

WiderNet

Coating a Wider Net

.Org



The logo for Widernet@UNC features a stylized 'W' icon composed of three interlocking shapes, positioned above the text 'widernet@UNC'. The 'W' icon is blue, and the text is in a light blue color. The '@' symbol is a large, light blue circle. The entire logo is set against a white rounded rectangular background.

widernet@UNC

A service program of SILS that conducts **research and development** into solutions for underserved communities, including the continued development of the eGranary Digital Library. Provides multi-modal training to library and information professionals worldwide, prototypes innovative hardware and software solutions, and disseminates research into best practices for global information access.

The logo for Widernet features a stylized 'W' icon composed of three interlocking shapes, positioned above the text 'widernet'. The 'W' icon is blue, and the text is in a dark blue color. Below the main text is the tagline 'Casting a Wider 'Net.' in a smaller, italicized font. The entire logo is set against a white rounded rectangular background.

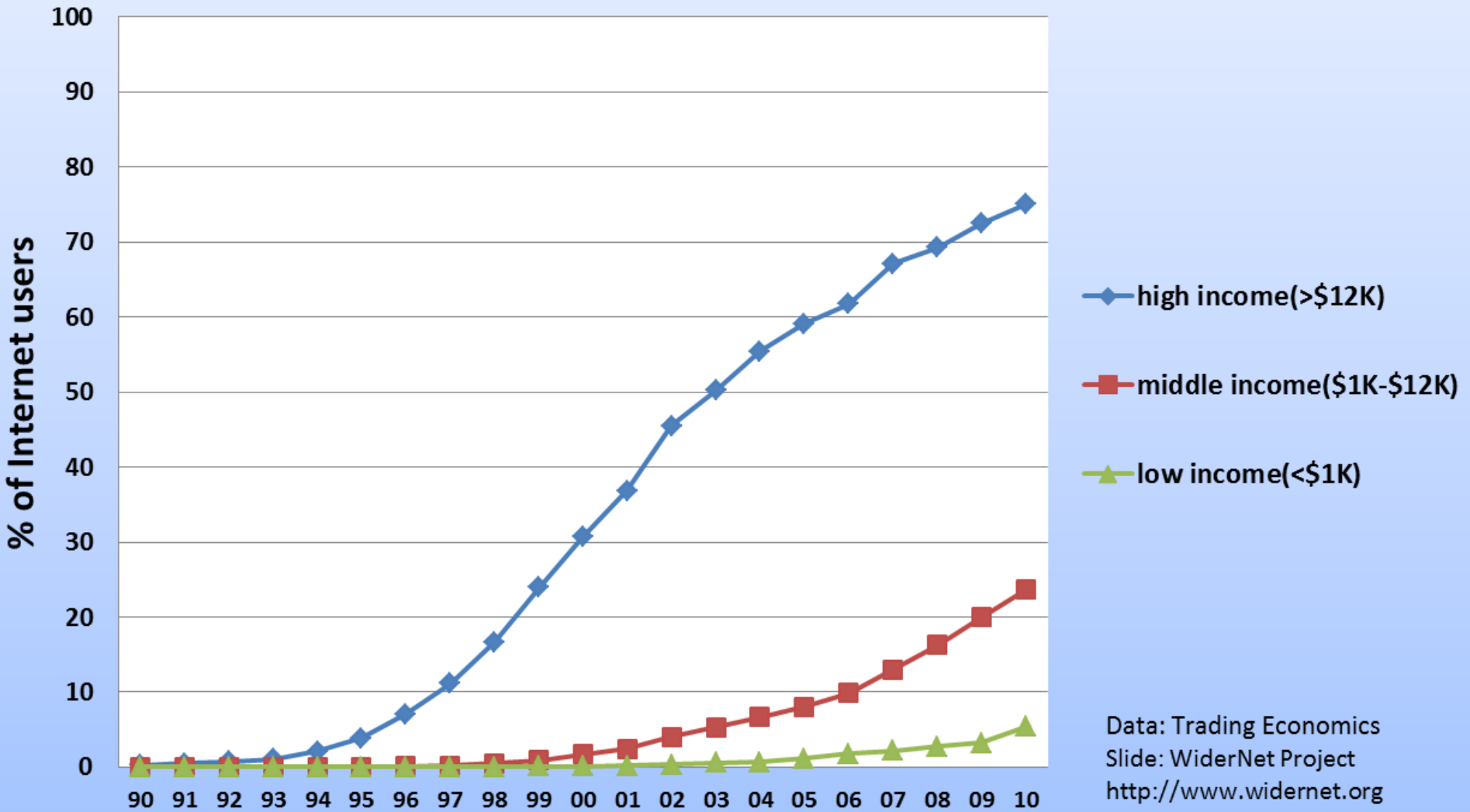
widernet
Casting a Wider 'Net.'

A non-profit organization that **manufactures and distributes** the eGranary Digital Library and provides training and computer labs for subscribers.

The WiderNet Project

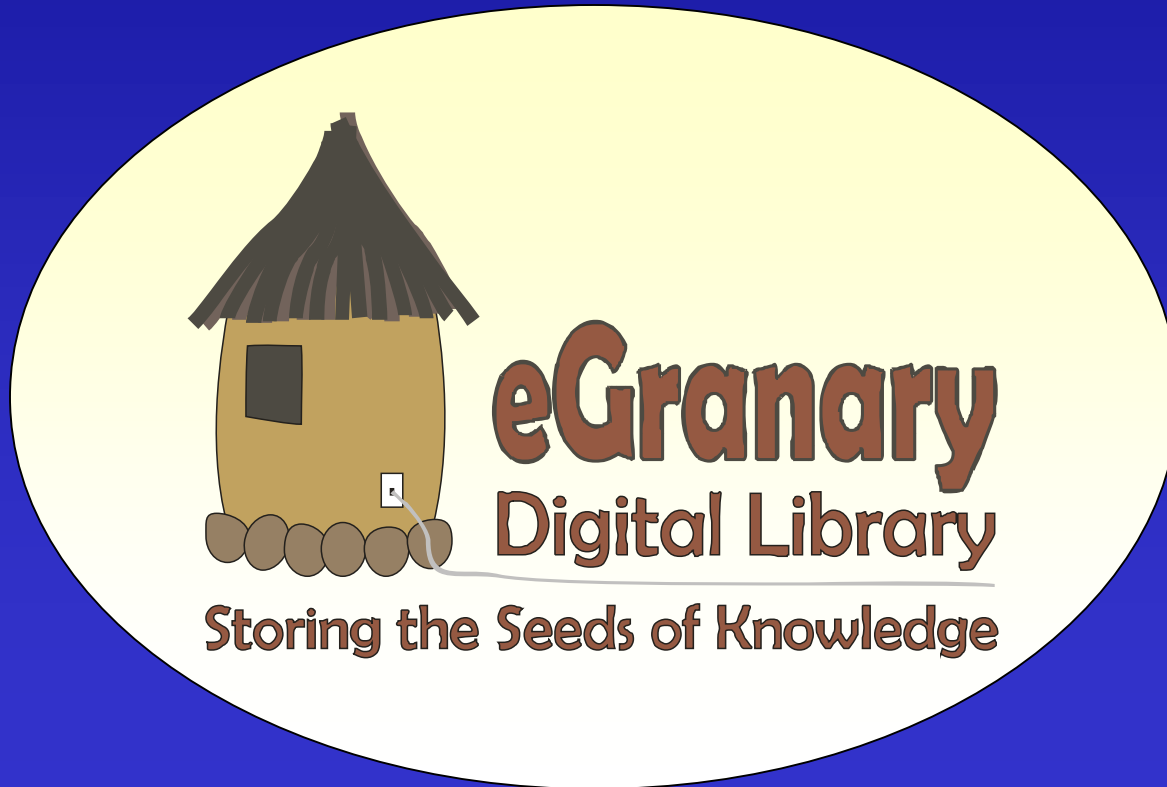
- Since 2000, building capacity at African institutions for academic collaborations
- 8,000+ trainees across sub-Saharan Africa and India (~30% women)
- Collected over \$2,100,000 in new & used hardware, software for partners in Africa
- Refurbished and shipped 1,600+ used computers for partner universities in Nigeria, Liberia, and Ethiopia
- 900+ volunteers have put in over 30,000 hours
- Focus on practical, cost effective solutions
- Helping to build a digital culture (best practices, user groups, student internships, gender equity...)
 - “see one – do one – teach one”

World Internet Users by Country Income Group



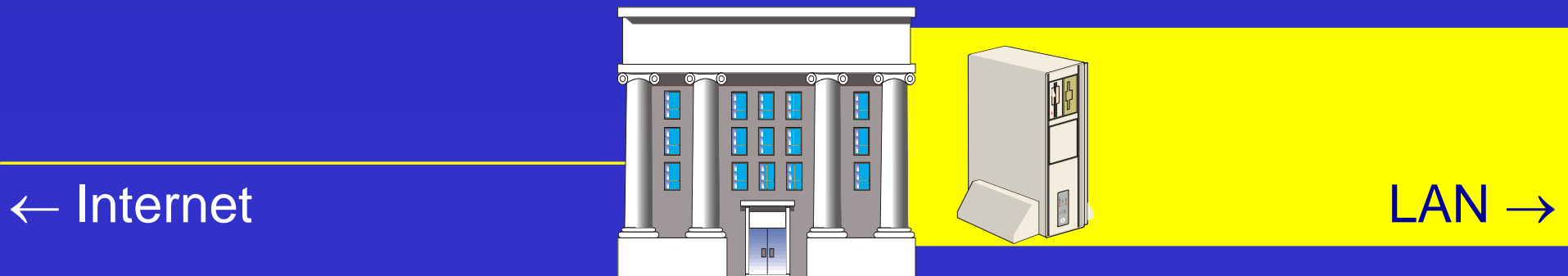
The eGranary Digital Library

“The Internet in a Box”™



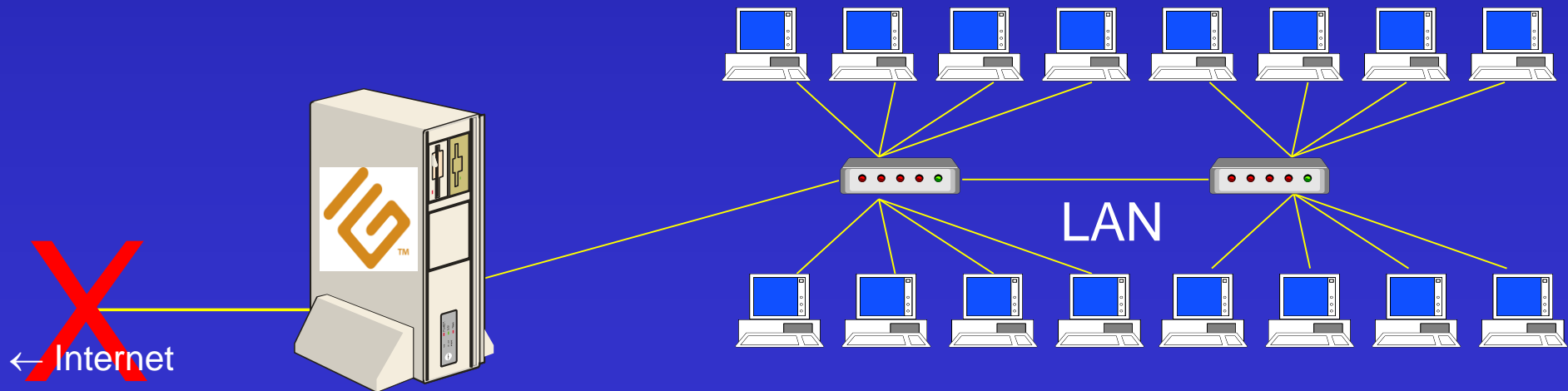
Replacing Bandwidth with Storewidth

- 6,000+ GB information store inside LAN
- Over 35 Million educational documents
- Collection created and maintained by librarians
- Multimedia, audio, video at full network speeds
- No bandwidth costs
- Augments a conventional Internet connection



The eGranary Digital Library can provide thousands of networked computers high-speed access to millions of documents and multimedia files over a local area network.

Even when the Internet connection is broken!



Underlying eGranary Concepts

Information cache

Bandwidth conservation

Off-line information store

Edge technology

“The Internet in a Box”



The eGranary is already installed in more than 1,400 schools, hospitals, clinics, and universities in Africa, Asia, and the Caribbean.



... and 16 prisons in Iowa, California, Texas, and Washington State.

The eGranary Digital Library

- Permission from over 2,000 authors & publishers (MIT OpenCourseware, Wikipedia, WHO, Math TV, Virtual Hospital, Khan Academy, etc.)
- Over 35 million documents
- 50,000+ books, hundreds of journals, hundreds of Web sites & CDs
- Patrons open documents 100 – 5,000 times faster than with their Internet connection
- Built-in search engine and catalog. Looks and acts just like the Internet.



Lessons from a Sandbox

- Easy networking has been done
- Better distinctions about user information needs leads to better technology choices and reduced costs
- Efforts to increase find-ability most rewarding
- Promote LAN / intranet strategies
- Community information is key

Ongoing Evaluation Program

Initially Supported by the Rockefeller Foundation

- Logistics of implementing the eGranary highly dependent on the enthusiasm of a champion
- Many of our subscribers do not expect or use technical support
- Never enough access points (computers)
- Information literacy the most daunting task faced by librarians and instructors

Subscriber Feedback

- Electrical power reliability issues
- Too few workstations
- “Too much information”
- Powerful instincts to control access
- Tech talent lacking: poaching
- Teaching with tech is the Holy Grail

Personal Observations

- Few people have experienced truly functional information technology
- Those who have rarely understand the underlying mechanisms
- Here or there, the vast majority have no idea how much this stuff costs

Three Challenges to Scale

- **Face Time**

How many hours users spend with a computer

- **Information Access**

How much, how fast, and at what price

- **Human Capacity**

The ability to install, maintain, and incorporate IT

Think “Hybrid” Solutions

- **Face Time**

Employ new and refurbished computers, handhelds, smartphones, leverage privately owned devices

- **Information Access**

Off-line information stores like eGranary, flash memory, whole community knowledgesphere, managed bandwidth

- **Human Capacity**

Focus on training children to set up and manage IT systems, build culture of cooperation, “see one, do one, teach one”, service learning projects to enhance community access to ICT

Community Information Platform

Sponsored by the Intel Corporation

- CIP adds interactive “Web 2.0” capabilities
 - Create IDs and logins (LDAP security)
 - Built-in software for making unlimited Web sites
- Easy to upload and share locally-made content
- Local content can be centrally developed and shared to other eGranary sites
- MySQL and PHP for local dynamic Web databases
 - Moodle: course management software
 - Drupal: Web content management system
 - WordPress: Blog software

User-Friendly Portals

- Having access to information is one thing, being able to use it well to meet a specific purpose is another
- Portals organize information into user-friendly, issue-centric interfaces
 - Health care, education, water development, etc.
- Reduces the time and effort for new users to integrate digital resources into their mission



Solidarity Librarianship

- Area librarianship for groups of people with similar needs/goals
- One half of good service is listening
- Wisdom of the crowd
- Reduces the time and effort for new users to integrate digital resources into their mission
- Equipping information champions to serve their communities



Lessons from a Sandbox

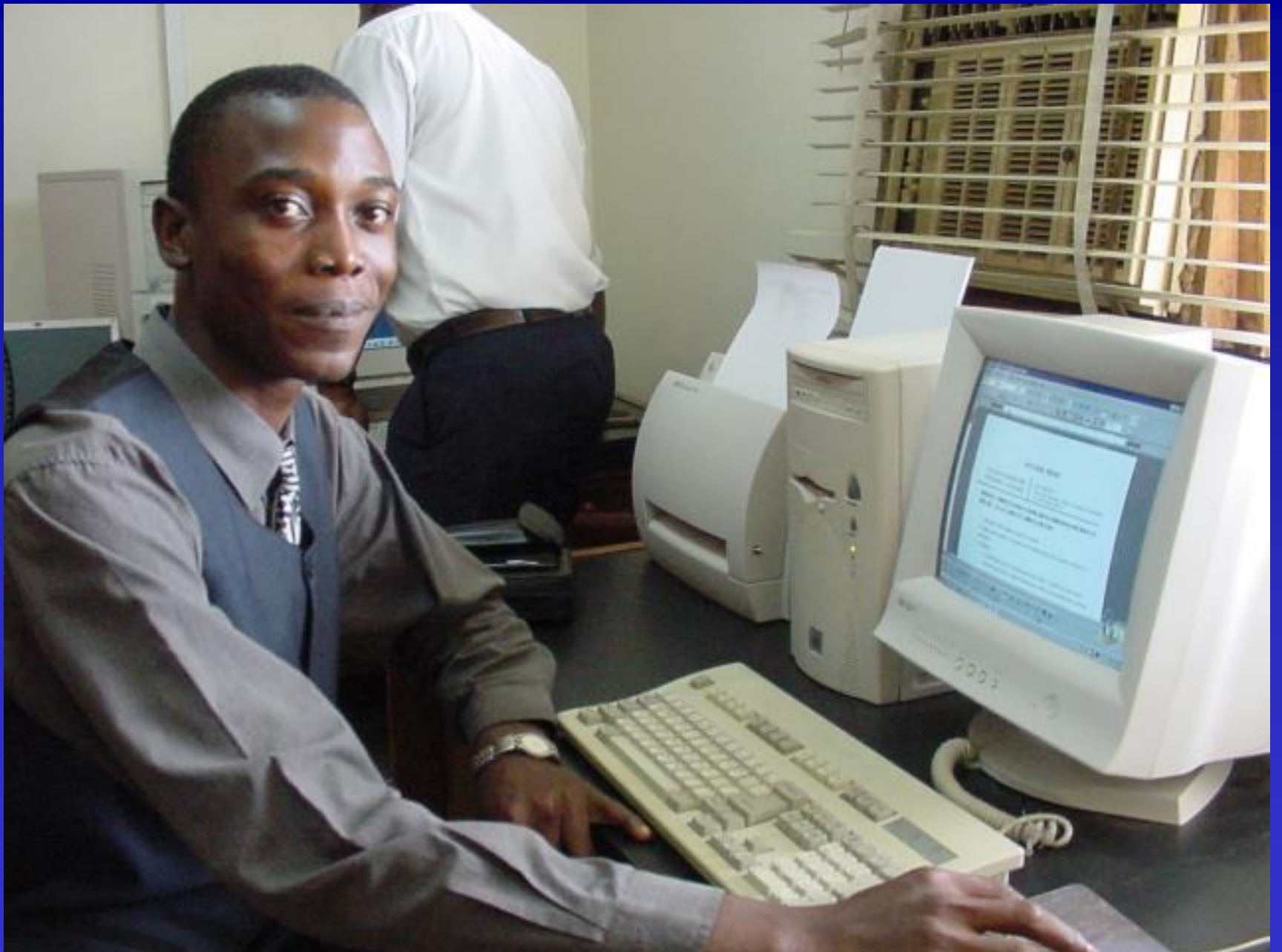
The more things change...

the more they stay the same.



















eGrana

digital library

(A Free Digital Library)

ADITHYA EDUCATIONAL

Rajahmundry

Andhra Pradesh

service of the

ZAMISE

AIDS ACTION C























widernet@UNC



UNC

SCHOOL OF INFORMATION
AND LIBRARY SCIENCE



The eGranary Digital Library

WiderNet@UNC

The School of Information and Library Science
University of north Carolina, Chapel Hill

<http://www.egranary.org>

Presenter: Cliff Missen
missenc@widernet.org

WHO

This population of patrons...

- Primary school teachers
- Secondary school teachers
- Secondary school students
- University undergrads
- University instructors
- University researchers
- University administrators
- Health care providers
- Policy makers
- Farmers
- Entrepreneurs
- Homemakers

WHAT

...need resources for this subject...

- Social sciences
- History
- Literature
- Agriculture
- Physics
- Mathematics
- Medicine
- Medical research
- Law
- Linguistics
- Computer science
- Business management
- Vocational training

WHICH FORMAT

...in these formats...

- Web sites
- Course curricula
- Printed books
- Journals
-
- Audio
- Video
- Interactive Tutorials
- Software

Below the dashed line represents where your patrons avoid certain document formats because of the time it takes to download. This can be moved up and down, depending on how fast your Internet connection can deliver the desired document.

HOW FRESH

...which cannot be older than ...

- Ancient
- Since 1950
- Last ten years
- Last five years
- Last year
- Last month
-
- Yesterday
- Today

Below the dashed line represents where the eGranary Digital Library ceases to be of service. This can be moved up and down, depending on how often you chose to update your eGranary.

HOW FAST

... and, for each resource, they need it...

- Immediately
- Within 1 minute
-
- Within 5 minutes
- Within 15 minutes
- Within days
- Within months

Below the dashed line represents the point where a slow Internet connection might be a good option. This line can be moved up and down, depending on how fast your Internet connection can deliver the desired document.

Hybrid 12-volt Power Model

12-volt Core

eGranary Server, essential 12-volt computers, and wireless network powered 24x7 by deep-cycle battery bank.



Hybrid 12-volt Power Model

12-volt Core

eGranary Server, essential 12-volt computers, and wireless network powered 24x7 by deep-cycle battery bank.

Knowledgesphere

Institutional and privately-owned battery-powered devices running for hours on their own charge that can access the services in the core.



Hybrid 12-volt Power Model

12-volt Core

eGranary Server, essential 12-volt computers, and wireless network powered 24x7 by deep-cycle battery bank.

Knowledgesphere

Institutional and privately-owned battery-powered devices running for hours on their own charge that can access the services in the core.

Traditional Systems

220-volt new and refurbished computers and printers that are only usable when the power is on.

