



# iLab Network Visioning Workshop Community Conclusions

National Labs Community Working Group

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# National Lab Community

How can remote labs be used in the national lab setting?

Which educational programs do we already have in place that could benefit from iLab technology?

What new strategies and practices would be enabled in informal science education by using iLab technology?

How would iLabs expand the reach of your existing education outreach efforts?

How could our community assist in enhancing the iLab Network?

Which types of equipment do we think will be especially relevant and practically useful in informal science education?

Which types of collaborations and partnerships would be necessary to facilitate the use of our equipment?

How might we address concerns around access and security?

What are some major barriers in utilizing and contributing to iLab technology in our community?

# Overview

- Themes of Discussion
- Role for iLabs in Our Community
- New Strategies & Practices Enabled by iLabs
- New Partnership Opportunities
- Needed Policy & Funding Supports
- Top Priorities & Top Barriers
- Future Directions

# Themes of Discussion

- What are we actually trying to do?
- How do you measure success?
- iLabs/eLabs have the potential to be a significant part of the bigger trend to virtual learning
- Importance of teachers being part of the process from the very beginning and being part of the development team (criteria, rubric, etc)
- Scaffolding/support for teacher or student usage

# Roles for iLabs in Our Community

- Identifying equipment/instruments (need to keep rubric in mind)
- Enhancing access to research experience
- Workforce development
- Enhancing scientific literacy
- Needs assessment (value to teachers, researchers and labs)
- Show relevance and excitement of laboratory science to everyday life to public
- Science centers and Museums at National Labs

# New Strategies & Practices

- Internships/Externships – prepare the GUIs
- Work with teachers to prepare the curricular materials
- Use virtual environments to extend the experiential opportunities (virtual schools/virtual access to research)

# New Partnership Opportunities

- Virtual Education (NACOL, VHS, etc)
- Catalyst for cost effective science in under developed communities
- Attendees at this workshop
- Colleges of education, HBCU, HIS
- NSF/DOE catalyst for cooperation
- Work with universities
- Work with instrument manufacturers so it is easier to implement for educational uses

# Needed Policy and Funding Supports

- Need better community awareness (outreach) - research work more accessible to public
- Who gets charged – scientists need to bill their time
- Big projects have educational component attached – could a percentage be made available online to the community for educational use?
- Add appropriations to the America COMPETES Act -- “The Yudin principle”

## Top Priorities

- Identifying the value of iLabs to the national labs
- Measuring impact and value added to education
- Involving teachers/Lab scientists
- Continue the dialogue
- Is there a sustainable funding model

## Top Barriers

- Who builds the interfaces to the equipment
- Who pays
- Security issues for networks
- Customer constraints
- Availability of equipment

# Future Directions

- Explore “competition” Model for iLab experiments
- Implement Cosmic Ray detector as an iLabs experiment as a pilot
- Start a conversation with the national lab community about potential uses