

## **Evaluation of the North Dakota Cyberinfrastructure Days for Tribal Colleges & Universities**

Held on April 16-17, 2009

Summary by Julie Foertsch, Leading Edge Evaluation & Consulting

The Minority Serving Institutions Cyberinfrastructure Empowerment Coalition (MSI-CIEC) held its fifth Cyberinfrastructure Day event for Minority Serving Institutions (MSIs) on April 16-17, 2009 at United Tribes Technical College in Bismarck, ND. On the morning of the 16th, technical experts from MSI-CIEC performed the usual campus assessment of the hosting institution's network & computer infrastructure and security, IT support and administrative staff, IT training, and development projects. Later that afternoon, MSI-CIEC representatives met with the presidents, CIOs, and other administrators of IT staff of the region's tribal colleges (with some joining online via Adobe Connect) for a special session focusing on campus infrastructure and executive awareness. Then on the 17<sup>th</sup>, a day-long Cyberinfrastructure Day was held for all interested faculty and IT staff of the nearby tribal colleges, the goals of which were to : (1) provide an overview of cyberinfrastructure developments in education and research relevant to tribal colleges, (2) create networking opportunities with national cyberinfrastructure organizations and experts, and (3) conduct a facilitated discussion about the American Recovery and Reinvestment Act and other opportunities for tribal colleges to obtain funding for CI infrastructure development.

The 16 participants in the executive session on the 16th included the presidents of Sitting Bull and Turtle Mountain Tribal Colleges, 8 administrators and IT staff from those colleges and Cankdeska Cikana Community College and United Tribes Technical College, the VP for IT of North Dakota State, the president of the ND Association of Telecommunications Cooperatives, and 4 MSI-CIEC representatives. The 25 participants in Friday's CI Day sessions included the president of Sitting Bull TC, 11 faculty, administrators and IT staff from the tribal colleges already mentioned plus Sisseton Wahpeton College, 3 staff from ND State and one from the UND, 5 MSI-CIEC representatives and an additional 3 invited presenters. In order to measure the initial impact of the event and participants' interest in follow-up activities, CI Day attendees who were not MSI-CIEC representatives or invited presenters were asked to complete a 2-page survey about the event and their CI interests. Eight of those attendees replied to the survey, for a response rate of 50%. In addition, we received a survey response from one president who attended the executive session the day before which did not include feedback on Friday's sessions. This report summarizes the feedback we received from those surveys.

### 1. Respondents' background and the overall impact of CI Day on their CI awareness and interest:

The 9 respondents to the ND CI Day survey included two IT directors, an "IR Manager," two IT instructors, an information technology department chair, a web developer, a majority institution's tribal college liaison, and a college president. Survey respondents were asked, "After attending this event, which statement best describes your position on the relevance of cyberinfrastructure to the work/teaching/research that *you* do?" The responses are seen below, followed by the number of points on a 4-point rating scale that each was assigned:

0%(0) = I cannot see how it will ever be relevant. (0 pts)

0%(0) = It doesn't seem relevant now, but it might be in the future. (1 pt)

14%(3) = I can see some relevance, but don't have the time/resources to pursue it. (2 pts)

71.4%(6) = I can see a lot of relevance and am willing to work with others on finding resources or developing applications. (3 pts)

average = 2.67

There were two comments appended to these responses:

- As a teaching tool, there are some good/relevant ties to the information presented, but that doesn't appear to be the major focus. Otherwise, it is a bit of cart before the horse. What is our purpose? What is our research project? (When this is identified and funded, relevance will be much greater.) It would also be great to assess what our infrastructure should be. Good from a grant proposal standpoint—a number of possible projects or strategies came to mind.
- I came to understand cyberinfrastructure as the integration of computer hardware and software to enhance, create, disseminate and preserve scientific data. These systems depend on technology professionals and technicians to keep it operational. Research applications are enhanced through development of the cyberinfrastructure of tribal colleges.

## 2. Responses to particular CI Day sessions:

For each of the CI Day sessions that occurred that Friday, survey respondents were asked to indicate whether they attended, found it interesting, wanted to know more about that topic, or wanted to collaborate with others on that topic. Table 1 shows how the 8 survey respondents who were present on Friday responded to each session.

**Table 1:** The percentage and number of 8 respondents who attended the CI sessions on Friday April 17<sup>th</sup>, the *percentage of those attendees* who found that session helpful, and the percentage of *those attendees* who wanted to know more or get involved.

UTPA CI Day Sessions	I attended this % (n) of 8	I found helpful % of n	I want to know more % of n	I want to get involved ASAP % of n
Geoffrey Fox's keynote speech giving an overview of CI	75% (6)	83% (5)	33% (2)	17% (1)
Earl Dodd's Cyberinfrastructure & Economic Development in Indian Country: Rocky Mountain Supercomputing Center	100% (8)	75% (6)	38% (3)	13% (1)
Mohan Ramamurthy on Unidata & using real-time weather data in classrooms	100% (8)	88% (7)	25% (2)	0% (0)
Diane Baxter on K-20 Computational Science & Education at SDSC	100% (8)	50% (4)	50% (4)	13% (1)
Russ Hobby on Internet 2	88% (7)	71% (5)	71% (5)	43% (3)
Diane Baxter on TeraGrid	88% (7)	71% (5)	71% (5)	29% (2)
Brian Wee's National Ecological Observatory Network: Opportunities for TCU Involvement	100% (8)	63% (5)	25% (2)	13% (1)
Panel Discussion on North Dakota Research & Education Partnership Opportunities	75% (6)	50% (3)	17% (1)	0% (0)
Group Discussion on Strategic Directions: Responding to the American Recovery and Reinvestment Act	75% (6)	50% (3)	0% (0)	0% (0)

### 3. Follow-up opportunities with faculty and staff who want to know and do more in CI:

Below is the contact information and stated area of interest for the 8 attendees who responded to the question, “Of all the topics and ideas you heard about today, which are you most interested in following up on, and in what way?”:

- **Chris Baillie**, United Tribes TC, Web developer, [cbaillie@utt.edu](mailto:cbaillie@utt.edu): “TeraGrid & Supercomputing; how both are relevant to our campus.”
- **Jeff McDowell**, United Tribes TC, Computer Information Technology Dept Chair & Instructor, [jmcowell@utt.edu](mailto:jmcowell@utt.edu): “Our computer information technology program teaches students computer networking, programming, repair, and web design. I am most interested in getting our students involved with applying the skills and applications they are learning. Not just learning a process, but applying the process in a real world opportunity to expand their educational experience.”
- **Jim Davis**, Turtle Mountain CC, President, [jdavis@tm.edu](mailto:jdavis@tm.edu): “The idea that there is a good amount of money for upgrading IT and that NDSU will come in and conduct an assessment of what we have, what we need, and possible what we have but are not using it to capacity.”
- **Arjun KC**, Turtle Mountain CC, IT Director, [kcarjun@tc.edu](mailto:kcarjun@tc.edu): “Supercomputing online resources available for area of study.”
- **Scott Morgan**, Sisseton Wahpeton College, IT Director, [itdirector@swc.tc](mailto:itdirector@swc.tc) or [samorgan@swc.tc](mailto:samorgan@swc.tc): “Internet 2, and as a future project, Unidata (but would have to write a proposal for that one).”
- **Dave Mueller**, Sitting Bull College, IR Manager, [dave@sbc.edu](mailto:dave@sbc.edu): “The thing I would be most interested in is getting some organization among the IT staff in all the colleges so that we can collaborate or discuss common topics. I would be willing to host some listserv groups for the IT staff if people would be interested in that.”
- **Carol Davis**, North Dakota State, ND EPSCoR Tribal College Liaison, [cadavistmt@yahoo.com](mailto:cadavistmt@yahoo.com): “NEON has implications for tribal college student research. Thank you for inviting the Director to present.”
- **Unidentified**: “K-20 Computational Science & Education at SDSC”

### 4. Suggestions for how to improve CI Day events for the future:

Respondents were asked for “suggestions for how to make events like this more useful.” The six responses are below:

- I really liked the session being hosted as a webinar. It will allow me to watch it again when I need to reference it in the future. Also, it will allow students of mine to watch & see the future path that they will fit into.
- We need to bring [resource persons here to work?] closely with the issues we are trying to address. Plus, we probably need to spend more time on assessment to figure out what we need and what we want to do.
- What is the role of TCUs (particularly IBM presenter)? What would we do with it--and are we end-users or builders/contributers?
- Not only explain the opportunities, but get the participants involved (at the minimum with a trial experience) to create the impression “it is possible” or “we can do it.”
- Your conference structure can be used as a model. If tribal colleges are to participate in cyberinfrastructure to their full potential, depending on the individual mission and goals of the respective tribal college, a clear understanding of cyberinfrastructure is important as they create academic and research visions that interface with technology.
- A follow up would be good, and to do more sharing of how CI can benefit reservation communities. For some of our people (eg., tribal government and programs) within our community they are years behind in the latest technology.