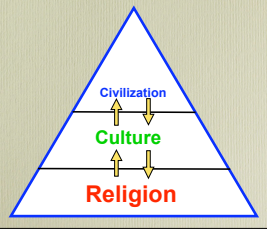
"Global Peace Through The Global University System"

1

Hierarchy of Civilization, Culture and Religion



2

Dawn of 21st Century

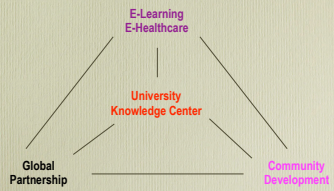
1. Digitalization
   Analog to Digital

2. Globalization
   Local to Global

3. New Economy
   Obedience to Creativity

3

University: Leader of Community in the Knowledge Society in the 21st Century



4

Expected Benefits

It is expected that GUS will provide the following benefits to students and participating universities:

- Broadband Internet connection, supporting modern distance education via the World Wide Web.
- Help member universities build a network of facilitators to support e-learners.
- Learners may take courses from different member universities, obtaining their degree from the GUS, thus freeing them from being confined to one academic culture of a single university or country.
- Learners and faculties can promote the exchange of ideas, information, knowledge, and joint research and development of Web-based teaching materials.
- Researchers in developing countries can partner with colleagues in more advanced countries, and perform joint collaborative research and development with the use of virtual reality/virtual laboratories for experiential/constructive learning and creation of knowledge through emerging global GRID computer networking technology.
- Learners, faculties, and public policy makers can promote community development and many other advances at a local, regional and even on a global scale.

5

Part I: Greetings and Visions

Former President of Finland and Laureate of Fulbright Prize, Martti Ahtisaari

Minister for Foreign Affairs of Finland, Erkki Tuomioja

European Comissioner for Education and Culture, Belgium, Ms. Viviane Reding

Former Director-General of UNESCO, Spain, Federico Mayor

Former Director-General of ITU, Finland, Pekka Tarjanne

Director-General of ITU, Switzerland, Yoshio Utsumi

Director-General of ILO, Switzerland, Juan Somavia

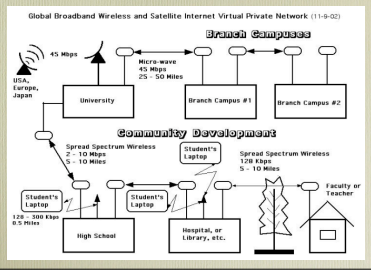
Vice Chancellor of The Open University, UK, Ms. Brenda M. Gourley

Former Director of Higher Education of UNESCO, France, Marco Antonio R. Dias.

6

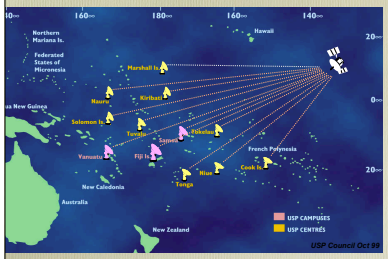
Global Broadband Internet (GBI)

Virtual Private Network with QoS



7

USPNet VSAT Network



8

LINCOS (Little Intelligent Communities) or "Unwiring the World"

Hewlett-Packard, Microsoft, FTL Happold, Northsails, UTC, Becton-Dickenson, Wyle, V-Tel, **Tachyon**

Foundation for Sustainable Development of Costa Rica
Institute of Technology of Costa Rica
MIT Media Lab
University of Rochester

9

Digital Town Centers

8-10 Computers
2 Printers, 2 Scanners
Cell phone base station (15 mile radius)
Smart card reader
Medical diagnostic bay
Analytical equipment as appropriate
External large screen (when available)
VSAT satellite connection

Purpose: to provide a multi-purpose information center for isolated regions, with high-speed (40 Mb/s) internet access and integrated local wireless communications, at affordable cost for developing nations

Telemedicine
Agricultural extension services
Environmental monitoring
Education

Computer Lab
Electronic Commerce
Banking
Digital Services

10

Microwave Network among Hawaiian Islands

11

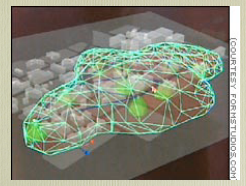
Inventor of Wireless

Ms. Hedy Lamarr

"Spread-Spectrum Radio" by David, R. Hughes and Dewayne Hendricks, *Scientific American*, April 1998, p 94-96

12

WiFi Cloud



(COURTESY FORTHSTUDIOS.COM)

This 3-D animation shows the wireless "cloud" over downtown Athens, Georgia. The project is aimed at attracting new users and creating new content for wireless laptops and PDAs.

"Wireless 'cloud' may offer silver lining; Or is it just 'pie-in-the-sky' technology?
CNN.com/SCI-TECH; July 31, 2002
http://www.cnn.com/2002/TECH/science/07/31/coolsc.wireless.cloud/index.html

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Mobil Learning Era

The evidence is overwhelming that mobile learning (m-Learning) is beginning to take hold:

- Over 50 percent of all employees spend up to half of their time outside the office.
- More than 75 percent of all Internet viewing will be carried out on wireless platforms by 2002.
- Mobile devices will outnumber landline PCs by 2002 and exceed the 1 billion mark the following year.
- More than 525 million web-enabled phones will be shipped by 2003.
- Worldwide mobile commerce market will reach $200 billion by 2004.
- There will be more than 1 billion wireless internet subscribers worldwide by 2005.

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Connotations

❊ WIRED	✲ WIRELESS
❊ Slave	✲ Freedom
❊ Crime	✲ Flexibility

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Part III: Global E-Learning and E-Healthcare

- Implementation plan for realizing GUS with a community development approach and paradigm shift from industrial age to knowledge society of the 21 st century,
- Past and current experiences of eLearning practices through narrow band Internet and other ways,
- Proposed schemes on how to extend eLearning through narrow-band Internet to developing countries, and
- Vision of how to enhance eLearning courses with broadband Internet and proposed schemes – how to realize them.

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Amazon Project

Deployment of Broadband Internet

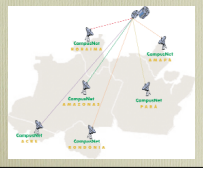
- CampusNet Amazonia
- Community Development Networks (CDNs)

17

Amazon Project

Deployment of Broadband Internet

CampusNet Amazonia will interconnect Multimedia Resource Centers (MRCs) of all six Federal Universities in the Amazon region by broadband satellite Internet.



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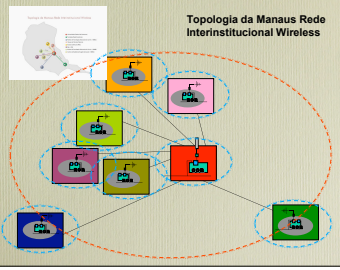
Community Development Networks (CDNs)



Topologia da Manaus Rede Interinstitucional Wireless

19

Part IV: Global Collaboration

Papers in Part IV describe how GUS can help promote collaboration for attaining global peace, particularly with the use of virtual reality and virtual laboratories through the advanced GRID computing network technology for globally collaborative, experiential/ constructive creation of new knowledge by young people around the world.

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Globally Collaborative Environmental Peace Gaming through Global Neural Computer Network

- Need
- Computer Simulation Models
  - Socio-Economic Model
  - Climate Simulation Model
- Beowulf Mini Supercomputer
  - Maui Community College in Hawaii
- Global Grid Computing

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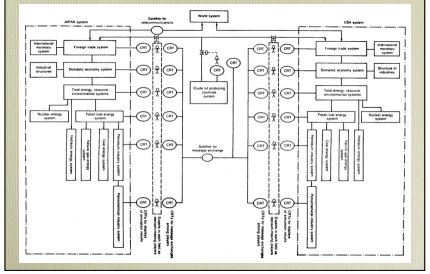
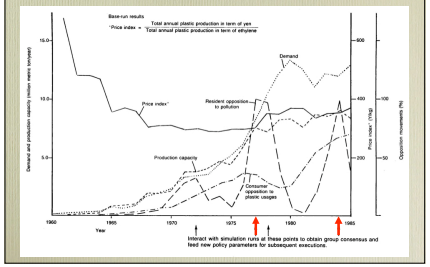
Globally Collaborative Environmental Peace Gaming (GCEPG)

Structure of Integrated Models and Communication Network
Boxes are dispersed, dissimilar computers around the global Internet.



22

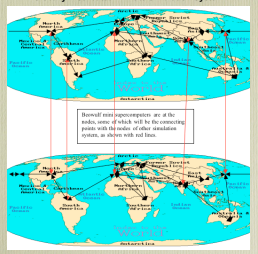
Growth of Japanese Petrochemical Industry



23

Globally Collaborative Environmental Peace Gaming (GCEPG)

Globally Distributed Climate Simulation System



Globally Distributed Socio-Economic-Environmental Simulation System

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Financing

- During the Okinawa Summit in July of 2000, Japanese government pledged US$15 billion to close the digital divide in developing countries and for the eradication of poverty and isolation.
- During the G8 Summit in Canada in June of 2002, and at the Environment Summit in South Africa in September of 2002, they also pledged another US$2 billion to aid education and healthcare in developing countries, respectively.

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Funding Strategy
(continued)

- GUS projects will combine (1) the Japanese government's Official Development Assistance (ODA) funds and (2) Japanese electronic equipment with
- (a) the Internet technology and (b) content development of North America and Europe,
-
- to help underserved people in rural and remote areas of developing countries by closing the digital divide.

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GLOSAS Projects
(GLObal Systems Analysis and Simulation Association in the U.S.A.)

Takeshi Utsumi, Ph.D., P.E.

- Chairman, GLOSAS/USA
- Laureate of Lord Perry Award for Excellence in Distance Education
- Founder and V.P. for Technology and Coordination of Global University System (GUS)
- http://www.friends-partners.org/GLOSAS/

Click "Current Reference Websites" in the home page listed above.

27

Muito Obrigado

Arigato

("Thank you" in Japanese)

(not alligator)

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