CSE570 Project Guidelines

Student Questions

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These slides are available online at:

http://www.cse.wustl.edu/~jain/cse570-23/

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- Outline: Preparation Process, Mind Maps
- □ Writing: Organization, List of Acronyms, References
- **HTML Style Guidelines**
- Draft Submission
- Final Submission

Student Questions

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://www.w3schools.com/tags/ref_urlencode.asp
 - <u>https://perishablepress.com/stop-using-unsafe-characters-in-urls/</u>
- □ HTML5 only



Header

<!DOCTYPE html> <html lang="en"> <head> <meta charset="UTF-8"> <title> </title> <meta name="author" <meta name="robots" <meta http-equiv="content-type" content="text/html; charset= 8"> <meta name="keywords" <meta name="description" </head>

	Student Questions
	 What is the difference between the title label and the head label? Head=Header of the file. It is a section. It tells search engines and browsers about the document. Title = Title of the document. It is just a single line. It tells the reader about the content. Are there any requirements for the coding format or writing style, like indentation ?
=utf-	 Text in the head will not appear on the page, correct? <i>Yes, it is used by search engines.</i> Do the meta tags have closing tags? <i>Some have. Some close simply by the</i>
	right angle bracket.

Body

- <body>
- <h1>Title</h1>
- Author, Permanent-Email
- <hr>
- <h2>Abstract:</h2>
- •••
- <hr>

- For the abstract part of the page, should I write a concise summary of my project proposal, outlining its primary objective and tentative methods?
- No. You do not have a project right now, so this is just an exercise to learn HTML.

Body (Cont)

```
<h2><a id="toc"></a>Table of Contents:</h2>
<a href="#sec2">2. 10-Gigabit Ethernet Overview</a>
\langle ul \rangle
a href="#sec21">2.1 Benefits of 10-Gigabit
  Ethernet</a>
. . .
<hr>
```

Student Questions

Body (cont)

```
<h2><a id="intro"></a>Introduction</h2>
. . .
[<a href="#grow99">Grow99</a>]
...
\langle br \rangle
                                       http://www.cse.wustl.edu/~jain/cse570-23/
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```

Student Questions

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Project Homework 2

- Prepare a short webpage (written manually) using most of the tags indicated in this handout
- □ Include one image/photo and a table on the page
- Validate the page using a trial version of CSEHTML from: <u>https://www.htmlvalidator.com/</u>
- □ Check the Google-friendliness of the page: <u>https://varvy.com/</u>
- Submit the html source file printout, web page printout, and the URL, screenshot of the validation
- **Remember:**
 - > To add all meta tags specified in the handout
 - > Validate the page. Capture a screenshot and attach it.
 - > Load it in an ad-free area

Student Questions What if the free trial expires before I finish my

What if the free trial expires before I finish my project? Do I need to buy a license?

The free trial is for 30 days. You do not need to buy a license.

- Should we put all files on a cloud server like AWS or GCP to keep them accessible anytime?
- No. WUSTL location is best since it is free and has no advertisements.
- Can we use CSS and JavaScript?

CSS, yes. No JavaScript.

□ In addition to the HTML format requirement, is there any recommendation/requirement on the format of the text itself? e.g., font, indentation, spacing, etc.

There are no requirements, but use common sense—blank lines between paragraphs help. Centering a figure is required. Spaces before and after a figure and table are required. Tables should not overflow when printed on standard letter-size paper.

Do we still need the URL for the submission since it is not included in the submission instructions?
 For this homework, you can submit a zip file.

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Project Homework 2

- Prepare a short webpage (written manually) using most of the tags indicated in this handout
- □ Include one image/photo and a table on the page
- Validate the page using a trial version of CSEHTML from: <u>https://www.htmlvalidator.com/</u>
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- Submit the html source file printout, web page printout, and the URL, screenshot of the validation
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 - > To add all meta tags specified in the handout
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Student Questions

☐ Is it okay to insert images via url, or should there be paths referencing static files in our directory?

Files in your directory.

WUSTL Engineering Student Webpages

- IT will create the URL: https://students.engineering.wustl.edu/cse570_fl19 /<wustlkey>
- □ For example: https://students.engineering.wustl.edu/cse570_fl19 /jain/
- On Linux, this corresponds to: /project/academic-www/cse570_fl19/(wustlkey)
- From shell.cec.wustl.edu or Windows/MAC at
- \\nfs.seas.wustl.edu\seaslab\academicwww\cse570_fl19\(wustlkey) Using WUSTL Key authentication.

	Student Questions
D TBD	What is the updated link to our WUSTL webpage

Submission Instructions

- 1. Prepare the page in your computer in a separate directory.
- 2. The main file should be called index.html
- 3. Use no other subdirectory in this directory. All supporting files, such as CSS, figures, etc., should be in the same directory.
- 4. Validate the page for correctness using CSE HTML Validator.
- 5. One way to produce the validation report is to:
 - > Validate again using Tool-> Batch wizard.
 - > Validate.
 - > It will open a browser page with the report.
 - Click on the file name to see the detailed report for the page.
 - Print/save this report with the name validation.pdf in the same directory
- 6. Do not worry if there are some warnings and comments, such as spelling mistakes or keyword meta tags.
- 5. Zip the directory and upload the zip file to Canvas.

 Student Questions

 In min 25:53 slide 11 appears on top of slide 10.

Common Mistakes in Homework 2

- □ Not using parameters for meta tags
- Not validating
- □ Not uploading the image file



Outline Preparation Process

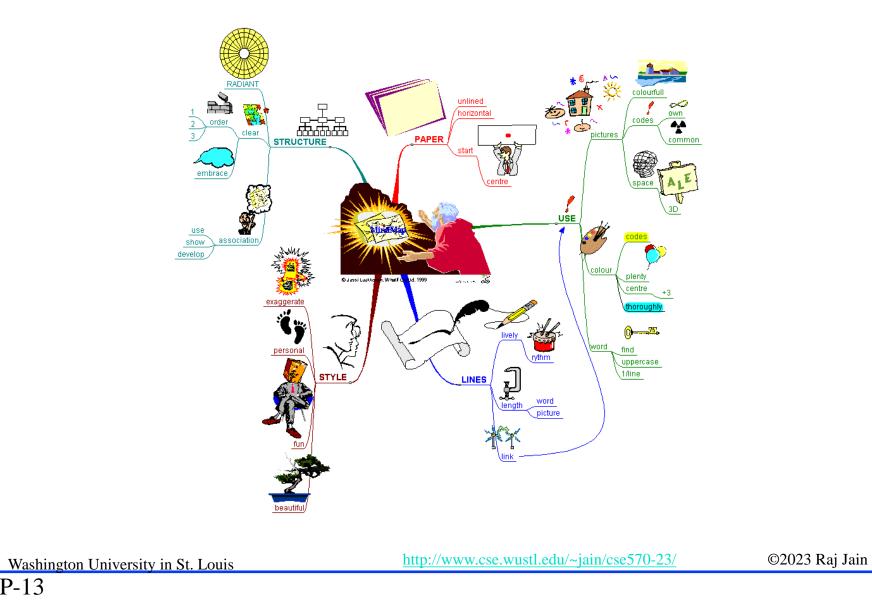
- □ Read the abstract and stop if irrelevant
- □ Underline the key points in the paper
- □ Write the key summary on the first page of the paper
- □ Prepare a text document with the key ideas
- Keep adding to this text document from different papers with [refs, page, paragraph]
- □ Import the text document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



□ So, we need to have a ppt, right? It is not required but recommended. No points will be deducted for how you prepared the outline.

Could you please show us examples of a few slides in PowerPoint?

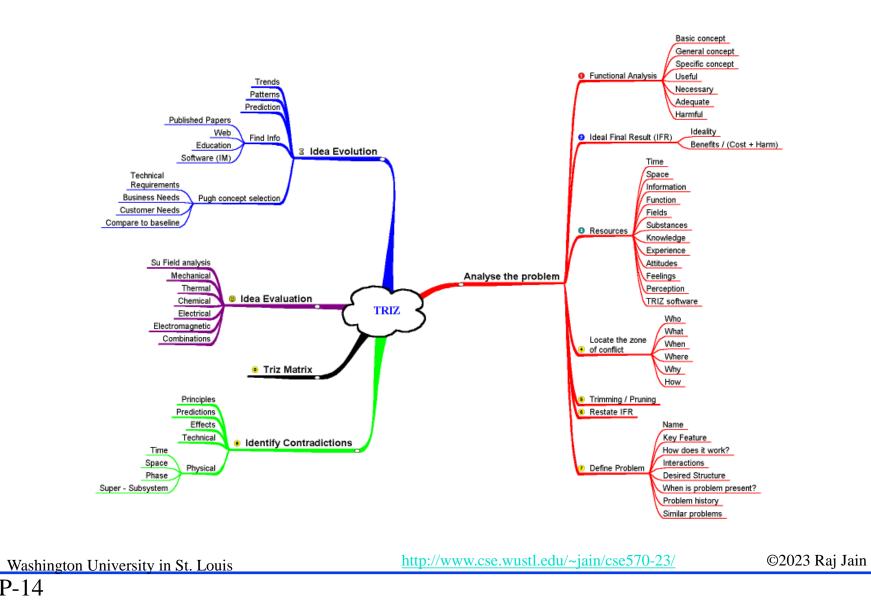
Mind Maps



Student Questions

What is the recommended mind maps software? I have not tried any software. I do it manually. Please recommend if you find one.

Mind Maps (cont)



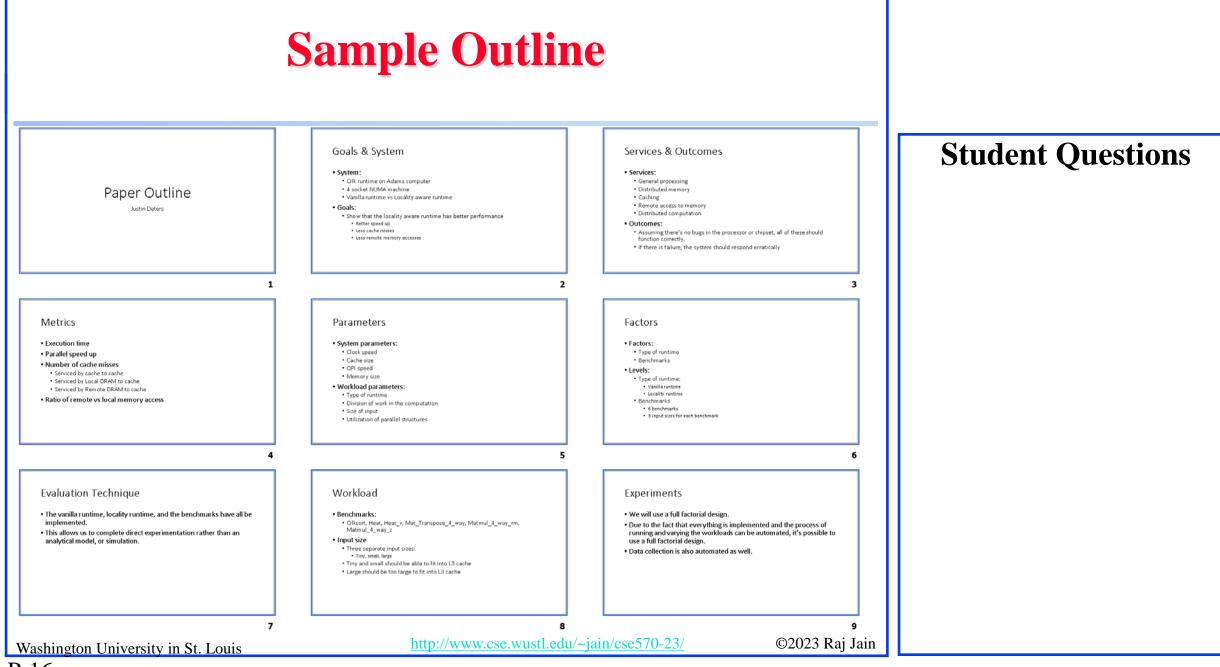
Project Homework 4: Outline

- □ Read papers
- Collect ideas
- Organize them in a linear list
- □ Present them in a PowerPoint Presentation

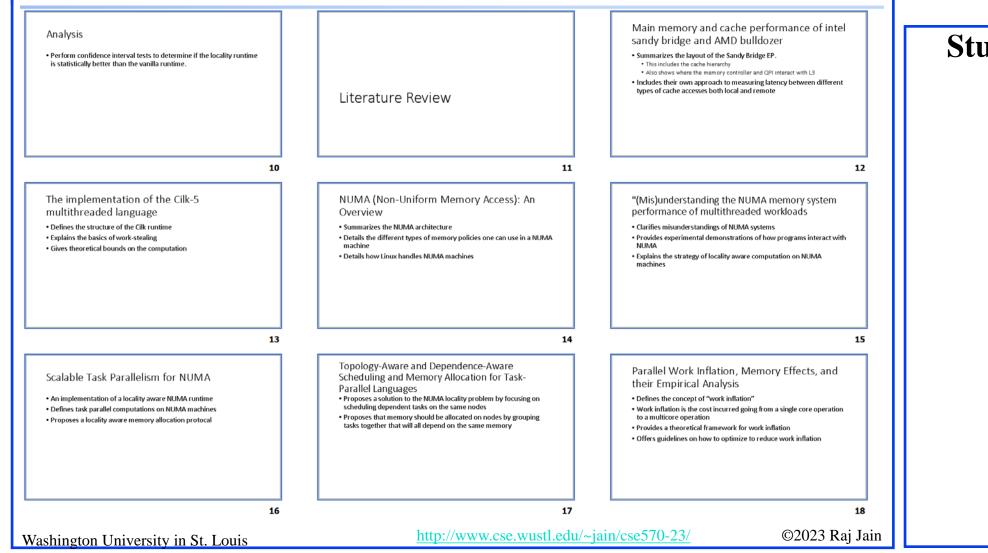
Student Questions

□ The slides appear to jump from Project Homework 2 to Project Homework 4. Is there another homework missing from the slides?

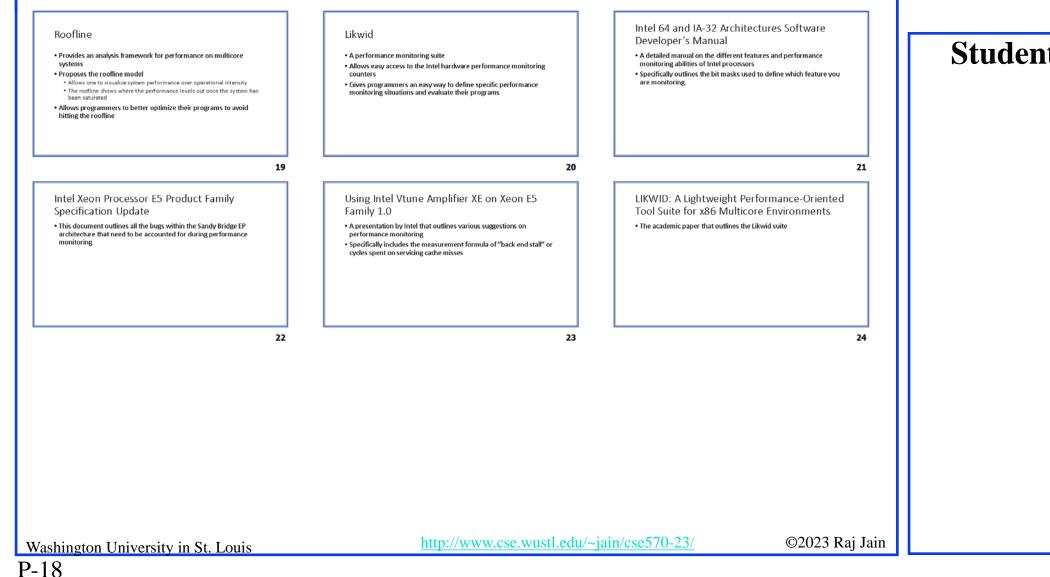
Project Homework 3 is references. It is not mentioned here but will come after PHW2 and before PHW4.



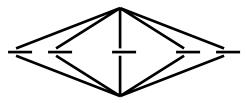
Sample Outline (Cont)



Sample Outline (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 into 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

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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

Student Questions

Organization

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

Organization (Cont)

- **Title**
- Author
- □ Abstract
- □ Keywords
- **Table of Contents**
- Introduction
- Other Sections
- Summary
- List of Acronyms
- **References**
- Date Last Modified:

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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 the Table of contents
- > Searchable

□ Abstract

- Based on Table of Contents
- ➤ 3-7 sentences
- > Emphasize what part of the course was used in the paper
- □ Key Search words
 - > Based on the Table of contents
 - > Acronyms and full names

Description:

> One line based on ToC and Abstract

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Organization (Cont)

□ Introduction

> Explain what the topic is about.

Other Sections

- □ Each section is less than three pages.
- Each section needs at least one introductory paragraph. Do not start with a subsection.
- □ Each subsection has 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.

Never write a sentence with the original source in front of you. This will block you from writing it in your own words. Write ideas from sources, merge ideas from different sources, and then write the ideas in your own words.

Other Sections (Cont)

- Always include citations for sources of ideas, even if the expression is yours.
- Redraw the line drawings. Avoid copy and paste as much as possible (e.g., for photographs).
- □ If there is no author, e.g., a web page, use the site name followed by a number, e.g., [wikipedia02] in the body of the text, with full title and URL in the reference list.
- □ If multiple papers in the same year from the same last name, use [lastnameyya] [lastnameyyb],... in the text.

Student Questions

Is there ever a case where it is okay to copy figures? Like graphs of data where the exact values of the data points are not known?

Yes. You should cite them. If it is a money-making project, you need permission before use. This includes republishing your own papers in a book.

Other Sections (Cont)

- Always include citations for sources of ideas, even if the expression is yours.
- Redraw the line drawings. Avoid copy and paste as much as possible (e.g., for photographs).
- If there is no author, e.g., a web page, use the site name followed by a number, e.g., [wikipedia02] in the body of the text, with full title and URL in the reference list.
- □ If multiple papers in the same year from the same last name, use [lastnameyya] [lastnameyyb],... in the text.

Student Questions

Summary

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

Student Questions

References

□ Style of References

- > Author, "Title," publisher, year, ISBN for books
- "Title," URL [One line description] for web pages
- > Author, "Title," source, year, pp., URL for technical/magazine articles

All authors: First-initial. Last-Name or First-Name Last-Name.

Do not use Last-Name, First-Name, or First-Initial.

- □ All URLs should show up as well as have a link.
 - > This allows URLs to show in the printed version.
- □ In the text, point to the end

In the end, point to the actual URL. Provide URL.

Student Questions

- Are we allowed to do this in LaTex instead of Word?
 LaTex is not recommended. Word has now superseded LaTex in most mathematical capabilities. Also, there are additional facilities such as grammar checking.
- By "point to the end," do you mean include hyperlink anchors that bring references in the text to the references section at the end of the paper?

Yes.

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References

Style of References

- > Author, "Title," publisher, year, ISBN for books
- "Title," URL [One line description] for web pages
- > Author, "Title," source, year, pp., URL for technical/magazine articles

□ All authors: First-initial. Last-Name or First Name Last Name

First-Name Last-Name.

Do not use Last-Name, First-Name, or First-Initial.

- □ All URLs should show up as well as have a link.
 - > This allows URLs to show in the printed version.
- □ In the text, point to the end

In the end, point to the actual URL. Provide URL.

Student Questions

 What are the differences between the project and the paper? They seem similar, and the project approach involves more work than the paper.

Yes, projects require implementation.

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References (Cont)

- □ Find URLs for published papers
- Do not include useless references.
- □ In the text, use [Authoryy] notation, e.g., [Jain99] Exceptions: Standards, company documents, RFCs.
- Shorten IEEExplore URLs to include only *arnumber*, e.g., <u>http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=4301</u> 304
- □ All references should consistently use the same style

Student Questions

List of Acronyms

- □ Search the text
- Define on first use
- □ Avoid acronym use if used less than five 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 <u>below</u> the figure
- □ All tables should have a title <u>above</u> the table
- All figures/tables should be referenced in the text and explained.
- □ Should be placed close to their references.
- To prepare figures in Windows, use blank slides in PowerPoint using the font sizes used in the paper. Group the figure as one object. Copy and use <u>paste special</u> as "Enhanced Windows Metafile (EMF)" for best quality.
- Do not rescale figures in Word. Rescaling the fonts reduces their quality.
- All Figures and Tables should have a max width of 6.5" (to allow printing on a letter size paper)
- Use only .jpg, .png, and .gif files for figures. No fig?.pdf

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Student Questions

Should the figure and table be in the center of its line?
 Yes.

Draft Submission

- Submit a WinWord file on Canvas. Before uploading, clean up the file of all private information. WinWord stores author's names as hidden data.
- □ In the draft:
 - For the review purposes, the author's name and email should be removed. Substitute the last three digits of your student ID.
 - > Add keywords after abstract
- □ Spell check using MS Word
- Grammar Check: <u>https://app.grammarly.com/</u>
- Plagiarism check: <u>http://www.scanmyessay.com</u> or <u>https://app.grammarly.com/</u>
- □ Canvas also checks for plagiarism. Note your similarity score.

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Student Questions

For the WinWord file, is it a doc or docx file to submit?
 Either one is fine.

Editorial

- Check all acronyms. All acronyms should be defined on first use.
- Check capitalization. No unnecessary capitalization. Headers are usually capitalized.
- □ Spell-check the entire document.
- □ K=1024, k=1000. Disk storage is measured in KB, and network link speeds are measured in kbps not Kbps or kb.
- 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 meta tags as discussed

Student Questions

How would we put special characters (like equations) onto the HTML document over from Word?
 Cut and paste as images. There is also a math HTML package.
 https://www.w3.org/MarkUp/html3/

https://www.w3.org/MarkUp/html3/ maths.html

□ Should the paper not be double-spaced?

No. Single-spaced, 12-pt characters.

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

Student Questions

Common Mistakes (Cont)

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

Student Questions

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/comcom17.htm
- Relative: papers/comcom17.htm or comcom17.htm
- □ Keep the whole paper in one file, "index.html," with figures in fig*n*.gif in the same directory. No Subdirectories.

HTML Guidelines (Cont)

- All filenames and extensions should be <u>lowercase</u> and contain no spaces. No .JPG
- □ Author (at) wustl.edu
- Ensure there is a link attached to every line in the Table of contents
- Spread references throughout the document. Use mnemonic references with links attached to them, e.g., [Cisco99]
- Keep all internal anchor names and IDs starting with the alphabet, lowercase without spaces, <u>dots</u>, or special characters, e.g., cisco99. No sec2.1
- Use only ID (not name): ok: Not ok:
- □ All images should have alt, height, and width.
- Width and height should match the image size.

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HTML Guidelines (Cont)

- Do not resize images in html. Resize them before using them. Prepare figures so that there is no rescaling required. Use 12point 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
- Check that keyword tags in the header are appropriate and exhaustive.
- Check that the description in the header is appropriate.

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Check for Plagiarism

Viper – The anti-plagiarism scanner
 <u>http://www.scanmyessay.com/</u>
 Requires Windows but best free checker

Final Submission

- Validate your page using a trial version of the CSEHTML validator downloaded from: <u>https://www.htmlvalidator.com/</u>
- □ I use CSE HTML Validator Pro
- □ Check URLs. Check local anchors.
- Remember to submit copies of unusual references (not available in the library or the Internet) with the final paper.

Student Questions

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)
- Upload the file to Canvas.

Student Questions

Common Mistakes in HTML

- □ Used WinWord generated HTML file.
- Used dots in IDs
- □ No height or width in images
- Did not validate HTML.
- □ Incorrect title.
- Images resized in HTML. The height and Width attributes in the images do not match those of the actual image.
- □ Used HTML4
- **WUSTL** proxy in URLs
- □ Figures not scaled properly
- □ Table rows not aligned on top



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Checklist

ΤF

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- 1. **O O** Are Keywords appropriate?
- 2. **O O** Is the title satisfactory?
- 3. • Does the abstract clearly summarize the topic discussed?
- 4. • Table of Contents logically organized?

- 7. **O O** Are individual sections and subsections of uniform length?
- 9. • Include author, title, dates, pages, and URL.
- 11. **O O** Acronyms used properly and listed?
- 12. • Figures and Tables (Clearly labeled and professional looking, referenced in the text and explained)
- 13. • Are paragraphs of the correct length (not too long or too short)?
- 14. • Do the subheadings clarify the sections of the text?
- 15. • Was the material ordered in a way that was logical, clear, and easy to follow?
- 16. • Is there any portion of the text that could be omitted?
- 17. **O O** Does the summary point out the key results?
- 18. • Copyright violations in text, figures, or tables?
- 19. • Text checked for Grammar, Spelling, and Punctuation errors
- 20. • Is the quality good enough for publication in IEEE Magazine?

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Removing Hidden WinWord Info

命 Home 집 New	lbl14_box_lables_quill H: = winword = 97	
🗁 Open	🕞 Upload 🛛 🖄 Share 🔍 Copy path	🧀 Open file location
Info	Protect Document	Document Inspector ? X
Save	Protect Document ~	eople can make to this document. Review the inspection results. Comments, Revisions, and Versions No items were found.
Save As Save as Adobe PDF	Check for Issues ~ Inspect Document Before publishing this file, be awn Document properties, author Characters formatted as hid	or's name and related dates * Author * Related dates
History Print	Custom XML data	Task Pane Add-ins We did not find any Task Pane add-ins.
Share	Manage Document	Jes. No embedded Documents No embedded documents were found.
Export	Document *	Macros, Forms, and ActiveX Controls No macros, forms, or ActiveX controls were found.
Close		Collapsed Headings No collapsed headings were found.
		Note: Some changes cannot be undone. Beinspect Close
		Open File Location Show All Properties
Account		
Feedback		
Options		

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Student Questions

Should our topic be about networking?

Yes. I will circulate a list on Piazza.

□ In general, are we looking for a survey, experiment, or theory in project?

Any one of the three.

- Are there any good examples of past projects we may read to understand the writing style better?
- Yes, see all previous offerings of this course.

<u>http://www.cse.wustl.edu/~jain/c</u> <u>se570-21/index.html</u> <u>http://www.cse.wustl.edu/~jain/cse5</u> 70-19/index.html

http://www.cse.wustl.edu/~jain/cse570-23/m_00prj.htm

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Student Questions

Sometimes, the cc subtitle doesn't match the speech.
 Although both are talking about the same topic. Which one should I focus on?

The captions are someone's best estimate of what I said. The problem happens when the speech is not clear. If the speech is clear to you, follow the speech.

□ The caption is not correct with the audio.

See above.

http://www.cse.wustl.edu/~jain/cse570-23/m_00prj.htm

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Related Modules



CSE567M: Computer Systems Analysis (Spring 2013),

https://www.youtube.com/playlist?list=PLjGG94etKypJEKjNAa1n_1X0bWWNyZcof

CSE473S: Introduction to Computer Networks (Fall 2011),

https://www.youtube.com/playlist?list=PLjGG94etKypJWOSPMh8Azcgy5e_10TiDw



Student Questions



Wireless and Mobile Networking (Spring 2016),

https://www.youtube.com/playlist?list=PLjGG94etKypKeb0nzyN9tSs_HCd5c4wXF

CSE571S: Network Security (Fall 2011),

https://www.youtube.com/playlist?list=PLjGG94etKypKvzfVtutHcPFJXumyyg93u





Video Podcasts of Prof. Raj Jain's Lectures, https://www.youtube.com/user/ProfRajJain/playlists

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