CyberAmbassadors / First Contact

Communication, Team and Leadership Skills Training

Virtual Residency Introductory/Intermediate Workshop 2019, Norman OK

http://colbrydi.github.io/cyberambassadors

Today's Agenda

- Introduction to the CyberAmbassador Program
- Introduce the First Contact Module

CyberAmbassador Project



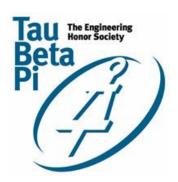
- NSF training grant
 - Provide professional skills training to cyber infrastructure (CI) professionals
 - Focus on communication, teamwork, leadership
 - Overarching goal to support interdisciplinary research



http://colbrydi.github.io/cyberambassadors























Research **SOC**







Extreme Science and Engineering Discovery Environment

Timeline for the CyberAmbassadors Program

Year 1:

- Adapt/Develop Communication, Leadership and Teamwork Curriculum
- Start developing Community Partnerships for Professional Skills Training

Year 2 (now):

- Test, Refine and evaluate impact of the curriculum
- Adapt/Develop/Test Professional Skills Facilitator Training

Year 3:

- Continue to refine and push to deliver curriculum to new audiences
- Solidify program infrastructure and funding to last past NSF funding

Current Curriculum

Communication

- First Contact
- Complex Conversations
- Communicating a Problem
- Effective Presentation Skills

Teamwork and Leadership

- Effective Meeting Management
- Problem Solving and Decision Making in a Group
- Roles, Responsibilities and Leadership Styles

• Ethics and Diversity

Current Curriculum

Communication

- First Contact
- Complex Conversations
- Communicating a Problem
- Effective Presentation Skills

Teamwork and Leadership

- Effective Meeting Management
- Problem Solving and Decision Making in a Group
- Roles, Responsibilities and Leadership Styles

• Ethics and Diversity

Cyber Ambassadors at 2019 Virtual Residency

(now) Tue June 4 10:45am-noon CT:

"Introduction to the CyberAmbassadors Program"

(tomorrow) Wed June 5 1:30-2:45pm CT:

"CyberAmbassadors: Communicating a Problem"

(Thursday) Thu June 6 9:00-10:15am CT:

"CyberAmbassadors: Problem Solving and Decision Making in a Group"

CyberAmbassadors Fellows Program

Training. CyberAmbassador Fellows must attend (in person) the training workshop at Michigan State University **July 18-19, 2019**. There is no cost to participate, and travel expenses will be reimbursed (note that a valid Social Security number is required in order to receive reimbursements).

Facilitating. CyberAmbassador Fellows agree to schedule, organize and facilitate a minimum of 4 hours of training using the CyberAmbassador curriculum and feedback mechanisms within the fellowship year.

Come join us as a FOUNDING FELLOW!!

Effective Communication...

- ...occurs when information is both shared and understood
- ...builds trust and fosters relationships
- ...helps the speaker communicate needs and goals
- ...helps the listener understand and participate in solutions

Improving Communication Skills

- Communication is a major topic of research
 - Effective communication skills can be taught!
 - There are tools (algorithms) that apply across many scenarios
 - Role playing / rehearsal activities are effective learning tools
 - Practice is most effective in context

EXAMPLE (from last year)

CI-Professional (Listener) – GPUs are the BEST!

A Post Doc has stopped by your office hours with a problem. You have never met this
person before and have no idea about their research needs.

Actor (Speaker) – GPUs are the BEST!

- You are a Post Doc trying analyze some data. Your PI told you that GPUs are the solution, so you're going to the HPC to ask for resources to learn how to use GPUs.
- You're an inexperienced programmer and don't know anything about GPUs, or about parallel programming in general. The code you have written is in MATLAB and is slow because it's poorly written. A good code review with an experienced programmer will likely speed up your code 100 fold (more than enough for your needs). The only reason you are asking about GPUs is that you've been told they are the answer to make your code run faster.
- Say the following to start the conversation, "My bioinformatics analysis is running too slow. I have talked the problem over with PI and I need to figure out how to run my code on GPUs. Where is the best place to learn about GPU programming?"
- Agree and accept any technical answer the speaker gives to you.
- If asked clarifying questions, try directing the listener to a solution that involves reviewing/fixing your code first, before you go off and learn about GPUs.

Coach – GPUs are the BEST!

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

- Reflective Listening
- Paraphrasing
- Asking Clarifying Questions

If things get stuck, suggest that the listener 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.

Zoom Logistics

For the activities, we are going to use Zoom breakout "rooms" to divide participants into groups of 3 to 4 people.

If you are <u>unable or unwilling</u> to participate in these small group discussions, please change your Zoom login name to include "**ZZ**" at the beginning of your name. (For example, my login is "ZZ Dirk Colbry (MSU)".)

We will sort participants prior to the breakout activity and exclude those with the "ZZ" tag.

First Contact



Communicating with Purpose in New Situations

Learning Goals

- Recognize the parameters of "First Contact"
- Describe the challenge of balancing independence and involvement
- Model effective communication skills for First Contact
- Explain the role and value of stories during First Contact

What is First Contact?

- Communication with a purpose

 - What can I contribute?
 - What are the opportunities?

- A "New" interaction involving at least 2 of the following
 - New People
 - New Ideas
 - New Resources
 - New Contexts

PEOPLE

- Meeting someone new
- Renewing an acquaintance
- Making introductions

IDEAS

- Sharing successes
- Discussing challenges
- Exploring shared interests



RESOURCES

- Information
- Materials
- Processes

CONTEXTS

- Elevator pitch
- Professional events
- Social occasions

Examples of First Contact

- Meeting someone at a social event and discovering shared research interests
- Attending a conference presentation and talking with the speaker about the connection between their results and your work
- Getting onto an elevator with the Dean and being asked what you study
- Talk with the statistics consultants about how best to analyze and interpret your results
- Meeting with a sales representative to discuss samples of new materials
- Someone you don't know comes to you because of your technical expertise



- Building relationships can benefit you
 - Owner of the owner own
 - What opportunities are available?

(70% of job openings are filled by networking [1])

- Building relationships can benefit others
 - O What can I contribute?
 - What do I know, that is of value to others?

First Contact: Networking

Elevator Speech Social Events Conferences

Why is Networking Difficult?

Schopenhauer's Dilemma (the Porcupine Problem)

Porcupines huddle together for warmth,
 but move apart because their quills are sharp

 Likewise, humans need community, but we also crave independence



Independence

- Formal
- Impersonal
- Don't Impose



First Contact

- Interested
- Exploration
- Follow Up



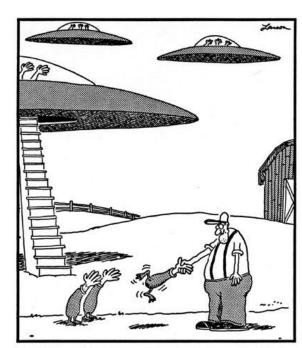
Involvement

- Friendly
- Engaged
- Mutual Support

Independence vs. Involvement

- Individual variations
 - Extroverted vs. introverted
 - Levels of experience and expertise
 - Language(s) and discipline(s)

- Cultural and societal variations
 - Power structures
 - Values and memes (cultural "genes")
 - Perceptions of race, religion, age, gender, education, socioeconomic class, etc.



Inadvertently, Roy dooms the entire earth to annihilation when, in an attempt to be friendly, he seizes their leader by the head and shakes vigorously.

Communication Strategies for Networking

- Be Sincere, Respectful and Curious
 - Embrace First Contact as an opportunity for genuine connection
 - Be yourself while maintaining empathy for others' experiences and perspectives
 - Listen actively, for both words and tone
 - Be alert for signs of disengagement, and allow the interaction to end gracefully as needed

- Ask GOOD Questions
 - Genuine: seek to uncover common interests and mutual benefit
 - Open: ask open-ended questions and listen actively before responding
 - Opportunity: explore possibilities, while balancing the benefits of both participants
 - Details: make a plan to follow-up as appropriate, and then be sure to follow through!

The Power of Good Stories

"The way you talk about yourself is very powerful.

Whether or not you are conscious of it,
the way you tell stories of your life frames how people see you,
and how you see yourself."

~ Penelope Trunk





My Recent CV

- 2009-2015 Research Facilitator and Director of the High Performance Computing Center at MSU (East Lansing, Michigan)
- 2015 Researcher with PixelVelocity (Ann Arbor, Michigan)
- 2015-Present Faculty in Computational Mathematics Science and Engineering (CMSE) at MSU (East Lansing, Michigan)

Think about the Content

- Personal
 - O Who are we?
 - O Where did we come from?
 - Owner our values?
 - What are our goals?

- Professional
 - O What do we do?
 - Owner or with the owner of the owner owner of the owner of the owner of the owner o
 - O How do we contribute?
 - What do we want to do next?

Think about the Context

- Professional Events
 - Conferences
 - Seminars
 - Classes
 - Research group meetings
 - "Consulting" and collaborating
- Social and Community Activities
 - Parties and gatherings
 - Shopping and services
 - School events and extracurricular activities
 - Religious and cultural celebrations

Explain it to me like I am 12.



The challenge plot: you overcame an obstacle to get to where you are

- Original: "I'm really good at customer-focused service."
- Upgrade: "I learned customer service working at an ice cream stand.
 In the summer the line was twenty people deep and it was a
 challenge to keep the customers happy."

Crafting a Memorable Story

The creativity plot: the turning point in the story is a eureka moment – when an idea comes to you and changes everything

- Original: "My business is about selling textbooks."
- Upgrade: "I had an idea to sell textbooks, but I couldn't figure out how to market them as interesting to the consumer. Then it hit me that no one has a favorite textbook, but everyone has a favorite professor. So I needed to use the professors to hook in the customers."



The connection plot: when you are telling a story about bringing a team together

- Original: "Our toy company merged with another toy company and people were duplicating each others' efforts."
- Upgrade: "After our toy company merged with a competitor, I convinced the teams to combine designs and work together. We created a doll that dominated the collectible doll market that Christmas."



Where: in what types of situations might you tell your story?

What: what are your key messages? What is most important to share?

How: practice! Aim for a natural delivery, without sounding over rehearsed.

Time: one minute or less! Your polished story should be short and memorable.

Additional Resources and Exercises

- Creating a life story "timeline"
 - https://blogs.psychcentral.com/relationships/2012/04/the-power-of-creating-a-timeline-of-your-lifes-story/

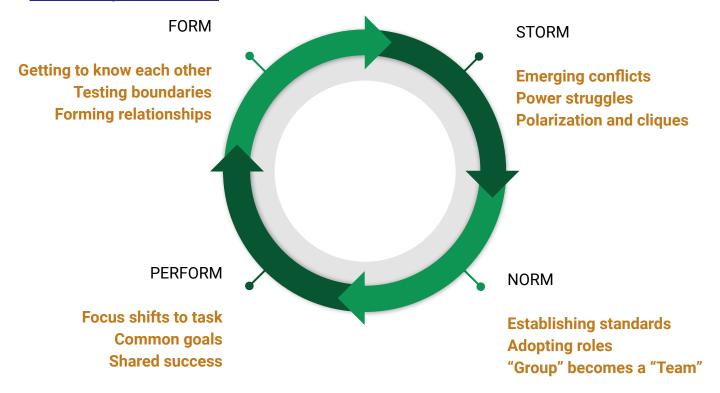
- The Seven Stories Exercise
 - https://getfive.com/blog/exercises-to-identify-the-job-of-you r-dreams-start-with-the-seven-stories-exercise/

First Contact: Teams

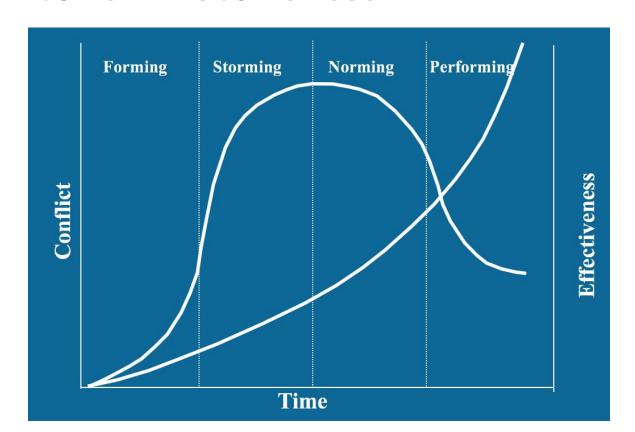
Workshops Classes Meetings

Tuckman's Team Model

Tuckman, B. W. (1965). Developmental sequence in small groups. *Psychological Bulletin, 63*(6), 384-399. http://dx.doi.org/10.1037/h0022100



Conflict vs. Effectiveness



Ice Breakers

- Help facilitate first contact in teams
- Can help get groups past the "forming" stage
- Should be selected with a purpose



Let's use the breakout rooms of 3-4 people and do a quick ice-breaker. Use the time to get to know people.

Most of us in this room use technology heavily in our day to day lives. As technology experts, we need to keep up with the constant change in hardware and software tools. Spend a few minutes thinking about a new gadget, software package or tool that you are learning (can be for work or play).

First Contact: Consulting

Intake Interviews
Office Hours
Requests for Expertise



Hi, my name is Loren. I would like to use the HPC for my academic work. How do I get started?

What questions do you ask?

(Answers after lunch)

Acknowledgements

- The CyberAmbassadors Team: Astri Briliyanti, Katy Luchini-Colbry, T.J. Nguyen, Julie Rojewski
- This material is based upon work supported by the National Science Foundation under Grant No. 1730137. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

