ITS Courseware

Teaching Caltrans New Tricks with Sakai

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Outline

UCI Institute of Transportation Studies

- Institute of Transportation and Traffic Engineering (ITTE), predecessor of ITS, was created in 1947
- At the time, state highway engineers received training at the UC campuses (Berkeley and LA)
- Road building is a well studied problem
- ITS (Berkeley, Irvine, and Davis) recent history has focused on research
- Caltrans has focused on building roads, maintaining highways

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Caltrans' Immediate Motivation

Caltrans = The California Department of Transportation

- Corridor System Management Plans (CSMPs)
  - The Highway Safety, Traffic Reduction, Air Quality and Port Security Bond Act (Prop 1B) passed in 2006.
  - Mandates that bond money be used efficiently and produces measurable results
  - Corridors must have CSMPs to be eligible for funds from Prop 1B
  - CSMPs required a traffic microsimulation of the corridor of conditions before, during, and after the proposed improvement
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- Provide link for students and researchers to see real world problems that challenge the cutting edge
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- A storage place for current projects
- Turn successful projects into future lesson modules
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- Sakai
- Bodington
- Others (Wikipedia has lots more you can check out)
- UCI homegrown
- Drupal
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- Asked for older versions of Java, Tomcat, Maven, and MySQL
- Maven 1 to Maven 2 switch happened pretty quickly
- I just ignored the MySQL version recommendations
- How should course content be presented?
- Quality of tools was/is hit and miss
- The codebase *was* a heterogeneous mess in need of a top to bottom refactor
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Sakai: Initial user feedback (the ugly)

- Early users uniformly hated the Membership tool
- “Membership” didn’t make any sense in our context
- There was no equivalent to a registrar providing us with course enrollment information
- The initial landing page is an empty page of “courses you currently belong to”
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- A new “enroll” tool to replace membership
- Integrate a transportation glossary
- Custom patch to limit new accounts to certain domains
- Developing a custom patch to email login credentials
- As of one month ago, sucessfully using an experimental auto-enroll plugin that was discussed on the dev list

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- Set tags on each course
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- Several thousand word glossary of transportation terms developed by Dr. Mike M^{c}Nally.
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- We cheated, and are using JavaScript plus MediaWiki
- Punched JavaScript code into the Portal velocity templates
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- Powerpoint to Flash with voice-over via Adobe Presenter
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Short term, go slow

- Fix the pain points in the work flow
- Add more dynamic content where appropriate via Adobe Captivate
- Try melete again
- Do something consistent with tests and quizes

Short term decisions needed

- Try out and evaluatate course activity stats
- Do we really want to let managers do anything dangerous on the site with instructor roles, or should we just give them aggregate stats?

Medium term, tackle the vision

- How can course objectives, prerequisites be specified, enforced?
- How can we set up collaboratation tools that Caltrans will use?
- How can we integrate a problem repositories into Sakai?

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Pat,

In order to get you and your staff ready for Corsim training just as soon as it becomes available, we ask you to complete our joint Caltrans/UC Irvine web-based Simulation course. It's a prerequisite designed to give Caltrans staff the fundamental knowledge they'll need in order to take any software-specific classes (Corsim, Vissim, Paramics, etc.). This web-based training is an excellent resource that we have been developing for the past year and a half in conjunction with UC Irvine's Institute for Transportation Studies.

Completion of the Simulation course is mandatory for all Caltrans employees before any in-person microsimulation training can be scheduled.

Here's the link to website:
http://sinope.its.uci.edu/portal

To register, click on New Account on the left side of the screen and follow instructions to sign up as a student, then enroll in the Simulation course. If you have any difficulties enrolling or navigating through the course, please contact me or James Marca (UCI webmaster), and please forward this information to anyone in your District who is planning to learn Corsim, Vissim, Paramics, or Transmodeler.

Diane Jacobs, PE
Southern Region Microsimulation Liaison
Division of Transportation System Information (TSI)

Questions? Comments? Advice?