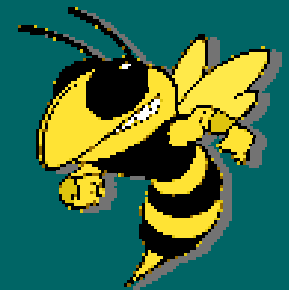


Promoting Information and Community Awareness through Opportunistic Interfaces

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Georgia Institute of Technology

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Community Awareness

- Knowledge about one's own community:
 - Helps build and sustain social ties
 - Eases information sharing
 - Facilitates the collaboration in creative work



Problem

- Large communities
- Geographic separation

“I feel that the College is no longer a real community. Instead, we’re turning into fiefs and isolated research groups that barely encounter each other.”

- Increasing amount of information vs. limited amount of attention



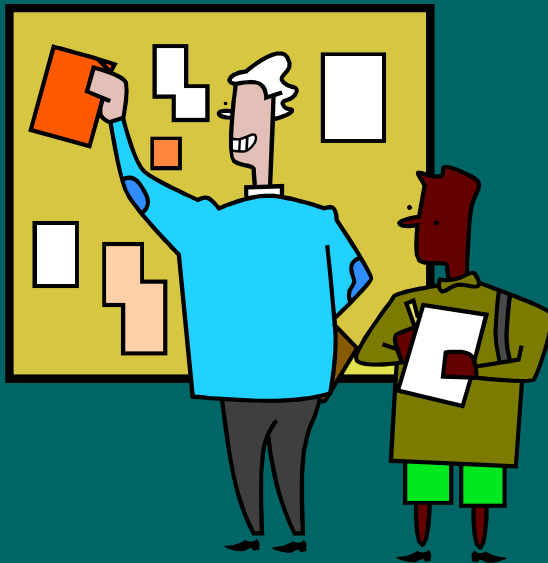
Research Focus

- Identify communication mechanisms for promoting community awareness
- Design and implement opportunistic information-interfaces for supplementing community communication
- Evaluate the use and effectiveness of opportunistic information-interfaces



Opportunistic Information-Interfaces

- By chance
 - Presentation
 - Access
- “Push” vs. “pull”
- Where to push?
 - Computer desktops
 - Personal displays
 - Public displays
 - Ambient displays



Design Goals

- Provide useful and interesting content
- Encourage open, public, cross-group communication
- Complement existing communication methods
- Have a simple and calm interface



1. Community Communication Bar

- Small, corner of the display window
- Cycles through information blurbs, items of interest to people in community
 - Automatically posted
 - Announcements, birthdays, news,...
 - User-posted
 - Join for lunch, questions, ...



Slashdot

News for nerds. Stuff that matters.

Interviews: Andre Hedrick On Hard Drive Copy Protection

Posted by [Biffins](#) on Wednesday

January 10, @11:00AM

From the not quite as thick as you think it is dept.

Andre Hedrick, Linux ATA drive and member of [the committee](#) that sets ATA hard drive interface standards, got [your questions](#) by email yesterday, and we got his answers back this morning. He goes on the inside deep about latest attempt by various copyright-worried industry leaders to stop you from using files in ways they dislike, spiced with a fair amount of humor, because... well, because Andre's just that kind of guy (and we like him that way!)

[Read More...](#) | [DHT Intro in July](#) | [20 of 20](#)

[Comments](#) | [Interviews](#)

Ask Slashdot

- [The Co. Invents A New Way To A Law 300 Journal](#)
- [Sun Will Do More Than Build Business Management](#)
- [Dropped A Law Committee For 2000?](#)
- [How Much Can You Get For Your Program?](#)
- [Software Makers Talk About A New 2000?](#)
- [Software Is Going To Be A Big Business? Can You?](#)
- [Software Just Doesn't For 2000?](#)
- [Can You Sell Your Software?](#)
- [Software Is A 100 in 2000?](#)
- [Software Is A 100 in 2000?](#)



What's Happening?

Menu **Tomorrow** **GVU Brown Bag Series**

Post "Information Interfaces Research Group Sampler"

John Stasko, James Eagan, Mike

Communication-bar Close-up

Animation



Blurb Images

- Conveying topic



- Conveying source of information




- Conveying status




Design Evolution: Appearance

News Flash




Slate Takes on Linux
alkali writes "The weekend edition of the Microsoft-owned, Michael-Kinsley-edited Slate has two articles on Linux, one written by Slate's chief program manager (i.e., a techie) and the other written

What's Happening in CoC?



Workspace of the Future: Is It Real or Is It Cyber?
Tom Moran, Xerox PARC
In 15 minutes (MiRC 102)
The office of the future will not be a virtual, electronic, paperless world. Real work will continue to occur in physical

Menu [Connecting to server ...](#)
Post Hint: Use the "Post" button to share news with other people.
[Goto Web page ...](#) [Forget this article ...](#)

Menu  **Distance Matters** [@?](#) [?](#) [?](#)
Post GUV Distinguished Lecture Series: Gary & Judith Olson, University of Michigan. Contact: stewart@cc.gatech.edu
12:00-1:00pm MiRC Rm 102

Menu  **CoC Welcome Reception**
Post 3:00-4:00pm
CCB Lower Courtyard
[@?](#) [?](#) [?](#)



2. Community Screen-Saver

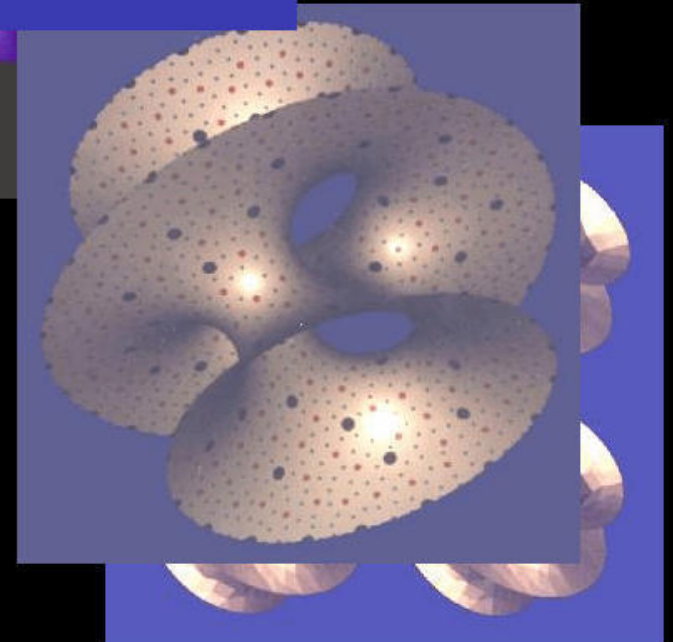
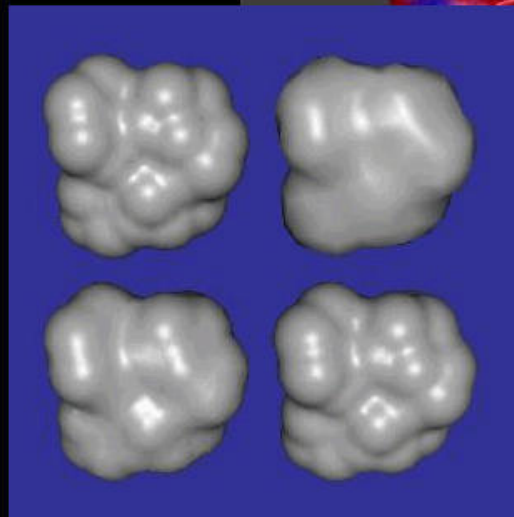
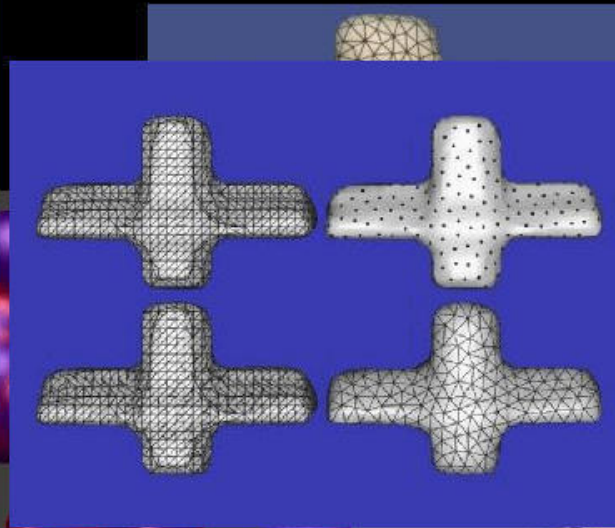
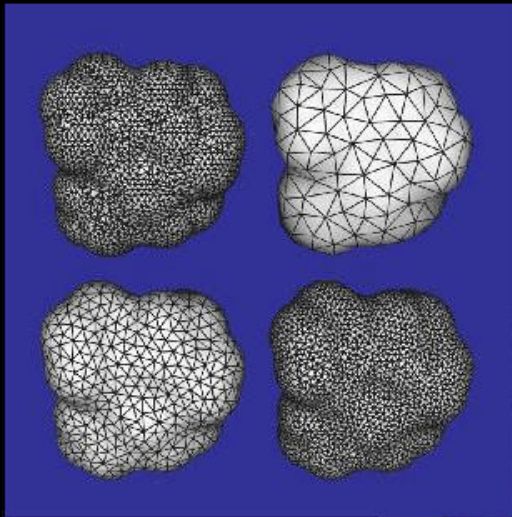
- Collage server
 - Crawls local web sites for images
 - Continuously generates random collages from images found
- Screen-saver clients
 - Check a JPEG file @ fixed URL to see if new collage is available
 - Retrieve and display new collage



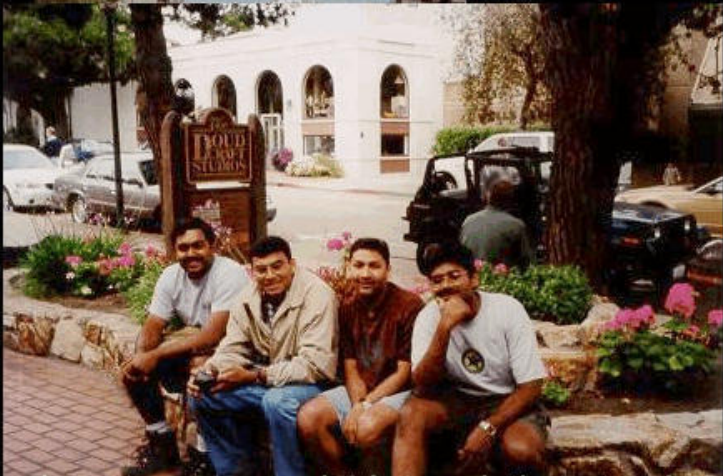
Examples



Re-Tiling Polygonal Surfaces

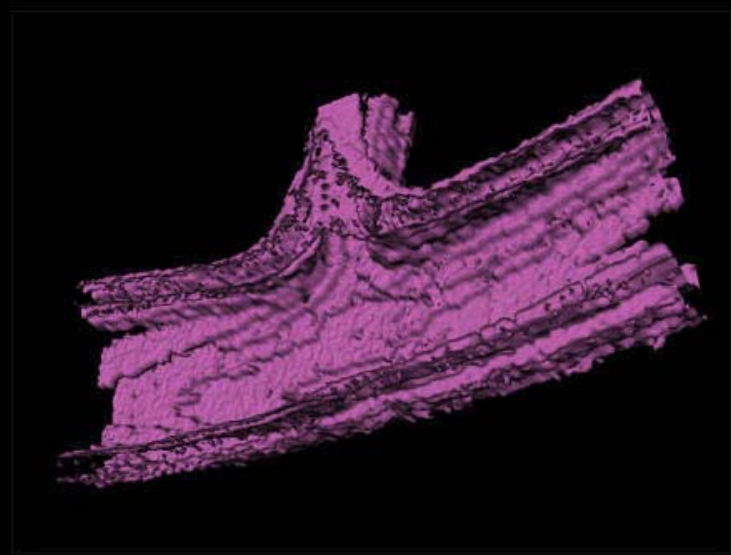
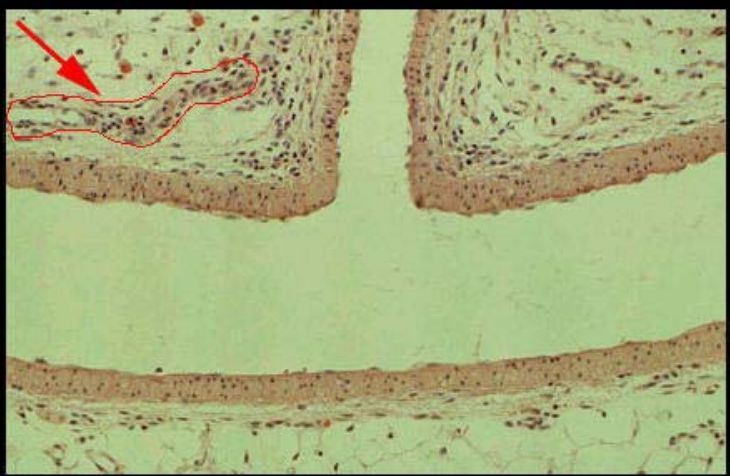


Yosemite trip pictures: July 2000



Developing a 3D Model of a Blood Vessel

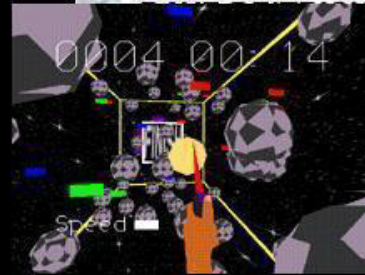
Figure 3: Typical cross section showing branching of blood vessels. The red arrow identifies a tertiary blood vessel, these vessels are





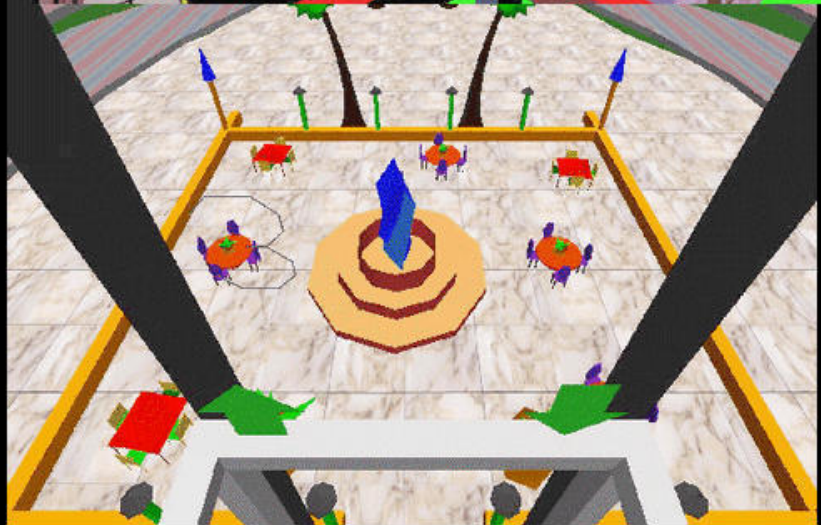
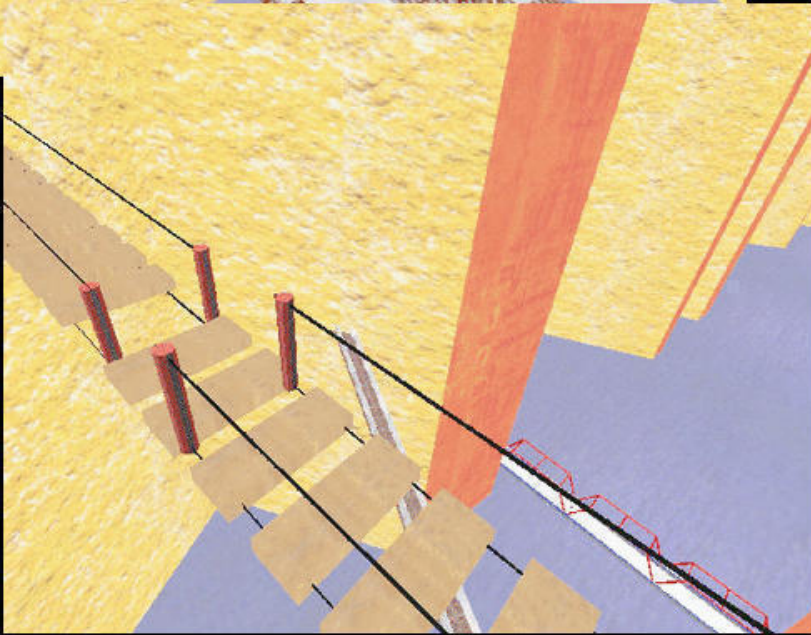
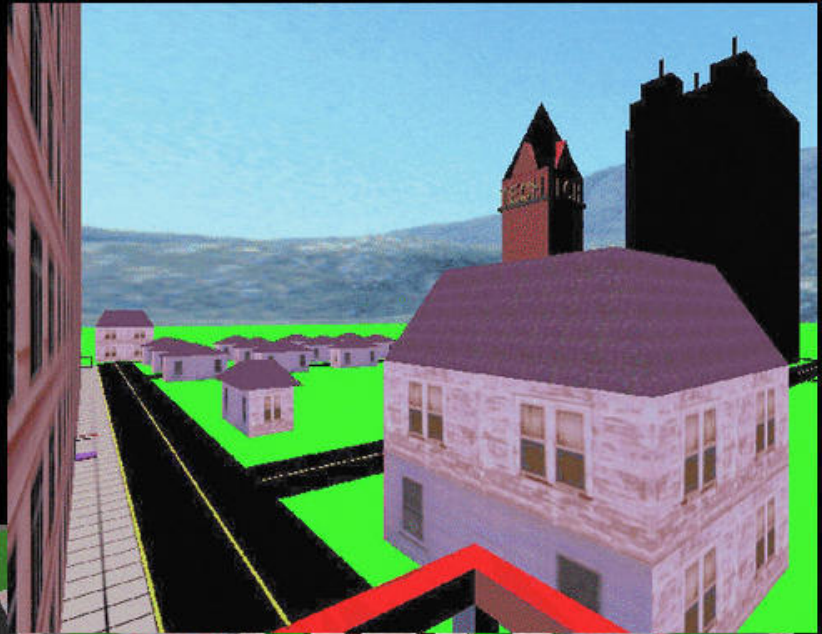
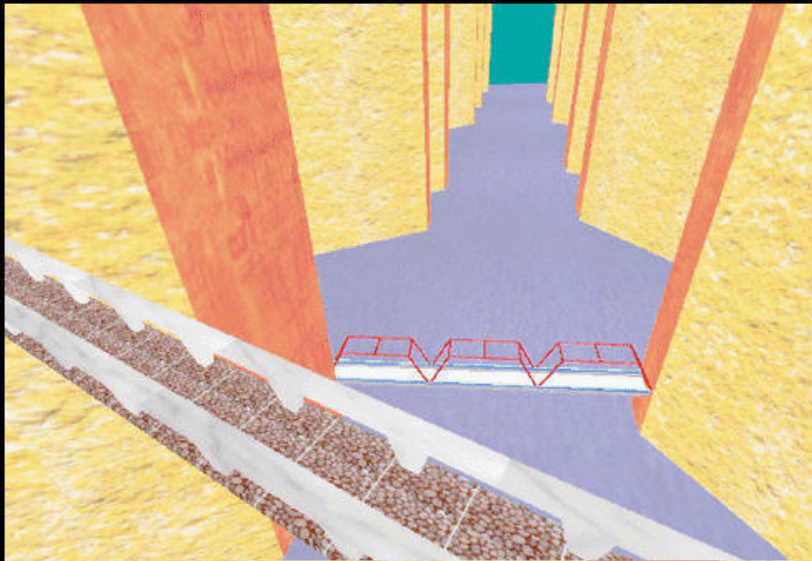
VROIDS!

By **DAVE DEITRICH**
and **DAVE RODRIGUEZ**



Kirby's Journal





A Spanish Ramble



Tom's Home Page



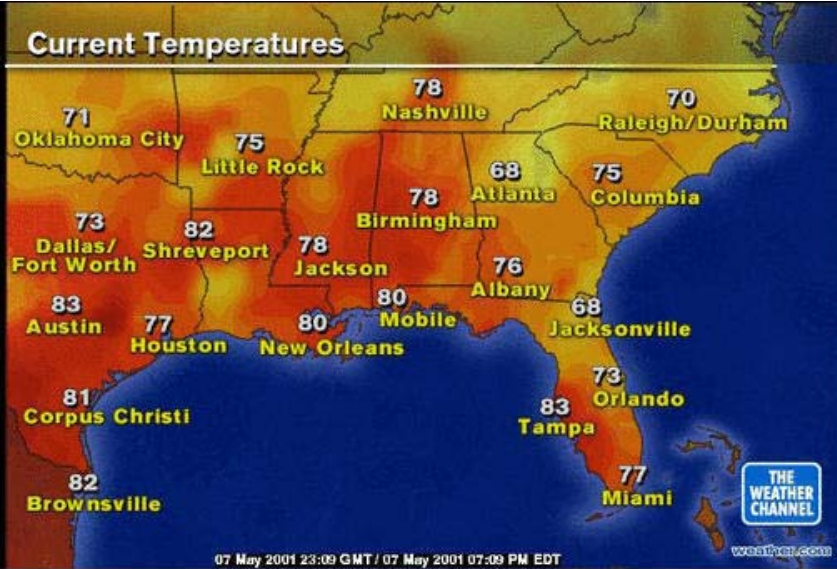
Value-added Collages





Want To Playtest An Xbox?

drix writes: "Microsoft is recruiting people to playtest the Xbox!"
Someone over there has got to be reading! Let me have a crack at one
guys! (Course, if they don't the conspiracy theorists will know why:
and don't say, "Rob Doesn't Live in Seattle" cuz that's too easy.
Course who am I kidding: The Microsoft conspirators are too busy saying
the xbox will be the crappiest system ever without ever touching one. I
just see it as Microsoft's way of saying, "We're not a monopoly.
Promise!" as they attempt to swallow another industry. The system may
very well rock).



Weather



Fair



Doppler Radar

Traffic



I-75 at Akers Mill



I-85 N of Pleasantdale Rd



I-75/85 N of 10th St



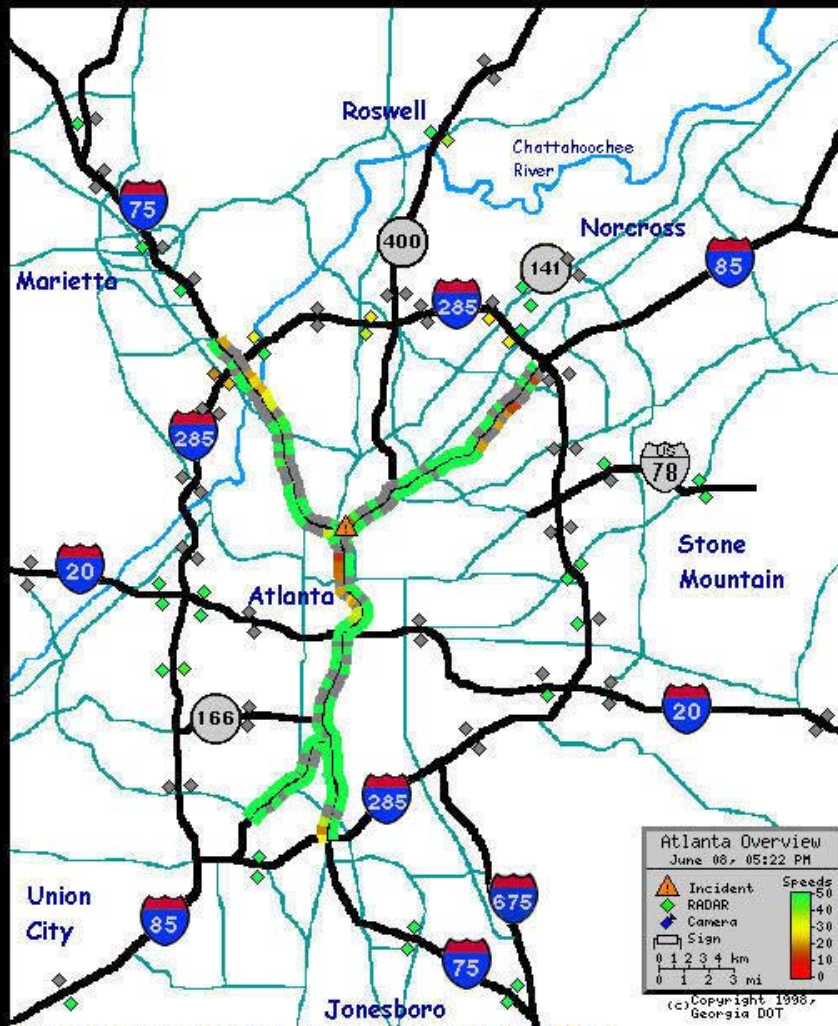
I-75/85 N of North Ave



I-85 S of Virginia Ave



I-75 at Aviation Blvd



<http://www.georgia-navigator.com/traffic/>



<http://www.atlantaweb.com/>



Buckhead Earthcam



What's on WSB-TV



View of Atlanta from WSB-TV



View of Atlanta from Jimmy Carter Center

Collage Generation Process

- Web crawler records images found on local web sites

`http:.../page.htm -> http:.../image.gif`

(47K image references on 10K web pages)

- Collage server
 - Builds a randomized list of web pages
 - For each page on the list, generates a collage from images on that page

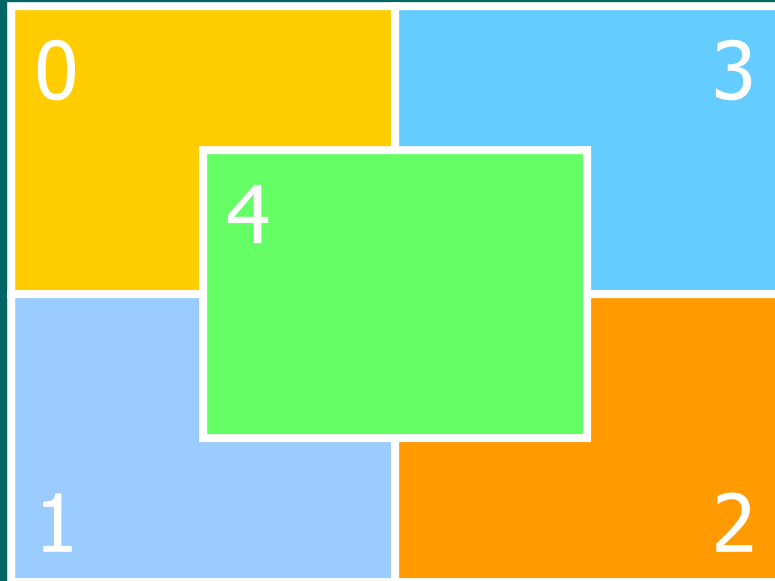


Creating a Collage for a Web Page

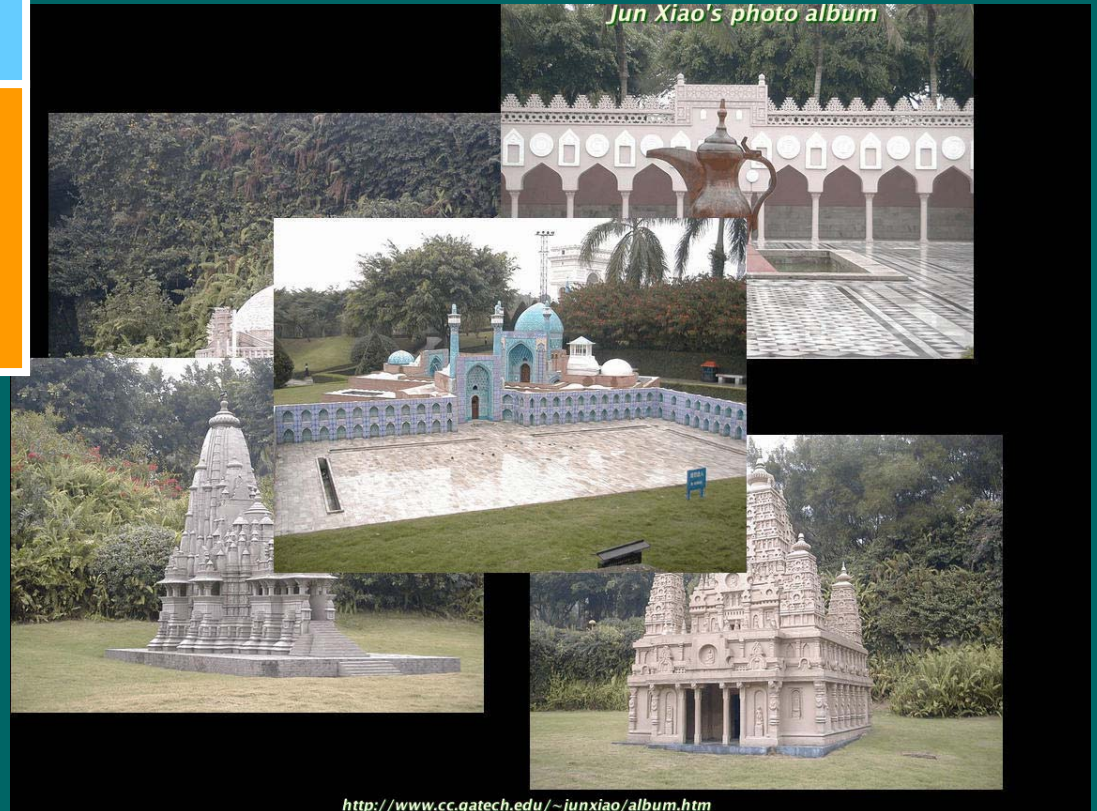
- Select up to 10 items from image set
 - Ignore thin/tall/small images
 - If < 5 images, draw first few lines of text in background layer
- Paint selected images
- Annotate collage with title and URL text



Grid Image Layout



wiggle



<http://www.cc.gatech.edu/~junxiao/album.htm>



Evaluation

- Perhaps another time...

Both systems in use
for over 3 years now



Future Opportunities

- More user-customizable clients for peripheral information awareness
 - Other web sites in screen saver
 - Combine with Information Art-like approaches



For More Information

- www.cc.gatech.edu/gvu/ii/community
- stasko@cc.gatech.edu

- Acknowledgment: Research supported in part by Microsoft Corp.

