Peer Evaluation System

M.tech Project
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by
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Title
Electronic Peer Review and Peer Grading in Computer Science Courses [1]

Summary
In it a peer review and peer grading system based on web is used and described. So first thing that comes into mind that is why web based system, so there are few points that need to be discussed for web based system design which are :

- Now a days many of us are familiar of web interface so it becomes easy to use a system that itself uses something that we are familiar with.
- Web based system can accept any format for submission i.e picture, video, html, text, diagrams etc.
- Now a days web skills are heavily used so it makes us aware of something which have emerging use in coming days.
- It could be used in distance education also.
- By using this system we can produce some web based resources i.e research papers, good quality assignments etc.

Peer Grading System
It is a java based web portal which initially used CGI based application now it is using servlet based application. It has few points to be noticed which are :

- For each submission there will be 3 to 4 reviewers.
- Final marks or grade will be average of all grades given by reviewers.
- For each grade comments should also be given as feedback for some improvements.
- In it the instructor can configure the system to allow other reviewers to see other reviewer’s grade.
• Only an unique id will be shown to control biasing.

There are mainly six phases in peer grader system which are mentioned below

**Phases**

**Sign up phase** : All the students are given an unique id and password to avail the facility of peer grader system.

**Submit phase** : In this phase, by using login id and password a student can submit as well as review other’s submission. It is not necessary to submit same type of submission there will be different type of submission options, a student can choose according to his submission type.

**Initial feedback** : In it a student is given 3 to 7 days for giving comment on others submission. Moreover he can even grade the submission but recommended is to comment so that some modification can be done on submission.

**Grading phase** : In a given time duration usually 3 to 7 days submissions are revised, review and graded by reviewers and final grade is friezed.

**Review of review phase** : For each student we have a list of reviewers along with given grades by reviewers and then final grade is average of grades a student have got. One more thing 25% of grade is based on reviewing to make reviewing process sincere.

**Web publishing** For each type of submission the highest reviewed student’s work is published to make coming students to be aware of previous researches done.

**Where it could be used**

• In all computer science programming courses this system can be implemented.

• For creating research lectures material it could be used.
• If we have on line link then student can annotate with proper link wherever be required.

• Review of papers from literature can be done using this system.

• Design review of other student’s semester projects.

Pitfalls

• Student don’t submit .html file inspite of warning given.

• It must be told from where to start because it supports arbitrary types of web pages.

• Use of absolute path names will help only if something is stored globally not in local machine.

• Names in submissions should not be mentioned.

• If a student drops a course before review starts then for some students have less no. of reviews and for some students have to review less no of students.

• Mapping between reviewers and submitter should be done carefully so that a student may not have to review his own work.

• Late submissions handling problem.

• There should be negotiation between author and reviewers to synchronize time duration.

Motivation

It is designed for intedependent study purpose and for designing projects.

Conclusion

It is successfully used in 8 computer science courses and in 3 different courses it is used to ask some questions i.e whether this system was helpful or not, it is usable or not. Result was in between 3.57 to 4.24 on scale of 5(very useful).
Bibliography