

2008 SAB Annual Meeting Minutes

Department of Computer Science
North Carolina University
April 17, 2008

The Department of Computer Science Strategic Advisory Board held its annual meeting on Thursday, April 17, 2007 in Engineering Building II. The preceding afternoon and evening included an orientation session for new SAB members followed by a dinner held at the State Club in the Park Alumni Center on Centennial Campus. During the dinner sponsored by John Deere, new members were introduced and welcomed, and outgoing members were recognized for their service.

Business Meeting (April 17, 2008)

Members in Attendance: Chris Benson, Tsege Beyene, Sidd Chopra, Wayne Clark, Keith Collins, Chris Crump, Jim Faulkner, Jesse Fearrington, Kathy Markham, Lilo Newberry, Beth Philmon (representing Ken Hibbard), Rudy Puryear, Dede Ramoneda, Bill Riddick, Carla Savage, Eugene Spafford, Matt Squire, Roger Stiles, Eric Wagner, Bill Weiss, Steve Worth and Mark Wyatt.

Member Regrets: Nick Bowen, Michael Chen, Dennis Flynn, Ken Hibbard, Vivien Joklik, Gopal Kakivaya, Gail Stephens, and Juan Vargas.

NC State Presenters in Attendance: Ken Tate, Dean Louis Martin-Vega, Dr. Henry Schaffer, and Dr. Mladen Vouk,

Meeting Notes:

After a Networking Breakfast sponsored by Data Domain, Dean Martin-Vega presented his vision for the College of Engineering, specifically focusing in on what it will take to develop the engineer of 2020.

Dr. Vouk provided a "State of the Department" update (charts in your participant book), including the "Top 3 Challenges", broadly defined for the SAB's input. Those challenges aligned closely with the top questions Dr. Savage and the Strategic Planning Committee (SPC) identified for the SAB to consider. Collectively, the department requested SAB input on the following:

- 1) **Rankings** - How can we improve the *rankings* of the department?
- 2) **Evolution of the Undergraduate Program** - How should the undergraduate program evolve with times? What should our undergraduates know?
- 3) **Evolution of the Graduate Program** - Having gone from 6 to 18 Ph.Ds per year in just a few short years, how do we continue to improve the *quality* of Graduate Program?

Ken Tate provided an overview of the department's 40th year celebration and an update on the department's development and external relations efforts (charts in your participant book). Ken also spoke about some of the efforts the department has taken this year to supplement the college recruitment effort. Specific actions include sending all admitted students (computer science interest and engineering undecided) a personalized letter from the department head, a personal invitation to the spring CoE Open House (with documented success due to new Bronto Software), and a special communications targeting female candidates. **UPDATE: As of 5/21, we had 128 confirmed "will enters" (deposits paid) for the fall freshman class, compared to 113 a year ago, an increase of 13%. This number includes 20 females (15.6%, up from current 11%). And this comes in a year in which the CoE has admitted fewer freshmen to compensate for last year's large class!**

During lunch sponsored by Data Domain, Dr. Henry Schaffer provided a spirited overview of the Virtual Computing Lab initiative.

During our business session in the early afternoon, the following items of note were discussed:

- Mark Wyatt was nominated and approved as the Vice Chair for 2009 (and Chair for 2010)
- Department recommended and board approved use of Diversity in Computer Science endowment funding next year be awarded as a scholarship for an incoming freshman (in attempt to leverage it as a tool of attraction for underrepresented students).
- In order to make the Diversity Scholarship awards renewable and sufficient to make a real difference to influence students' decisions (\$2,500 level), we need to grow the endowment to \$250,000. Keith Collins made a very generous challenge offer, saying that for any board member making a new pledge commitment valued at \$2,000 or more to the endowment for 2008-09, he will add \$500 to his donation to the endowment.
- The board discussed updating the SAB objectives, making a number of recommendations. Ken agreed to update the objectives based on these recommendations and forward to the group for review.

The majority of the afternoon was open discussion on a variety of topics directly or indirectly linked to the department's Top 3 Challenges. Discussion points included:

- Explore diversity partnership with Lenovo (Ken Tate to talk to Bill Weiss for more details)
- Consider a "female" specific Open House or networking event; or have a special session during Open House dedicated to "Why Computer Science—If you are a female," with special focus on the advantages we offer women. In the Spring 2008 WiCS reported an increased interest from female attendees.
- Focus communications toward women on the social significance of Computer Science (such as bioinformatics, privacy, etc., and emphasize the team and group-focused effort more so than individual, in order to bridge the technology interest gap.
- Look for ways to involve companies in the outreach and recruitment efforts to encourage more women to seek Computer Science degrees.
- Recommendation made to seek women mentors that can target specific females to encourage them to attend NC State (To some degree this is already being done. The CoE has an annual "Engineering Week that involves bringing in women speakers to talk to HS recruits and non-matriculated females about engineering disciplines, and WiCs & WISE have active female mentoring programs. Perhaps our WiCS and/or WISE student orgs should seek partnerships with the professional WISE org through NCTA to leverage their female members to be more active in K-12 outreach efforts). **Note – Ken has forwarded a note concerning the shortage of females and the projected shortage of computer science talent to NCTA leaders in hopes that it can be included within their annual legislative agenda.**
- While the deployment of VCL for K-12 in North Carolina will help diversity recruiting, there was a suggestion that the state should be encouraged to increase the number of HS teachers qualified to teach computer science in high schools. On a related note, it was commented that Advanced Placement (AP) computer science courses have been dropped in most high schools. We should look at getting some of them reinstated; again, this may be an item that **NCTA leaders can include within their annual legislative agenda**
- Another suggestion was to target the high school science and technology guidance counselors and teachers in NC State Computer Science communications. (We have access to several different listservs, and have done some of this already.
- Update department's Prospective Students web page; look at ways to advertise strategically at social and networking sites to drive female candidates to the site.
- Ken was encouraged to talk to PAMS regarding their Science House middle school videos used to attract females as a possible example for updating our prospective student section online.
- Recommendation made that distribution of videos not be limited to the university/department web site, but that we also consider alternative means like Facebook and YouTube.
- Continue to explore ways to strengthen the department's reputation internationally. Bill Weiss offered to help set up meeting between Dr. Vouk and/or Dean Martin-Vega and leaders at UCSD to discuss international partnership opportunities.
- Recommendation made that we talk to Jenny Weston (CoE Communications) about releasing the CoE topical expert list about every six months (names/topics). At other schools, the release of this information alone often spurs articles. Also recommended that we consider developing a Press Guide with experts (not just a list, but with blogs, Facebook, etc.).

- Consider targeting development of key relationships with specific *N&O*, *TBJ* and other media contacts, establishing an effective communications pipeline to help us build image. (Go outside the market to national networks, then the local media might get interested.)
- Consider using high school resources (maybe with SDC or STARS teams) to work on videos.

Dr. Spafford, new board member and professor of computer science at Purdue University, provided some very valuable input based on their experiences. In particular, he detailed five things that have helped them move up in the rankings:

1) More staff support - facilities, secretarial, and tech writing

2) Pushing faculty to a higher standard - maybe not hiring candidates unless they are better than a new standard. Also, considering during P&T whether those individuals have published in top journals and/or conferences in their fields (e.g., IEEE or ACM Transactions, JACM, SOSP, ICSE, PODC, etc). Including this in telling faculty what they need to do going forward so they aren't surprised.

3) Hiring more faculty than what are needed to cover classes. Looking at whether new faculty can "cover their own cost" rather than simply what is needed to cover classes. Having more faculty leads to more publications, capacity for more Ph.D. students, etc.

4) Admitting fewer but better students, where "better" needs to be institution specific. For Purdue, it included some greater facility with English, and computing experience from strong programs.

5) Pushing Ph.D. students more -- requiring a publishable-quality article(s) as part of quals. Requiring attendance at a semester-long seminar in issues for researchers: journals, reviewing, funding, research ethics, what is science, etc. Providing a path so students can opt-out of the Ph.D. program with only an MS so they don't need to "hang on" to finish. (He adds that Purdue does not have 2 MS degrees -- only 1, with the option of an MS thesis. They only get 1 MS thesis every other year, approximately. This keeps one load away from faculty.)

Dr. Spafford continued by making a spirited presentation on the metrics which he feels are vital to our department's rankings. His charts, accompanying these minutes, details some of his recommendations in the areas of publications, research funding, student placements, and perceptions.

Action – Recommendation made that Dr. Vouk go through Spaf's recommendations and identify where we're doing work in an area, and where we have a gap, and where we could use SAB interaction.

SAB Objectives 2008-2010 – Draft based on suggestions during meeting.

- Expand scope of board membership to include additional representatives from other related communities of interest (higher education, state government, department of commerce, international, Math & Science School, etc.)
- Formally define roles of Chair & Vice-Chair, including terms and selection process.
- Develop strategy to grow Diversity in Computer Science Endowment to \$250K or more (to allow for a \$2,500 renewable scholarship to be awarded annually).
- Influence addition of at least one new endowed chair within department.
- Continue to establish and nurture advocacy relationships with influential organizations and groups (NCTA, CED, NCSU Board of Trustees, General Assembly, etc.)
- Participate in Open House, class & lecture presentations, panel discussions, outreach initiatives, recognition events, etc.
- Continue to serve as ambassadors, helping build and sustain the image and brand recognition for the department.

Action – Request that board members review draft objectives and provide feedback to Ken, Dr Vouk, Jesse Ferrington and/or Mark Wyatt by June 15th