

Research Methods in computer science

Spring 2017

Lecture 5

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Agenda

HW2 Live Grading

Research Paper Anatomy (Contd.)

Critique

Assignment

Anatomy of a Research Paper

Abstract

Introduction

Related Work

Design and Implementation

Evaluation

Conclusion

Some of the contents in the next few slides from Jennifer Widom's notes on Writing Technical Papers.

The Body of the paper

Depending on the area of work may describe the proposed algorithm, proofs, systems, implementations

Evaluation

Description of experiments and metrics

Results of experiments

Implications of those results

More applicable to the applied areas of computer science.

Conclusions

Not the same as abstract

Short summary of what you did in the project and the implications of the results

Can include lessons learnt and future directions

How do the answers map to these questions to the different parts of a paper?

Types of Papers

Technical Reports

- Project description

- Research paper

Conference

Journal

Magazine

Find out what type your group and community writes.

Which papers are more important?

Conference

Journal

Magazine

What makes a paper more important than others?

Critique

Critique is a method of disciplined, systematic analysis of a written or oral discourse. Critique is commonly understood as fault finding and negative judgment, but it can also involve merit recognition, and in the philosophical tradition it also means a methodical practice of doubt. – (Wikipedia)

Coping with Criticism

Keep it professional

Don't take it personally

Understand it

Respond at the right time

Challenge as appropriate

<http://ckscience.co.uk/candidate/career-zone/work-place-advice/5-ways-to-deal-with-criticism-at-work/>

Do unto others as you would have them do to you. – (lots of places)

A Paper Review

“While the exercise is useful, the paper does not have any new concepts or implementation caveats that I think are worth publishing. All of the design description seems straightforward integration of existing systems. The evaluation is also very weak.”

--- excerpt from a review received by the instructor

A Paper Review

“Despite the limited practical applicability, I find the paper interesting for the sheer courage to try something out of the ordinary and to properly explore its limits.”

-- excerpt from a review received by the instructor

How to Review a Paper?

- Form and Content
- Parts of a paper
 - What do you expect in each paper?

How to Review a Paper? - Considerations

Novelty

Importance

Generality

Rigor

Insights

We looked at a few examples of paper reviews.

HW3 – Important Related Work

Identify important papers in your area of research.

Rewrite related work in a published paper and improve it.