

# Cyberlearning Research Summit 2012:

## Imagining the Future of Learning, Systems, People, and Technology



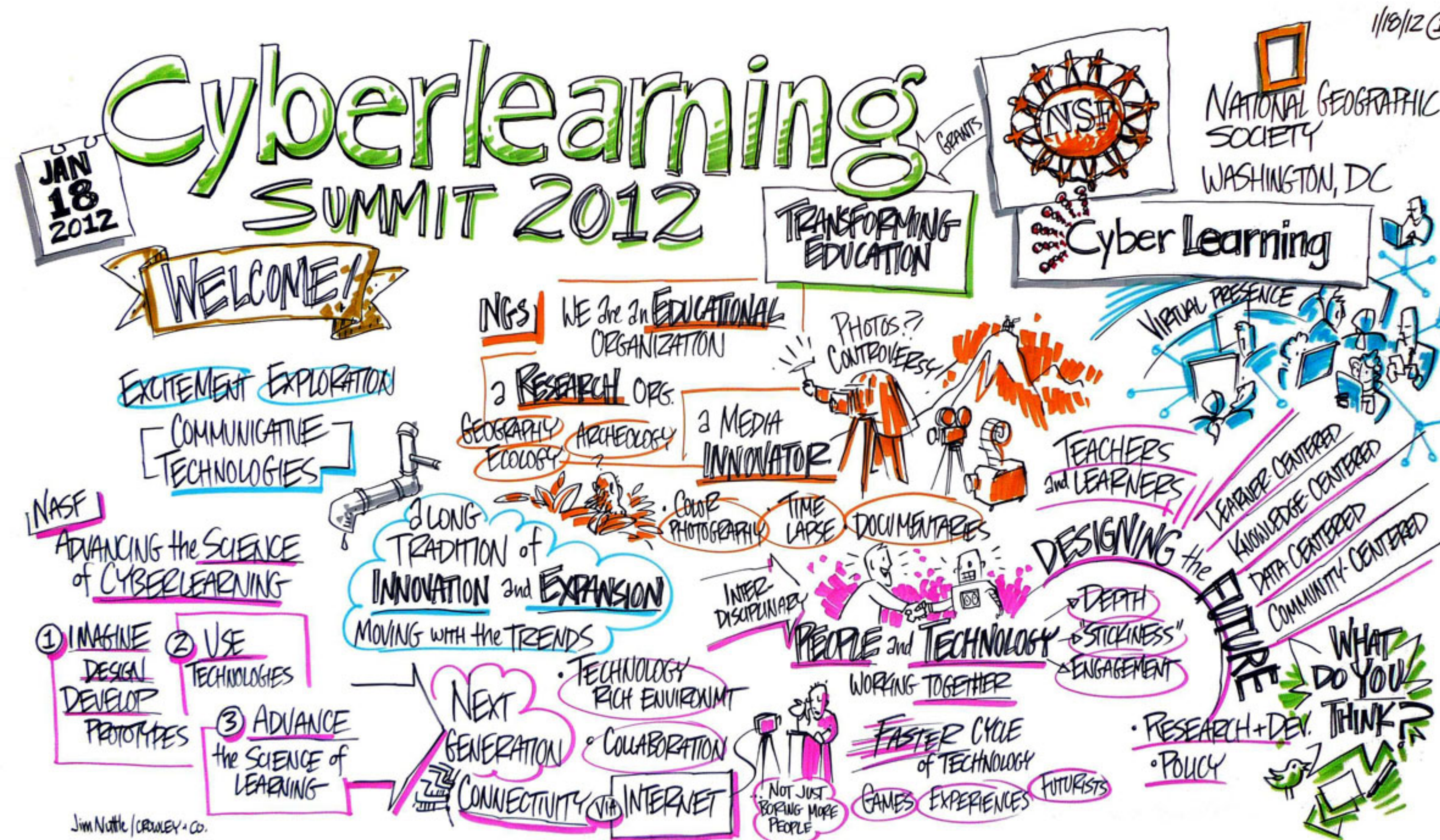
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### OVERVIEW

Hosted at the National Geographic Society, the Cyberlearning Research Summit was a high-profile gathering in Washington DC, on January 18, 2012 featuring research-based speakers who shared visions for the future of learning with emerging technologies.

NSF has the potential to lead a new wave of STEM initiatives through its **Cyberlearning: Transforming Education** program and its cross-cutting initiatives in cyberinfrastructure. To continue to lead in an increasingly crowded space of contributors from other agencies, corporations, and interest groups, however, the community NSF funding fosters will need to realize the “transformative potential” called for. Realizing this transformative potential requires vision, strategy, engagement, talent, and commitment to moving forward.



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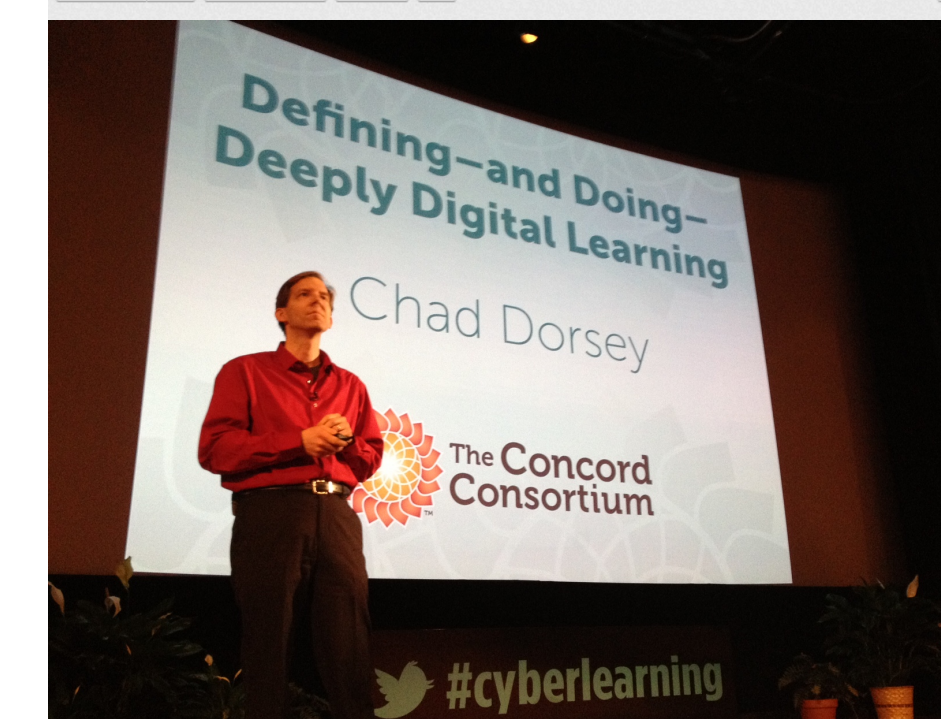
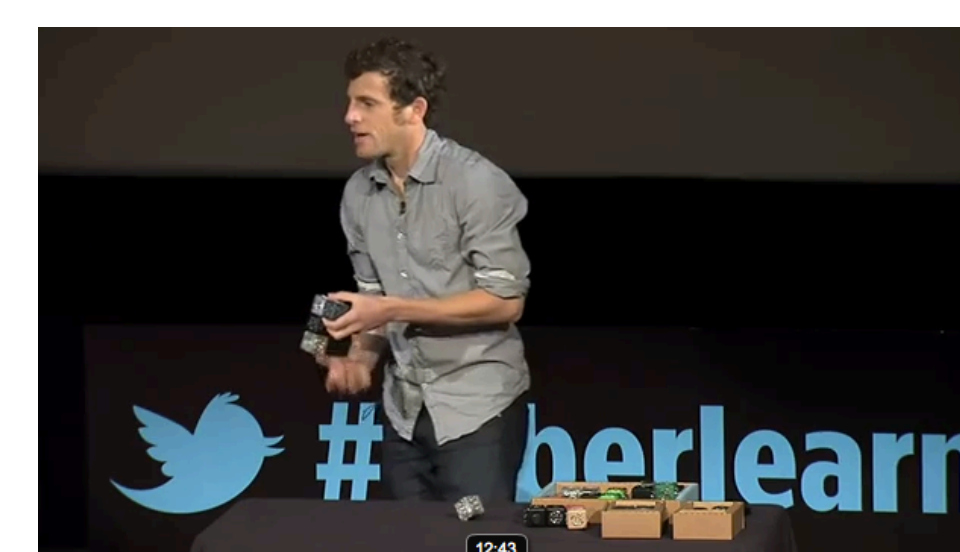
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### CYBERLEARNING TALKS



25 speakers were nominated to give talks that aimed to:

- Discuss big ideas on at the intersection of emerging technology and research on learning
- Articulate the “transformative potential” of a direction or approach
- Communicate a sense of the broad research on key cyberlearning topics
- Engage, inspire, and stimulate thinking in this new program area



- AI applications in education
- Augmented Reality
- Computational Thinking
- Data Acquisition and Sensors
- Deeply Digital Texts
- Distributed Sensing
- Educational Data Mining
- Full-body and Intelligent Interfaces
- Games and Virtual Worlds
- Large-scale Interactive Media
- Mobile Learning
- Peer Production
- Programmable Learning Environments
- Simulations
- Smart Representations
- Social Media
- Tangible Interfaces
- Technology Enabled Formative Assessment
- Virtual Communities for Learning
- Visualization

### DELIVERABLES

- Community Resource at <http://cyberlearning.sri.com>
- 1-day Research Summit
- 25 Talks in the style of TED
- Live & Archived Webcast
- Cyberlearning Research Wiki
- Graphical documentation

### TARGET OUTCOMES

- Build a **cyberlearning research community** with participants from across the many current constituent communities
- Seek a community sense of how to couple **the learning sciences** with related fields of innovation to leverage new technology affordances for the deepest learning outcomes.
- Exemplify the “transformative potential” of cutting edge research and development to dramatically **advance learning** – and is expected to be influential in identifying promising directions for advanced R&D efforts.
- Develop a **community resource** that can become a site for interconnecting stakeholders in the CyberLearning community and supporting investigators in improving field-generated proposals
- Build **foundations for sustained discussion** of big ideas, insights, and challenges to help this new community define a more engaged, crisper vision of its own future,
- Build community and awareness to foster collaborations that will lead to innovative and **research-grounded ways of using technology to transform education** -- formal and informal and across a lifetime.