



Conference on Cyberlearning Tools for STEM Education (CyTSE)

**SAVE THE DATE: March 8-9, 2011 (tentative)
San Francisco**

Co-located with NSTA National Conference in San Francisco

Bringing together researchers, developers and K-12 STEM educators who want to use new cyberlearning tools to engage and educate the current net-savvy generation about science, technology, math and engineering (STEM)

Goals of the Conference

- Bridging the “research-to-practice” gap:
 - Teachers will learn how to integrate these tools into their classrooms
 - Researchers will learn how to improve the design and adoption of their tools through teacher feedback
- Address important trends and issues on how cyberlearning tools can improve and reform K-12 STEM education
- Develop a research agenda on cyberlearning tools and their role in preparing students for the future STEM workforce
- Provide a forum for attendees to share knowledge and forge new partnerships

Who’s Attending?

Disciplinary scientists, cyberlearning developers, educational researchers, formal and informal STEM educators, curriculum developers and publishers, science museums, and DOE national lab education and outreach staff.

Example Cyberlearning Tools Featured:

- Simulation and modeling tools
- Remote online laboratories
- Augmented reality
- Visual programming languages
- Geographic Information Systems
- Handheld probeware and sensors
- Data visualization environments
- Scientific inquiry support environments
- Serious games and virtual worlds
- Intelligent tutoring systems
- Online STEM learning communities for teachers and learners

Tentative Agenda

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| Day 1: Research & Development |
| Keynotes – Two leaders of the cyberinfrastructure and/or cyberlearning community |
| Expert Panel: Cyberlearning Tools and Future of STEM Education |

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| Interactive Poster Sessions |
| Emerging Technologies – Latest generation of tools and platforms from industry, government, and higher education research labs |
| Design and Development – Creating cyberlearning resources and curriculum materials |
| Technical and Deployment Challenges / Solutions |
| Implementation and Integration – How to use tools in educational programs and integrate them into curricula |
| Research and Evaluation – Presentation of current research on tools and evaluations of their effectiveness in a variety of educational settings. |

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| Day 2: Implementation and Integration of Cyberlearning Tools in Formal and Informal STEM Learning Environments |
| Keynotes – Dr. Carl Wieman and another cyberlearning luminary |
| Hands-on Demo Session – Try out the latest generation of cyberlearning tools |
| Training, Development, and Collaboration: In-Depth Sessions |
| Teacher Professional Development Sessions – Teachers learn from R&D community |
| Design Focus Groups – Teachers provide feedback to developers on new cyberlearning tools |
| Developer / Publisher Integration and Interoperability Workshops |
| Cyberlearning Research Agenda – Help draft a Cyberlearning R&D Roadmap |

Conference Organizers

The conference is being organized by the Office of STEM Education Partnerships (OSEP) at Northwestern University, which supports K-12 students and teachers by connecting them with world-class science, technology, engineering and mathematics resources at Northwestern University and beyond (for details, see <http://www.osep.northwestern.edu/>). The conference organizers include:

- Dr. Kemi Jona (Director of the Office of STEM Education Partnerships at Northwestern University)
- Dr. Carl Wieman (Nobel Laureate in physics and Chairman of the Physics Education Technology Project)
- Ted Sicker (Executive Producer at WGBH Boston's Interactive and Educational Productions)
- Dr. Phillip Long (Director of the Centre for Educational Innovation and Technology at the University of Queensland)

Sponsorship Opportunities

If you are interested in conference sponsorship opportunities, contact Christine Babick Saqui at (847) 467-2823 or c-babick@northwestern.edu



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