**Computer Science Task Force**
**Meeting, April 3, 2006**
**Notes by Bruce Schafer**

Attending by phone: Bruce Schafer, Susan Boyanvsky, Bob Broeg, Jim Lorenz, Endi Hardigan, Steve Aho, Don Domes

Subject: Speakers Bureau
Conclusion: Develop a "pilot" involving a small number of speakers, starting with people that were profiled for brochure and web site. Create a set of Power Point slides that they could use as the starting point of a personalized presentation.
**AR:** Following people will confer by phone regarding next steps: Bruce Schafer, Endi Hardigan, Di Saunders, Steve Aho

Subject: Increase exposure of high school students to computer science
We reviewed our top three ideas – see agenda and following notes.

Subtopic: "Dissemination of best practices", we discussed the challenge of training teachers that have little background in computer science so they would be comfortable and competent in teaching computer science. How many weeks of training would be required and how would it be accomplished.

Subtopic: "Structural solution" (Developing a math course featuring CS):
Such a course would need to be taught by those who have math endorsements.
"Buy in" by school districts and high school administration would be critical.
It would be beneficial if it could be team taught – by a math teacher and a computer science teacher.
Issue: What is the proper balance of math and computer science for such a course?
Alternatives:

(1) Use existing computer science course as basis for a new math course.
(2) Take existing match curriculum and add CS content, adding relevance and depth of understanding.
(3) Take important math topics that may not always get complete coverage in existing math courses and insert them into a computer science course. Thus there would be more time for other math topics in existing math courses and students would receive more coverage of material they need for math assessment test.

Idea: Contact Oregon Mathematics Education Council and determine if there is an opportunity for collaboration.
**AR:** Susan and Bruce will contact Jonathan Wiens, Math Specialist with the Oregon Department of Education and Kathy Hall, Chair of OMEC.
Addition thought: integration of computer with mathematics makes it clear that CS is not just about learning a particular programming tool.

Subtopic: "Demand stimulation through interesting introductory courses"
Advantages: Brings students to computer science, allowing them to consider following up with more advanced courses. Relatively easy for inexperienced teachers to learn how to teach.
Example: Game programming. Can be taught with GameMaker and followed up with Visual Basic. Game programming is also conducive to team projects, building important "soft" skills.
Example: Robotics. Students find it very attractive and engaging. The disadvantage is that it requires acquiring and inventory lots of kits. It is also difficult to teach using distance education, e.g. Web courses.
Back to game programming:
Idea: College students could serve as online coaches – sometimes in "real time", i.e. "chat" sessions and other times asynchronously via email or message board.

Conclusion: We should make creating and disseminating a math/CS course our first priority, at least until we find out how open the mathematics teaching community is to the idea.

**AR:** Bruce to follow up with Bob Broeg and Jim Lorenz regarding examples of how the math/CS integration can be accomplished. Michal Young is also available to help out.