CyberAmbassadors

Advanced Communication Skills Training for CI Professionals

Starting November 1st, 2017

Goals

- Teach communication, leadership and teamwork skills to CI Professionals
  - Face-to-face, interactive, facilitated curricula
  - Creating an environment to enable and encourage skills practice
  - Case studies
  - Role playing / rehearsal exercises
  - Small and large group activities
- Similar training is common in business settings
  - CyberAmbassadors focuses on developing professional skills in CI contexts
- Distributed network of volunteer facilitators

History and Collaborators

- Tau Beta Pi - Engineering Honor Society
- Software / Data Carpentry
- Campus Champions (XSEDE)
- Blue Waters
- CIMER and National Research Mentoring Network (NRMN)
- Local and regional universities

Example Strategy: Probing Questions

Researcher:

> “I need to scale my experiment to 1 million organisms, but now jobs don’t run on your system.”

What could be this researcher’s underlying problem?

What types of probing questions should you ask?

Example Activity: Paraphrasing

“I have a lot of data I need to process using the sanborn-stratta method, which is better than the more common FCFD approach. However, my transient error is much larger than the latent error. I think I can reduce the transient error by increasing the tallholm threshold but then the software will not run on my computer so I need access to the supercomputer.”

How do you respond?

Example Activity: Paraphrasing

“I have a lot of data I need to process using the ***sanborn-stratta*** method, which is better than the more common ***FCFD*** approach. However, my ***transient error*** is much larger than the ***latent error***. I think I can reduce the ***transient error*** by increasing the ***tallholm threshold***, but then the software will not run on my computer so I need access to the supercomputer.”

Case Study: Embarrassingly Parallel

Nan is a graduate student and has developed a software program to analyze experimental data; the program is slow and inefficient, but produces the correct results. Nan has a new data set and needs to process it quickly to meet a submission deadline, so goes to the HPC center to use the supercomputers. Jamie is a CI consultant for the HPC and after a quick code review can see that Nan’s program is too inefficient to get the results by the deadline using the standard CPU allocation. Jamie tells Nan that the code is “embarrassingly parallel” and needs to be re-written more efficiently. Nan becomes very upset.

Possible Discussions / Activities

- How can Jamie discuss concerns about the program’s efficiency without using CI “jargon” like “embarrassingly parallel”?
- What other terms could be used? How does the word choice impact the tone of the conversation?
- What if Nan resists changing the program because that risks changing the results?
- How would the situation change if Nan’s faculty mentor came and demanded (loudly!) that Jamie allocate the necessary resources to process the data now?

Timeline

- Year 1 - Curriculum development
  - SC17 Denver - BOF, getting stories from the community
  - PEARC18 - Tutorial?
- Year 2 - Curriculum testing and refinement
- Year 3 - Train the Trainers

We need your help

- Community engagement
- Student guinea pigs
- Email me your stories to turn into case studies
- Join us at SC17

Questions???

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Please Share Case Studies:
http://tinyurl.com/myCIstory