

JISC/NSF Digital Libraries in the Classroom Programme

Six Monthly Progress Report

Project Acronym	DIDET (Distributed Innovative Design, Education and Teamworking)
Project Title	Accelerating Globally Distributed Team Innovation: Building an Experimental Testbed to Leverage Digital Libraries in the Transformation of Design Engineering Education
Lead Institution	Stanford University (for NSF) University of Strathclyde (for JISC)
Project Director	Professor Larry Leifer Centre for Design Research Department of Mechanical Engineering Stanford University Stanford CA 94305-2232 Voice: (650) 725-1588 Fax: (650) 493 6481 Leifer@cdr.stanford.edu
Project Manager (Strathclyde)	Professor Neal Juster Dean of the Faculty of Engineering Professor of Computer Aided Engineering University of Strathclyde Glasgow G1 1XJ Voice: 0141 548 4849 Fax: 0141 548 4558 n.p.juster@dmem.strath.ac.uk
Award Duration	NSF: 1 February 2003 – 31 January 2008 JISC: 1 March 2003 – 29 Feb 2008 (funding to 28 Feb 2006)
Award Amount	NSF: \$1 584 840 JISC £521 428
Total Co-funding	Stanford: \$0.0 Strathclyde: £860 105
Period of Report	1 February 2003 to 31 August 2003 (Stanford) 1 March 2003 – 31 August 2003 (Strathclyde)

Confirmation Statement

I confirm that the project development is being conducted under the terms agreed in the initial contract with NSF and JISC

1. Aims, Objectives and Methodology

No substantial changes to aims, objectives and methodology.

A formal Project Plan detailing the aims, objectives and methodology will be submitted to NSF/JISC by the end of September 2003 as requested by the programmes managers.

2. Highlights, Outcomes and Important Findings from project

No significant highlights to date.

Progress reported in Section 8

3. Changes to original award

Changes in the anticipated start date from October 2002 to Feb/March 2003 has had an impact on the phasing of the project plan in relation to the academic session. For Strathclyde, this has resulted in employing some key staff later than indicated in the project proposal to maximize their contribution to the project. For Stanford, it has resulted in employing key staff earlier to retain their expertise for the project kick-off phase.

Stanford has asked NSF to allow some pre-award staff salaries be recovered for the period extending from the first announced start date of October 1st, 2002, through to the actual start date on March 1st, 2003.

An updated work plan will be submitted to NSF/JISC by the end of September 2003 as part of the formal Project Plan requested by the programmes managers. This plan will include revised cash flows within the allocated budget to account for the change in project start date.

4. Project staff

Stanford Staff

Name	Role	% on Project during period	% project time funded during reporting period	
			Stanford	NSF
Prof Larry Leifer	Project Director	10	0	50
Dr. Ade Mabogunje	Res. Associate	100	0	100
Dr. Ozgur Eris	Res. Associate	40	0	100
Dr George Toye	ITC Consultant	4	0	100
Mr. Jeff Aldrich	Internet Systems Admn	10	0	100
Ms. Judith Lee	Research Administration	10	0	100
Shashikant Khandelwal	Graduate Res. Assistant 1 Apr 03 to 30 Jun 03	25	0	100
David Cannon,	Class Lecturer	5	0	0

Strathclyde Staff

Name	Role	% on Project during period	% project time funded during reporting period	
			SHEFC	JISC
Prof Neal Juster	Project Manager	10	100	0
Mr Bill Ion	Academic Content	10	100	0
Dr Alex Duffy	Learning in Design	5	100	0
Dr Andrew Lynn	Digital Asset Manager From 28 June 2003	100	0	100
Dr Avril Thomson	Class Lecturer	5	100	0
Dr Angela Stone	Class Lecturer	5	100	0
Mr Kevin Steele	Class Lecturer	5	100	0
Mr Andrew Wodehouse	Digital Library Tutor From 1 Sept 2003	0	0	0
Ms Shona Cameron	Manager: Learning Services	5	100	0
Mr Niall Sclater	VLE Manager	5	100	0
??	VLE Programmer Appointment in progress	0	0	0
Mr Dennis Nicholson	Digital Library Specification	5	100	0
Dr Allison Littlejohn	Educational Developer/Evaluator	5	100	0
Dr David Nicol	Educational Developer/Evaluator	5	100	0
Ms Hillary Grierson	Educational Developer/Evaluator	50	0	100

5. Involvement with Programme

A meeting of the main project participants from Stanford and Strathclyde was held with Rachel Bruce, JISC project manager in Glasgow, UK on 22 May 2003.

Contact is being maintained with Steve Griffin (NSF) and Susan Eales (JISC).

The project team look forward to the Joint Programme meeting in Washington, USA in December 2003.

6. Publications and Publicity

No formal publications. A project website has been created at: <http://www.dmem.strath.ac.uk/didet/>

7. Engagement with Potential Outcomes Users

No formal contact has been made with other groups. However, informal discussions have taken place with groups at University of California, Berkeley (USA), Carnegie Mellon University (USA), Iowa State (US), Bath (UK), Canterbury (NZ). The project has also been discussed with engineering education groups at the recent ICED 03 conference. Active technology exchanges have taken place between Stanford, Carnegie Mellon University (CMU) (USA), University of California, Berkeley (USA) and the Oregon Graduate Institute (USA). Cross-licensing agreements have been signed with Oregon Graduate Institute.

The core project team members listed in Section 4 represents a number of potential users of the system who are intimately involved in the system specification. The project plan includes more formal contact with other users as the project progresses.

8. Detailed Progress and Future Plans (No more than 1 page A4)

This report covers the first six months of the project. Progress in this period includes:

- 4-day meeting of both partners at Stanford, November 2002 (after project announcement but before funding)
- 4-day meeting of both partners at Strathclyde, May 2003.
- Half-day meeting of both partners at ICED 03, August 2003.
- Establishment of regular fortnightly video conferences (alternate Tuesdays 4:30pm UK/8:30am US)
- Evaluation of existing groupware and digital library products: BSCW, mydms, phpdig, phpprojekt, tikiwiki, Intrallect, Groove
- Pilot exercise in information seeking for Students in Stanford ME113K (Capstone design course)
- Visits to NSF funded digital library projects at Carnegie Mellon, Pittsburgh; University of California at Berkeley; and Oregon Graduate Institute.
- Examination of UC Berkeley's SMETE database schema (compatible with IEEE LOM standard).
- Produced audiovisual data for use as sample data in CMU's Infromedia system and conducted initial feasibility studies for using their digital libraries technology.
- Identified relevant audiovisual and text-based digital resources to be used in the experiment.
- Definition of scenarios for the use of the DIDET library in teaching classes (the Paper-Bike Design Challenge at Stanford and 3rd year classes at Strathclyde)
- Formal specification of the first version of the DIDET library which outlines the structure of the socio-technical elements of the system.
- Initial implementation of the first version of the DIDET library including TikiWiki groupware customisation.
- Establishment of a project website and shared document repository.
- Recruitment of staff at Strathclyde (Andrew Lynn, Digital Asset Manager from 28 June 2003; Digital Library Subject Tutor, Andrew Wodehouse, from 1 September 2003; Hillary Grierson, Educational Developer/Evaluator; VLE software programmer, appointment in progress (34 applications)).

In the next six months it is planned to:

- Develop pilot experiments to explore the usage scenarios and impact of the informedia system and preliminary design taxonomy on the learning performance of student design teams.
- Use the DIDET library in an M.Sc. level class at Stanford (30 students), a B.Eng./M.Eng. 3rd year class at Strathclyde (80 students). The first implementation of the DIDET library will be developed and evaluated in the classroom. . Stanford will focus on the development of a means of capturing, retrieving and using information whilst Strathclyde will focus on mechanisms for access to project information and efficiently storing project generated information. The systems developed will be used in the classes mentioned and their effectiveness evaluated.
- Monitor and evaluate the use of BSCW in B.Eng./M.Eng. final year group projects at Strathclyde (80 students). The information generated from this task will be used to develop and enhance the DIDET system.
- Hold a 3-day meeting of both partners in the USA in November/December 2003 to conduct a joint analysis of experiment results.
- Conduct a joint analysis session prior to and for presentation to the Joint NSF-JISC grantee's meeting in DC, 10-11 December, 2003-09-01
- Obtain a license for the use of "Footprints" digital libraries technology.