Writing a Winning Cyberlearning Proposal

Hosted by the Center for Innovative Research in Cyberlearning (CIRCL)
CIRCL • Our purpose

The Center for Innovative Research in Cyberlearning seeks to amplify research-based voices by:
• Nurturing community among projects, investigators and those new to the field
• Addressing common needs
• Planning for the future
• Creating broader impact together

SRI Leads, EDC brings best practices, NORC evaluates

SRI Education  EDC Learning transforms lives.  NORC at the University of Chicago

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CIRCL • Priority Activities

• **Events**: annual major meetings, working groups, webinars

• **Brokering**: helping connect investigators, projects and newcomers to knowledge and resources

• **Synthesis and Web Site**: creating a public space to highlight contributions, share findings, build community and capacity

• **Portfolio Analysis**: understanding the funded projects

• **Sharing Data**: as needed by NSF and others

• **Broadening Participation**: in the cyberlearning CoP to include institutions and individuals currently underrepresented
CIRCL • What can CIRCL do for you?  http://circlcenter.org

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CyberLearning

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CIRCL • Connect, collaborate, create

Perspectives

Learn about researchers, teachers, industry, informal learning and other stakeholders in the cyberlearning community, what drives their work, and what they think the community should be doing.

What's your view on Cyberlearning? Use this quick form to let us know.

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CIRCL • Identify synergistic projects

Projects

CIRCL Spotlights illuminate some of the different cyberlearning projects across NSF, including projects funded by the NSF Cyberlearning Program and projects funded by other NSF programs whose work has a cyberlearning theme. A tag map of funded projects is also available.

Want us to spotlight your project?
Contact us to contribute your story.

Spotlight: All

LEARN ABOUT OUR
COMPLEX WORLD
THROUGH MAP-BASED
GAMES!
CIRCL Spotlights
illuminate some of the
different projects...

HEAD-MOUNTED
DISPLAYS IN DEAF
EDUCATION
CIRCL Spotlights
illuminate some of the
different projects...

REVOLUTIONIZING
EDUCATION IN HAITI
CIRCL Spotlights
illuminate some of the
different projects...

UNDERSTANDING
SUSTAINABILITY
THROUGH DISCOVERY
AND PLAY
CIRCL Spotlights
illuminate some of the
different projects...

LINKING
SUPERHEROES AND
TECHNOLOGY TO
STEM ASPIRATIONS
CIRCL Spotlights
illuminate some of the
different projects...

SYNERGISTIC
TEACHING OF
COMPUTATIONAL
THINKING AND
SCIENTIFIC MODELING
CIRCL Spotlights
illuminate some of the
different projects...

MIXED REALITY
BRINGS SCIENCE
CONCEPTS TO LIFE
CIRCL Spotlights
illuminate some of the
different projects...

ACTIVITY MONITOR
GAME INCREASES
YOUTH FITNESS
CIRCL Spotlights
illuminate some of the
different projects...
CIRCL • Access integrative, empirically grounded resources

**Resources**

Browse CIRCL Synthesis statements, watch NAPLeS webinars, search the digital collection of education resources from Informal Commons, and see other resources below.

Have resources to suggest?
Contact CIRCL

**Synthesis Statements**

CIRCL synthesis statements summarize effective use of advanced learning technologies that are integrative, innovative, empirically grounded, and widely useful. Want to contribute? Let us know.

- **AI APPLICATIONS IN EDUCATION**
  - Contributors: Chad Lane, Shuchi Grover, and Jeremy Roschelle

- **EDUCATIONAL DATA MINING AND LEARNING ANALYTICS**
  - Contributors: Mimi Recker, Andrew Krumm, Mingyu Feng, Shuchi Grover

- **LEARNING SCIENCES**
  - Contributors: Jeremy Roschelle, Shuchi Grover

- **DESIGN-BASED IMPLEMENTATION RESEARCH**
  - Contributors: Barry Fishman, Britte Cheng, William Penuel

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CIRCL • Join a vibrant community of practice

Events

Learn about upcoming CIRCL events like Cyberlearning 2015, and access archives from past events.

Browse a calendar of other cyberlearning-related conferences and events. Please let us know about other cyberlearning events in the community.

**CYBERLEARNING 2015: CONNECT, COLLABORATE, AND CREATE THE FUTURE**
January 27-28, 2015 in Arlington, VA. A gathering of participants with a...

**CYBERLEARNING SUMMIT 2014**
On June 9-10, 2014, CIRCL hosted the 2014 Cyberlearning Summit at the...

**NSF CYBERLEARNING INTEGRATION (INT) PROPOSAL WEBINAR**
Monday, June 2nd from 3pm – 4pm ET. An informational webinar on...

**PARTNERING FOR IMPACT 2014**
On March 26 and 27, 2014, SRI hosted an intensive two-day workshop...

**NSF CYBERLEARNING SOLICITATION INFORMATION WEBINAR**
Tuesday, February 18th from 1pm – 2:30pm ET. An informational webinar on...

**SYNTHESIS AND ENVISIONING 2013**
A gathering of NSF-funded cyberlearning projects to synthesize what is known and...

**CYBERLEARNING SUMMIT 2012**
The 2012 Cyberlearning Research Summit was a high-profile gathering in Washington DC...
CIRCL • Follow us, contribute, stay connected!

http://circlcenter.org

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Developing a Winning Cyberlearning Proposal:

• **How to Design a Cyberlearning Proposal: Six First Steps**
  Dr. Bob Tinker, Founder, the Virtual High School and the Concord Consortium

• **Finding the Right Partners**
  Dr. Stephanie Teasley, Research Professor in the School of Information at the University of Michigan

• **Winning Proposals : What Do Reviewers Look For?**
  Dr. Guy-Alain Amoussou, Professor of Computing Science at Humboldt State University
How to Design a Cyberlearning Proposal: Six First Steps

Robert Tinker
bob@concord.org

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1. Start with a Good Idea

- Address current educational needs
- Advance understanding of how people think and learn
- Possible only with emerging technology
- Risk is good
- Should support deep thinking, apply to underserved, and advance assessment
2. Study an Instance of the Genre

- The technology might be a mash-up and “minimally viable”
- Study student thinking
- Use technology for embedded assessment
- Does your instance result in the desired student thinking?
3. Produce Design Principles

- Assume that you will not get it right the first time
- Iterate using rapid prototyping and evidence-based changes
- Extract design information for future instances of your idea
4. Budget Your Project

- Make a rough but realistic budget
- Budgeting will force you to pare down to the essentials
- For EXP, ask for $200K extra, but get prior approval
5. Describe in Two Pages

- Describe the entire project—from vision to results—in two pages
- Leave time to clarify the logic, sharpen the prose, and remove unessential ideas
- Use this to recruit partners, advisors, and schools
6. Keys to Success

- Use the outline in the guidelines, starting with “Vision and Goals”
- Spend a lot of time writing “Vision and Goals”
- Start with the need, not the specific idea
- Be sure to provide all the required materials, some of which are unique to Cyberlearning
Good Luck

Bob Tinker
bob@concord.org
Q & A
Bob Tinker
Writing a Winning NSF Cyberlearning Proposal: Finding the Right Technology Partners

Stephanie Teasley, Research Professor
UMSI & USE Lab

December 4, 2014
Where Do You Start?

- Technology Partners
  - Build – DIY*
  - Borrow – Open Source
  - Buy – Commercial Vendor
Successful Technology Partnerships

- Negotiated agreements about data ownership
- Infrastructure supporting tools, but also data accessibility and security
- Mechanisms for “raw” data handling
- Enlist enlightened policy & data stewards (re: IRB, FERPA; e.g., your institution’s Office of General Council)
Partnering & Evaluation

- Openness and commitment to measuring effects
- Clear agreements about publication
- Political will to act on results
Proposal requirement: Promoting generalizability and transferability of the newly proposed technological genre
Impact & Dissemination

- Think big and broad
Find Your Dr. Chuck!

http://www.dr-chuck.com/
Acknowledgements

- My many students, post docs & colleagues
- USE Lab members
- Sakai Community
- Learning Analytics Community
Q & A
Stephanie Teasley
Winning proposal: What reviewers look for?

Guy-Alain Amoussou
amoussou@humboldt.edu
Winning proposal: What reviewers look for?

- Did you read the solicitation and follow the required instructions?
- The Proposal Preparation Instructions (Section V.A)
  1. A proposed innovation that is iteratively refined during the project
  2. Research advancing understanding of how people learn (that requires the technology innovation)
  3. Research promoting broad use and transferability
Winning proposal: What reviewers look for?

- **What is the problem/gap/issue/need?**
- How important is it?
- How well have you justified its importance?
- How clear are you about what it will take to provide an answer?
- How well do your innovation and research address it?
- How well-poised is your approach for eventually achieving that problem/gap/issue/need?
Winning proposal: What reviewers look for?

- What is your innovation and its broad impact?
- What is your new proposed technology configuration? How well is it laid out in the proposal? How novel is it? How well does it advance state of the art?
- How well is it informed by research -- on technology, learning processes, targeted population, and so on?
- How well will your innovation address your stated problem/gap/issue/need?
- What will learners’ experience be like? What do you expect to happen as a result of that experience? How do you expect learner experiences to affect learning?
- How well-justified are your claims? How well will what you aim to build serve as a model?
- How will you build and refine it? What is your starting point? What is your process?
Winning proposal: What reviewers look for?

- **Research advancing understanding of how people learn**
- What are the research questions? How well formed are they and how well are they informed by prior work? How important are they?
- What literature(s) will they contribute to?
- What are your research methods, study design, and study context? How appropriate are your methods to answering the questions? How appropriate are your questions and methods to the stage of the innovation’s development?
- How will your research add to theory? What new conceptual understandings will we learn from your research?
Winning proposal: What reviewers look for?

- What are the goals for understanding the potential for broad use or transferability?
- How appropriate are they to the stage of the innovation’s development?
- How will the proposed work yield progress on these goals?
- What will we know at the end of this project about how to promote or assess learning better that we did not know before?
- To what kinds of other innovations and applications will this new knowledge apply?
Winning proposal: What reviewers look for?

- **Do you have a winning TEAM?**
- To what extent does your team have the expertise to carry out the project?
- To what extent has that expertise clearly been used in putting the proposal together?
- What is your plan for using that expertise well while carrying out the project?
- How well have you articulated team member expertise, roles, collaboration, and coordination in your Collaboration and Management Plan?
- How well will your project be assessed by an independent evaluator?
Summary

- Read the solicitation and follow instructions
- What is the problem/gap/issue/need?
- What is your innovation and its broad impact?
- Research advancing understanding of how people learn
- What are the goals for understanding the potential for broad use or transferability?
- Do you have a winning TEAM?

Good luck – Bonne chance!
Q & A
Guy-Alain Amoussou
General Q & A
All presenters
CIRCL Resources for Writing a Winning Cyberlearning Proposal

1. Archived webinars:  http://circlcenter.org/events/

2. Examples of winning proposals: Go to http://circlcenter.org/events/writing-winning-cyberlearning-proposal-webinar/ and you’ll see a link under "Related Resources" to "Excerpts from Winning Proposals". Password: "cyberwin".

3. Connecting with others to develop Cyberlearning partnerships – complete the form on our contact page: http://circlcenter.org/contact/
A big:
THANK YOU FOR PARTICIPATING

From: the CIRCL Team