

- Ann: Director of CCC – background in Education & Policy
- Munmun: Computational Human CS
- Ming – CS VR, Robotics, HCI (multimodal interfaces)
- Ben – CS VR and Agents
- Noemi – NLP & machine learning
- Chris – Systems, mobile computing, sensor Engineering & CS
- Donna - Psychology



CCC

Computing Community Consortium
Catalyst

WHY ARE YOU HERE?

- Research is siloed – most progress is when we collaborate
 - Need all the experts i.e. medical – conferences too focused, people need to publish in their own venues for tenure – crossing boundaries comes late in career
 - Science is better with collab
- SCH are multidimensional – collaborations are essential – only get that in these workshops. End to end – measurement to treatment – different points where we need domain expertise and domain knowledge
 - Challenge: Finding common ground, don't speak the same language, different mental models to get at same question (or is it the same?) How to achieve common ground and identify discipline specific blind spots
 - Data sharing, reproducibility of methods
 - Mutual incentives and mutual rewards – one discipline is not a service discipline
 - At the same time you have to accept that you aren't doing work that is totally exciting, but it is in service of the greater good.
 - How to train the next generation of researchers.



CCC

Computing Community Consortium
Catalyst

- Training is not interdisciplinary – ACTIONABLE!
- Collaboration is really fruitful because I learn something new! When I collaborate I learn about new problem! I like that when I am doing something, someone else is going to use it.
 - What’s hard: To schedule meetings – really different schedules! Sending junior people is not the answer. Need to prioritize F2F! ACTIONABLE!
 - CS students might not value what faculty is doing with transdisciplinary work – they just want to publish! NEW STRATEGIES FOR PUBLICATION across transdisciplinary work! ACTIONABLE! Constantly selling to grad students.
- Telling a CS student to do user studies is hard! Seeing value in other’s lives
- Access to data! Data sharing!
- Worked with MDs for 14 years and it is hard: 1) Training, 2) Data



CCC

Computing Community Consortium
Catalyst

- Institutional challenges to capturing data: They don't want to track many things (like errors) because there is liability – impossible to do research. Institutional barriers – unless there is regulation policy changes, the CEO of the hospital will never agree to tracking. How do we get the data so that we can enable collaboration
- Training: Agile software development – supports cross=functional development
- Right now we are really good at training the vertical. There are good ways to train the vertical – what is the whole vision? Entrepreneurship.
- Bonnie's SBE Transdisciplinary training
- Hard to get people to care across disciplines - get them interested in some training outside of their expected box
- TRAINING!! A lot of siloed efforts to get us unsiloed - ACTIONABLE!



CCC

Computing Community Consortium
Catalyst

- Students in transdisciplinary work are sometimes worried about being pushed into one domain.
- Noemi: Collaboration is at the core of what I do – bringing together medicine and health and tech. Identity crises! Who are we?
- Not everyone is a psychologist – a little bit training lets you know what you don't know
- Its OK to be applied! The CS looks really applied to mathematician
- Curriculum and research programs for students ACTIONABLE
- Collaboration: People should be part of collaboration. More likely to volunteer data if they are collaborators - helps you unlock data, increase engagement.
- Chris: Expertise question – can take YEARS to establish collaborations, proximity is important (not sure about that) – more like finding the right people. Being in the room together to at least find collaborators – no direct access. ACTIONABLE!!!!



CCC

Computing Community Consortium
Catalyst

- How do I get started finding the right collaborators? Getting started is really hard
- Access to data: How to share? Who will share? Meaningful data! Not enough sharing and not enough resources to make sharing possible. When are you willing to share? What can we do to make sharing easy and that the sharer gets credit?
- Students don't want to learn about autism (or whatever is outside their expertise) Academic culture is not rewarding for this.
- When am I ready? When my collaborator in a different field says you are ready
- How do we know what we don't know? What do we need? Associate chair for research might know the different flavors of CS, social science, etc. ACTIONABLE?
- Language differences – tower of babel – different disciplines use the same words for different things – what the computer does vs what the brain does.



CCC

Computing Community Consortium
Catalyst

- Like: What's a power analysis? Stuck in the past! Not learning from each-other yet. How do we get over biases that come from our own discipline?
- Write user stories with the idea that you frame it through the lens of other stakeholders! But it has to be COLLABORATIVE! ACTION!
- ACTIONABLE: Need conveners that understand a broad ecosystem. Matchmakers. They need to keep up to date. Need to be available to junior researchers!!!!



CCC

Computing Community Consortium
Catalyst

- Transdisciplinary training
- How to know what you don't know? Functional matchmakers that also service junior people
- Participants as part of the team
- Data sharing mechanisms
- This kind of event, workshops, access for students, Junior people!
- Colocation of really different conferences, with this kind of activity included.
- Workshops at conferences that BRING IN PEOPLE WHO AREN'T IN THE FIELD – add that to your budget.
- Need flagship conferences that we can have in this area!
- Summer schools also for faculty!



CCC

Computing Community Consortium
Catalyst

BREAKOUT GROUPS

- 1. Mixed Initiative (Human Augmentation / Automation) Systems:** Roosevelt Room
- 2. Capturing Context for Decision Making:** John Adams Boardroom
- 3. Multi-Tiered Sensing, Modeling and Control:** Imperial 1 Room
- 4. Identifying Optimal Value-Based Treatment Plans:** Imperial 2 Room



CCC

Computing Community Consortium
Catalyst