



Schools and Internet2

SchoolNet BoF
TERENA conference
Poznan, Poland

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Presentation

- Brief Review of Internet2
- Participation/connectivity for schools
 - SEGP
 - K20 Initiative
- Types of uses
- Opportunities for Collaboration

The logo for Internet2, featuring a stylized red '2' with a white outline, positioned to the left of the word 'INTERNET' in white, uppercase, sans-serif font. A registered trademark symbol (®) is located to the right of 'INTERNET'.

INTERNET®

Internet2 Mission

- Develop and deploy advanced network applications and technologies, accelerating the creation of tomorrow's Internet

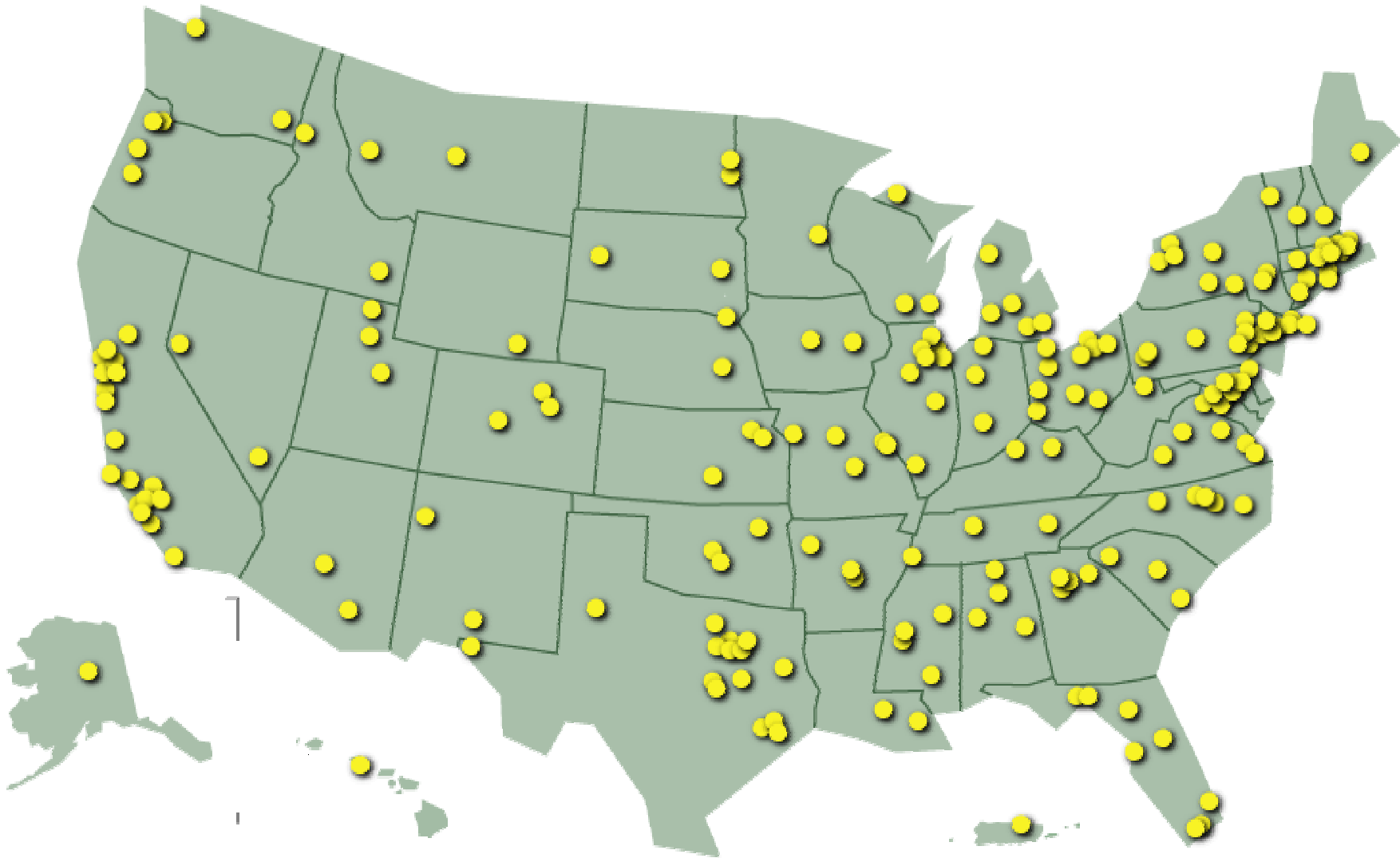
Internet2 Goals

- Enable new generation of applications
- Re-create leading edge R&E network capability
- Transfer technology and experience to the global production Internet



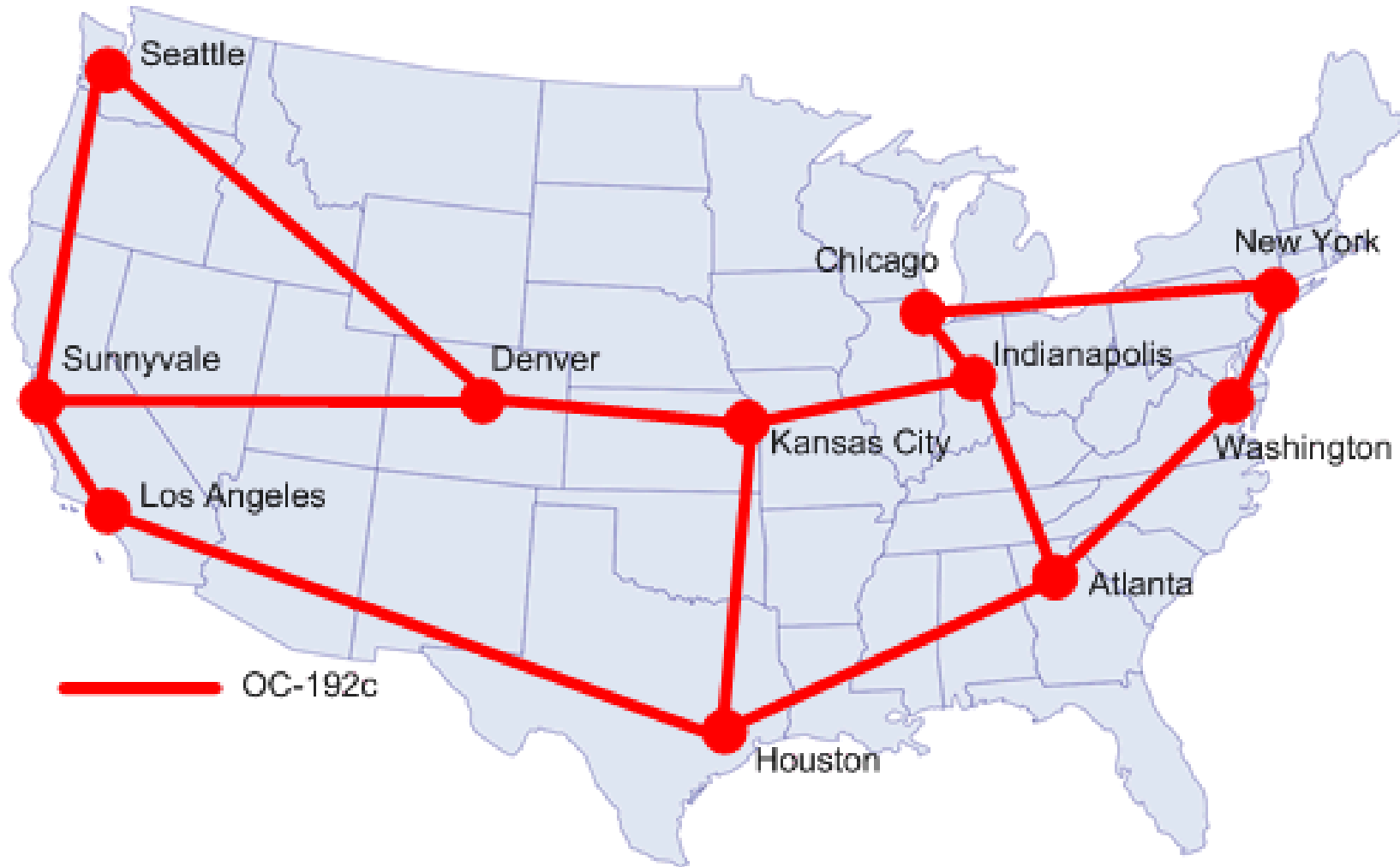
Internet2 Universities

206 University Members, March 2004





Abilene Backbone Network



Abilene Community – 4 levels

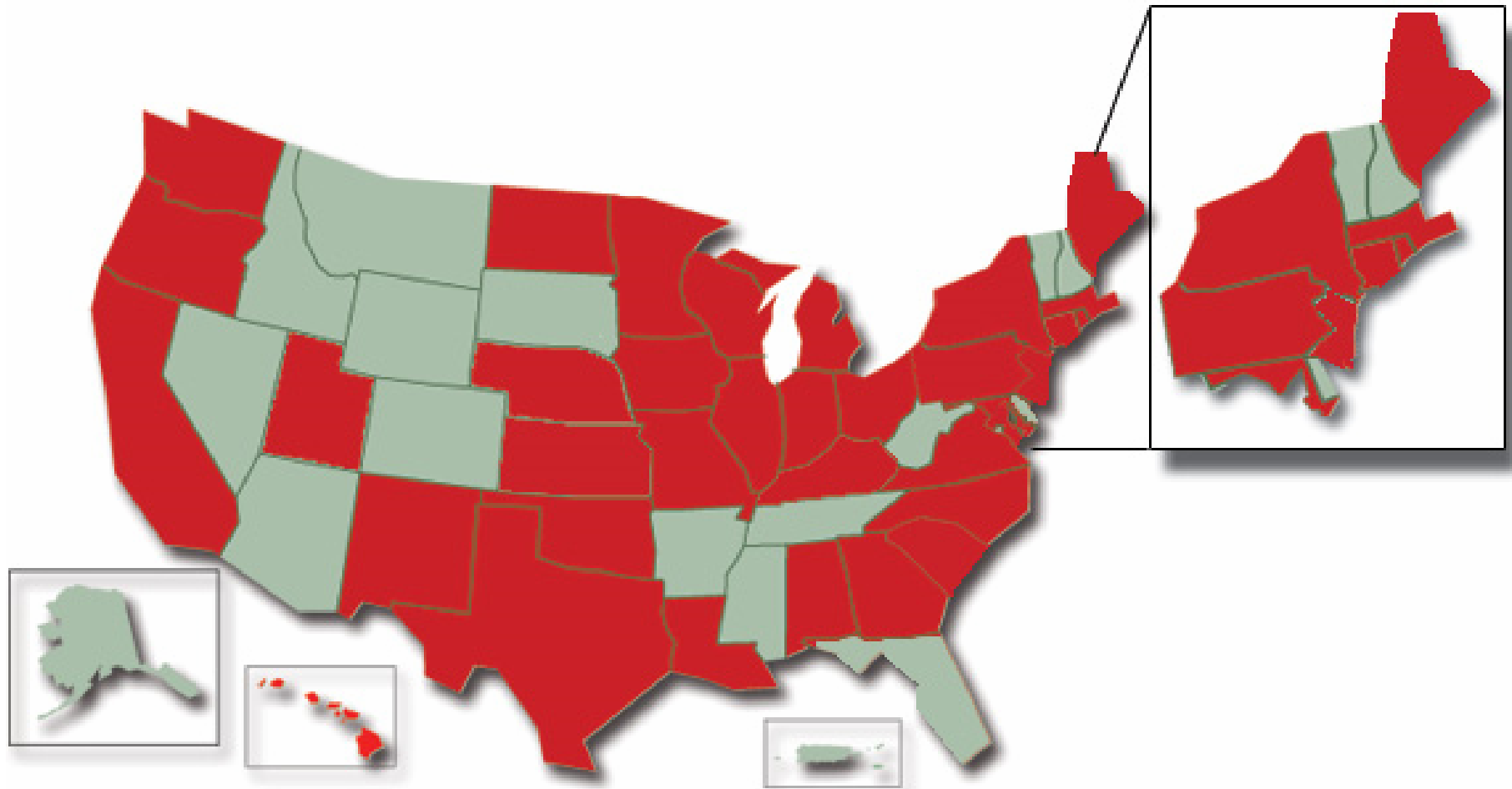
- **Connectors** – Regional aggregators of Internet2 traffic.
- **Primary Participants** – Internet2 members, including research universities and collaborating U.S. federal and corporate research labs.
- **Sponsored Participants** – Collaborating partners of Internet2 university members (e.g., small laboratories, museums, clinical research centers) requiring access to advanced networking.
- **Sponsored Education Group Participants (SEGPs)** – Aggregations of state education networks connecting the K-12 community, baccalaureate and community college networks, and libraries.

Abilene – February 2005

- 42 direct connections (OC-3c → 10-Gbps)
 - 2 10-Gbps (10 Gig Eth) connections
 - OC-192 SONET also supported
 - 6 OC-48c connections & 3 Gig Eth connectors
 - 25 connected via at least OC-12c (622 Mbps)
- 233 participants – research universities & labs
 - All 50 states, District of Columbia, & Puerto Rico
 - U.S. Census Bureau and World Bank most recent additions; Library of Congress coming soon!
- Expanded access
 - 119 sponsored participants and 34 state education networks



Sponsored Education Group Participants as of February 2005



Approved SEGPs by State (34)

- Alabama
- California
- Connecticut
- Georgia
- Hawaii
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Missouri
- Nebraska
- New Jersey
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Oklahoma
- Oregon
- Pennsylvania
- Rhode Island
- South Carolina
- Texas
- Utah
- Virginia
- Washington
- Wisconsin

K20 Initiative of Internet2

- Activity established in support of connectivity policies
- Two part-time staff from University of Washington
 - Louis Fox
 - James Werle
- Advisory Committee
 - Representatives from the SEGP organizations
 - (SEGPs and their school members are not members of Internet2)
- Executive Committee

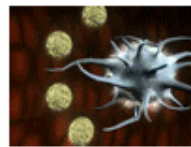
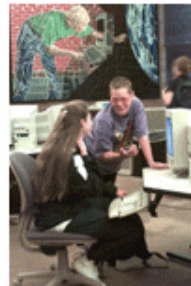
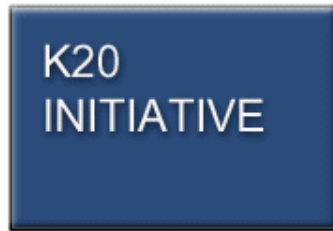


June 7, 2005 | Home

K20 INITIATIVE



- >About the Initiative
- >Sponsored Education Group Participants (SEGP)
- >Advisory Committee
- >Projects
- >People
- >Partnerships
- >Resources
- >Meetings and Events
- >News and Information
- >Website Feedback



The National Internet2 K20 Initiative brings together Internet2 member institutions and innovators from primary and secondary schools, colleges and universities, libraries, and museums to extend new technologies, applications, middleware, and content to all educational sectors, as quickly and connectedly as possible.

MyK20 Login

- Existing Member
- New Member (choose to register)

username:

password:

[Have you forgotten your password?](#)

K20 Spotlight:

United Nations World Food Programme

The United Nations World Food Programme (WFP) has developed a game called 'Food Force'. It is the first United Nations 'serious video game' created specifically to teach children about the big issue of hunger in the world - from dealing with emergencies, such as the recent tsunami crisis, to longer-term social and economic issues in the developing world.

[Downloads of the game](#)

Learn More:

[myK20 Project Description](#)
<http://www.Food-Force.com>

Contact:

[Mike Harrison](#)
[Bob March](#)

[\[past spotlights\]](#)

Internet2 K20 Connectivity Survey

BY ORGANIZATION TYPE
[▲TOP](#)

| Organization | Total (9/2002) | Total (5/2004) |
|---|-------------------|-------------------|
| K12 (individual schools and connecting organizations) | 7173 | 23388 |
| Community Colleges | 551 | 594 |
| Four Year Colleges and Universities | 526 | 852 |
| Public Libraries | 1482 | 2360 |
| Museums, Zoos, Aquariums, and Science Centers | 102 | 74 |
| Grand Total | 9834 | 27268 |

BY BANDWIDTH
[▲TOP](#)

| Organization | Year | <1.5mb | 1.5mb | >1.5-10mb | >10mb | Total |
|---|--------|--------|-------|-----------|-------|-------|
| K12 (individual schools and connecting organizations) | 9/2002 | 686 | 4332 | 957 | 1198 | 7173 |
| | 5/2004 | 3744 | 7132 | 11147 | 1365 | 23388 |
| Community Colleges | 9/2002 | 11 | 198 | 216 | 126 | 551 |
| | 5/2004 | 6 | 221 | 137 | 230 | 594 |
| Four Year Colleges and Universities | 9/2002 | 22 | 173 | 116 | 215 | 526 |
| | 5/2004 | 2 | 171 | 303 | 376 | 852 |
| Public Libraries | 9/2002 | 313 | 1117 | 34 | 18 | 1482 |
| | 5/2004 | 702 | 1088 | 454 | 116 | 2360 |
| Museums, Zoos, Aquariums, and Science Centers | 9/2002 | 29 | 57 | 10 | 6 | 102 |
| | 5/2004 | 13 | 45 | 6 | 10 | 74 |
| GRAND TOTAL | 9/2002 | | | | | 9834 |
| | 5/2004 | | | | | 27268 |

More results from the 2002 and 2004 surveys can be found at http://k20.internet2.edu/connect_survey_index.php

K12 (individual schools and connecting organizations)

- 23,392 out of 27,274, or 86%, of the institutions connected to Internet2 via the SEGP program are K12 (individual schools and connecting organizations)
- 2,592 out of 23,392, or 11%, of these K12 (individual schools and connecting organizations) connect to the Internet2 backbone network at ≥ 10 Mbps
- 21% of state education networks report between 50 - 100% of the K12 (individual schools and connecting organizations) they connect are multi-cast enabled
- 44% of state education networks report between 50 - 100% of the K12 (individual schools and connecting organizations) they connect have H323 Codecs available

Collaboration Projects

- Taxonomy of Projects:
 - Rich Multi-Media Digital Libraries
 - Remote Scientific Instruments
 - Remote Scientific Instruments
 - Creating New Knowledge
 - Creating New Opportunities
 - International Learning Communities



NSDL – National Science Digital Library


The eSkeletons PROJECT

The Gorilla Skeleton

to select the bone in the gorilla body that you want to view in detail. Once you have been able to investigate various aspects of the bone as well as compare the gorilla bone's features to those of the human and baboon.

view: [select another bone](#) [help](#)

← Lateral




↓ Distal

GORILLA

[morphology](#) [origins](#) [insertions](#) [articulations](#)

Choose a bone to view (please choose only one):

→  ←

→ ←

Click on this button to launch the bone viewer:

h

[human skeleton](#) [baboon skeleton](#) [gorilla skeleton](#) [comparative anatomy](#)

Internet

Start | Internet Explorer | pres... | Inbo... | exa... | exa... | The... | Th... | Desktop » | My Documents » | 2:54 PM

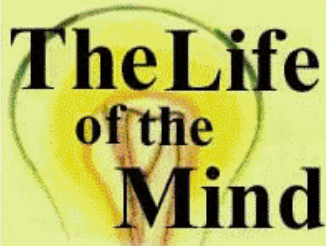
Home TV Schedule Webcast **Video Library** Projects About ResearchChannel

Find Programs:

- Program Title
- Series Title
- Institution
- Subject
- New Releases



Koko Loves: Conversations with a Signing Gorilla



Penny Patterson talks about raising a gorilla named Koko, communicate with humans and other apes using sign language.

Series: **Life of the Mind**

Speaker: **Penny Patterson** of the Gorilla Foundation

Subject: K-12 and Education
Arts and Humanities
Social Sciences

Produced by: **Stanford University**, July 21, 2000

Runtime: 00:50:21

Launch Video OnDemand

Windows Media

VideoCharger

VideoCharger
-MPEG-2

Viewing help, videocharger Guide

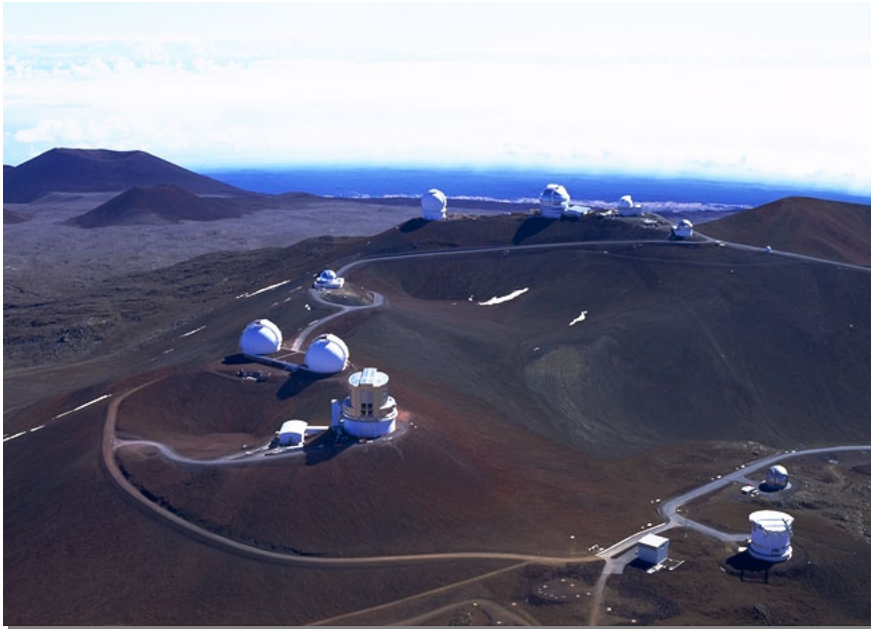
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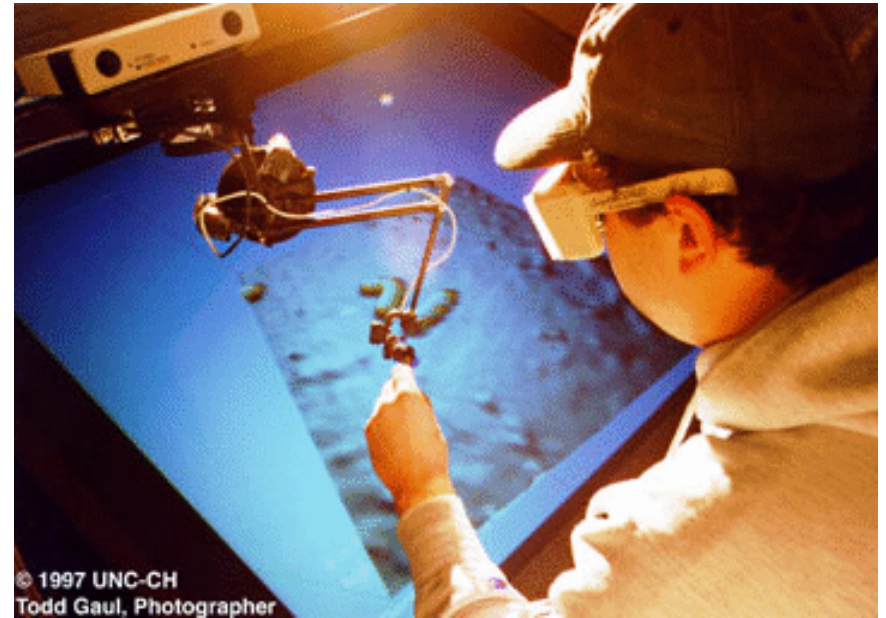


K20 Applications Remote Instrumentation

Start Video



Mauna Kea Observatories

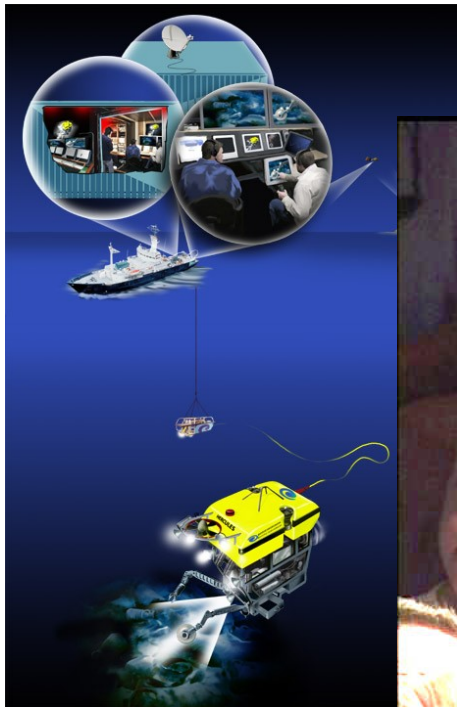


Distributed nanoManipulator

INTERNET[®]

JASON

- Start Video

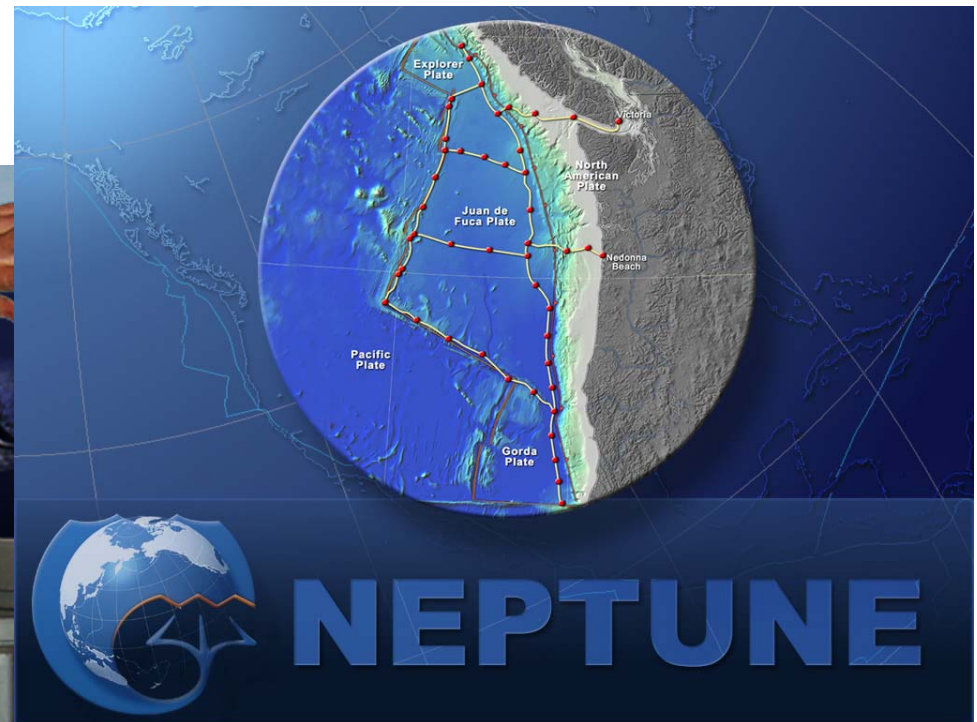


<http://www.jason.org/>

INTERNET[®]

NEPTUNE

- Start Presentation Slides



<http://www.neptune.washington.edu/>

INTERNET[®]

MegaConference Jr.

- Start Video



<http://megaconferencejr.org/>

Opportunities for Collaboration?

- Who can I work with via my “Internet2” connection?
- International collaboration projects
- Joint meeting of SchoolNet BoF and Internet2 K20 Advisory Committee?