



**AUTOMATIC RECOMMENDATION OF  
PERSONALIZED REVIEW MATERIALS USING  
ADAPTIVE LEARNING SUPPORT SYSTEM**



**A PROJECT REPORT**

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## BONAFIDE CERTIFICATE

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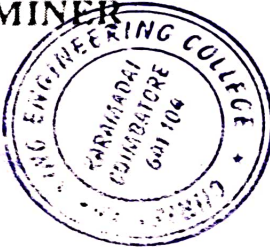
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## ABSTRACT

In this project, we developed an integrated system to support learner's reviews. In the proposed system, the recommend review contents are delivered through review dashboard. This type of dashboards is adaptive to the individual learner's level of understanding and to deliver other information that is useful for reviewing contents. The pages including in the digital learning materials that are calculated to be insufficiently understood by each learner and the webpages related to those pages are recommended. As a method for estimating those pages, this project considers delivering the pages to users related to the questions that were answered incorrectly. The proposed system examined the accuracy of matching each question with the pages of the learning material and also conducted an experiment to verify the usefulness of the system and its effect on learning using a review dashboard. In the experiment, the evaluation of the final review dashboard indicated that at least half of the participants found it useful for most types of recommended materials. In addition, the rate of change in view scores was significantly higher in the group using the review dashboard, which indicates that using the review dashboard has the effect of improving learning. This project aim to support effective review and improve learning performance by developing a new system that recommends individual review contents based on learning data. The proposed system also aims to serve as a comprehensive review dashboard by presenting other information that is useful for review. The system is intended for use in university courses, where each lecture is given using slides as digital learning materials and then taking online contents. Based on the learning logs of the digital learning materials and the results of online contents given in the lectures to check the students' understanding, the system provides individual review information for the students. Specifically, the system presents the following contents to a learner is useful for review

- 1) summary of the results of online contents;
- 2) summary of the browsing time for learning materials;
- 3) recommendation of the pages of digital learning materials that are estimated to be poorly are estimated to be poorly understood by the learners and webpages related to these page.



  
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## CHAPTER 6

### CONCLUSION AND FUTURE ENHANCEMENT


#### 7.1 CONCLUSION

In this project, to privately publish horizontally partitioned high-dimensional data owned by multiple parties, we present a differentially private sequential update of Bayesian network (DP-SUBN) approach, which is accompanied with several novel techniques. In particular, by exploiting the correlations of attribute pairs, we propose exact and heuristic methods for search frontier construction. In addition, to privately quantify the correlations of attribute pairs without introducing too much noise, we first propose a non-overlapping covering design(NOCD) method, and then propose a dynamic programming method for determining the optimal parameters used in NOCD. We show that DP-SUBN guarantees  $\epsilon$ -differential privacy. Extensive experiments on real datasets demonstrate that DP-SUBN offers high data utility with low communication cost.

#### 7.2 FUTURE ENHANCEMENTS

- In future, still more parameters could be taken into account in order to improve the recommendations to make the user's search easier than now.
- Before Clustering request and response time should be calculated .The document which contain less response time can attain large rank and placed top of the cluster.
- Online Video Streaming will be included in this website.



  
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