CSCI 1951V: Hypertext/Hypermedia Seminar

The Web Was Not the Beginning and the Web Is Not the End

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Website	http://cs.brown.edu/courses/csci1951-v	
Time	Wednesday 3-5:30pm Eastern (Providence) Time	
Office Hours	On course website.	

Description

CSCI1951-V, "Hypertext/Hypermedia: The Web Was Not the Beginning and the Web Is Not the End," is a new seminar that will look at hypertext systems that came before and after the Web as a basis for discussing what next generation hypertext systems should look like. Students will be doing writing assignments, reading, annotating, and writing technical papers, and developing software prototypes. The class will be part lecture and part discussion, and students will learn not only about hypertext, but will use that knowledge to develop full-stack applications using modern technologies and high-level software architectures as they try to design systems of the future.

Objectives

- Understand
  - the foundations of the ubiquitous computing environment you have grown up with
  - the scope of hypermedia systems – from personal information manager to full multi-user, local to global
  - the features from early systems/research
    - that *have* made it into today's environment
    - that *have not* made it into today's environment and why not?
  - the technical/architectural issues of hypermedia systems and…
    - how they have evolved over the years,
    - how some old assumptions have held back improvements for the future,
    - how current technology can drive those improvements.
  - the applications of hypertext
  - the societal implications of hypertext systems

- Learn
  - to do a critical analysis of technical papers
  - to do comparisons of systems
  - to create crisp summaries and presentations of research and projects/products

- Build
  - a hypertext "corpus" and a
  - a small hypertext system

Topics and Schedule*

WEEK 1

Who Are We?
Learning Objectives
Seminar Mechanics
Assignments & Grading
Why Are We Teaching This Seminar
Origins of Data and Information Processing
What is Hypertext/Hypermedia?

WEEK 2

Hypertext Forerunners
What Sparked Digital Hypertext?
From Number Crunching to Text Processing
Hypertext Terminology
Digital Hypertext Pioneers

WEEK 3

The Internet – Pre-Browser
The World Wide Web
The Dimensions of Hypertext
Comparison of Systems

WEEK 4

Types of Systems
- Frame/Screen/Card-based Systems
- Multi-card systems
- Visual Systems
- General-Purpose Multi-Application Systems
- Documentation-Oriented
- Locative
- Spatial

WEEK 5

Special-Purpose Hypertext Systems
- Wikis
- Blogs
- Website Builders
- Hybrid (Wordpress)
- Mindmap/Argumentation
- Hypermovies

Guest Lecture: Mark Bernstein
- Creating Hypertext Content
- Applications of Hypertext

WEEK 6

Architecture Part I:
- Anchors & Tracking

WEEK 7

Architecture Part II
- Storage & Management
- Nodes
- Linking

Generated Hypertext

WEEK 8

Documents and Metadata
Annotations
Searching/Filtering/Viewspecs
Semantic Web

WEEK 9

Document Addressing/Permanence
Versioning
Transfer, & Exchange

WEEK 10

Multi-User Hypermedia and Permissions
Collaboration Architectures
Ownership, Security, and Privacy

Temporal Media
- Animation
- Guest Lecture: Dick Bulterman
  - Temporal Hypermedia
  - Hypertext for the Blind

Sneak Preview of Societal Implications

WEEK 11

Where We Are Now?
- Information
- Hypertext
- Issues with the Web
- Enduring issues in hypertext research
- Bush/Engelbart/Nelson's Visions Revisited

WEEK 12

Final Project Presentations

**Subject to minor changes*

Course Requirements

This is a course for undergraduates and graduate students with significant CS systems background and software architecture and development experience. Students must have taken an introductory CS sequence or equivalent, and preference will be given to those who have taken additional relevant systems courses or who have had significant experience in software development through jobs or internships. Experience with Javascript or Typescript and full-stack development is not required but is a plus. Desire to read journal articles and papers, and to write, comment, and present on those readings is essential.

Course Activities and Hours

Seminar	Lectures and discussion 2.5 hours/week x 12 weeks = 25 hours
Reading	Reading of technical papers and articles online = 3 hours/week x 4 weeks = 12 hours
Writing	Short online papers critiquing articles, analyzing issues, considering alternatives = 3 hours/week x 4 weeks = 12 hours
Annotating	Providing commentary on other students' writings and annotations = 2 hours/week x 3 weeks = 6 hours
Building a hypertext corpus	Using Andy's research group's experimental hypertext system, build a small hypermedia presentation on a topic of interest to you = 10 hours/week x 2 weeks = 20 hours
Coding	Short projects to learn various aspects of the software components you will use for your final project = 10 hours/week x 4 weeks = 40 hours
Recitations	Supplementary sessions to cover various issues or guest lectures = 1 hours/week x 6 weeks = 6 hours
Final project	A group project to build a small hypertext/hypermedia system = 15 hours/week x 4 weeks = 60 hours
TOTAL	*181 hours (as this is a new course, all activities and hours are approximate).*

Grading

Class Participation	15%
Papers and Annotations	35%
All Projects	50%

Classroom Participation and Expectations

Students are expected to attend the seminar each week, do the assignments, and fully participate in discussions. The course can only meet its full potential if all the class members are informed and engaged.

Books, Supplies, and Materials

All students should have access to Microsoft Office products, a PC or Macintosh computer with at least 8 GB of memory, a 1024 x 768 screen, an Intel Core processor (or AMD equivalent) less than 5 years old, and a stable Internet connection of at least 6 Mbits/sec. If you cannot meet these requirements, please contact the professors as soon as possible to try to find a solution.Lecture notes and reading material will be provided on the course website. It is vital that students regularly check the course website for announcements, reading material and assignment information.

If your Brown undergraduate financial aid package includes the Book/Course Material Support Pilot Program (BCMS), concerns or questions about the cost of books and course materials for this or any other Brown course (including RISD courses via cross-registration) can be addressed to bcms@brown.edu. For all other concerns related to non-tuition course-related expenses, whether or not your Brown undergraduate financial aid package includes BCMS, please visit the Academic Emergency Fund in E-GAP (within the umbrella of "E-Gap Funds" in UFunds) to determine options for financing these costs, while ensuring your privacy.

Policies Regarding Assignments

Assignments more than 2 days late will lose one letter grade, more than 4 days late will lose two letter grades, after 4 days, the assignment will receive an NC, averaged into the overall grade. 2 “late passes,” which forgive a lateness will be given: 1 to be used on a writing assignment, another to be used on a coding assignment that is NOT the final project.

Academic Honesty

Please review https://www.brown.edu/academics/college/degree/policies/academic-code.

Accessibility and Accommodations Statement

Brown University is committed to full inclusion of all students. Please inform us early in the term if you may require accommodations or modification of any of course procedures. You may speak with us after class, during office hours, or by appointment. If you need accommodations around online learning or in classroom accommodations, please be sure to reach out to Student Accessibility Services (SAS) for their assistance (seas@brown.edu, 401-863-9588). Students in need of short-term academic advice or support can contact one of the academic deans in the College.