TECHNISCHE UNIVERSITÄT DRESDEN

Faculty of Computer Science Institute of Systems Architecture Chair of Computer Networks

MASTER THESIS ASSIGNMENT

TOPIC: Graphical Discussion System

Name (sur, given):	Chen, Kaijun	Degree Programme:	Master Informatik (PO 2010)
Matriculation No:	5942792	Project/Focus:	Tech-enhanced Learning
Responsible Professor:	Prof. Dr. rer. nat. habil. Dr. h. c. Alexander Schill		
Involved Staff:	Dipl.-Inf. Tenshi Hara, Dr.-Ing. Iris Braun		
Start:	8 January 2016	Due:	17 June 2016

GOAL

At the Chair of Computer Networks a teaching and learning platform has been developed. Currently, its features include a text-based discussion system as well as a virtual interac-tive whiteboard system.

The goal of this assignment paper is to combine both systems into one graphical discussion system that allows for textual as well as graphical discussions. Contributions need to be quotable as is custom in forum systems, however allowing to not only annotate graphical contribution like images, but actually enabling modification of quoted graphical contents. Additionally, any contribution (textual as well as graphical) should be manageable by means of graphic interaction, especially drag & drop gestures with mouse as well as finger tips.

In order to achieve the goal, all aspects of modern web technologies need to be considered, especially HTML 5. Additionally, a feasible concept for storing of contributions and their relations is required on the server. The data model must respect possible future additions, especially storing of client-side private keys for encryption within the local browser storage.

Existing solutions and concepts must be investigated and assessed before conceiving a concept for the desired graphical discussion system. Afterwards, a proof-of-concept implementation is mandatory.

An evaluation of the graphical discussion system should be executed, focussing on usability aspects as well as the capabilities of the conceived data model.

Prof. Dr. rer. nat. habil. Dr. h. c. Alexander Schill
(responsible professor)

FOCUSES

- Investigation of related work and current state of research,
- definition of requirements and criteria for quantitative design,
- conception of an evaluation method,
- implementation of proof-of-concept components, and
- evaluation and assessment of the results.