Problems in Environmental Conflict Resolution  
A Web-based Interface for Peer Review

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Background on the Course

- FREC 450—Topics in Environmental Law  
  - Yearly  
  - 15 to 20 students  
  - Extensive course “contract”  
  - Permanent groups of 3 or 4  
  - Final synthetic group presentation
- Course objectives  
  - Content  
  - Argumentation and analytic skills  
    - Semester-long problems  
    - Six award winning student papers, Degree with Distinction

Technological Enhancement  
A Web-based Interface for Peer Review

- A tour of the interface  
  - A modified guestbook 
    http://www.udel.edu/topics/internet/WWW/test-guestbook.html
  - FREC 450 problems page 
    http://www.udel.edu/FREC/index.html/450problems.htm
  - Jeff Whisler’s critical technological solution 
    http://www.udel.edu/FREC/index.html/students/backweb/12f.db
- Interface characteristics  
  - Minimal set-up and break-down effort  
    - No maintenance—thanks to Jeff Whisler  
    - Submission can be viewed by all students
Information Management
The Numbers for Fall 2001

- 18 students in five groups
- Each student prepares 6 assignments and 4 peer reviews
- 180 forms processed by the electronic interface
  - 720 files support these forms
  - "The program" is run 4320 times per day
  - Approximately 470,880 per semester

The Problems

- Applying comparative institutional analysis
  - Problem definition, data collection and analysis
- Lots of feedback
  - Six assignments graded by me with comments
  - Four assignments are peer reviewed by 2 or 3 peers
    - Three substantive comments
    - 1 grade peer reviews
- Revision constitutes a comprehensive analysis
  - Assimilate 14 to 18 separate documents of comments

Outcomes
Impacts on Learning

- Novelty
  - Achieves PBL learning goals
  - Technologically unique
  - Sparks student interest
  - Low set-up cost for students
  - Contemporary forum for sharing research
  - A lasting record for students and a student-research archive
  - Private and secure
- Collaboration
- Ownership
- Accountability—Peer pressure
- Improved coherence in argumentation

Outcomes—Continued
Impacts on Learning

- Trust issues
  - No book
  - Output is being created, not being memorized
  - At times—less anxiety and reduced intimidation
    - Fosters independence
    - Less hand-holding by me, more reliance on peers
    - "Everyone else got it, so I need to get it, too."
  - Higher risk for me—ganging up, dissent
- Improved overall project quality
  - By low and mid-performing students
- Great sense of accomplishment, satisfaction
Outcomes—Continued
Class Time & Student Response

- Class time
  - Moved some student effort out of class
  - Post by start of class
  - Discuss challenges with completing assignment during class
  - Peer reviews due by next class
  - Moved much of the evaluation time out of class
  - Increased collaborative time in class
- Response from students
  - Positive and accommodating
- Anything lost?
  - Less time for content
  - Some in 2001 did not take it seriously enough

Lessons Learned

- Critical Elements
  - Institutional support and rewards
  - Student acceptance and feedback
  - Role of content objectives
  - Role of course in curricula
  - Grading
- If I did it again…
  - Use my own server