Centre for Excellence in Teaching & Learning through Design

Progress Report for CETLD Project:
"Student Guide to the Environmental Use of Glass in Buildings"
(Interim Report)

1. Overview of Project

Please confirm that the project is being conducted under the terms agreed with CETLD in the letter of award and any terms and conditions attached.

The project "Student Guide to the Environmental Use of Glass in Buildings", was started on 30th of September 2007, and has now reached the half-way stage. Core components of the project achieved by this point include.

- Purchase of and training in the Computational Fluid Dynamics software for the project, and creation of models of window designs for inclusion in the website, including 3D VRML images.
- Design and definition of the pedagogic logic behind the project website.
- Identification of the case study buildings.
- Entered into discussions with Jane Oldfield at the RIBA archives to attain details of the case study buildings.
- Creation of thermographic methodology for the study of the case study buildings.

2. Aims and Objectives

There have been no significant changes to the project aims and objectives. Minor changes to the background methodology to the project have included:

- Upon meeting Allan Davies, the pedagogic consultant brought in to assist projects, it was decided that the case study buildings should not incorporated all the way through the website but be placed at the end where the students can engage in an interactive question and answer session based around the performance of these buildings.

In terms of objectives the only change is to limit the amount of feedback given by students on the website itself, but to include testing of the website by some undergraduate students, before it goes live, to get feedback. This was felt to be better by Allan Davies as feedback directly from the website is likely to be too inconsistent to be useful.
A new objective is to apply for further funding to take the approach to other elements of design in the built environment, ventilation being a topic that appears to have the most obvious synergies. In particular the application of environmental computational techniques to the design process will be investigated with proposals to the next CETLD funding round and the Learning and Teaching Innovation Grants from JISC.
A new aim is to determine whether the process of condensing down the specialist knowledge of staff into a form that can be utilised by students directly in their studies can be applied to other disciplines/staff members

3. Targets

Although no targets were specifically set for this reporting period the following targets have been met.

- The background work for the successful implementation of the technical aspects of the project have been carried out. This includes methodology for both the thermographic and computational parts of the project and the generation and presentation of the technical results.
- The background work for the successful implementation of the pedagogic aspects of the project have been carried out. In discussion with Allan Davies the pedagogic methodology of the project was fleshed out and was felt by Allan to be of very high quality.
- The format of the website has been finalised for discussion with the CETLD web 2.0 maintainer as to implementation.
- The list of case study buildings desired has been agreed upon. The RIBA archives are however not that extensive and Jane Oldfield is negotiating with the relevant architects to gain the required building façade information.

4. Project Outputs

During this reporting period, which covers the first half of the project, there were no explicit milestones/deliverables due. Progress is considered to be on track however to complete the project on time.

5. Project Outcomes

The pedagogic methodology to the project has been finalised to include elements of interactivity, tackle troublesome knowledge and deal with the threshold concept of the basic operation of buildings.
The computational modelling methodology of the windows has been completed and analysis of the façade elements begun.
Thermographic methodology has been determined and thermographic images have started to be gathered.
Case study buildings have been identified, and negotiations entered into to attain the details of the buildings not in the RIBA archives.
Website structure and layout has been identified.

6. Stakeholders

The project before completion will engage with undergraduate students in order to gain feedback on the functionality of the website so that any recommended changes can be implemented before project end.

7. Risk Analysis

The lack of availability of the required case study buildings in the RIBA archives has meant that negotiations with the relevant architects has had to be entered into to get the drawings required.

8. Intellectual Property Rights

Negotiations are underway with the architects of the case study buildings to use their drawings of the buildings for the website.

9. Project Management

There have been no changes in staffing so far in the project.

10. Budget

Approximately half of the time committed to the project (34 man days) has been spent on project related activities by this point. The architecture school has transferred to the school budget the whole £14,500 staff time allocation in one go at the end of March. This leaves £250 to be spent on travel before the end of July, and £2,866 to be spent after the end of July and before project end.

12. Evaluation

No evaluation results have been generated in this reporting period.

13. Dissemination Plan

So far details of the project have been posted on the CETLD website. Before project end or early in the academic year students at the architecture department will be given a talk on the aims of the website and asked to try it out. Investigations will also be carried out to see where best to place links to the site. It is hoped that the RIBA web pages will link to the site, and that their journal will carry an article on the project. Information on the site will also be sent out to publications such as BD.

14. Unexpected findings

For security, and possibly professional, reasons architects often seem reluctant to pass on detailed drawings to RIBA for inclusion in the archives. This seems especially true for more modern buildings which are the focus of this project.