 25 (Tuesday, November 23, 1999) **Music and Hypermedia**

- What links are implicit in musical pieces and performances?
- What “decision points” in musical performances?
- Can we make such links explicit?
- How might we present such links?

Thanksgiving Recess runs from 5:00 p.m. on Wednesday, November 24 to 8:00 a.m. on Monday, November 29.

Week Fourteen: Artistic Hypermedia

Class 26 (Tuesday, November 30, 1999) **Techniques of Artistic Expression**

Class 27 (Thursday, December 2, 1999) **Artistic Uses of the Web**

- Group visitation of selected art sites

Week Fifteen: Wrapup

Class 28 (Tuesday, December 7, 1999) **What is Hypermedia? Revisited**

Class 29 (Thursday, December 9, 1999) **Evaluation, Plans for the Future, and More**

Readings

The books on this reading list will be supplemented by a number of shorter readings.

On Hypertext

Bolter, Jay David (1991). *Writing Space: The Computer, Hypertext, and the History of Writing*. (Hillsdale, NJ: Lawrence Erlbaum and Associates.)

This book serves as the primary text for discussion in the class. It is likely that we will read it in the first few weeks of class.

Rebelsky, Samuel and Stuhr, Rebecca (1999). *Hypermedia 101: The Technology and Its Implications*. Online resource available at <http://www.math.grin.edu/~rebelsky/Hypermedia101/>. (Root page created March 23, 1999; Last modified March 23, 1999; Last visited March 23, 1999.)

Some of our longer notes (and nascent essays) on topics for this course. We'll do our best to provide you with printed versions when it is appropriate to do so.

Writing, Reading, and More

Required

Booth, Wayne C.; Colomb, Gregory G.; and Williams, Joseph (1995). *The Craft of Research*. Chicago, IL: University of Chicago Press.

This is one of the texts that you will use to ground your learning of academic skills. You should turn to it for advice on doing library research and on developing sound arguments.

Corbett, Edward P. J., & Finkle, Sheryl L. (1998). *The Little English Handbook: Choices and Conventions*, Eighth Edition. Reading, MA: Addison Wesley Longman.

A nice, small, text on the fundamentals of writing. I prefer this to *The College Writers Reference*. We'll use this when we talk about some details of your prose.

Williams, Joseph (1995). *Style: Toward Clarity and Grace*. Chicago, IL: University of Chicago Press.

This is one of the texts that you will use to ground your learning of academic skills. You should turn to it to hone your writing.

Williams, Joseph and McEnerney, Lawrence (1995). *Writing in College: A Short Guide to College Writing*. Chicago, IL: The Humanities Collegiate Division of The College of The University of Chicago. Online resource at http://college.uchicago.edu/writing-program/resources/writing_in_college/index.htm (visited March 30, 1999; reportedly last modified September 1998; last modified March 11, 1999).

This is where you'll start your consideration of writing. It's a relatively short discourse on what it means to write for at the college level, with particular attention paid to thesis statements and arguments.

Recommended

Fulwiler, Toby and Hayakawa, Alan R. (1998). *The College Writer's Reference*. Prentice Hall.

For those of you who need to work on your fundamental writing skills (not on fine tuning, but on things like run-on sentences), this is a good reference. It is also the College's general reference for students in tutorial. This text is *recommended* and not required.

Dobbs, Elizabeth (1998). *Dr. Syntax*. Online resource at <http://www.grinnell.edu/individuals/dobbs/DrSyntax/index.html> (visited 21 August 1999; dated 1998; last modified 13 July 1999).

If we decided to do some in-depth consideration of your writing--- particularly at the sentence level---we may turn to Ms. Dobb's excellent set of resources.

Miscellaneous

Rebelsky, Samuel and Stuhr, Rebecca (1999). *The Hypermedia Tutorial Web*. Online resource available at <http://www.math.grin.edu/~rebelsky/Courses/Tutorial/99F/>. (Root page created March 22, 1999; Last modified March 23, 1999; Last visited March 23, 1999.)

The hypertext document that you are currently reading. Our notes on the subject should appear here throughout the semester.

History

Tuesday, 30 March 1999

- Created.
- Most of the content was taken from the front door for the course web. Also added *College Writing*.

Saturday, 21 August 1999

- Removed readings that were no longer assigned.
- Added *The Little English Handbook*.
- Added *Dr. Syntax*.
- Some minor corrections.

Navigating the Class

How to use the course web

For a number of reasons, I have chosen to make many of the handouts for this course available only in electronic format on the World-Wide Web. I will go over basic use of the web and you should make sure to ask me if you have any questions about using the World-Wide Web.

The course web can be found at

<http://www.math.grin.edu/~rebelsky/Courses/Tutorial/99F/> You may want to bookmark that page.

A number of important pieces of information are in the course web, including assignments, readings, requirements, syllabus, and office hours. I assume that if I put information on the web, you will (eventually) read it.

- At the bare minimum, you should read all the pieces of basic information about the course. Of particular interest is the syllabus, which lists all the readings.
- I prepare a rough outline for each class. Most students find these useful, and you should feel free to refer to them before, during, and after class.

At the top and bottom of every page are a series of links to important components of the course web. These are

- Instructions. This set of instructions.
- Search. A simple search facility for the course web.
- Current. The outline of the current or next class. You may need to reload the page to get the appropriate version.
- Syllabus. The course syllabus.
- Links. A collection of links that you might find useful.
- Handouts. Electronic handouts for the class.
- Outlines. The outlines of classes that have been held. You can sometimes access other outlines through the syllabus.
- Assignments. A list of the assignments for the class.

On Teaching, Learning, and Grading

- Introduction
- My Role
- Grading
- Your Role
- Summary

This is a variant of the notes I hand out to students in my “normal” courses at Grinnell.

Introduction

I like to begin each course with a metacommentary on teaching and learning. Why? Because I care about the learning process, because I seem to have a different teaching style and personality than some students expect, and because I want you to think not just about *what* you are learning, but also *how* you are learning.

From my perspective, you are here to learn and I am here to support that learning. What will you be learning? The subject matter of the course, certainly. However, I expect that (or hope that) you will also be discovering new ways to think and learn or sharpening existing skills. In terms of subject matter, I tend to care more about the processes and concepts that you learn than about the “basic facts”.

Learning is an interactive process. You learn by asking, discussing, and answering questions, by playing with ideas (in computer science, you also learn by playing with programs), and by working with others. I know from experience that computer science cannot be learned passively: you need to experiment with ideas (in your head, on paper, or on the computer) in order to fully grasp these ideas. The same is often true of hypermedia: you often need to build and read hypertexts before you grasp all of the concepts.

My Role

How do I try to support this learning? In a number of ways.

I *assign readings* to give you a basis for understanding the subject matter. Sometimes these readings will be from the textbook, sometimes I will distribute appropriate supplements.

I *lecture, lead discussions, and conduct recitations* on the topics of the course. Sometimes these will be based on readings and assignments, sometimes they will vary significantly from your readings. Why? Because I feel it wastes your time and mine to simply reiterate the readings. If you let me know that you’re confused about a reading, I will spend time going over that reading (either in person or in class). In this course, our emphasis will be on discussion.

I *assign work* because I find that most people learn by grounding concepts in particular exercises that allow them to better explore the details and implications of those concepts. I expect you to turn in work on the day it is due and will impose severe penalties on late assignments (including refusing to accept some late assignments).

Some of my assignments may involve *public presentation* of your work. Sometimes, the best way to learn a topic is to have to discuss it or present it to someone else. In addition, I’ve found that many students need some work on their presentation skills. Most often, presentations will be of papers that you’ve read.

In general, I expect you to spend about eight hours per week on this class outside of class time. If you find that you are spending significantly more than that, let me know and I’ll try to reduce the workload.

I *grade assignments* to help you identify some areas for improvement. Note that I believe that you learn more from doing an assignment than from receiving a grade on that assignment.

I *give quizzes* to ensure that you are doing the reading and that you are understanding what I expect you to understand from the readings and assignments. At times, I will give quizzes to help illustrate a particular point. This semester, all of my quizzes can only affect you positively: good work on quizzes will lead to extra credit.

I *build course webs* to organize my thoughts, to give you a resource for learning, and to help those of you who need to work on your note-taking skills. I do my best to make my notes for each lecture available on the Web, in outline format. In general, these notes will be available approximately five minutes before class. Warning: these are rough notes of what I expect to talk about; the actual class may not follow the notes. I will also attempt to update the notes after each class.

I *make myself available* to discuss problems and questions because I know that some of you will need personal attention. In general, if I'm in my office you should feel free to stop in. Most of the time, I'll be willing to help. Once in a while, I'll be working on a project and will ask you to come back later. Students always have first priority during office hours. You should also feel free to send me electronic mail, which I read regularly, and to call me. This semester, I am on partial parental leave, which means that I will be less available than normal. In particular, I will not be in the office on Tuesdays and Thursdays. Feel free to give me a call at home on those days, but understand that I may be busy.

At times, I *survey* my students to better understand how the class is going. Because I do research on the effects of computers on learning, I sometimes give surveys to gather data.

Grading

At the same time that you learn and I try to help you learn, Grinnell and the larger community expect me to assign a grade to your work in the class. I base grades on a number of components, but primarily on *assignments, examinations, and involvement in classroom discussions*.

Because I understand that not everyone gets everything right the first time, I will occasionally allow you to *substitute* an extra assignment for one that you did poorly on. Unfortunately, the time pressures of the semester are significant enough that I will not be able to permit you to make up assignments except through this mechanism.

In computer science, it is often possible to do the same problem in multiple ways. Hence, I typically reserve class days to discuss particularly significant assignments. This semester, each exam will be followed by a day of discussion relating to the exam. We may also take time from some classes to discuss particulars of assignments.

I will admit to a fairly strict grading scale. Grinnell notes that A and A- represent exceptional work. To me, "exceptional" means going beyond "solid", correct work. Exceptional work entails doing more than is assigned or doing what is assigned particularly elegantly. Work limited to mastery of the core materials is B-level work. To help you demonstrate exceptional understanding, I will occasionally suggest *extra credit work* (although truly exceptional students will often suggest such work on their own).

To help eliminate biases, I typically use a numerical grading scale. 94-100 is an A, 90-93 is an A-, 87-89 is a B+, 84-86 is a B, and so on and so forth.

Your Role

How should you participate as a member of my class? (Or, how do you do well in my class?) By being an active participant in your own learning. In part, this means doing all the work for the class. It also means a number of other things.

Come talk to me when you have questions or comments about subject matter, workload, or how the course is going in general. I will also set up an anonymous comment page for those who are uncomfortable talking to me directly.

Do the readings in advance of each class period and come prepared with a list of things that you don't understand. I will try to spend time at the beginning of each class session answering these questions or will restructure the lecture to accommodate them. In tutorial, you should email questions to Rebecca and Sam by 5 p.m. the day before a reading is due.

Ask and answer questions and make comments during class periods. I consider active participation during class a particularly important part of the learning process.

Begin your assignments early. Students who begin assignments early have more opportunities to ask for help, to make sure that the assignment gets completed, and to sleep at night. Such students also do better in general.

Summary

As the prior discussion suggests, I expect a great deal from my students. I also use many different strategies to get the best out of you. Feel free to discuss any of this with me (anything from concerns about this perspective to suggestions on improving teaching and learning).

Academic Honesty

I expect you to follow the highest principles of academic honesty. Among other things, this means that any work you turn in should be your own or should have the work of others clearly delineated. When you work as part of a group or team, you need not identify the work of each individual.

You should never "give away" answers to homework assignments or examinations. You may, however, work together in developing answers to most homework assignments. Except as specified on individual assignments, each student should develop his or her own final version of the assignments. On written assignments, each student should write up an individual version of the assignment and cite the discussion. On non-group programming assignments, each student should do his or her own programming, although students may help each other with design and debugging.

If you have a question as to whether a particular action may violate academic standards, please discuss it with me (preferably before you undertake that action).

Disabilities

I encourage those of you with disabilities (particularly “hidden disabilities”, such as learning disabilities) to come see me about the accommodations that I can make to make your learning easier. If you have not already done so, you should also discuss your disability with academic advising. If you think you may have an undocumented learning disability, please speak to me and to academic advising.

Note that I generally feel that the “accommodations” that we are asked to make for those with learning disabilities are often appropriate for all students. Hence, rarely give timed exams and I typically allow students to use computers during exams.

Reading

This introduction was written after a wonderful lecture by Sandy Goldberg on talking to students about reading. Note that Sandy often assigns better writers than I do, so not everything may apply in all readings.

How should you read the various pieces of writing I assign? Carefully, accurately, repeatedly, and thoughtfully.

You should read each piece of writing *carefully*. Most authors have placed considerable effort and care into their writing, precisely structuring their arguments. You owe it to yourself and to the author to make sure that you understand the argument.

You should read each piece of writing *accurately*. Strive to understand what the author intends at each place. Note that most authors of argumentative texts will use a number of forms to support their arguments. These include

- the *claims* that they intend to prove;
- the *evidence* that they intend to use to support those claims;
- possible *objections* to their claims (the best arguments acknowledge such objections and attempt to refute them);
- *responses* to those objections;
- a *summary* of the current argument (longer arguments require regular summaries);
- *conclusions* that can be drawn from the evidence.

I expect that you will eventually be able to classify each part of any writing I assign. That is, I may choose a section of the writing (e.g., a sentence or paragraph) and ask you whether it is a claim, evidence, objection, response, summary, or conclusion. You should also understand the relationship of that piece of text to the larger argument.

When possible, you should read each piece of writing *repeatedly*. Often, it is not possible to understand a serious piece of writing on the first (or second or third) reading. Through repeated readings, you familiarize yourself with the author’s perspective, the structure of his or her argument, and the ideas he or she raises.

Finally, you should read each piece of work *thoughtfully*. Once you begin to understand a piece, you should begin to consider its implications. As you read, you are likely to develop questions. You are expected to send me two questions on each reading by noon before the day we are scheduled to discuss that reading.

Writing

How can you successfully write papers for this tutorial and elsewhere? This is a somewhat harder question than the related question about reading. Why is it harder? You are likely to do a variety of kinds of writing, for a variety of different audiences. There is also some fairly strong evidence that different writers successfully apply a variety of techniques.

Nonetheless, there are some basic techniques that hold no matter what you are writing and who you are writing for. In particular, you should make sure that you understand your topic and your audience, that you have a clear thesis, and that you write early, often, and with support.

You cannot successfully write about a topic unless you know that topic well. It is also inappropriate to make strong claims about a field in which you have little background. Make sure that you've done both main and background readings, and that you've understood them well. For many topics, you will also need to do some independent research to find out what others have said, or to find more information to support your points.

You cannot write to an audience unless you understand that audience. Different papers have different audiences. What you'd write to convince an expert in the field is different than what you'd write to convince a novice (the main thrust of the argument might be similar, but the particular evidence and possible objections you raise are likely to be quite different). Make sure that you've thought about your audience, what they know, and what they don't know.

You cannot write about most topics unless there is a core thesis to what you are writing. A thesis is not "I am writing about X". A thesis is a claim that you are making; a claim that you will need to support through proper argument in your paper. A thesis also provides an entry to your paper. If your thesis statement is weak or uninteresting, you stand little chance of attracting and convincing readers.

You cannot write well the first time you write. Evidence shows that few writers can create beautiful and convincing prose on the first try. You should expect to need to rewrite everything at least once, and often many times. At least one rewrite is likely to be significant: you will need to change the structure of your argument, discard some prose, and introduce new prose. It can be difficult to throw away things you write, but there is little benefit to keeping extra writing that doesn't support your thesis. Throughout the semester, I'll do my best to show you pieces of my writing and how they changed as I revised them.

You cannot write well by yourself. By allowing others to read and critique your writings, you give yourself the opportunity to learn how someone else interprets or misinterprets what you've written. Experience also shows that others are often better at finding mistakes, both large and small. Build a support group of friends with whom you are comfortable sharing your writings and who can give you useful feedback on those writings.

You cannot write well unless you revise, and you cannot revise unless you start writing early. Successful revision includes giving yourself some time away from the paper, to both reflect on the topic and to let yourself “forget” a little bit of the paper. If you write early, you also give yourself time to show your paper to others. To encourage early writing, I will require rough drafts before papers are due.

SamR’s Writing Bugaboos

Here are a few commonly-misused and commonly-abused phrases and writing strategies that I expect you to avoid. Not all are incorrect, but all bother me in some way. Hence, it behooves you to avoid them in any writing you show to me.

I’ve listed these “bugaboos” alphabetically, since I didn’t want to provide any implicit order-of-precedence.

couple *used as an adjective*

“Couple” is a noun (meaning two or a few) or a verb (meaning join). Please don’t use it as an adjective. That is, don’t write “a couple mistakes”. Rather, write “a few mistakes” (preferred) or “a couple of mistakes”.

decimate

This is used too often as a synonym for destroy. However, it means something more, particularly because of its historical background. The origin of the term has to do with an ancient military practice (a Roman practice, I believe) of lining up the people in a village and killing every tenth person (or man), thereby demoralizing the populace. Use it only when you mean “remove one in ten” or “harm to such a level that it demoralizes that which is harmed”.

facilitate

An overused word, that doesn’t say much more than “makes it easier for X to do Y”. Tends to lead to weak, inactive sentences.

data is

“Data” is a plural noun (the plural of “datum”). Hence, you should write “data are”.

HTML programming

You do not program in HTML. HTML is a *markup* language, not a programming language. Markup languages talk about appearance or roles. Programming languages (typically) talk about actions. You might “write HTML”. You might “mark-up a page with HTML”. You do not “program HTML”>

media is

“Media” is a plural noun (the plural of “medium”). Hence, you should write “media are”.

real

Do not use “real” to mean “very”, as in “that’s a real cute kid you have”.

user

I dislike this word for a number of reasons. One is that it is often too vague. We speak of “users” of particular kinds of software. However, at least on the Web, it may be more appropriate to speak of “readers” and “authors”. While “users” may be appropriate for some forms of software (after all, people do *use* software), you might consider making it clearer what use people are making of that software.

A second reason that I dislike this word is that it is often used condescendingly, often leading to the term “lusers”.

Yes, there are others.

utilize

"Use", dressed up, but with no additional meaning.

Multiple Adjectives

You should also be careful when using multiple adjectives to modify a noun, since there are fairly strict rules about meaning (and misuse of the rules can lead to you saying something other than what you mean).

There are three basic forms for two-adjective modifiers,

- **adjective₁ adjective₂ noun** (no extra punctuation). In this case, the second adjective modifies the noun (creating a noun phrase), and the first adjective modifies the noun phrase. For example, a “red oak tree” is an oak tree that is red. A “cool mathematics class” is a mathematics class that happens to be cool. A “happy wild child” is a wild child who is also happy.
- **adjective₁, adjective₂ noun** (adjectives separated by commas). In this case, both adjectives independently modify the noun. For example, a “red, oak tree” is a tree that is red and a tree that is an oak. (Okay, that wasn’t the best example.) Similarly, a “cool, mathematics class” is a class that is cool, and a class that is in math. A “happy, wild child” is a child who is both happy and wild.
- **adjective₁-adjective₂ noun** (hyphenated adjectives). In this case, the first adjective (okay, it’s really acting as an adverb) modifies the second adjective, and the adjectival phrase modifies the noun. For example, a “red-oak tree” is a tree belonging to the species “red oak” and a “cool-mathematics class” is a class in a subdiscipline of mathematics known as “cool mathematics”.

Obviously, for some cases, standards or custom allow you to violate these rules. For example, in “Supreme Court justice”, it is clear that “Supreme Court” is intended as a logical whole, even though it is not hyphenated and probably shouldn’t be. (Note, however, that “supreme court justice” refers to the most supreme of the court justices.) In other cases, the context makes the meaning obvious. However, in almost every case, you should punctuate your adjectives appropriately.

For my class, you should always use “World-Wide Web”, even though convention is moving toward the incorrectly hyphenated version.

(The more obnoxious among you may be wondering why I didn’t hyphenate “incorrectly hyphenated”, since the third rule seems to imply that I should do so. However, “incorrectly” is an adverb, not an adjective (what is an “incorrectly version?”), so the association of adverb to adjective is clear.

Some Formatting Bugaboos

As you will soon realize, I also care a lot about formatting, particularly formatting in HTML. Here are a few simple guidelines.

paragraphs

Use <P> and </P> tags to indicate paragraphs. Don’t use
 with some non-breaking spaces.

underlining

Don’t (except for links, which the browser should do automatically). Underlining has its roots in typewritten text, in which writers did not have different weights and styles available. If you want to

underline, use italics, boldface, or perhaps a different font color (depending on intent). In addition, underlining on the Web typically means “this is a link”, so you should not use it for other purposes.

I prefer to see syntactically correct HTML, even if I don't always write it. If you're not sure whether or not your HTML is syntactically correct, run it through the verifier at <http://validator.w3.org>. (Unfortunately, this page is not correct because of some difficulty my page generator has with description lists.)

Class 01: What is Hypermedia?

Held

Summary

- What is *Hypermedia*?
- What is *Tutorial*?
- What is a *liberal arts education*?
- Nitty-gritty details (registration et al.)
- Assigned:
 - Introductory readings on hypertext (due Thursday, August 26):
 - Bolter, Chapter 1 (Introduction)
 - Bush, “As We May Think”
 - Landow, “The Definition of Hypertext and Its History As A Concept”
 - Reading assignment: Williams and McEnerney, “Writing in College: Some Crucial Differences Between High School and College Writing”.
 - Writing Assignment (due Thursday, September 2): Is the Talmud a hypertext? (400-600 words).
 - Draft due Tuesday, August 31.

Handouts

- Overly-large introductory handout containing
 - Course overview
 - Syllabus
 - Blurb
 - Description of the Tutorial
 - Lots more
 - Notes on class 1
 - Assignment: Introductory readings on hypertext
 - Some of those readings
 - Assignment: Section 1 of Williams and McEnerney
 - That section
 - Assignment: Essay on “Is the Talmud a Hypertext?”
 - Some supplemental readings
-

Notes

- Today we’ll spend about
 - 20 minutes on introductions
 - 30 minutes on issues pertaining to this tutorial
 - 30 minutes on registration issues
 - 10 minutes on slack
- We hope to make outlines like this available for each class.

Introductions

- We will begin with a share-and-pair style set of introductions.
- Pairs of participants (tutors and tutees) will introduce themselves to each other (about five minutes for those introductions).
- Each person will introduce his or her “pairee” to the class as a whole.
- Sam will record information during introductions.

Definitions

- When studying any subject, it is important to begin by considering what we think that subject is.
- We have at least three key topics for this course. We’d like to hear your perspectives on these topics.
 - We will then attempt to synthesize those perspectives into a coherent whole.

Hypermedia

- How might you define the term “hypertext”?
- What does hypertext have to do with structure of information?
- What does hypertext have to do with readers’ interaction with information?
- What distinguishes hypertext from other forms (and what are the other forms)?
- *Hypermedia is the application of hypertext principles to a wider variety of media, including audio, animations, video, and images.*

Tutorial

- What is tutorial?
- Why does Grinnell make tutorial its only required course?
- Did tutorial influence your choice to attend Grinnell?
- Some thoughts about the purpose of tutorial:
 - Tutorial is intended to help you form your first significant student-faculty relationship. We expect that you will form many such relationships at Grinnell.
 - Tutorial is intended to prepare you to be a “real” college student.
 - Tutorial is intended to lay the groundwork for a rich and rewarding liberal arts education.

Liberal Arts Education

- What is a “liberal arts” education?
 - How has the concept changed over time?
- Is it intimately tied to the American small college experience?
- Why did you select an institution that emphasizes this type of education?
- How does the open curriculum relate to the liberal arts education?

- As a product of a modern classical liberal arts education (the University of Chicago’s, which focuses on a “core” curriculum of required subjects rather than Grinnell’s rather open curriculum), Sam often claims that “the purpose of the liberal arts education is to prepare you to bullshit convincingly and clearly on any subject”.
- Rebecca, on the other hand, theorizes that the intent of the liberal arts education is to give you sufficiently broad perspective to permit you to consider the implications of whatever it is you do. A liberal arts education helps you make connections.
 - Wo hoo! “Connections!” That’s hypermedia!

About This Course

- See the too-large course packet for more details.
 - We’ll cover some now, but not all of them.
 - Try to read them over in the next week or so.
 - Expect the syllabus to change.
- In addition to the general goals of tutorial (discussed earlier), we hope that this tutorial will give you some mastery of the notion of *hypermedia*, the technologies that underlie hypermedia, and the implications thereof.
- There are two “tutors” for this tutorial. They will both lead discussions and comment on your work in the class.
 - Sam Rebelsky (Computer Science) is the officially-designated tutor. He is responsible for advising and assigning grades.
 - Rebecca Stuhr (Library) is the co-tutor, who helps give this class additional perspectives.
- You will read a lot for this course and discuss those readings along with related concepts.
 - For each reading, you must prepare one or more questions in advance of class.
- You will work on seven pieces of writing this semester.
 - A short essay (assigned today)
 - A hypertext discussing teaching methods
 - A bibliography of works relating to an implication of hypertext
 - A reaction to a hyperfiction
 - A one-paragraph introduction for a longer research paper
 - An annotated bibliography, in preparation for a longer research paper
 - A five-to-six page research paper (as you may have guessed from the previous two assignments).
- Each student must sign up for a weekly 15-minute appointment with SamR. During that time, we may discuss writing or simply consider how the semester is going.
- Almost everything for the course can be found online.
- After the first assignment, everything you write will be in HTML format. You should email both of us your assignments.

Nitty-Gritty Details

- Over the next two days (Monday-Tuesday), each of you will meet with SamR to plan your courses for the fall.
- Registration is Wednesday at 1:30 p.m. If you are registering for a course that is likely to fill (e.g., Introductory Philosophy or Biology), you should *get there early!*
 - Upperclassmen have been known to abuse first-year students in line. We'll do our best to show up and protect you :-)
- You need to go to registration.
- Sam will be at registration (in the Math section, easily identifiable by the two long line). Come visit if you have questions or if we need to work something out.
 - Duck around; don't wait in line with the people signing up for CS courses.

Planning

- As you plan for our advising meeting, you should consider
 - What fields might be of interest?
 - What major you might pursue? (I realize that it's early, but many majors expect you to start on the courses for the major in your first year.)
 - What particular courses seem interesting?
 - What areas haven't you explored in the past?
 - What areas have you particularly enjoyed?
 - What faculty do advanced students recommend?
- You should also reflect on our discussion of the liberal arts education.
- Make sure to read the "Advice for First Year Students" booklet.
- You should come to your meeting with an approximate plan for your first year at Grinnell.
 - You should have at least one (and preferably two) back-up courses for each course in your plan.
 - If possible, you should have at least one course in each of the three divisions each semester.
- We will modify your plan during discussion.
- Sign-up sheets will be available at the end of tutorial today.
- Realize that I don't know everything.

Scheduling Issues

- **Sunday, 3 p.m.** Those of you with some background in a foreign language should take the appropriate exam today at 3 p.m. today, even if you do not plan to take courses related to that language this year (or ever). You should take the exam even if you already have placement, so that we can confirm or correct that placement.
 - I'm not sure what's happening with Latin placement. We can try to call the Classics faculty during your appointments on Monday or Tuesday.
 - Make arrangements
- **Monday, 10:45 a.m.** All of you are expected to attend *Getting the most from your academic experience* in the South Lounge of the Forum.
- **Monday, 1:00 p.m.** Health professions meeting. Go if you have any inclination toward entering the health professions (e.g., Medical School).

- **Wednesday, 1:30 p.m.** Registration. Be there!
- **Thursday, 8:00 a.m.** Our first real meeting. Meet in the MathLAN (2417).

Making the Most of Grinnell

- You've probably heard more than enough about the opportunities that Grinnell offers. We'll do our best to reinforce a few key points.
- *Talk to faculty.* Grinnell faculty are accessible. They're here, in part, because they like close interactions with students. If you're having problems in a class, if you want to do better (even if you're doing well), if you want to delve more deeply into material, or even if you just want to chat, feel free to visit faculty during their office hours. Some faculty (like Sam) are happy to have students drop in at any time.
- *Explore extracurricular options.* There are many things to do outside of class. Try some of them.
- *Don't do too much too soon.* Some people try to do too much, and don't end up doing anything all that well.
- *Use tutors.* There is no stigma attached to getting tutors for classes. Grinnell even pays for them!
- *Use the writing lab.* It will make you a better writer, even if you're already a good writer.
- *Use the reading lab and the Math/Science learning center.*
- *Plan.*

Assignments

If you're going to start serious academic work, then it's best that you start as soon as possible. Hence, we've decided to assign some reading and some writing for Thursday's class. You will read a short essay on writing in college and a number of short papers that give some definitions of hypertext. You will also write a draft of a short essay that addresses the question "Is the Talmud a Hypertext?"

Hypertext, Revisited

Some of you may be wondering how Sam and Rebecca define hypertext. Since Sam's writing this, and Rebecca isn't around, you get Sam's approximate definition(s). (Written quickly the night before this day's meeting.)

Hypertext is a way of structuring information in which that information is first broken into small pieces (variously called chunks, nodes, pages, or lexia) and then linking those pieces together in multiple ways. By providing multiple links from and to each piece, an author frees readers to take the paths that best suit them.

At the core of hypertext is a sense of empowering the reader. Typically, this also entails giving readers the opportunity to add and share their own links and pieces.

First Assignments

Reading Assignment: Introductory Readings

Assigned: Sunday, August 22, 1999

Expected Discussion: Thursday, August 26, 1999

This is a reading assignment. You should reflect on the notes on reading assignments before undertaking this assignment.

Read

- Chapter 1 of Bolter's *Writing Space: The Computer, Hypertext, and the History of Writing*.
- Bush's "As We May Think".
- Pages 3 to 6 of Landow's *Hypertext 2.0* (The Definition of Hypertext and Its History as a Concept).

You need not come up with questions on these readings.

Reading Assignment: Writing in High School vs. Writing in College

Assigned: Sunday, August 22, 1999

Read by: Thursday, August 26, 1999

This semester, we'll be spending a good deal of time talking about writing. Hence, it is important that you begin tutorial by thinking about why we write, and what it means to write at the college level. The first resource we'll use for such considerations in "Writing in College" by Joseph Williams and Lawrence McEnerney. Begin by reading the first section, "Some crucial differences between high school and college writing".

We strongly encourage you to read this short section before you begin your paper.

Writing Assignment: Is the Talmud a hypertext?

Assigned: Sunday, August 22, 1999

Draft Due: Thursday, August 26, 1999; *Bring three legible copies to class to share!*

Paper Due: Thursday, September 1, 1999

This is a writing assignment. You should reflect on my notes on writing assignments before undertaking this assignment.

Purposes:

- To start you thinking about the definition and purpose of hypermedia;
 - To remind you to question everything you read;
 - To encourage you to make connections (a key issue in both hypermedia and the liberal arts);
 - To get you to “hit the ground running” in your academic work;
 - To give us an early opportunity to evaluate your work.
-

In some discussions of hypertext, it has been suggested that the Talmud is a form of hypertext. For example, in *Hamlet on the Holodeck: The Future of Narrative in Hyperspace*, Janet Murray writes

Hypertext formats are not new as intellectual structures. The Talmud, for instance, is a giant hypertext consisting of biblical text surrounded by commentaries by multiple rabbis.

But is this a reasonable claim? Write a **400-600 word** argument for or against the claim that the Talmud is a hypertext. You will be assigned a perspective. Your argument should include a clear thesis statement and should show evidence that you understand what hypertext is and what the Talmud is.

- Arguing that the Talmud is a form of hypertext: Ellen Gallagher, Sean Murphy, Jake Omvig, Adam Portilla, and Izabella Staicut.
- Arguing that the Talmud is not a form of hypertext: Kevin Burke, John Lentz, Whitney Novak, Marti Palermo, Yasir Mehboob, and Matthew Wilson.

You may not know what the Talmud is, so I’ve included a few sample pages from various copies along with this assignment. You may want to visit the links included at the end of the assignment. You may also want to visit the library to discover what else you can learn.

In order to write this paper, you will need to consider what hypertext is (presumably, basing some of your considerations on various definitions you may find) and what the Talmud is. You should ask yourself the following questions

- What are key attributes of hypertexts?
- Which of these attributes does the Talmud have?
- Which of these attributes does the Talmud lack?

Because the paper is so short, you will not have space for a number of different arguments. You should focus on one short argument, with some space for reacting to possible oppositions.

We may place your paper on the Web. Use this to guide your understanding of your audience. In particular, you should write to a general Web-literate audience. That is, your readers will understand hypertext primarily as “another name for the Web” and may not know what the Talmud is.

Links

Here are some links that you may find helpful. (Note that we have not looked at any of these in depth; they are the result of a relatively quick Web search.) Make sure to cite them appropriately.

- Navigating the Talmud at <http://www.fontworld.com/2tpsamp.html>.
- What is the Talmud? at <http://shamash.org/lists/scj-faq/HTML/faq/03-15.html>
- A Page from the Babylonian Talmud at <http://www.acs.ucalgary.ca/~elsegal/TalmudPage.html>.
- An article in Encyclopædia Britannica at <http://search.eb.com/bol/topic?xref=18689>
 - A sample page from the Talmud at http://search.eb.com/bol/topic?asmbly_id=5026.

Some Other Potential Sources

Here are some other readings that you may find helpful. Make sure to cite the ones you use explicitly.

Bolter, Jay David (1991). *Writing Space: The Computer, Hypertext, and the History of Writing*. Hillsdale, NJ: Lawrence Erlbaum and Associates. [Required text.]

Bush, V. (July 1945). “As We May Think”. *Atlantic Monthly*, 176, 1, pp. 101-108. [A photocopy is attached.]

Kraemer, D. C. (1990). *The Mind of the Talmud: An Intellectual History of the Bavli*. New York: Oxford University Press. [On reserve in Burling.]

Landow, G. P. (1997). The Definition of Hypertext and Its History as a Concept. In *Hypertext 2.0*. Baltimore, MD: The Johns Hopkins University Press. [A photocopy is attached.]

Murray, J. H. (1997). *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*. New York: The Free Press. [On reserve.]

Steinsaltz, A., Chaya, G. (Trans.) (1976). *The Essential Talmud*. New York: Basic Books. [On reserve in Burling.]

Steinsaltz, Rabbi A. (1989). “The Layout of a Talmud Page”. *The Talmud: The Steinsaltz Edition, A Reference Guide*. Random House. [A photocopy of the section accompanies this assignment. The full volume is on reserve in Burling.]