

## *In the OPASsphere – July17, 2008*

1

*A service of the Oregon Pre-Engineering & Applied Sciences Initiative (OPAS) funded by ETIC*

*To subscribe or get more info, please contact Jo Oshiro - [jo\\_oshiro@ous.edu](mailto:jo_oshiro@ous.edu) or 503.725.2910*

*archives: <http://opas.ous.edu//OPASsphere/index.html>*

### *In this issue:*

- *Jobs: OUS-GEAR UP School Liaison; Columbia Slough-Education Director*
- *Events: Girl Scouts Design & Discover Camp*
- *Weblinks: Celeste blogs on Design Squad*
- *Funding: NSF to OIT;*
- *Equity: Constructing it for gender; Are American Schools Inherently Biased?*
- *Articles: US behind in STEM grads; India too*
- *Fun Stuff: FIRST Robotics teams at PCC Sylvania*

### *Job Search*

- The Oregon University System (OUS) is seeking a **GEAR UP School Liaison, Communications specialist** to serve as an expert resource to the partner schools; manage the GEAR UP electronic communications including the website, newsletter and electronic mailing lists; and prepare publications for GEAR UP schools. Full time, salary range \$36,900 - \$42,480 DOE, plus an excellent benefits program. Located in Eugene, OR. See <http://www.ous.edu/dept/hr/employment.php> or (541) 346-5725 for application and job information. **Priority will be given to applications received by August 8, 2008.** The OUS is an Affirmative Action/Equal Opportunity Employer committed to development of an inclusive, multicultural higher education environment
- The **Columbia Slough Watershed Council** is hiring an **Education Director** to work with our Slough School Education Program. The Columbia Slough Watershed Council (CSWC) works to foster action to protect, enhance, restore and revitalize the Columbia Slough and its watershed, near Portland, OR. A full position description can be viewed along with application packet at: [www.columbiaslough.org](http://www.columbiaslough.org) Application period closes at 4 pm on July 31<sup>st</sup>, 2008. Please direct inquiries to [educationdirector@columbiaslough.org](mailto:educationdirector@columbiaslough.org)

### *Events – Announcements*

- *Girl Scouts Columbia River Council Design and Discover Camp, July 28 – August 8*  
<http://www.girlscoutsrc.org/CMS/programResources/engineerScienceTech/fairPlay.aspx>

### *Weblinks*

- **Celeste Baine's Blog** talks about **Design Squad** – what if your local TV station doesn't air it?  
[http://engineeringedu.com/celestes\\_blog/](http://engineeringedu.com/celestes_blog/)

### *Funding*

- **NATIONAL GRANT AWARDED TO OIT:** The National Science Foundation S-STEM (S-STEM: Scholarships in Science, Technology, Engineering and Math) program has granted OIT \$596,025 for five years effective July 15. Per Sherry Yang, CS Professor at OIT: "This grant will enable us to establish the EPIC (Expanding Participation in Computing) program at OIT with a focus on recruiting and retaining underrepresented students in computing (CET, SET, Embedded and IT). The first year of the grant is our planning and recruiting year. We will be awarding these scholarships starting in fall of 2009 with a maximum scholarship amount of

*The OPAS Vision is that all Oregonians have the opportunity to choose and successfully pursue engineering or applied science as their field of study and career, thereby helping Oregon's industries contribute to state economic needs, and innovate and prosper in the global economy.*

*A service of the Oregon Pre-Engineering & Applied Sciences Initiative (OPAS) funded by ETIC*

*To subscribe or get more info, please contact Jo Oshiro - [jo\\_oshiro@ous.edu](mailto:jo_oshiro@ous.edu) or 503.725.2910*

*archives: <http://opas.ous.edu//OPASsphere/index.html>*

\$6,000 for up to 30 students a year."

Yang and her co-principle investigator, Maureen Sevigny, worked on the CSEMS grant from 2002-2007. Cristina Negoita will help with math classes for learning communities. Yang offered special thanks to Mickie McCormic, whose help with this grant proposal was invaluable.

### ***Equity***

- ***Constructing Equity: Promising Practices for Recruiting and Retaining Students in Career and Technical Education Programs that are Nontraditional for their gender***, a publication of Programs and Practices that Work: Preparing Students for Nontraditional Careers Project, sponsored by The Association of Career and Technical Education, The National Alliance for Partnerships in Equity, The National Association of State Directors of Career Technical Education Consortium, The National Women's Law Center --  
<http://www.napequity.org/pdf/Constructing%20Equity.pdf>
  - [http://cte.mpls.k12.mn.us/High\\_Tech\\_Girl\\_s\\_Society.html](http://cte.mpls.k12.mn.us/High_Tech_Girl_s_Society.html)
- ***Are American Public Schools Inherently Biased?*** Mary Tedrow, Teacher Magazine, July 16, 2008; a review of *Young, Gifted, and Black: Promoting High Achievement Among African-American Students* (2003), Theresa Perry, Claude Steele and Asa Hilliard III  
"Historically, education for black Americans has demonstrated to have no predictable tie to economic advancement, no matter what level of schooling the student achieves. In order to succeed, black Americans must answer for themselves: *why sacrifice yourself to the pursuit of an education when the color of your skin is likely to close as many doors as your studies promise to open?* ... African-American communities have always been able to encourage academic pursuits by the young by reminding them that freedom is rooted in literacy and that a strong literate base is necessary for the work that will achieve racial uplift, cement the community, and result in leaders who can speak for the group as a whole. These purposes are, to my knowledge, rarely overtly acknowledged by school systems."  
[http://www.teachermagazine.org/tm/articles/2008/07/16/41tln\\_tedrow.h19.html?tmp=1285088599](http://www.teachermagazine.org/tm/articles/2008/07/16/41tln_tedrow.h19.html?tmp=1285088599)  
and the book itself: <http://www.beacon.org/productdetails.cfm?PC=1515>
  - Jo comments: I thought, growing up as a mixed-race child in the 60's amongst the Quakers, that I understood something of the black experience at least intellectually. Two books that convinced me I hadn't really thought the whole cause and rippling effect network through:
    - *People's History of the United States: 1492 to Present (P.S.)*, Howard Zinn, 2005 ISBN-10: 0060838655
    - *The World That Made New Orleans: From Spanish Silver to Congo Square*, by Ned Sublette, 2008, ISBN-10: 1556527306

### ***Articles***

- [Report: US Behind in Doubling Science Grads](#)  
A high-profile push by business groups to double the number of US bachelor's degrees awarded in science, math, and engineering by 2015 is falling way behind target, a new report says.

*The OPAS Vision is that all Oregonians have the opportunity to choose and successfully pursue engineering or applied science as their field of study and career, thereby helping Oregon's industries contribute to state economic needs, and innovate and prosper in the global economy.*

*A service of the Oregon Pre-Engineering & Applied Sciences Initiative (OPAS) funded by ETIC*

*To subscribe or get more info, please contact Jo Oshiro - [jo\\_oshiro@ous.edu](mailto:jo_oshiro@ous.edu) or 503.725.2910*

*archives: <http://opas.ous.edu//OPASsphere/index.html>*

- **India has an engineering education issue, too --**  
<http://online.wsj.com/article/SB121615242814755641.html?mod=djemTECH> – Thanks to Ben Manny

### *Research*

- ***In a More Balanced Computer Science Environment, Similarity is the Difference and Computer Science is the Winner***, Lenore Blum and Carol Frieze, published originally in the May 2005 edition of Computing Research News, Vol. 17/No. 3, now at <http://www.cra.org/CRN/articles/may05/blum.frieze.html> -- at Carnegie Mellon University, CS quit favoring heavy programming experience in admitting students, and has achieved greater diversity not only of gender, but of personality and the students “have gotten interesting” per one professor.

### *Fun Stuff*

- **Local kids make good [robots] at PCC Sylvania** – thanks to Pat Kraft and John McKee  
[http://www.beavertonvalleytimes.com/news/story.php?story\\_id=121624503429277800](http://www.beavertonvalleytimes.com/news/story.php?story_id=121624503429277800)  
[http://www.portlandtribune.com/metro\\_news/story.php?story\\_id=121624503429277800](http://www.portlandtribune.com/metro_news/story.php?story_id=121624503429277800)  
Fourteen different local high schools take PCC up on its summer program opening up machine manufacturing technology facilities (band saws, drill presses, lathes and milling machines) to FIRST (For Inspiration and Recognition of Science and Technology) Robotics teams. “What the 18 students and two adults were hoping to get out of the three-week course was the ability to craft parts that will allow their robotic creations to run more efficiently.”
  - **More on FIRST Robotics:** <http://www.usfirst.org/what/frc/default.aspx?id=366>

*The OPAS Vision is that all Oregonians have the opportunity to choose and successfully pursue engineering or applied science as their field of study and career, thereby helping Oregon’s industries contribute to state economic needs, and innovate and prosper in the global economy.*