CMPT 661 Web Development - Fall 2017

Review paper, presentation and discussion leading

<mark>The review paper and presentation must be submitted to GitHub by 8pm on Tuesday preceding the scheduled presentation date</mark>

You need to write a **literature review paper** to survey recent research papers related to your selected topic and presented in major Web development conferences and journals. Then you will **present and discuss** your findings in class using effective presentation techniques.

Each presentation will be given 25 minutes plus 10 minutes questions and answers. The paper and presentation must be the students original work. The written paper should be 9 to 12 pages (typewritten, 12 point Times Roman font). The key objective of this assignment is that you gain experience researching an advanced topic by gathering **multiple authoritative** academic sources and integrating your findings **into a well-structured paper and presentation** with the highest possible academic standards. In addition to learning about advanced Web development topics, this assignment will also give you the opportunity to practice important research skills:

- You will gain experience reading and critically evaluating research papers.
- You will practice communicating complex technical material, both orally and in writing.

Submitted review papers and presentations will be made available to all students. This will enable everyone to learn from the efforts of all the other students.

1. Possible Topics

Paper and presentation topics must be specific enough. Students are encouraged to focus on topics that complement the material covered in the course, but you need to go significantly deeper.

Each team is required to select **9 academic papers** (or you may choose 6 large papers > 15 pages) relevant to their topic, summarize, synthesize and analyze them and present them to the class.

The students will present their review paper after the lecture as per the schedule to be advertised.

Topics for presentation can be chosen from any recent (within the last five years) Web engineering publications from conferences such as:

- International Conference on Web Engineering
- World Wide Web Conference
- IEEE Internet Computing

Suggested topics:

- Cloud hosting of Web application
- Scaling Web applications
- Microservices design and deployment (particularly using Docker)
- Serverless Web Applications
- Testing of Web applications
- Principles of Web design
- Processes and methods for engineering Web applications
- Design patterns and architectural patterns for Web applications
- Best practices for designing, deploying & debugging Web applications
- Web service engineering
- Web user interface design for novel interaction paradigms
- Web Applications Performance Testing
- Usability of Web applications
- Other topics related to Web development

2. Guidelines for structuring your review paper

This section gives further guidance on how you could structure your literature review paper:

- Abstract
- Introduction: describe the research problem being addressed by the research papers you have reviewed. Discuss the importance of the problem. What are the challenges posed by the problem?
- Background: describe all key related concepts, and define any terms, especially technical terms and technical background, that are necessary to understand the problem.
- Research method: approaches, formalism, experiments, tools used.
- Solution(s): How the research problem was solved? Architecture, concepts, algorithms and applications. Illustrate key technical points (Examples are a great way to do this.)
- Evaluation of the proposed solution(s): present how the reviewed papers evaluated their contributions and include a summary of key evaluation results and the discussion of strengths and weaknesses of the presented approaches.
- Discussions: your own views and thoughts (e.g., is the paper(s) technically sound and why? Explain how the concepts in the reviewed papers advance the state of the art.)
- Future Work: remaining or new questions/problems to be solved.
- Conclusion justified and logically sound including summary of findings / contributions and/or new insights of the papers.
- Bibliography

3. Grading schema

This is what I will focus on during grading:

- Depth of literature review and adequate level of detail. ***The more in-depth and specific the better***. Avoid vague generalities.
- Emphasis Web development related issues. Referring to concepts or points made in our course content is a plus.
- Paper and presentation organization, i.e., logical order and transitions
- Clear, concise and accurate writing.
- Do not plagiarize. Quote and cite sources where necessary.
- Evaluation (e.g., compare and discuss advantages and limitations of presented approaches)
- Conclusion justified and logically sound
- Well Prepared presentation and high level of confidence during the presentation delivery
- Quality of PowerPoint slides
- **Presenting NOT reading** – student just reading their presentation will have lower grade
- Time management during the presentation
- Adequately answering the questions during/after the presentation

What should you submit?

You should submit to GitHub under *SurveyPaper* subfolder:
- PDF copy of the reviewed papers
- Your review paper as a Word document
- Your PowerPoint presentation

On the day of the presentation, you should also submit a hardcopy of your review paper and a hardcopy of your presentation.

How to locate academic papers?

- Google Scholar http://scholar.google.com/ - it works best if you use within QU campus because you can go straight to the full text via QU library.
- QU Library Online Databases http://library.qu.edu.qa/ (then select E-Resources) Email me if need any further guidance or help.

Useful links
- Tips for Writing Technical Papers and Tips for a Good Conference Talk by Prof. Jennifer Widom

Evaluation Criteria

Evaluation criteria	%
Depth of literature review and adequate level of detail: The more in-depth and specific the better. Clear, concise and accurate reporting of findings/ contributions and/or new insights of the reviewed papers. Emphasis on Web development related issues. Clear, concise and accurate reporting of findings 1. Abstract (3pts) 2. Introduction (5pts) 3. Background (3pts) 4. Research method (8pts) 5. Solution(s) (25pts) 6. Evaluation of the proposed solution(s) (10pts) 7. Discussions (10pts) 8. Future Work (3pts) **9.** Conclusion (3pts)	70
Writing quality and organization of the review paper: - Well-structured: each section has a clear and unique function. Hierarchy of sections is correct. Ordering of sections is logical. - Appropriate writing style, grammar, spelling and **proper citation of references**. - Level of detail is appropriate throughout. - Appropriate and correct use of technical terms. - All figures, equations, graphs, charts, and drawings are accurate, numbered with a title, consistent with the text, and of good quality. They enhance understanding of the text.	10
Presentation Content: - Presentation provides pertinent, concise and clearly explained information - Material is covered with adequate depth - Present the use cases you plan to design and implement for your project	6
Presentation Organization (i.e., logical order and transitions) - Presentation well-organized and clearly structured: information presented in logical and interesting sequence that the audience can easily follow. - Good quality and neat visual aids with good use of graphics.	6

Presentation Delivery: - Relaxed and lively though understandable and engaging talk with high level of confidence and enthusiasm. - Speaks clearly and uses appropriate language such that it keeps audience's attention - Presenter added value to slides (as opposed to merely reading them) - Meets time limit (25 minutes). - Adequately answering the questions: student is able to give appropriate, clear and to-the-point answers to the questions.	8
Total	100