

November 2, 2016

Dear Cyberlearning Research Community,

Over the past three months, the CIRCL team has been talking with NSF leaders to learn more about where cyberlearning is going next. As Chris Hoadley was leaving, we knew that change was afoot. However, it has taken some time to get enough information to share (understandably, NSF program officers are not allowed to divulge many details ahead of time). We recently had a two-day, in-depth visit with many NSF stakeholders in the cyberlearning theme, and we can now share what we learned. This email is divided into three parts: a) some concrete things we know b) some food for thought and c) what you can do.

Concrete Things

- Cyberlearning is being managed by Tanya Korelsky and Amy Baylor (with John Cherniavsky serving as senior advisor). We've been very pleased with their enthusiasm and support -- including doing a lot of work to arrange our visit with so many people at NSF. They speak compellingly in favor of the cyberlearning community. In general, there is high level regard for cyberlearning but few details about how funding will unfold.
- The specific Cyberlearning and Future Learning Technologies (CFLT) program will have one more solicitation for one year (but this is not out yet and we don't know what it will say). After that, we expect that funding for this theme will come from other programs, which include all EHR/DRL programs (ITEST, DRK-12, STEM+C, AISL, CORE) and some CISE programs (Smart and Connected, Smart and Automated Systems, etc.).
- Although we heard strong enthusiasm, there is also some pointed concern about whether cyberlearning has accomplished enough as a program. CISE program officers were particularly helpful in saying clearly what they would like to see more of. The most concrete critique is about the difficulty of understanding "genre" as an "output" of the program. How many genres were created, what are they, and what have we learned that's new in them? Has this been productive in driving computer science forward? Have graduate students been trained to pursue avenues of interdisciplinary research that they would have not been prepared for otherwise?

Food for Thought

1. CIRCL had success in getting NSF stakeholders engaged around the notion that the cyberlearning community is a nexus of activity that bridges program-specific

advances (e.g. AI in CISE or learning theory in EHR) and NSF's crosscutting Big Ideas. If you haven't already, now would be a good time to look at the NSF Big Ideas [report](#) as well as the NSF [Strategic Plan](#) and the idea therein of an "innovation ecosystem." Also, it's a good idea to learn about EHR's [three pillars](#) (themes) and [NSF's 2017 priorities](#). It seems one path forward is to show your support for this activity to continue as a cross-program "innovation ecosystem", responsive to NSF Big Ideas. CIRCL has identified INCLUDES, the Human Technology Frontier, Harnessing Big Data, and Convergent Science as promising.

2. Broadly, cyberlearning as a community can pursue either or both of these futures:
 - a. make the case that NSF really needs to keep this community going to serve visions and strategies closely tied to NSF (CIRCL is well organized to do this).
 - b. consider how the community becomes more like or part of a professional society. Either way, a variety of existing and forthcoming NSF programs could support the work (CIRCL is less instrumental to this, but we'd be happy if it happens).

What You Can Do

Each item on this list can be done partially by CIRCL and partially by PIs on their own. As CIRCL has finite resources we certainly can't organize everything, but please cc us on what you choose to do.

- **Communicate project outcomes.** Share with NSF and us more about your project outcomes (see communication specifics below). Outcomes most important to highlight are:
 - What is the new genre (class of design) that your project(s) advanced? (contrasting to what existed before; suggesting how it generalizes beyond your project)
 - How is this work a setting for advancing computer science (CS)?
 - How is this work a setting for advancing learning sciences (LS)?
 - What kind of broader impacts have occurred? (Did you speak to a major policy maker? Was it used as an example in a policy report? Might it become a product or did it influence a company? Did it inspire practitioners? Is your effort scaling up?)
 - What new kinds of research questions (both CS and LS) is your work opening up? How is your work seeding new knowledge-building activities?
- **Develop genre clusters.** Use Cyberlearning '17 or another venue of your choice to come together and generalize outcomes across projects, using the above guide. CIRCL would love to publish Primers about genres that are more general than one project!

- **Analyze and suggest language for solicitations.** NSF asked us pointedly to be very forthcoming with suggestions to make as many solicitations as possible “open” and “attractive” for cyberlearning proposals.
- **Learn about all the funding opportunities available to you.** CIRCL will be helping with this both on our web site and at Cyberlearning ‘17. The concept of cyberlearning really does have momentum, so don’t stop what you are doing! Get creative about funding instead.
- **Help CIRCL tell the Big Ideas story.** CIRCL will be working on the Big Ideas story in the context of the community report, an ongoing activity. But we’d be happy to chat with you more broadly about how to do this well. If there is interest, we will set up video conference calls to discuss the Big Ideas story (e.g., how is cyberlearning a nexus of interdisciplinary collaborations that connect program-specific research to cross-cutting NSF themes).
- **Share success stories with CIRCL.** We are especially interested in more documentation on: how graduate students were trained in really new ways and where they have gone; what cyberlearning has meant for your career; what you see as the value of CIRCL.
- **A Journal or Society?** If you have interest in creating a journal (special issue is a smaller step) and perhaps connecting CL to an existing society or making a new one, gather like minded people and go for it! If you have an idea of how a philanthropist could fund some of CIRCL’s activities, we’d be very interested in hearing about that.

Communication Suggestions

You can communicate with NSF in your annual report or informally in an email, phone call, or when you see your program officer at a meeting. It would be helpful to also share with Tanya, Amy, and John (tkorelsk@nsf.gov, abaylor@nsf.gov, jchernia@nsf.gov).

It would be very helpful to share with CIRCL and to write to us with any input, reactions, suggestions, etc. If you write to Jeremy.Roschelle@sri.com and spillai@edc.org, we can include others in the CIRCL team as appropriate. Also CIRCL will later announce a webinar discussion about this – date and time to be announced in our next newsletter.

We hope to hear from you soon!

Sincerely,



Jeremy Roschelle, CIRCL PI



Sarita Pillai, CIRCL co-PI