Supercomputing Challenge Board of Directors
Meeting Minutes October 30th, 2012
Abba Technologies, Albuquerque

1. 10:13 AM - Call to Order

2. 10:14 AM - Quorum Board Members Present (11):

Ed Angel	_____ (in Massachusetts)
Bill Blackler	Present
Bob Bolz	Present
Tom Bowles	_____ (in Canada)
Ron Davis	Present (Abba is our kind host)
Celia Einhorn	Present
Betsy Frederick	_____ (on travel)
Tony Giancola	On Phone
David Kratzer	Present
Irene Lee	Present
Lorie Liebrock	_____
Richard Oliver	On Phone
Bob Robey	Present
David Rogers	Present
Tim Thomas	Present

Others Present:

Patty Meyer: retired teacher; masters in audiology, teaching certificate; acting as a photo manager intern; has worked with GUTS as a regional facilitator; working with the Challenge; solders; learned NetLogo…

3. 10:15 AM - Approval of Agenda

4. 10:29 AM - Approval of Previous Minutes

Correction Concerning:
 "6. Recent Activity and News - STI Report
 d)   Linda Holm interacted every day and seemed pleased."

Nobody recognized the name 'Linda Holm'; it could have been
Amy Shendell (our Google lady) or Lydia Tapia.

5. 10:39 AM - Treasurer's report

a) Many thanks to Betsy Frederick, "who has put a million hours into this."
b) Have not yet received financial statements from Gary. We are supposed to get them three times per year, per the contract, not quarterly.   There was a concern that this was not standard; should we change the contract?
c) Started the fiscal year on July 1 with $63,421.40 in the checkbook. As of 9/30/12, checkbook balance was $57,316.05.
d) We received $16,400: $13,000 from SFI for STI, who got it from Google for 'CS for HS'; $1000 back from CNM (two of our scholarship people, from SEPI, won but did not go to CNM.) $1000 from Tony Giancola.
e) Not much from registration fees in this deposit. Our overall income from registration was about $6000. We have to go after the other $4000. (We just got a check from Sandia Prep from last year.)
f) The KO bills have cleared, except for one outstanding check, which went out last Monday, for $4153 for Saturday lunch, Friday dinner, Wi-Fi and the use of Fidel.
g) Overall, the KO cost about $37,000; we budgeted $40,000.
h) All the details are not in yet, but the rooms were about $15,000, paid for by HPC-3 at LANL. Meals were about $11,000. Tech paid for Saturday lunch and dinner, about $7,000. We ended up paying about $3500 for the box lunch and for the Friday dinner about $600 for all the staff at the cafeteria. Saturday lunch was $3400, Saturday dinner was $3500, Sunday lunch $3500. Tech paid for Saturday lunch and Saturday dinner (might have been two departments.) So, we ended up with $4,153 out of pocket expenses.
i) It was $523 for the use of the Macy Facility on Saturday for the keynote (a great experience; much improved over past). This was quite cheap; well negotiated. Originally they wanted us to eat there, which would have cost an extra $800 Saturday night: $500 for the upper stairwell, $300 for the patio… plus a $100 cleaning fee. The bills for using the facility would have been $2600, not counting the food. Fidel's ballroom would have cost $720/day for the ballroom, but Tech (Melissa Jaramillo) in-kinded this.
j) Other things: $6,100 tee shirts and bags (saved $1,000 on that this year.) Jump drives: $3,000. Final reports, which were done by the PED, would have cost $1,500 if we had done them ourselves.
k) We budgeted $40K, but that was not all from our checkbook; some was in-kind, so it is difficult to know what effect that has had on our accounts at this point.
l) We were expecting tech to only pick up one meal; we were happy that they picked up two.
m) There is significant in-kind contribution; over 100 people on the nametag list (including some spouses and kids.)
n) Budget meeting took place at the end of August. Irene: Received the draft from Betsy and made some minor changes. Proposed budget 2012-2013 was prepared to make the pitch to SNL.
o) It's almost balanced; Betsy had a few notes; in the spring of 2012, the Challenge had to draw $30,000 from the $100,000 savings account to cover the fees for its consultants. This shortfall was due to funding expectations not being met. This is shortfall is expected to happen again this year, so the fees for lead consultants will have to be reduced from $72,000 to $60,000; i.e., by a fifth (not a third, as stated.) Outreach consultant fees from $20,000 to $10,000 and awards and prizes at the expo have been reduced from $4,000 to $2,000 to make the budget work.
p) Current version needs to get all these numbers consistent. Only thing left is to reduce the lead consultant amount, which Irene is loath to do. We're currently out of balance in this

budget (w.r.t. the checking account) – expenses are over - by $15,660.00. There was a 'misc.' item for $900. This was not taken from either source, so we are not sure what this is.

q) So… two options for the full salaries:
   1. Take the money out of savings;
   2. Take it out of the budget.

r) It was decided to leave the deficit indicated in the budget, for the conversation with Sandia. A copy will be circulated in the DropBox area. Mike is going to lead the SNL meeting, which has not yet been scheduled. David Rogers doesn't need any more materials or support in preparation for the meeting.

s) **ACTION ITEM** (repeat from last meeting): need to get the budget to reflect the actuals.

t) This budget has both actuals and in-kind. In-kind is a strange category: a donation that does not hit the 'Challenge gross'… it's not really in-kind, it's cash. Some other term would be useful; some suggestions were 'other account', 'petty cash', 'supplementary', and 'outside funding'.

u) On the income side, it's broken down by all the sources… that is where we captured that: in the income/expense documents.

v) There is no formal treasurer's report to approve, so nothing was approved. We only went over what we know.

6. 10:59 AM - In-kind form

a) Some have asked if they should enter only the time during which classes were taught: No, if you are there for the entire weekend, you were talking to people, etc… so count all that time.

b) There were over 100 people helping out. At 20 hours per… "a lot more than is documented."

c) It might be worthwhile to call people. Do we have all the contact info in a database? How important is this for anyone (e.g., the labs) to see? Some thought so, but this information is not needed for Federal 990 form.

d) The web site appears to be working now.

7. 11:02 AM - Recent Activity and News

Maker Fair

a) Celia: Q-lab is the Makers in Albuquerque. Celia and David Rogers were with them in the Q-lab tent. The Challenge lent Q-lab power strips and extension cords.

b) It got the ball rolling; kids loved it; one of the teachers (Creighton) was there with robotics.

c) Julie Cervantes is working with the fractal foundation; her son Bishop is a natural programmer; got him connected to Carl and GUTS; talked Scratch, star and NetLogo. Lots of parent interest; it was good to be there.

d) Q-lab came to the kick-off.

e) There are two events that happen that are quick activities; there is a Q-lab sub-cultural element: Sprout: you give a five-minute talk, then there is a fund-raising event; they vote to fund some of the project ideas.

f) Sending a Challenge kid (with a simulation) would be great.

g) This thing is going to grow. David will bring this up again next year.

h) It was hot, it was fun, and it was great for connections.

i) Next Maker Fair is in May 2013.

j) **ACTION ITEM**: emails about this will be forwarded to the entire Board.

KickOff

a) More eyes on the schedule would be good, as it is overwhelming. Even so, the quality of the schedule was better than in previous years.
b) The Board would like to thank Drew Einhorn for the 100+ hours he spent putting together the schedule
c) **FUTURE ACTION ITEM**: We want to have a meeting in early September to get on top of it next year.
d) Two or three helpers for each class was great; and it's Professional Development for us.
e) The taping only worked for two talks, and the results were not really ready for teaching; there is a bunch of video, but it is not ready for prime time. Drew would like to create a Moodle class of everything we do. That said, it should be kept in mind that we are not a Khan Academy.
f) What is the video for? E.g., Four Corners schools could not come, so it would be nice for them to be able to attend after the fact.
g) To do this correctly is a major undertaking; preparation, rehearsal, coordination with PowerPoint content. There are issues with public distribution.
h) Adobe Connect will allow you to collect, edit, etc… but again this is a major undertaking. Also, Adobe connect is expensive. We would need to get a gift from NMSU, for example.
i) There exists the ability to "merge Audacity (audio) and PowerPoint" to get (at least) a talking PowerPoint, if not a talking head. There are editing issues when one needs to keep audio and video in sync. There is "narrated PowerPoint", which associates voice with a slide.
j) What is the purpose of the video (versus the audio) for the kids?
k) There are also larger implications for the franchising aspect of the business model.
l) It would be interesting to have a vote to see which classes might get this special attention.
m) While it may seem important to be able to see a face for the issue of community, research shows that the talking head does not add much to the narrated PowerPoint. Rather, community building happens during an initial meeting with the speaker (even if virtual; e.g., Google hangout)… *then* sending the students off to watch the lecture will be more effective / useful.
n) The open-source software 'Canvas' use at NMSU (similar to the LMS, Moodle)… the business model for Canvas also merges well with the Challenge. A small box can act as a
o) Google is also putting out an open-source course framework.
p) **ACTION ITEM**: It was proposed to take this discussion offline – to a committee, to be chaired by Richard.

NM TIE

a) On Wednesday, 10/24, Tim Thomas and last year's Challenge winner Cole Kendrick set up a Challenge table at the NM Technology In Education (TIE) Conference at Buffalo Thunder.
b) Cole was dropped off by his parents, Brian and Laura. He set up his poster and started a movie loop of his galaxy dynamics. Quite a few people stopped by to talk to him.
c) Challenge co-founder Tom Thornhill showed up and wished us luck.
d) Bob Tacker, one of the founders of CHECS, stopped by.
e) Rajash Shindi, a parent with a student formerly in the challenge, stopped by. She has a sixth-grade daughter in Las Cruces's Sierra Middle School and wanted her student to get into the Challenge this year, even though they were not able to attend the Kickoff.

f) Marc Gilbertson, a teacher with Lamoille Union High School in Vermont stopped by, interested in our model.

g) Tim had a long chat with Ferdi Serum, NM Society for Technology in Education (NM STE), who also promoted the table and the Challenge heavily in the hallways of the Conference.

h) Another visitor was Luis Pena, associated with the Espanola Public School District. They have been in and out of the Challenge over time. Espanola had the first place student in the Challenge's second year. At the moment, we don't have the volunteers needed in that school district.

i) Lynn Lane from San Juan College stopped by; Tim went over the Challenge overview PowerPoint slides with her; she was interested in how many schools are involved.

j) Mel Lee stopped by.

k) Pam Mirano from Aquila stopped by.

l) Tim handed out Challenge contact information and other material to all these people.

m) Cole had a blast. We should always have a student there.

n) Tim is very interested in doing this again next year; he loves this sort of thing.

o) **ACTION ITEM**: Tim will send some photos of the table at the event to be posted on the web page.

p) It was mentioned in the meeting that Cole has requested an account on the LANL supercomputers, and has been running some big problems… and he's 14. A real Challenge success story.

Retrospective Study of the Challenge

a) Funded ($10K) by Los Alamos National Security (LANS; operators of LANL.)

b) The objective is determine the HS graduation rate of Challenge participants versus the general HS population for those same years, college attendance rates, graduation rates, % of Challenge participants who worked in STEM in the past or are currently working in STEM, etc. (See email from Irene for more details.)

c) Will generate hard data for use in soliciting more funding.

d) Going to ask the individuals if they've been to SNL, rather than asking SNL about it. (Kurt was OK with this.)

e) DBs from David, duplicates culled, tracking students and teachers. Found Facebook pages or email for 80% of them.

f) Online survey is ready to go. There is an SC Challenge Alumni site; there is a Facebook Challenge Group page; there is also a LinkedIn page.

g) Amie Zimmer, recent UNM grad, internship winner, will be working on the actual contacts. Irene will do the analysis and final reporting.

h) All within the next three months.

Follow-on to NSF-funded Computational Thinking in America's Workplaces Project

a) Follow-up to an earlier program NSF-funded program from last year; takes outputs of the previous project.

b) Bob Robey is representing the Challenge, participating in the next phase, which is a CT STEM professional workshop.

c) Matrix of tasks and responsibilities of a computational thinking / STEM worker; what computational scientists use in their work on daily basis.

d) Gave a panel at SC11 on the topic with representation from SNL (Nadine Miner) and LANL; Lori L. was also there.
e) This new workshop goes out to Intel and to universities (UNM, CNM, Navajo Technical College…) to ask what is offered in this realm.

Celia and Patty's Math STEM Partnership Action Summit

a) Two-day workshop, 11/8-9 in Santa Fe.
b) 15 people from the Challenge are going: 10 high school kids, 2 college kids (both from NMT), 2 teachers, Patty and Celia.
c) Motivation: the Math & Science Advisor Committee (MSAC) to the PED has not, in many people's opinion, open enough to computational thinking and computer science, despite - e.g. - Kristen Umland's (UNM Math and Stats Prof.; also on common core standards) involvement with teaching computational thinking with GUTS y Girls. The MSAC appears to have a rather narrow 'STEM' focus… on (basic) math; the rest is 'just technology'. Engineering - and computing science - students are therefore not motivated. The students need a larger picture: what is it used for?
d) Patty and Celia think it more effective to work though kids and parents.
e) Northern NM College is a positive partner; many engineers. "They get it."
f) Celia has put a lot of time into this, contacting administrators, parents, etc.

New Mexico Computer Science for All

a) A newly-funded NSF program; a partnership between the Challenge, SFI, and UNM.
b) $1M over three years. Irene is the PI, Ed Angel, David Ackley (UNM), Joel Castellano are co-PIs/investigators. Funded for two cohorts years, 2013 and 2014, 30 teachers each. They also want 30 in the control group for each cohort. Teachers are coming from all over New Mexico.
c) Comprehensive year-long teacher professional development training program in computer science at the CS390/590 level; online course (lab and lectures), a practicum.
d) An effort to reinstate computer science in high schools. Follows on a model called 'CS Principles', proposed to be the new college board AP CS program, coming prior to AP CS A (currently a Java course); so it's broader.
e) At the student level, it's a hybrid flipped classroom model; in the lectures, they are doing more programming work with their teacher as the learning coach. This is a UNM course; Ed A. is the instructor of record. 600 students per year.
f) Teachers go on in the fall to offer a computer science course in their local high schools that is dual-credit (equivalent to UNM CS/108 level); the State pays for a college credit course for HS students.
g) There are quarterly workshops, both face-to-face and online.
h) In January, there's a two-day KO conference, face-to-face: NetLogo is introduced; talk about recruitment and retention of under-represented students in computer science.
i) Students take course from Jan – May 2013; regional facilitators will work with students who need help.
j) Summer one-week PD workshop in Socorro, joint with STI, to work on computer science pageboy best practices.
k) Teachers get a certificate of completion if they finish the CS390 (undergraduate) level; if they do it at the 590 level, they get graduate credit.

l) They are currently finalizing curricula; they are using elements from Berkeley's 'Beauty and Joy of Computing' model; working with PED to update a course description.

m) It's intense, so you only get people who are seriously interested.

n) Great preparation for kids to do their Challenge projects.

11:55 AM - LUNCH BREAK.

8. 12:03 - Board Membership Issues: Additions and Resignations

a) Irene is experiencing stress being Challenge President, both in terms of workload and in terms of conflicts of interest.

b) In the Board's opinion, Irene continues to do an excellent job of leading and representing the Challenge, leveraging the synergies in the environment while carefully and conscientiously avoiding conflicts of interest.

c) We need to solicit nominations for all the officers.

d) We would like to continue to have balanced representation on the board: more woman/minorities, more people with connections to industry and to funding. While more scientists are needed in the country, more are not needed on the Board.

9. 12:12 PM - 2012-2013 Sponsors

a) We are updating the list of sponsors; went down the list and discussed various ones.

b) $50K is a ballpark figure for vendor partners.

c) Education partners; no ballpark figure.

d) Irene is meeting with Intel on 12 Nov.

10. 12:26 PM – Fund-raising Committee report

a) Tomorrow we are putting in a Google Rise grant. Betsy, when she gets back home, will be working on the draft for this.

b) Jordan Medlock's mom would like to head a parent group.

c) Bill B. and Bob B. are working on a letter soliciting support for scholarships and operational funds. They are still working on technical matters such as re-designing the letterhead, etc. They are using 9pt font to try to stuff everything in. Draft readers' eyes are hurting.

d) Bob has a matrix of people to send this to. Drew also has a database of people. Celia, Dylan, others are making calls; let her know if you want to be involved.

e) **ACTION ITEM**: Celia et al will spruce up the letter and then send it to Bob B. for final processing and distribution.

11. 12:33 PM – Other topics:

<u>Papers</u>:

    a) Bob is working with others to get a paper out.
    b) David R. would like to get more hard data, out of which we can get another paper.

<u>Big change in patent law</u>: "first to file"

    c) Want to reinvigorate our patent fund.
    d) We may want to patent or copyright content, including stuff on the web page.
    e) Related: we should talk about the hosting of the web pages. Having them at LANL creates restrictions. There is also frustration with the email. We should look at UNM, Google (Google Apps for non-profits), maybe others. (Problem with Google Apps… you can get something up quickly, but it's not "modern".)

12. 12:42 PM - Motion for adjourn

President _____ Secretary _____