

Exploratorium.edu on Internet2

• Deb Hunt

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About the Exploratorium

Museum of Science, Art, and Human Perception

- Over 500 interactive exhibits
- Educator professional development programs
- ExNet museum partners
- <http://www.exploratorium.edu>



I2 and the Abilene Network

The Abilene Network supports the development of applications such as:

- virtual laboratories
- digital libraries
- distance education
- tele-immersion
- advanced networking capabilities

Over 25,000 K–12 schools and most large universities are connected to the Internet2 Abilene network.

Exploratorium on I2

- Connection made possible through the generosity of the National Science Foundation and the Corporation for Education Network Initiatives in California (CENIC)
- 100 Mbps connection to CENIC's CalREN (California Research and Education Network) Digital California network
- Networked locations: Webcast Studio, Learning Studio/Library, Microscope Imaging Station, conference rooms, individual workstations
- Internet2 Gateway: <http://www.exploratorium.edu/i2>

What are we doing?

- Webcasting
- Microscope Imaging Station
- Remote Collaboration
- Sharing Digital Collections





Webcasting

Webcasting

- We provide high-resolution video in multiple formats, including Real Player, Windows Media, Flash, and soon in MPEG2 Multicast
- We do a about 25 live events per year
- <http://www.exploratorium.edu/webcasts/archive.html>

Microscope Imaging Station

A high-magnification light micrograph of a cell. The cell is roughly circular and occupies most of the frame. It has a thin, dark outer boundary. Inside, there is a large, dense, spherical nucleus that is slightly off-center towards the top. Within the nucleus, a smaller, even denser, spherical nucleolus is visible. The cytoplasm surrounding the nucleus is filled with a complex network of fine, dark lines, likely representing the endoplasmic reticulum. The background is a uniform, light blue-grey color.

Microscope Imaging Station

- Research-grade microscopes in a museum setting
- Website provides high-resolution images & video:
www.exploratorium.edu/imaging_station
- Developing virtual microscope and classroom activities
- Planning live demonstrations and remote operation



Remote Collaboration

Remote Collaboration

- Project collaboration and public programs connecting museums, universities, research facilities, and K12 schools
- Center for Informal Learning and Schools: Exploratorium, King's College London & UC Santa Cruz
- Professional Development: Teacher Institute and Institute for Inquiry

Digital Collections



Digital Library

- Exploratorium Digital Library allows educators to search and browse our collections according to subject, grade level, resource type, etc. (We are working on aligning to standards.)
- <http://www.exploratorium.edu/educate/dl.html>

Future Directions



Future Directions

- Study use of Exploratorium resources by schools, universities, museums, libraries, and other partners with access to advanced networks
- Explore advanced videoconferencing applications
- Refine media production and project planning
- Develop new exhibits, Web resources, and museum programs that make use of advanced networks

Is your organization on I2?

You can use the Internet Detective to find out:

<http://detective.internet2.edu/>

More I2 Resources

- Internet2
<http://www.internet2.edu/>
- Internet2 K20 Initiative:
http://k20.internet2.edu/projectfinder_index.php
- Internet2 Resources:
<http://k20.internet2.edu/resources/index.html>

You can view this PowerPoint at:

<http://www.exo.net/dhunt/IL2005/>

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Exploratorium Internet2 Gateway:

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