

Research Methods in computer science

Spring 2023

Lecture 12

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Agenda

Conference

Hypothesis/Metrics

HW5

Conferences are gatherings of scientists...

Why do we need them?

Activities in a Conference

Keynote

Paper presentations

Panels

Poster and demo

Competitions

Open mic sessions

Conference Organization

Different roles

General Chair

Finance Chair

Arrangement Chair

Technology Chair

Program Chair

Publication Chair

Technical Program Committee

Many other roles

Schedule for activities

Technical Program Committee

Review papers

Types of discussions and meetings

Journal Organization

Paper evaluation

Editor in chief

Associate editors

Reviewers

Limited physical logistics requirement compared to a conference

We looked at the websites of some conferences and journals to understand how they are organized.

We formed the organization and technical program committee for the conference. We also decided tentative schedule for the conference.

Experiments

What experiments are useful?

Critical for the main arguments of the paper

What experiments are not useful?

Pointless experiments that generate pointless numbers, graphs, and tables

Types of Experiments

From the “context” perspective

Controlled

Uncontrolled

There are other perspectives to be covered in future lectures

Group Activity

Experiment Design

Metric Selection

Group 1

A new algorithm that translates English text to Spanish.

Group 2

A new wireless networking technology.

Group 3

Impact of doing court proceedings in metaverse.

<https://www.reuters.com/world/americas/colombia-court-moves-metaverse-host-hearing-2023-02-24/>

Paper Introduction

What is the problem?

Why is it interesting and important?

Why is it hard? (E.g., why do naive approaches fail?)

Why hasn't it been solved before? (Or, what's wrong with previous proposed solutions? How does mine differ?)

What are the key components of my approach and results? Also include any specific limitations.

Summary of results and contributions.

HW6

Introduction

Your writeup should answer all the questions we discussed in the stated sequence.