Panel - It was a great idea at the time!

Tony Clear
Auckland University of Technology
Garry Roberton
Waikato Institute of Technology
Lesley Smith
Otago Polytechnic
Aims of Panel

• To provide a forum for computing educators to share experiences by talking openly and honestly about failed ventures

• To explore the characteristics of these initiatives to see what might be learnt from them

• To encourage and validate risk taking in teaching & learning
  – (unlike many academic venues where only successes are likely to get a hearing)
Panel Format

- **Introduction and presentation by panel chair** (est. 10 – 15 mins)

- **Presentations by panelists** (est. 10 – 15 mins each)

- **Call for further *confessional* contributions from audience**
  - 5 - 10 mins each

- **Discussion** (est. 30 mins)
  - Lessons for practitioners
  - What to avoid?
  - What to persist with and how to know?
  - How to manage risk?
Categorising CS Ed Research

• Review by Valentine (2004) of SIGCSE proceedings

• Six categories of article
  – Experimental (attempted to assess the ‘treatment’ with scientific analysis)
  – Marco Polo (I went there and I saw this)
  – Philosophy (attempt to generate debate on philosophical grounds)
  – Tools (dev’t of s/w or techniques for specific courses)
  – Nifty (whimsical category with interesting ways to teach topics)
  – John Henry (outrageously hard course experiences at the margin)

• Over 20 year period stable proportions for each type
  – Only 20% of papers in ‘experimental’ category (might be termed CS Ed Research)
Teaching ‘Experiments’ at the Edge

• “John Henry” (outrageously hard course experiences at the margin)
  – Examples of bad teaching?
  – Challenge of maintaining currency in a fast moving field?
  – Inevitable cost of pushing teaching practice to the edge?
  – Necessary ‘experimental’ failures?
A Global Collaboration Experience

• Mixed experiences with a Semester 2/2001 collaboration
• Presented as a paper at Ed-MEDIA 2003
• Custom developed web-based groupware application
• Teams of students (AUT & Uppsala) jointly performed a common task
• IT students who had never met had to collaborate across boundaries of different
  – time zones
  – Courses of study
  – Institution
  – Country
• Trial Design
  – Cybericebreaker task – to become acquainted with collaborating partners
  – Web-site ranking task on which group had to reach consensus
  – 9 groups of 12 students each (one local subgroup from each country)
  – Approx 105 students participated over a six week period (sem2/2001)

• Early crisis during collaboration due to unadvised changes in technology environment!!
### Establishment Phase

<table>
<thead>
<tr>
<th>Mediating Activity</th>
<th>Incident Description</th>
<th>Trial Week</th>
<th>Technology-Use Mediator Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Establishment</strong></td>
<td>Students report inability to access database from outside campus</td>
<td>1</td>
<td>Close firewall access to Notes Server, Diagnose problem with Notes Administrator, Consult with IT group colleagues, to diagnose problem, and advise resolution, Arrange space, FTP access and developer access rights on Online server, Upload copy of Notes database to Online server &amp; Check functionality and accessibility</td>
</tr>
<tr>
<td></td>
<td>Data ported across and online server database up and running</td>
<td>2</td>
<td>Create mail group and notify relevant parties (Uppsala trial coordinator, teachers, students) of database availability and location</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Person</th>
<th>Role</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT Network technician</td>
<td>Security administration</td>
<td>Close firewall access to Notes Server</td>
</tr>
<tr>
<td>Tony Clear</td>
<td>Collaborative trial Coordinator</td>
<td>Diagnose problem with Notes Administrator</td>
</tr>
<tr>
<td>Daniel Wright</td>
<td>Notes Administrator</td>
<td>Consult with IT group colleagues, to diagnose problem, and advise resolution</td>
</tr>
<tr>
<td>Tony Clear</td>
<td>Notes Developer</td>
<td>Arrange space, FTP access and developer access rights on Online server</td>
</tr>
<tr>
<td>Tony Clear</td>
<td>Collaborative trial Coordinator</td>
<td>Upload copy of Notes database to Online server &amp; Check functionality and accessibility</td>
</tr>
</tbody>
</table>

### Notes

- Administrator
- Developer
Online Server database

VTEAM Collaborative Database

Welcome to Collaborators from Uppsala. We hope you enjoy using this experimental database and working with your New Zealand team colleagues on this collaborative project.

(If you have any general comments/suggestions to make regarding this database please mail them to the author on tony.clear@aut.ac.nz)

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Notes server database

VTEAM Collaborative Database

Welcome to Collaborators from Uppsala

(Please feel free to add relevant content to this database).

We hope you enjoy using this experimental database and working with your New Zealand team colleagues on this collaborative project.

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“The best laid plans...” Critical incidents reinforcement mode

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<th>Criticality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reinforcement</td>
<td>Auckland students continue posting to wrong Database</td>
<td>2</td>
<td>Tony Clear</td>
<td>Collaborative trial Coordinator</td>
<td>Notice problem, and advise students of correct database location details.</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-</td>
<td>Kitty Ko</td>
<td>Class teacher</td>
<td>Monitor and correct erroneous use</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4</td>
<td>Tony Clear</td>
<td>Collaborative trial Coordinator</td>
<td>Send group email advising URL of correct database</td>
<td></td>
</tr>
</tbody>
</table>
From the Notes Server database – discussion topics

- **Introductory**
- **Where are our other people?**
- **Who shall be our Group Leader?**
- **Assign Discussion Topic**
- **Beginning of Assignment**
- **Nominate Group Leader**
- **Where are our Swedish team Members??**
- **Are we in Agreement over the Rankings?**
- **What about discuss the rise and fall of the Swedish monarcy?**

**Created_By**
- Tony Clear
- Alan Litchfield
- Terry Kwong
- Jimmy
- Rebecca
- Richard Hormann
- Rebecca Candy
- Rebecca Candy
- Geeti Persson

**Date Created**
- 28/08/2001 23:06:39
- 19/09/2001 17:51:30
- 10/09/2001 17:57:37
- 16/09/2001 12:27:13
- 04/09/2001 17:02:05
- 18/09/2001 15:51:59
- 18/09/2001 16:02:34
- 04/09/2001 17:31:20
Information Technology Environment and Roles at Play in International Collaborative Trial

- Educator as facilitator, e-moderator
- Educator as researcher, research design
- Educator as groupware developer
- Collaborative trial liaison - inter institution
- Project coordinator
  - with classroom teachers at each institution
  - With IT support staff
    - Notes administrator
    - Network administrators (indirectly)
    - Security administrators (indirectly)
  - With students
Reviewer’s Comments on original paper

Comments to the Author:

• Intention is significant.
• activities of the trial not well planned and prepared.
• significance of the research outcomes diminishes tremendously.
• issues reported trivial in nature
• mostly could be avoided by a more thoughtful preparation for the trial

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• interesting
• not sure whether it adds substantial findings to the numerous reports about partially successful experiments.
Information Technology
Development and Production
Environments - Educator Control?

• Educator as groupware developer
• Prototype development mode \textit{(on-the-fly)}, \textit{environment inherently less stable}
• Originally database hosted on \textit{Development “Notes” server}
• Application level access rights only
  – security restrictions not enforced for students \textit{(inability to quickly correct errors, extra admin – defining usernames & default passwords)}
• IT Dep’t internal issue caused closure of firewall \textit{surmise}
• Not noticed – dev’t on campus or at home via dial-in \textit{(still within firewall)}
• Original misdiagnosis \textit{(Notes version and browser incompatibility?)}
• \textit{Re-hosted on Production “Online” server}
• \textit{Lesser developer access privileges able to create new database at client and move to server by upload only (thereafter able to modify)}

• \textit{“issues reported trivial in nature”??}
• \textit{“mostly could be avoided by a more thoughtful preparation for the trial”??}
Outcome – Success or Abject Failure?

- Interlinked model - teaching, learning and research
  - Experimental, Inherent risks
- Learning occurs when actors detect and correct mismatches or errors (Argyris, 1996)
- Partial group success (at subgroup level)
- Task Completion rates progressive drop off
- 2 of 9 groups overall successful in achieving consensus
- Delays and frustrations compounded by different semester timings Resulting loss of student motivation
- But insights gained – teaching, learning & research

- Need to cope with risk of bad reviews
  - (perhaps based on lack of knowledge in an educational technology context?)
Conclusion

• Just do it!
Category - Teaching ‘Experiments’ at the Edge

- “John Henry” (outrageously hard course experiences at the margin)

- The Wintec School of IT experience:
  - NA600 Microsoft Windows Server Administration;
  A DipICT L6 course - new for semester 1 2011
  - Based on the Microsoft Official Curriculum (MOC) 2274 ‘Managing a Windows Server 2003 Environment’
Problems/Challenges/Cons

Tutor
• Under Done/III Prepared
  • Not Microsoft Certified Trainer (MCT) qualified
  • Unfamiliar with
    • Microsoft online environment
    • MS lab materials
  • The MS Windows Server 2003 (Two servers required – London & Glasgow) pre-configured using files provided by MS (limited number of cities)

• Required to cope with large classes
Problems/Challenges/Cons

Students

• First real introduction to mixed learning environment (online theory and in class practical labs)
  • MS specific (while familiar with Moodle)
  • Chapter tests containing long winded/convoluted scenario-based questions
  • MS material very focused/narrow in subject matter
  • MS labs too brief/lacking guidance/how-to detail

• Class numbers too large (for number of problems encountered)
Pros/Argument For Tutor

• Detailed online learning material provided by MS
• Familiar with Windows Server 2003/2008 environment
• Ably supported by MCT qualified instructor and School of IT technician
• Flexible/able to adjust requirements/learning environment on-the-fly
  • Timetabled additional class to spread the load
  • Turned the chapter tests (1 to 10) into formative learning exercises (open book)
  • Moodle-based tests created by colleague – checked & corrected by me
• Provide immediate feedback for students
• Create separate ‘play servers’, London and Glasgow, for each class
Pros/Argument For

Student

• Detailed online learning material provided by MS
  • Includes virtual exercises
  • Labs
  • Test questions for all chapters to practice on
  • Learning problem solving strategies; e.g. Ask Google (the right question)
  • Working together to support one another (reinforcing the learning experiences)
  • Open book assessments (in Moodle) & immediate feedback
  • Topic focus notes provided by tutor
  • Timetabled additional class to spread the load (sit the assessments in one, complete the practical labs in another)
Garry Roberton (Garry.Roberton@wintec.ac.nz) Wintec School of IT

Tony Clear (Tony.Clear@aut.ac.nz) “It Was a Great Idea at the Time - Panel”
CITRENZ Conference 2011, Rotorua 7 Jul 2011
What about next time?
### AIM OF MODULE:
Students will gain the skills and knowledge required to effectively install, configure and maintain server resources, monitor server performance, and safeguard data on a computer running Microsoft® Windows Server™ 2008

### CREDITS:
7

### KNOWLEDGE ASSUMED FROM:
A+ certification and Network+ certification, or equivalent knowledge and skills.

### STUDENT LEARNING HOURS:
70

### CONTENT REVISED:
2011

### PRESCRIPTION EXPIRY DATE:
November 2013

### NOTES:
1. This course partially prepares students to sit the Microsoft Certified Technical Specialist Exams; 70-640 & 70-642
2. This module consists of a selection of Microsoft ELearning Courses, which must be administered by a Microsoft certified Trainer.