

CSE567M

Project Guidelines

Raj Jain

Washington University in Saint Louis

Saint Louis, MO 63130

Jain@cse.wustl.edu

These slides are available on-line at:

<http://www.cse.wustl.edu/~jain/cse567-13/>



- ❑ Project Requirements, End-Goal
- ❑ Literature Search
- ❑ Outline: Preparation Process, Mind Maps
- ❑ Writing: Organization, List of Acronyms, References
- ❑ HTML Style Guidelines
- ❑ Draft Submission
- ❑ Final Submission

Project Suggestions

Note: Do not repeat last year's projects

- Cloud Computing
- Big Data
- Virtualization
- Multi-core processors
- Sustainability and energy
- Health applications

Sample Project Topics

- ❑ A Survey of Network Traffic Models
- ❑ A Survey of Queueing Analysis Packages
- ❑ Recent advances in queueing analysis
- ❑ A Survey of Simulation Packages
- ❑ Recent advances in simulation
- ❑ A Survey of Processor Workloads
- ❑ A Survey of modeling Tools: R, MATLAB, SPSS, Mathematica
- ❑ A survey of Network Performance/traffic monitoring Tools
- ❑ A Survey of Operating Systems/Process Monitoring Tools
- ❑ Operating Systems (Unix/Linux/Windows) Performance Tools
- ❑ Note: Do not repeat last year's projects

Sample Project Topics (Cont)

- ❑ Time series analysis modeling techniques
- ❑ Performance Analysis of xxx (Commonly used performance metrics, Workloads, Sample/Actual Analysis, Examples of Use/Misuse of Analysis techniques and plots)
 - Performance of Communication Middleware
 - Performance of Real time systems
 - Performance of Web caching
 - ...
- ❑ Case Study: Performance Analysis of xxx

Project Schedule

Mon 2/25	Topic Selection
Mon 3/04	References Due
Mon 3/18	Outline Due
Mon 4/03	First Draft Due -> Peer reviewed
Mon 4/10	Reviews Returned
Mon 4/17	Final Report Due

Project Requirements

- ❑ Comprehensive Survey:
Technical Papers, Industry Standards, Products
- ❑ Will be published on my website,
Better ones may be submitted to magazines or journals
- ❑ If you are doing a case study or a survey of performance analysis of xxxx, make sure your report emphasizes the performance concepts and techniques learnt in this course.
- ❑ In surveys, if you come across misuse of statistics or mistakes, please include it in the report.

Project Requirements (Cont)

- ❑ No copyright violations:
 - ⇒ You need to re-draw all figures
 - ⇒ You need to summarize all ideas in your *own* words
 - ⇒ Cannot copy any part of text or figure unmodified
 - ⇒ Short quotes ok
 - ⇒ Any unmodified figures need permissions
- Any infringement will result in forfeiture of grades even after graduation.
- ❑ See papers in previous offering of this course, e.g.,
<http://www.cse.wustl.edu/~jain/cse567-06/index.html>
<http://www.cse.wustl.edu/~jain/cse567-08/index.html>

End-Goal

- Paper that can be published as a survey paper in any magazine, journal, conference

Literature Search

- ❑ Finding references: Use Google advanced search options
 - Location 802.11 +filetype:pdf +site:.com
- ❑ Library.wustl.edu -> Databases -> Multisearch -> Subject, Engineering: search 10 journal databases for the topic
- ❑ Conduct searches in two phases. In the first phase, use the title words of your project. After reading these, conduct another more comprehensive search.
- ❑ Remove articles that are not useful
- ❑ No limit to the number of references
- ❑ Follow the references in references

Google Search Modifiers

- ❑ filetype:pdf, doc, ppt, pptx
- ❑ site:wustl.com
- ❑ intitle:trend
- ❑ inurl:trend
- ❑ allintitle:Networking Trends
- ❑ Allinurl:
- ❑ “ ” ⇒ Exact Phrase
- ❑ OR
- ❑ AND
- ❑ + ⇒ Must include
- ❑ - ⇒ Not include
- ❑ ~X ⇒ X or similar
- ❑ * ⇒ Wildcard

Google Search (Cont)

- ❑ Google search, http://en.wikipedia.org/wiki/Google_Search
- ❑ How to search Google, <http://www.wikihow.com/Search-Google>
- ❑ Google Guide Quick reference: Google advance operators cheat sheet, http://www.googleguide.com/advanced_operators_reference.html
- ❑ 12 Quick tips to search Google like an expert, <http://blog.hubspot.com/blog/tabid/6307/bid/1264/12-Quick-Tips-To-Search-Google-Like-An-Expert.aspx>
- ❑ Basic search help - web search help, <http://www.google.com/support/websearch/bin/answer.py?hl=en&answer=134479&rd=1>
- ❑ More search help - web search help, <http://www.google.com/support/websearch/bin/answer.py?hl=en&answer=136861&topic=1221265>
- ❑ Search results options, <http://www.google.com/support/websearch/bin/answer.py?hl=en&answer=142143&topic=1221265>
- ❑ Search preferences, <http://www.google.com/support/websearch/bin/answer.py?hl=en&answer=35892&rd=1>

HTML Style Guidelines

- ❑ See papers from previous classes on my website for details
- ❑ Use plain text editors with simple html
- ❑ No Java, flash, animation
- ❑ Do not use HTML generated by MS Word. It will not pass any HTML validation test. Save the word file as plain text and add HTML tags.
- ❑ Learn to use special characters in text and reference URLs. See <http://tntluoma.com/sidebars/codes/>

Header

```
<!DOCTYPE  
<html>  
<head>  
<meta http-equiv="pics-label"  
<meta http-equiv="content-type"  
<meta name="Author"  
<meta http-equiv="content-language"  
<meta name="robots"  
<meta name="GENERATOR"  
<meta name="Keywords"  
<meta name="Classification"  
<meta name="Description"  
<title>  
</head>
```

Body

<body>

<h1>Title</h1>

Author, Permanent-Email

<hr>

<h2>Abstract:</h2>

...

<hr>

See Also:

<hr>

Body (Cont)

<h2>Table of Contents:</h2>

2. 10-Gigabit Ethernet Overview

2.1 Benefits of 10-Gigabit
Ethernet

...

<hr WIDTH="100%">

Body (cont)

```
<h2><a NAME="intro"></a>Introduction</h2>
```

...

```
<p>[<a href="#grow99">Grow99</a>]
```

```
<p>
```

...

```
<br>
```

Project Homework 2

- ❑ Prepare a short webpage (written manually) using most of the tags indicated in this handout
- ❑ Include one image/photo in the page
- ❑ Validate the page using validator.w3.org
- ❑ Submit the html source file printout, web page printout, and the URL
- ❑ Remember:
 - To add all meta tags specified in the handout
 - Validate the page
 - Load it in an ad-free area

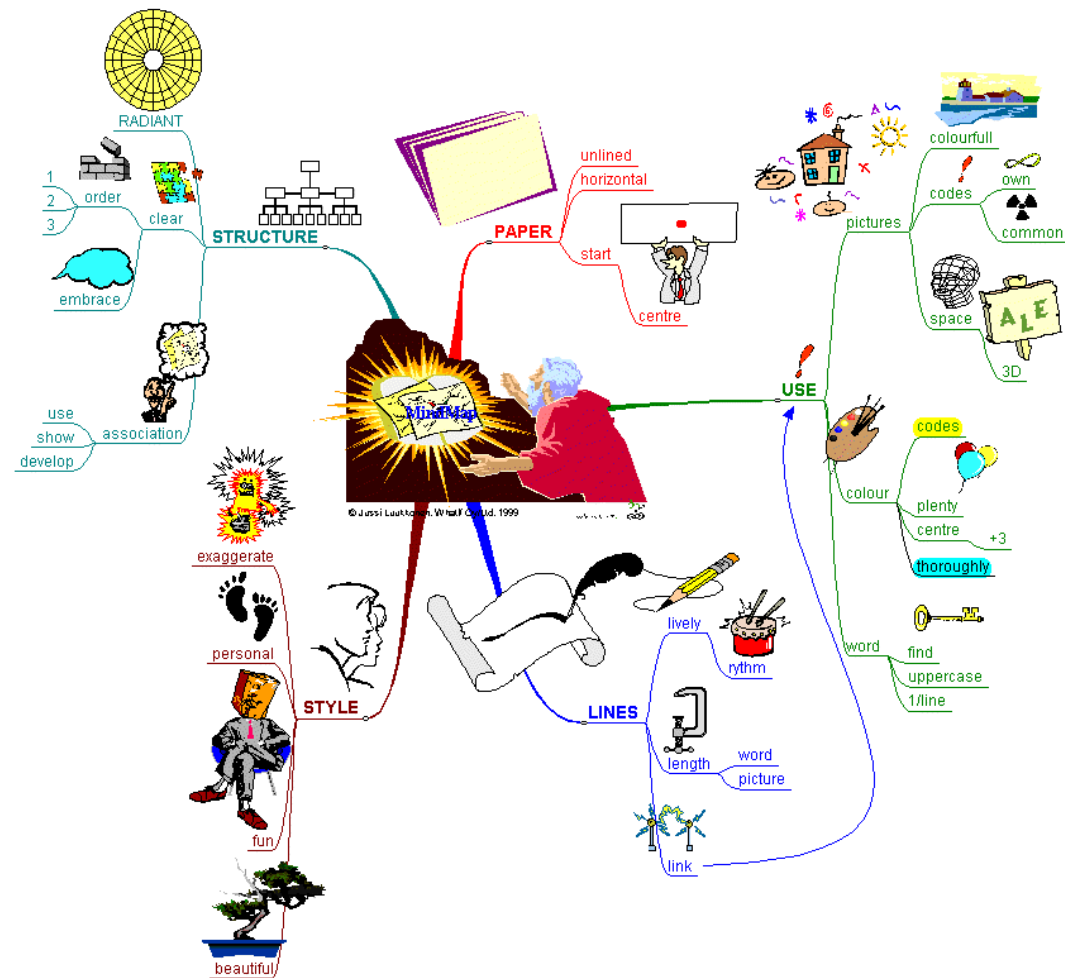
WUSTL Engineering Student Webpages

- ❑ Web page creation in WUSTL:
http://eit.engineering.wustl.edu/help/Create_webpage.asp
- ❑ There are two servers that students can use:
 - shell.cec.wustl.edu (CEC)
 - ssh.seas.wustl.edu (SEAS)

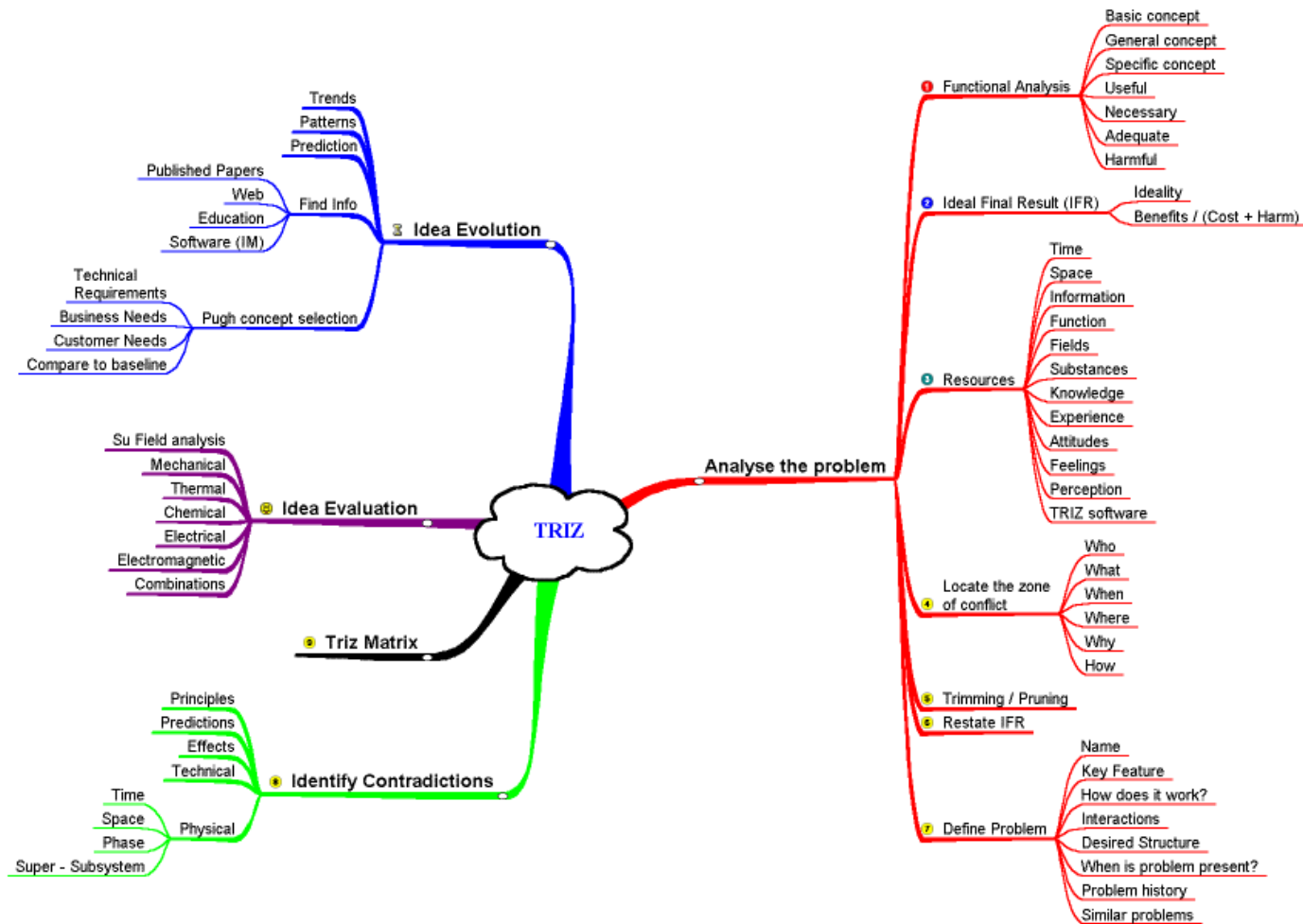
Outline Preparation Process

- ❑ Read abstract and stop if irrelevant
- ❑ Underline the key points in the paper
- ❑ Write the key summary on the first page of the paper
- ❑ Prepare a text document with the key ideas
- ❑ Keep adding to this text document document from different papers with [refs, page, paragraph]
- ❑ Import the text document in PowerPoint
- ❑ Add figures and clean up the outline
- ❑ Like getting ready to make a presentation to the class

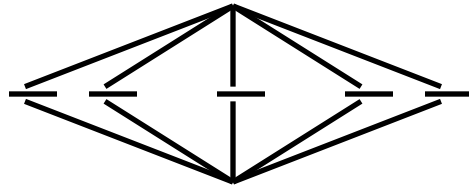
Mind Maps



Mind Maps (cont)



Diamond Writing Style



- ❑ Each paper should start with an introduction and end with a summary.
- ❑ Each section should start with a short introduction and end with a summary with a lead in to the next section. The same applies to subsections.
- ❑ All subsections should be of comparable length.
- ❑ Add an appendix with all abbreviations
- ❑ Add a list or discussion of related products

Writing Style

- ❑ Readers want to get to the information fast. Keep the nonessential stuff at the end.
- ❑ Check thoroughly for grammar and spelling.
- ❑ Avoid excessive use of abbreviations.
- ❑ Be consistent in case and usage: MOBILE, Mobile, mobile

Organization

- ❑ Every paper should have an introduction and a summary.
- ❑ Divide paper in to sections.
- ❑ Every section should have a lead-in paragraph.
- ❑ Header level should correspond to the level in table of contents.

Organization (Cont)

- ❑ Title
- ❑ Author
- ❑ Abstract
- ❑ See Also:, References to Other Reports
- ❑ Table of Contents
- ❑ Introduction
- ❑ Other Sections
- ❑ Summary
- ❑ References
- ❑ List of Acronyms
- ❑ Date Last Modified:
- ❑ Note: This paper is available on-line at
<http://www.cse.wustl.edu/~jain/cse567-06/ftp/%directory%/index.html>

Organization (Cont)

- ❑ Table of Contents
 - Sections and subsections
 - Numbering n.n
 - 3-7 subsections per section
 - 3-7 sections per paper
 - Include one first and 2nd level headers n. and n.n
 - Do not include 3rd and higher levels, e.g., n.n.n

Title/Keywords/Abstract

- ❑ Title
 - Based on Table of contents
 - Searchable
- ❑ Key Search words
 - Based on Table of contents
 - Acronyms and full names
- ❑ Abstract
 - Based on Table of Contents
 - 3-7 sentences
- ❑ Description:
 - One line based on ToC and Abstract

Organization (Cont)

- Introduction

- Explain what the topic is about.

Other Sections

- ❑ Each section less than 3 pages.
- ❑ Each section needs at least one introductory paragraph. Do not start with a subsection.
- ❑ Each subsection at least 1 paragraph.
- ❑ All sections/subsections should be numbered n. n.n
- ❑ If you borrowed several sentences from some source, italicize the text and indicate the source.

Summary

- ❑ One or more sentences about the each issue.
- ❑ Based on Table of Contents
- ❑ Key lessons

References

- ❑ Style of References
 - Author(s), “Title,” Source, date, pages, url
 - The URL should show up as well as have a link.
 - All references should be annotated and have links.
- ❑ Order in the most important first and indicate so
- ❑ In the text point to the end
- ❑ In the end point to actual URL. Provide URL.
- ❑ Find URL for published papers
- ❑ Remove references that are useless.
- ❑ [Authoryy] notation.
- ❑ Exception: Standards, company documents, RFCs.

List of Acronyms

- ❑ Search the text
- ❑ Define on first use
- ❑ Avoid multiple uses if used less than 5 times.
- ❑ Exception: Commonly used acronyms, e.g., CPU, I/O, IP, ...

Figures/Tables

- ❑ All figures should be numbered 1, 2, ...
- ❑ All tables should be numbered 1, 2, ...
- ❑ All figures should have a title below the figure
- ❑ All tables should have a title above the table
- ❑ All figures/tables should be referenced in the text and explained.
- ❑ Should be placed close to their references.
- ❑ To prepare figures use blank slides in PowerPoint and save them as gif/jpg/png files. Use Microsoft image editor to crop the figures for correct white space around them.

Draft Submission

- ❑ Submit 4 hardcopies
- ❑ In the draft:
 - For the review purposes, the author's name and email should be removed. Substitute last 3 digits of your student ID.
 - Add keywords after abstract
- ❑ Spell check
- ❑ Grammar Check

Editorial

- ❑ Check all acronyms. All acronyms should be defined on first use.
- ❑ Check capitalization. No unnecessary capitalization. Headers are usually capitalized.
- ❑ Spell Check entire document.
- ❑ K=1024, k=1000. Disk storage is measured in KB, network link speeds are measured in kb. kbps not Kbps.
- ❑ Leave a space between numbers and units, e.g., 15 km not 15km.

Editorial (Cont)

- ❑ Look for special characters
- ❑ American English: Signaling, Synchronization
- ❑ Check for continuity
- ❑ Break long paragraphs.
- ❑ Single space between paragraphs.
- ❑ The paper should be 10-15 pages long
- ❑ If you copy any figures, give reference and credit
- ❑ Use the template supplied

Common Mistakes

- ❑ No Figures
- ❑ Figure/equations fonts too large
- ❑ Figures with no title or number or reference
- ❑ Figures/tables overflowing the margins
- ❑ References with no annotation
- ❑ References not cited
- ❑ Key pieces of information w/o references
- ❑ Tables w/o references
- ❑ Papers too short

Common Mistakes (Cont)

- ❑ No comparison of different alternatives
- ❑ No Acronyms
- ❑ No summary
- ❑ Incorrect reference style
- ❑ No keywords

HTML Guidelines (Cont)

- ❑ File name: index.html, fig1.gif, fig2.gif, ..., fig.ppt
- ❑ Keep PowerPoint figure source files in the same directory although these may not be referenced in the paper
- ❑ Keep all references relative.
Absolute: <http://www.cse.wustl.edu/~jain/papers/x.ps>
Relative: papers/x.ps
- ❑ Keep the whole paper in one file “index.html” with figures in fign.gif in the same directory. No Subdirectories.
- ❑ All files names should have eight characters or less for name and 3 characters or less for extension (MS/DOS compatible).
The only exception is index.html

HTML Guidelines (Cont)

- ❑ All filenames and extensions should be lowercase and contain no spaces.
- ❑ Ensure there is a link attached to
 - author@cse.wustl.edu
 - Every line in Table of contents
 - Back from the end of every section
- ❑ Spread references throughout the document. Use mnemonic references with link attached to them, e.g., [Cisco99]
- ❑ Keep all internal anchor names and ids lowercase without spaces or special characters, e.g., cisco99.
- ❑ Use only id or name not both:

- ❑ All img should have alt.
- ❑ Do not resize images in html. Resize them before using. Prepare figures so that there is no rescaling required. Use 12 point fonts in PowerPoint.
- ❑ Center all figures, tables, and equations
- ❑ Serially number all figures as 1, 2, ... not 1.1 2.1 etc.
- ❑ Serially number all tables as 1, 2, ...
- ❑ No font tags

Final Submission

- ❑ Validate your page on:
 - W3C Markup Validation Service, <http://validator.w3.org/>
 - HTML code check by Net Mechanic, <http://www.netmechanic.com/toolbox/html-code.htm>
 - CSE HTML Validator , <http://www.htmlvalidator.com/>
- ❑ Check URLs. Check local anchors.
- ❑ Remember to submit copies of unusual references (not available in the library or the Internet) with the final paper.

Final Submission (Cont)

- ❑ No WinWord generated HTML
- ❑ You can use WinWord for spell checking the text
- ❑ Use plain text editor to insert HTML tags..
- ❑ Submit the final HTML version as a single zip file
- ❑ No Tar/tgz files (please submit only one zip file with all files)
- ❑ Filename: 8-or-less-letters-short-project-name.zpi
Rename zip file to .zpi for transmission through email.
- ❑ Email .zpi file to: jain@cse.wustl.edu with the subject field of “CSE567 Project Report”

Common Mistakes

- ❑ Used doc generated HTML file
- ❑ Did not validate HTML.
- ❑ Incorrect title.
- ❑ Images resized in HTML. Height and Width attribute in the images do not match those of the actual image.

Checklist

- `<!doctype`
- `<keywords`