



## OPAS Steering Committee

# Detailed Meeting Record

#33 – May 27, 2008

Attendees: Bruce Schafer (OUS), Ken Cone (OUS), Dick Knight (Saturday Academy), Don Domes (Hilhi), Tom Thompson (ODE), Jay Bockelman (OIT), Eileen Boerger (ETIC/ Agilis Solutions), Jo Oshiro (OPAS)

3:30 - 3:35	Introductions, opening remarks
3:35 - 4:00	<p>Recent work by Workgroups</p> <ul style="list-style-type: none"> <li>• Motivate</li> <li>• Prepare</li> <li>• Success</li> <li>• Pathways</li> <li>• ETIC Student Marketing Committee</li> <li>• ETIC Computer Science Task Force</li> <li>• Reference: "Where Will They Come From?" by Dick Knight <ul style="list-style-type: none"> <li>○ updated May 5, 2008 (title slide date April 10) - <a href="#">pdf</a> - with edits discussed in the April 29 Steering Meeting and associated talks</li> </ul> </li> </ul>
4:00 - 4:10	<p>Other news and opportunities</p> <ul style="list-style-type: none"> <li>• Opportunity to host event in 2009 <ul style="list-style-type: none"> <li>○ Organized by Johns Hopkins Center for Talented Youth <a href="#">Family Academic Programs</a></li> <li>○ 2008/2009 Theme: Robotics</li> <li>○ Reference: 2007 <a href="#">Program sponsored by PSU, OSU, and ONAMI</a></li> </ul> </li> </ul>
4:10 - 4:45	<p>Coordinating work between work groups and between OPAS and other organizations</p> <ul style="list-style-type: none"> <li>• Prepare and Succeed re: Best practices for growing HS CS programs in number, diversity and enrollment.</li> <li>• Prepare and TechStart re: success factors for new CS teachers</li> <li>• Motivate and ORTOP FTC re: Improving and scaling up FTC in Oregon</li> <li>• Pathways and ETIC CS Task Force re: CS Pathway</li> <li>• ETIC CSTF, TechStart, and OPAS Motivate re: scaling up OGPC</li> <li>• OPAS and ETIC Student Marketing Committee <ul style="list-style-type: none"> <li>○ Brochure</li> <li>○ Web site</li> <li>○ CTY Event</li> </ul> </li> </ul>
4:45 - 4:55	<p>Other business (members should suggest topics before or during meeting)</p> <ul style="list-style-type: none"> <li>• Should CS programs make calculus optional?</li> <li>• Should more CS programs offer SE or IT emphasis?</li> </ul>
4:55 – 5:00	Schedule next meeting - Tuesday June 17?

## Summary as emailed and Posted June 19, 2008

Eight members of the Committee attended the May 27<sup>th</sup> meeting. Workgroup and allied committee chairs reported:

- Prepare Workgroup (Dick) continues to focus on implementation of the Bright Future proposal (aka “superproposal” or “POP”). The presentation on Boston MOS’ “Engineering the Future” (EtF) curriculum program by Cary Sneider has led to further discussions with ODE outside the focus of OPAS. Another topic that keeps coming up is the preparation of teachers to do these programs in schools.
- Succeed Workgroup (Jo) worked on putting more detail into their proposal for building on Don Kirkwood’s experience with recruiting and retention in CS classes, “The Propagator.” The group plans to address strategies for ensuring gender equity across the “Bright Future” proposal at their July meeting.
- Pathways (Tom) chair Tom Thompson has started regular meetings with recent hire Debbie Moller at CCWD. Tom may need to connect with ETIC CSTF to help with some of their curriculum and articulation questions.
- Marketing: Fred Ziari, chair of the ETIC wants to be more aggressive in traditional marketing to students, teachers, and parents. The previous OPAS Marketing group has been reconstituted and revived with ETIC staff support. Jennifer Williamson, ODE PR & communications person, has joined. The group is enthusiastic about completing some things this biennium. Their current plans
  - Create a statewide brochure and website, including further addition of content to the existing getreal CS-focus website to include engineering. The ETIC CS Task Force endorsed this approach earlier today; Ken Cone will head up this effort;
    - Capstone projects might make content reflective of student interests for websites and other forms of publicity. Consolidate and publicize capstone “engineering day” events across the state and get it to teachers early in the academic year. Increasing prevalence of high school capstones makes college capstones more relevant
  - Develop a business plan for creating a statewide Engineering Ambassadors program based on Ellen Momsen’s model at OSU.
- ETIC CS Task Force (CSTF): Ken recently completed a round of upgrades to getreal content and architecture. The group also co-sponsored the Oregon Game Project Challenge (OGPC) with the Techstart Education Foundation, held mid-May at Chemeketa Community College. 31 teams registered, 21 teams showed; about half of whom won trophies.
- Motivate (Eileen) is working on developing the Engineering Team Challenge concept in greater detail. Ben Manny and Ed Epp (ORTOP-FTC) have had some conversations about adding programmatic elements to the FIRST Tech Challenge for high school students.
- General discussion: we really do not have much in the way of market assessment, and at least some if not most of our work makes assumptions about why there are not more teams, classes, programs, and students.

The Johns Hopkins Center for Talented Youth program (CTY- <http://cty.jhu.edu/>) contacted Bruce, in his ORTOP role, to partner with them to host (Spring 2009) a local instance of their Family Academic Program on robotics. CTY provides recruitment, registration, and underwrites much of the cost; our role is to recruit speakers, develop breakout sessions, do workshops, and

provide student volunteer event staff. PSU and ONAMI hosted one of these in November 2007, and involved PSU staff endorse it whole-heartedly. Concerns:

- Our role must be spread out over ORTOP, OPAS, and the ETIC Marketing group to make it logistically feasible.
- How much freedom do we have with the “robotics” theme? Can we include applications like animatronic training for OSU nurses? We could build a wider program appeal than just Robbie the Robot.
- Target is TAG kids, not diverse kids. Especially for low-income families, the cost of \$75 for each participant, whether adult or child, may be prohibitive. The fee waiver handling is currently informal and not publicized.
- Session/workshop hands-on activities need depth, breadth, and variety.

Group consensus:

- Further exploration of the CTY opportunity is warranted.
- The “Calculus Question” should be addressed by the ETIC CSTF, not OPAS. Concerns:
  - Creation of a second-class citizen degree.
  - Should more CS programs offer Software Engineering or Information Technology emphases?
  - Is WOU’s CS program, which is discrete-math based, ABET accredited?
- If OGPC 2.0 (2009) information/ advance PR is given to Don Domes and Dale Yocum, they will talk/teach it at SuperQuest.

The next meeting will be either June 18 or 20, pending schedule clarification.

## **Action Items**

All: Continue looking for overlaps and opportunities to collaborate as we move forward with putting detail on implementation plans for various segments of the “Brighter Future” proposal.

## **Additional Points of Discussion & Reference**

- Prepare (Dick): PLTW model is to take an existing competent teacher and train them in a particular program; issues may differ with recruitment of new teachers (CTE)
- Marketing:
  - Use the current info architecture for the site (<http://getreal.ous.edu/>), and fold in much broader content. Hold off on revising info arch & layout and concentrate on adding content. Maybe have some stuff in the fall or spring.
  - Engineering Ambassadors: Tom’s experience with engineering ambassadors not that inspiring; Jo had a generally good experience during her OSU tour with a student who was inspired to go to OSU and major in Industrial Engineering by an OSU Ambassador who was in IE. More research.
- ETIC CSTF: Generally good feedback from OGPC.
- Capstones:
  - Dick: Publicizing these a good tool for recruitment and general engineering PR.
  - Jay: Because the capstones are initiated by students, they reflect student interests.

- Jo: Good example of website presentation of similar material at JETS website – “Extreme Engineering” and “Extreme Engineers”  
<http://www.jets.org/newsletter/0408/index.htm>
- .Don: Kids really work hard to show off for Senior Capstone events. If kids are involved in capstones in high school, they will relate better to college capstones. Note that getting projects to Science Fairs takes additional instructor time.
- Johns Hopkins CTY:
  - Dick: Is Johns Hopkins open to broadening the theme? Anthropomorphic stuff or animatronic stations for training nurses at OSU? Intelligent stuff like self-managing power grids? What are we trying to engage these kids with? Build program elements with wider appeal than just Robbie the Robot?
  - Don: “TAG You’re It” a half-day program within the Hillsboro School District is a huge hit for middle school tag kids here. 90 kids here on a Saturday.
  - We have positive feedback on the program from Don Mueller and Kris Nieman at PSU.
- Calculus question – market to calculophobes. Cf. WOU.
  - Dick: Have CSTF address this, not us. Don’t create a degree that is not academically robust. OUS-wide discussion and philosophy. Will industry regard students coming out of one program as inferior to the other program. How do we let the students know the degrees are not equivalent? How do we let industry know the degrees are different? Are the students disadvantaged with regards to further education, master’s degree.
  - Is WOU CS (discrete-math-based) an ABET program? Who certifies their CS program?
  - Should more CS programs offer SE or IT emphasis?
    - some of our CS programs are suboptimal for product development because of light experience in Software Engineering; may depend on capstone project
    - Software engineer more accessible to understanding
    - IT – if you take a look at Oregon Industries, you can see the majority of CS students end up in IT. How to assure BSCS are IT-ready? To what extent do freshman know what IT is about, to accept/reject and choose appropriate courses?
    - Dick: there might actually be data on this. We need to understand the market better. More technician content in these IT jobs? Is this the prevailing view? To change people’s view of the world, need to give them new experiences or new data.
    - IT underprepared technically. BSCS know nothing about IT/IS
    - IT hard to outsource
    - SE jobs hard to outsource
    - Many CS jobs easy to outsource

**Next Meeting:** 1) 6/20 or 2) 6/18. Bruce has schedule issues to clear up.