2009 SAB Annual Meeting Minutes

Department of Computer Science North Carolina University April 2, 2009

The Department of Computer Science Strategic Advisory Board held its annual meeting on Thursday, April 2, 2009 in Engineering Building II. The preceding afternoon and evening included an orientation session for new SAB members and a dutch-treat dinner at the State Club in the Park Alumni Center on Centennial Campus. Following the university's lead, funding that would have been spent on dinner will be reallocated to cover underwater scholarships endowments for the 2009-10 academic year.

Members in Attendance: Michael Chen, Sidd Chopra, Wayne Clark, Jim Faulkner, Jesse Fearrington, Christopher Healey, Ken Hibbard, Greg Keller, Kathy Markham, Lilo Newberry, John O'Neill, Dede Ramoneda, Bill Riddick, Carla Savage, Eugene Spafford, Gail Stephens, Jay Strickland, Donald Thompson, Eric Wagner, Steve Worth and Mark Wyatt.

Member Regrets: Chris Benson, Tsege Beyene, Keith Collins, Rudy Puryear, Matt Squire, Roger Stiles, Juan Vargas, and Bill Weiss.

NC State Presenters in Attendance: Ken Tate and Drs. Mladen Vouk, Matt Stallmann, & Dennis Bahler.

Meeting Notes (soft copies of charts available upon request):

After a Networking Breakfast sponsored by **Thomson Reuters**, and a welcome by 2009 SAB Chair, Jesse Fearrington (including special welcome to our new members Greg Keller, John O'Neill, Jay Strickland, and Donald Thompson), Dr. Vouk provided a "**State of the Department**" **update** including new mission (Top 10 public CSC dept – focus on quality), enrollment trends (expected to increase through 2015), funding & budget cuts (7% to date, possible reduction in TAs, net loss of 1-2 staff positions, faculty hiring impact, etc.), faculty recruitment (targeting a lecturer, software engineering, and gaming focus), curriculum evolution (may increase focus on distance education – high growth & revenue generation potential), accolades (numerous), and strategic planning (Center for Open Systems Engineering, Health Industry focus, etc.). The top open challenges presented to the board for their consideration and input throughout the day included:

- 1) Budget
- 2) Vision
- 3) Ranking
- 4) Undergraduate & Graduate Programs
- 5) Hiring

Dr. Stallman provided an **Accreditation (a.k.a. Assessment) update** including discussion of the objectives, desired outcomes, plans, and timelines. Key point – assessment is a college decision, not an option for the department. Assessment process is designed to encourage the establishment of educational objectives, document related processes, measure outcomes, and apply the lessons learned in a continuous improvement model. Data provided on hard and soft skills (see Steve Worth presentation) required by industry is essential to process. To validate that educational objectives are truly being met, we will look to SAB for assistance with alumni and employer surveys 3-5 years post graduation. Key challenges include clarifying program outcomes, assessing soft skills, eliciting curriculum-level recommendations from teams, and faculty participation.

Dr. Bahler provided an **update on the undergraduate program** including accolades for 2008-09 (game development concentration, re-establishment of CSC 492 Sr Design Center requirement, certificate program, keeping small-section intro courses even during tough economic times, etc.), as well as plans to hire CSC's 1st Teaching Assistant Professor, and proposal to establish the NCSU Entrepreneurial Initiative. Much time was spent discussing the curriculum, and proposed modifications to help align more

with industry needs. One fundamental curriculum design philosophy that was well received by SAB members – to prepare students with an ability to teach themselves things, on their own.

Ken Tate provided an **External Relations update** including the completion of the Achieve Campaign (\$1.4B for NC State, >\$50M for CSC), impact of recession (>70% of endowments underwater, increased focus on long-range planned giving, tight job market), outreach initiatives (Xtreme Beginnings, STARS, supplemental recruitment efforts to CoE Admissions, etc.), and PR / branding efforts (new and targeted collateral). Four new endowments were launched during the year including two with direct ties to SAB members: the Carol Miller Student Leadership Endowment launched with a \$25K matching pledge challenge from Jay Strickland, and the Mark and Robin Wyatt Scholarship Endowment announced as part of a significant estate gift plan by Mark Wyatt valued at over \$500K!

During lunch sponsored by **Thomson Reuters**, Stephanie Hlavin of Creative Services gave a dynamic and interactive multi-media presentation on the University's **"Red Means Go" campaign**.

Afternoon session started with an interactive presentation from Creative Services on the work they are doing with Ken to design a **comprehensive multi-media student recruitment strategy**. They shared samples of some of the preliminary collateral pieces, and led the members in an engaging exchange of ideas and feedback. Of particular importance was feedback to a) drop the binary code imagery (sends wrong "coder" message), b) if students are to be shown, use group shots rather than individuals (nothing is accomplished as individuals – everything is team or group work), and c) graphics and photos should depict "end applications" and help answer the question "what do computer science grads do?" (like a picture of a baby in neo-intensive care with a tagline that says "computer science will help this baby grow to a ripe old age of 90+"). Board members offered to stay involved with this project, perhaps as a focus group, to give continued feedback as the strategy and collateral take shape.

Steve Worth led a discussion about the data he collected in the **SAB Membership Skills Survey**. 48% of the surveys were collected, and he summarized feedback on the hard and soft skills that members feel are critical to their industries. General agreement voiced on the fact that it was more important that graduates learn how to learn new skills rather than having to learn a particular hard skill. However, department leadership agreed that having such an inventory that the board can own and update annually would be extremely valuable to their ongoing strategic planning and assessment efforts. Specific industry trends identified and discussed included:

- Virtualization
- Architectures:
 - Cloud computing
 - o SAAS
- Software Engineering in a defensive nature, including security test methods
- Medical data inter-exchange format
- Better understanding of usability issues:
- Double majors, or a CSC Major with a minor in another subject area:
 - Eco-Sciences
 - Psychology
 - o Biomedical
- Open Source

Suggestion made and supported to open the survey up to all the department's corporate partners. Steve agreed to continue to refine the tool based on the input he received. Approval voiced for continuing dialogue on this subject, perhaps as a focus group.

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

- Outgoing members Ken Hibbard & Bill Riddick were recognized for their service.
- Eric Wagner was nominated and approved as the Vice Chair for 2010 (and Chair for 2011)
- Ken reported that the Diversity in Computer Science endowment is below water due to the recession, and will provide zero yield to award in the 2009-10 academic year. Recommendation

made and approved that any cash awards made to the fund be awarded to student(s) as scholarship funds.

- 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 (see below).
- Board recommended three distinct focus groups be formed for the 2009-2010 academic year:
 - 1. Student Recruitment Strategy / Communication Plan
 - 2. Expected Skill Set / Inventory of CSC Graduates
 - Linkage to NC K-12 program to encourage interest in computer science as a career direction

ACTION – Board members interested in participating on one of the focus groups are asked to let Mark Wyatt or Ken Tate know by the end of April.

SAB Objectives 2009-2012 - Draft based on suggestions during meeting.

- Expand scope of board membership and/or engagement to include additional representatives
 from other related communities of interest (higher education, state government, department of
 commerce, international, Math & Science School, etc.).
- Establish dedicated focus groups to address strategic interests, as defined by the board and department leadership.
- Formalize process and mechanism for capturing and reporting Annual Skills Inventory (both hard & soft), to include input from all department corporate partners.
- 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 lease 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.