The grass-roots development and institutional embedding of the tutoring management system Co-Tutor

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The Grass-Roots Development and Institutional Embedding of the Tutoring Management System Co-Tutor

Melanie King and Paul Newman
Loughborough University, UK
The engCETL builds on Loughborough University’s established excellence in industry focused engineering education and in the provision of learning support to academics through its previous Engineering Education Centre. It aims to spread innovations and effective practice across the University.

Seconded academics, developers, technologists and researchers work together on teaching and learning related projects. All projects are proposed by staff within the engCETL departments who bid for the time and expertise of the staff.
The staff and student relationship management system

CO-TUTOR
Loughborough University, UK

“I use Co-Tutor to communicate with, manage and keep records on all the students I need to supervise, tutor or teach. This could be more than 200 students! Co-tutor is the most efficient and effective way of doing this!”

Established since 1999 and contains details of pastoral care and academic performance on over 19,000 current students.

- PhD students
- Personal tutees
- Project students
- Students on Industrial Placement
- Taught students

Used by more than 600 staff in 18 departments.

Highlighted by the UK Quality Assurance Agency to be of significant benefit to departments at Loughborough University in the support of pastoral care.
Organise groups
Add comments
Schedule meetings
View personal information
Email groups
Access course marks
View attendance records
Upload related files
A project was proposed by Dr Bill Forsythe in Electronic & Electrical Engineering in March 1998 for an electronic replacement of a paper-based system he had been using to record personal tutorial meetings.

Version 1 was a Microsoft Excel Spreadsheet with Visual Basic Macros to help enter all the data and organise the content for pastoral care and monitoring. The spreadsheet was located on each tutor’s local PC.
A further project was proposed by an additional two academics from another department in July 1999. This proposal was to further update the system and create a more generic version which could be used by other departments.

Version 2 was a web based ASP application with a Microsoft Access Database. All student data had to be manually entered into the database. The database and application were located on a department server.

1 developer ~ 20 days
A further project was proposed and with the addition of a small amount of University central funding a further update was made. This development allowed for the automation of much of the data entry from the central university database and also enabled email support and the ability to create groups of project students as well as personal tutees.

Version 3 was a web based PHP application with a MySQL Database. All student data was automatically read in from a Central database using nightly CRON routines. The database and application was located on a Faculty server.
A further project was proposed which was the result of a University wide survey of all users asking what functionality they required and what issues they had with the current system.

This development allowed for creating groups of project students as well as personal tutees and also included the ability to send group emails. Attendance information was also available in this version read from a sister Attendance monitoring system.

Version 4 was a web based PHP application with a MySQL Database. All student data was automatically read in from a Central database using nightly CRON routines.
The most recent project proposal from a department administrator, academic and developers. This significant update enabled more types of tutoring and supervision, greater integration with central student database, enhanced usability and increased automations and notifications.

Version 5 is a web based PHP application with a MySQL Database. It utilises nightly CRON’s and an API infrastructure to pass information between central and sister systems. The database and application is located on a Faculty server.

2 developers ~ 80 days
FLEXIBILITY & CONTINUITY: 
Supporting a learner's journey

Personal welfare and guidance:
Personal tutors, elite athletes' welfare officers

Academic performance:
Foundation year tutors, lecturers, key skills support

Research supervision:
cross-department supervisors, Graduate School 'training needs' advisors

Personal development planning:
personal tutors, skills development officers

Attendance monitoring:
course tutors, programme monitors

Supervision of placement activities:
Placement co-ordinators, industrial supervisors

Disability, additional needs & course support:
support officers, departmental admin

The staff and student relationship management system
Loughborough University, UK
Main menu for access to all students, personal messages and monitoring reports

Quick access to different cohorts of students and personalised bookmark groups

Select multiple tutees and perform group actions

Quick action links and attendance summaries

Personal summaries of tutee meetings, commenting and attendance

Useful links to support personal tutors and supervisors
Automated and custom flags can be added.

Data feeds of personal info and grades from corporate systems.

A history of comments, notices and files added to a student's record.

Actions that any staff can perform on a student's record.

Comments are categorised to aid viewing permissions e.g. only allocated research supervisors can see comments in the Research section.
The staff and student relationship management system

**CO-TUTOR**

Loughborough University, UK

**Adoption and Embedding**

- University TQEF money £120k over 2 years for dissemination of key projects
- Student employed over summer to do small updates
- Small Uni TQEF grant for further developments
- CETL funding increases staff within Centre
- IT Services fund 0.5 FTE post to transfer to Central systems

Spec created with 1 academic
Spec created with 3 academics in 2 departments
Ongoing wish list added to by users
Online survey of all users to prioritise updates
Spec created from ongoing wish list + focus groups from key departments and central admin
Pilot with 3 key departments
Major survey of all users

Highlighted in external QAA report as being of significant benefit to departments
UK Freedom of Information Act came into force

- Spec created
- Pilot with 3 key departments
- Major survey of all users

UK Border Agency requirements on monitoring attendance come into affect 2010/11

Highlighted in external QAA report as being of significant benefit to departments

Online survey of all users to prioritise updates
Spec created from ongoing wish list + focus groups from key departments and central admin

46,857 comments to end Apr
SUPPORTS STAFF:
Improves communication

- Embedded in academic workflow and institutional systems.
- No training required.
- Helps to support new staff in their roles.
- Automated reminders of who to meet with and comment on.
- Audit trail of pastoral care, e.g. student not turning up to meetings.
- Efficient and affective at dealing with large cohorts.
- Targeted support links for staff, e.g. Finance office, Additional Needs Units.
- Supports staff adherence to the UK’s Freedom of Information Act and Data Protection Act.
CO-TUTOR

Loughborough University, UK

PROVIDES IMPORTANT METRICS:
Enhances student experience

• Provides numerous monitoring reports that make the frequency and quality of support, provided by staff to students, completely transparent to senior colleagues and departmental managers.

• Attendance information used to view trends.

• Provides audit trails and accountability for the quality of care provided to students.

• Reports include:

  - Staff online activity
  - Total number of comments per student
  - Total number of student/staff meetings both missed and attended
  - Distribution of alert flags
  - Frequency of comments, meetings and emails
  - % attendance across programme of module, year group or level of study
  - Reports specific to tutoring type.
IDENTIFICATION & MONITORING: Supporting struggling students

- Detailed attendance reports highlight struggling students
- Internal messaging to notify relevant staff when comments are added to records
- Quick views of attendance summary and comment counts
- Ability to send emails to personal tutors, notifying of low attendance
- Automated flagging of students with < 50% attendance

The staff and student relationship management system

Loughborough University, UK
From: Lisa Hanstead
Subject: Alert from Co-Tutor
Date: 10 May 2010 17:29:04 BST
To: Melanie King
Reply-To: Lisa Hanstead

FYI: Lisa Hanstead has made the following comment on Matthew Daniel Smedley’s Co-Tutor record:

--

Matthew Smedley has just been in to see me – I don't know him, but he said he was looking for Julian (Although Co-Tutor shows that his tutor is Michael Haselrigg).

Matthew seemed troubled, and wants someone to talk to. He said he hasn't been to lectures for many months, is on medication and has submitted several IMPS and medical notes.

I just thought I should let someone know. Advice was given on the Impaired Performance Process

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To access your messages log into http://co-tutor.lboro.ac.uk
## Attendance Data Analysis: 2004 - 2009

<table>
<thead>
<tr>
<th></th>
<th>2004/5</th>
<th>2005/6</th>
<th>2006/7</th>
<th>2007/8</th>
<th>2008/9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total marked present</td>
<td>25,372</td>
<td>37,899</td>
<td>62,017</td>
<td>79,428</td>
<td>116,335</td>
</tr>
<tr>
<td>Total number of records</td>
<td>38,715</td>
<td>56,395</td>
<td>89,930</td>
<td>117,062</td>
<td>166,027</td>
</tr>
<tr>
<td>Average attendance (%)</td>
<td>65.54</td>
<td>67.20</td>
<td>68.96</td>
<td>67.85</td>
<td>70.07</td>
</tr>
<tr>
<td>Diff (pp)</td>
<td></td>
<td>+1.66</td>
<td>+1.76</td>
<td>-1.11</td>
<td>+2.22</td>
</tr>
<tr>
<td>Number modules</td>
<td>62</td>
<td>121</td>
<td>214</td>
<td>229</td>
<td>260</td>
</tr>
</tbody>
</table>
Averages for 4221 students graduating between 2004 and 2009 who have had attendance recorded on at least 10 registers per year of study.

1st 78.80%
2.i 73.26%
2.ii 61.19%
3rd 58.36%

Link between final UK degree classification and average attendance
The staff and student relationship management system

**CO-TUTOR**

Loughborough University, UK

**SIGNIFICANT LEARNER IMPACT:**

Evidence of success

* Data from a survey of users (110 respondents, March 2010) who expressed a preference.

Provides flexibility & continuity supporting a student's learning journey.
86% reported a positive effect on the continuity of care from a student’s previous tutors. 6% reported a dramatic improvement.

Helps the identification of struggling students to aid retention and improve performance.
89% reported a positive effect on aiding intervention and early recognition of struggling students. 13% reported a dramatic improvement.

Assists staff in their responsibilities and improves communication.
85% reported a positive effect on communication between various tutors and administrators. 10% reported a dramatic improvement. 84% agreed or strongly agreed it helps new members of staff in their tutoring roles.

Provides important metrics to help enhance the student experience.
77% either agreed or strongly agreed that it helped to provide consistent pastoral care and industrial supervision across the department.

Supportive and inclusive development process based on academic need.
77% either agreed or strongly agreed that the method of developers working closely with staff created a more useful, flexible and innovative system.
1. Frustration at increased workload can manifest itself in frustration with using the system.

2. “I now feel that I have to meet in my office rather than a café or neutral space”.

3. There is a danger of raising expectations if you can’t implement a solution.

4. Seamless integration with email clients.

5. Implementing a distributed methodology, using API’s or common interfaces, relies on a common University wide approach.

RECOMMENDATIONS: Things that work

1. Spread of adoption - top 3 reasons why people were motivated to use it:
   i. Obliged to use it by my department (61%)
   ii. I thought it would save me time (35%)
   iii. It was recommended by a colleague (32%)

2. Talk to as many people as possible during the development process.

3. Respond positively to feedback.

4. Early prototyping and piloting with key groups.

5. Have the time and resource to implement suggestions if asking a user’s opinions.

6. Tailor as much as possible to individual and department needs.

7. Devolve administration and first line of enquiries to nominated ‘super-users’ in department.

8. Automate as much as possible.
A staff and student relationship management system

More info:

Web  http://co-tutor.lboro.ac.uk/about.php
Email m.r.n.king@lboro.ac.uk, p.m.newman@lboro.ac.uk