



OPAS Initiative Conference Followup

NCWIT/ NSF Broader Participation in Computing (BPC) Outreach

June 11-12, 2009 ~ DC

Jo Oshiro, Natasha Macdonald, and Don Kirkwood from Oregon attended the National Center for Women in Information Technology (NCWIT) and National Science Foundation (NSF) Broader Participation in Computing (BPC) Outreach to K12 conference, representing the OPAS Initiative and the TechStart Education Foundation. Between the three of us we attended most of the break-out sessions and demos. Most presentation materials have been linked here -- <http://www.ncwit.org/bpc>. Some of the more interesting handouts included the NCWIT Promising Practices catalog -- <http://www.ncwit.org/resources.res.practices.php>.

We were expecting enlightenment, and to find out we were behind the curve. That does not seem to be the case, in anything except our funding and infrastructure methods and practices.

- Other attendees were informal science educators and organizational representatives, academic PIs, and a smattering of high school and middle school teachers, NCWIT and NSF people and a few industry representatives, notably from Google.
- Group panels – collectively this panel reaches 25% of the school-age children in the US:
 - Girl Scouts
 - Girls and Boys Clubs
 - 4-H
 - MESA Maryland
 - Citizen Schools (a sort of cross between a Saturday Academy and an NEM model)
 - Girls Inc – has a relatively new, nationwide STEM Initiative, Operation SMART
- BotBall – provided a BYOB (Build Your Own Bot) kit for an activity; Steve Goodgame, Botball, very interested in breaking in to Oregon. Jo has previously helped set up an informational session at PSU for him.
- Networking Contacts/Followup:
 - Robotics – Jo shared this information and other pointers to potential synergy with Cathy Swider of ORTOP.
 - Elizabeth Sklar, Robocup and Robocup Junior – platform independent, stable challenges (3) that are “more spectator-friendly”; connects to Robocup Senior for college students, which also connects to an academic/professional conference. Possibly a lower price-point for entry. 48% girl participation, mostly in the Robot Dance category, which is the most open-ended and tends to produce the most sophisticated result.

- Frances Wilson, East Bay National Society of Black Engineers Jr – interested in ortop resources and technical training, possibly paying for an ORTOP trainer to visit them and give the workshops; connected her to the website and to the TechStart brochures. Jo e-introed Frances and Roger Swanson of ORTOP, and sent a list of additional web resources to Frances.
 - Boys and Girls Club recently released a new robotics curriculum.
 - CS
 - Virtual Worlds: Jo was not immediately won over to the utility of virtual worlds as an educational tool, however, they do provide fairly immediate feedback for programming needs and tasks in a medium kids understand. The audience was a difficult split of neophytes and devotees, so what we were shown was essentially the use of avatars as pointing and navigation devices. Virtual worlds do seem to pull in segments of the population other than computer geeks, however.
 - Caroline Lamoureux, Linden Labs (Second Life virtual world)
 - Jonathan Richter, UO (MERLOT.ORG, Lane CC) – Caroline e-introed him to Jo.
 - CS Olympiad as a retention tool for undergrads in years 1 and 2; 8 year history; program documentation; the program as shown is limited to historically black and east coast colleges.
 - Iretta Kearse, Spelman College
 - MC2: Outreach lessons in an ambassador crew format. Curricular materials are going to be made available; perhaps as “as-is” CDs from Karen or something more polished from NCWIT or another stakeholder. Shared with Brett McFarlane & Ellen Momsen at OSU.
 - Karen Davis, University of Cincinnati, Karen.davis@uc.edu
 - MathmaniaCS.org – discrete math exercises – sent to Chris Brooks.
 - www.ece.uc.edu/mc2 --
 - Mentoring & Internships
 - Richard Alo, University of Houston Downtown; interested in Saturday Academy ASE program; Jo e-introed him to Joyce Cresswell at Saturday Academy.
 - Supercomputing
 - Conference in Portland this fall
 - There is apparently supercomputing bandwidth available for outreach use; the contact I was given was Vic Sutton at vsutton@hotmail.co.uk; Richard Alo at ralo@uhd.edu is another member of the Supercomputing group.
 - ACM/SIGSE/CSTA -- Barbara Owens, Southwestern University
- Funding Contacts – Jo will be pursuing these, and welcomes any input! In preparation for discussions with a new group of stakeholders, Jo is formulating an overview of CS-related K-12 activity in Oregon.
 - Jan Cuny (Research Directorate, Broader Participation in Computing (BPC) program)
 - Recommended talking with Michael Haney from NSF’s EHR directorate (mhaney@nsf.gov)

- Ruthe Farmer
 - Discussion on Don's need for a \$2000 funding stream for No Boys Allowed (equity money from Chemeketa CC pulled due to breadth of participation issues in the Tech Conference) resulted in these ideas:
 - Contact Karen Peterson from NGCP in person; NBA originally started from NWGCP
 - Contact Google's Diversity people – they were there, Jo was not able to connect with them.
 - Carla Faini at Microsoft
 - Flight Dynamics
 - Best Buy Teach Awards
 - Get Don to generate retention figures
 - Who can help us write NSF grants?
 - NSF will help; servicing underrepresented good; show retention right into college
 - Per Jan Cuny, CS contributes almost nothing to GK-12 programs; if you are interested in doing this, please connect to Jan
 - Broader Participation in Computing (BPC):
 - Need not be a university to apply
 - Ruthe says have a PhD as a PI or co-PI, different from the administrator (who can be non-U)
 - Adapting, scaling, leveraging grants == no upper \$ limit
 - Chris Dede at Harvard wrote a book on scaling best practices in education; Jo has requested it from the library
 - Various programs – “Alliance Project”, different directorates, BPC, GSE, ITEST,
 - Replication grants == \$300K, 25% Indirect costs
 - Alliance project == <=\$2M, multiple touch points, across the state
 - Steve Cooper, NSF Program Director for CCLI (Course Curriculum and Laboratory Improvement for Undergraduate Education in CS) – scooper@nsf.gov
- Other points of interest
 - Kellogg Logic Model was brought up as a good planning tool and resource.
 - Commercially available, applicable to CS concept games: SET, RoboRally