

W E B T E C H N O L O G I E S

Networks and Sub-Networks in the World-Wide Web

Prabhakar Raghavan, Chief Scientist and VP for Emerging Technologies, Verity, Inc.

We discuss several structural properties of graphs arising from the world-wide web including the graph of hyperlinks, and the graph induced by connections between distributed search servants. We review a number of algorithmic investigations of the structure of these networks, and conclude by proposing stochastic models for the evolution of these networks.

Some Problems Relating to Content Distribution

Tom Leighton, Chief Scientist, Akamai Technologies, Inc.

We will give some background on how content is distributed in the web today as well as Akamai's approach to content distribution.

Web Collaboration

Ted Tracy, Vice President, Product Development, Latitude Communications

The enterprise workplace has become dramatically focused on increasing professional worker productivity—outsourcing of IT operations, reduced travel budgets and increased usage of teleconferencing tools are all examples. In addition, the onset of the Internet has provided several web-based tools to accommodate the need for improved efficiencies in corporate collaboration. This trend has spawned a new technology category of “web-conferencing” to represent technologies, tools and applications that will improve group collaboration across web networks. Web-conferencing allows multiple remote participants to exchange voice, data and video information across IP networks for general-purpose team collaboration as well as specific vertical applications. As the Internet continues to improve in terms of both total bandwidth as well as “quality of service” mechanisms, web-conferencing will become even more pervasive. As a specific case in point, Latitude Communications' flagship product MeetingPlace has been recognized as the best-of-breed technology that addresses the problem of web-conferencing and provides a powerful solution to the need for improved professional worker productivity and associated collaboration.

The Brazil Project: A Future Vision of the Web, and Some Tools to Get There

Stephen Uhler, Researcher, Web Applications Technologies, Sun Microsystems

The Brazil project is an experimental web application development environment ideal for web-enabling devices, aggregating content from other web applications, and building web portals that filter and modify aggregated content.

I will discuss the SunLabs Brazil project, first by presenting a vision for the future of the web, and an architecture that supports that vision. I will then discuss some sample applications we built with the prototype implementation.

Digital Rights Management in the Era of Napster

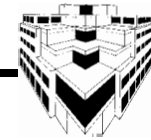
Olin Sibert, VP Strategic Technologies, InterTrust Technologies

The modern digital world, in which computation and communication are (nearly) free and (nearly) unlimited, poses critical new challenges for management of rights and information. For example, there is much hullabaloo today about “the end of intellectual property” (postulating a world where information is completely uncontrolled) and “the end of fair use” (in the opposite world where information is tightly locked up). These and similar apocalyptic visions are inspired by an absolutist interpretation of various technologies, whereas in reality, the picture is not so simple and clear-cut. In my talk, I will discuss the concepts and mechanisms of Digital Rights Management (DRM) technology and how it can act as a moderating factor in such visions.

Trends in Search Technology

Andrei Broder, VP Research and Chief Scientist, Alta Vista Company

On the web, search technology is ubiquitous: from the major search engines that index hundreds of millions of pages to the tiniest e-commerce site, there is a search box on every site. These boxes are powered by a vast array of methods of varying sophistication, combining classic information retrieval and linguistics techniques with web-specific data and algorithms. On the other hand, users increasingly expect and actually receive a substantially uniform interaction style—basically unstructured, full-text search—no matter what search box they are using. This talk will explore some of the technology trends and business developments that make this search paradigm so prevalent and powerful.



SCHEDULE

8:30	B R E A K F A S T and Registration 4th floor, CIT Building
9:15	Introduction and overview Tom Dean, CS Chairman John Savage, IPP Director Eli Upfal, Host
9:30	Networks and Sub-Networks in the World-Wide Web Prabhakar Raghavan, Verity Inc.
10:30	B R E A K
10:45	Some Problems Relating to Content Distribution Tom Leighton, Akamai Technologies
11:45	Web Collaboration Ted Tracy, Latitude Communications
12:15	B U F F E T L U N C H
1:30	The Brazil Project: A Future Vision of the Web, and Some Tools to Get There Stephen Uhler, Sun Microsystems
2:30	Digital Rights Management in the Era of Napster Olin Sibert, InterTrust Technologies
3:30	B R E A K
3:45	Trends in Search Technology Andrei Broder, Alta Vista
4:45	P A N E L D I S C U S S I O N
5:30	R E C E P T I O N (5th floor)



EMAIL REGISTRATION

To: sjh@cs.brown.edu

By: **October 27**

Please include the following:

Name

Title

Company

Department

Postal address

Phone/Fax

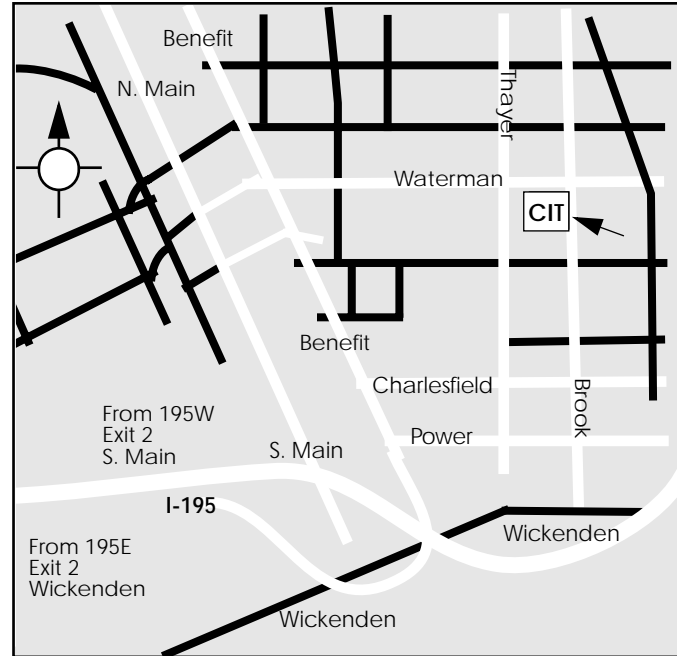
This symposium is for members of our Industrial Partner companies. Member companies are: Compaq, EMC, Foxboro, Gtech, IBM, InterTrust, Latitude, MERL, Microsoft and Sun. There is no charge.



LODGING

Rooms have been reserved at the Inn at Brown (the Brown guest facility), corner of Thayer and Charlesfield, for the night of November 1st (\$95/night); parking is included. Please make reservations *by October 20*, by calling (401•863•7500).

Please refer to the CS Department's Industrial Partners Program when registering. Participants are responsible for their own lodging expenses. We look forward to seeing you soon.



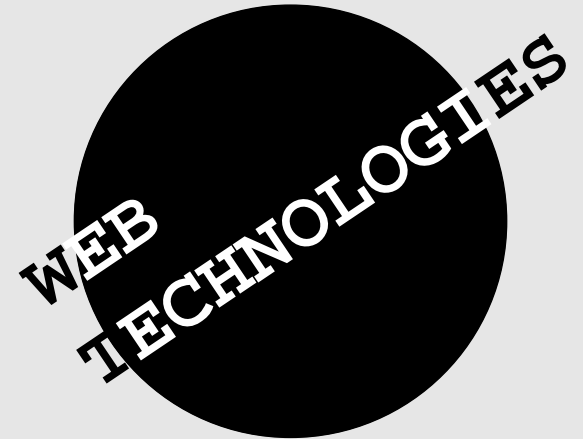
DIRECTIONS TO THE CIT BUILDING

- From I-95 N or S, take Exit 20 to I-195E.
- From I-195E take Exit 2, St.
- Go LEFT on Wickenden, LEFT again at the 2nd light onto Brook St.
- The red-brick CIT Building (Center for Information Technology) is on the left at the intersection of Brook and Waterman (1st light).
- Registration is on the 4th floor.

PARKING

Because most of the visitor parking has been assigned to University employees, I'm afraid we're unable to provide parking. Street parking is usually available for early birds, but watch out for newly-designated 2- and 3-hour zones, which used to be all-day spots. You might try the residential area NW of the CIT.

The 26th IPP Symposium Department of Computer Science **BROWN UNIVERSITY**



Thursday,
November 2nd, 2000

Host: Professor Eli Upfal

INDUSTRIAL PARTNERS PROGRAM

