CyberAmbassadors

Advanced Communication Skills Training
for CI Professionals

http://colbrydi.github.io/cyberambassadors

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
  - **Open Source** curriculum
  - Train the Trainers curriculum

CyberAmbassadors

Timeline

- Year 1 (2017-2018) - Curriculum development
  - ACI-REF virtual Residency
  - Local pilot workshops
  - Tau Beta Pi – Engineering Honor's Society
- Year 2 (2018-2019) - Curriculum testing and refinement
  - Call for site volunteers
- Year 3 (2019-2020) - Train the Trainers

Research

- Formal validation of professional skills training in the CI context.
- Exploring in-person, on-line and hybrid models of professional skills training.
- Developing Train-the-Trainer curricula that will be appropriate in many different context.

Curriculum

- •Communications
- •Teamwork
- •Leadership

In the context of CI Research Facilitation

Complex Conversations: Roles, Definitions and Tools

Speaker
- Initiates or leads the conversation
- Goal is to communicate the CI problem
- May be a CI user, professional, etc.

Speaker's Tools
- Reducing Jargon
- Using Good Analogies
- Checking for Understanding

Listener
- Listens to the speaker
- Goal is to understand the CI problem
- May be a CI user, professional, etc.

Listener's Tools
- Reflective / Active Listening
- Paraphrasing
- Asking Clarifying Questions

CI Professional (Speaker) – Hardware Refresh

- You have a distinguished professor running on a older system that needs to be retired. The system requires a ton of system administrator time to keep running, uses old and out of date software and takes up space/power/resources needed for newer systems in the data center. Unfortunately, what you know of the professor's code is that there is a justifiable concern that the new operating system, compiler and support libraries will introduce bugs that may be non-trivial to fix.

- **You set up a meeting with the professor to explain the problem. Explain the situation to the professor about why the older systems must be retired, and get the professor to agree to move their research to the new hardware.**

- Remember to avoid jargon, use analogies when appropriate and check for understanding.

Actor (Listener) – Hardware Refresh

- You are a distinguished professor whose research relies on a system that was purchased 7 years ago. You know that the HPC policy is to retire systems that are older than 5 years and you suspect that this is why **you've been called in to meet with the CI-Professional.**
- The students that wrote the code are long graduated and you know from prior experience upgrades to things like a new operating system, compiler and support libraries will introduce bugs to your code that are non-trivial to fix.
- Although you have the resources to hire a programmer to refresh your code the time and effort required to move to new hardware will disrupt your research workflow.
- **You go into the meeting with the plan to actively resist the upgrade and try to keep your existing system running.**
- Act as if you do not understand any "Computer Jargon"
- **You will agree to comply with the CI-Professional's request that you move to new hardware ONLY AFTER** the CI-professional has asked about your <u>**timeline**</u> to complete the project.

Coach – Hardware Refresh

As the coach your job is to listen to both the speaker and listener to see if they use the techniques:

- Reducing Jargon
- Using good analogies
- Checking for understanding

If things get stuck, suggest that the speaker use one of the techniques.

Keep notes of when techniques are used (or not!) and whether they are effective. Your goal at the end is to give feedback to both the speaker and listener about what went well and what could be improved. Specifically, make note any jargon that is used and point it out with your feedback.

Next Steps

- Searching for **Practice** Sites
  - Your institution's location (and closest major airport)
  - Target date(s)
  - Target workshop duration (between 2 and 16 hours, in 2-hour increments)
  - Target audience (Graduate Students, CI Professionals, Research Facilitators, etc.)
  - Expected participation (ideally between 15 and 30 participants)
  - Desired training focus (Communications, Teamwork and/or Leadership).
- Developing **Open-Source** Curriculum Distribution System
- Drafting **Train-the-trainers**

Questions?