Global Early Warning System (GEWS) with Global University System (GUS)

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Principles of Information and Knowledge Societies

- **Information Society**
  - Packet-switching technology
    - Sharing
- **Knowlege Society**
  - Distributed Simulation technology
    - Collaboration
- **Global Peace**
  - Sharing and Collaboration

Sharing:

Internet is to realize the dream of Karl Marx to have egariterian society.

Knowledge grows when we share it.

Globally Collaborative Environmental Peace Gaming

(now named Global Early Warning System (GEWS))

Globally Collaborative Environmental Peace Gaming (GCEPG) with a globally distributed computer simulation system, focusing on the issue of environment and sustainable development in developing countries, is to train would-be decision makers in crisis management, conflict resolution, and negotiation techniques basing on "facts and figures."

We plan to develop a socio-economic-environmental simulation system and a climate simulation system in parallel fashion, both of which are to be interconnected in global scale.

E-mail and multimedia World Wide Web of Internet so far contributed significantly to the world society on the dissemination of information. The next phase of the Internet development with global neural (or GRID) computer networks should be the globally collaborative experiential learning and constructive creation of wisdom with interactive actions on virtual reality simulation models of joint global research and development projects on various subjects.

Globally Collaborative Environmental Peace Gaming
through
Global Neural Computer Network

- Need: Kyoto Protocol
- Computer Simulation Models
  - o Socio-Economic-Environment Model
  - o Climate Simulation Model
- Beowulf Mini Supercomputer
  - o Maui Community College in Hawaii
- Global Neural (Grid) Computer Network

This will promote trustful friendship among youngsters around the world to realize the Knowledge Society of the 21st century, and their collective creativity will enlarge the size of pie for stakeholders to reach peaceful win-win consequences. Senator Fulbright once said that learning together and working together are the first steps toward world peace.

Three Necessary Components for Peace Gaming

(now named Global Early Warning System (GEWS))

1. **Telecommunication Infrastructure**
   - **Packet-Switching Telecommunication**
     - **Internet**
2. **Communication Means**
   - **E-mail**
     - **Multimedia**
3. **Game Players**
   - **Global University System**

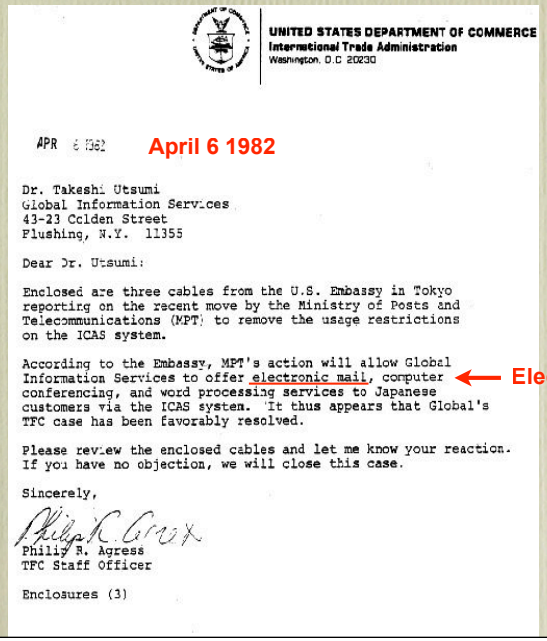
Paul Baran

(April, 29, 1926 - March 26, 2011)

Inventor of
Packet-switching Data Telecom Technology

http://www.nytimes.com/2011/03/28/technology/28baran.html?nl=todaysheadlines&emc=tha26

Deregulation of Japanese Telecom Policy for the Use of Email



UNITED STATES DEPARTMENT OF COMMERCE
International Trade Administration
Washington, D.C 20230

APR 6 1982 April 6 1982

Dr. Takeshi Utsumi
Global Information Services
43-23 Colden Street
Flushing, N.Y. 11355

Dear Dr. Utsumi:

Enclosed are three cables from the U.S. Embassy in Tokyo reporting on the racent move by the Ministry of Posts and Telecommunications (MPT) to remove the usage restrictions on the ICAS system.

According to the Embassy, MPT's action will allow Global Information Services to offer electronic mail, computer conferencing, and word processing services to Japanese customers via the ICAS system. It thus appears that Global's TFC case has been favorably resolved.

Electronic Mail

Please review the enclosed cables and let me know your reaction. If you have no objection, we will close this case.

Sincerely,

Philip R. Agress
TFC Staff Officer

Enclosures (3)

Move Mountain

(Gu-Kou-I-San)

Even a stupid fellow can move a mountain.

Chinese word	Japanese Pronunciation	English
愚	GU	Stupid
公	KOU	Fellow
移	I	Move
山	SAN	Mountain

Iron Rule #1 of Simulation

Make Simulation close to SIMULAND as much as possible.

Advantages of Distributed Simulation

1. Increase of Credibility
2. Data Security
3. Flexibility
   a. Use of any language within local simulation
   b. Same for methodology, machine, etc.
4. Participatory Democracy with Bottom-up Decision
5. Cooperation for Better Understanding
6. Suitable for Large-scale, Confrontation-prone, Global problems

Methodologies of Socio-Economic Simulation

1. Dynamic Methodologies:

- **a. Econometrics**
- **b. System Dynamics**

2. Static Methodologies:

- **a. Input/Output Method**
- **b. Linear Programming**

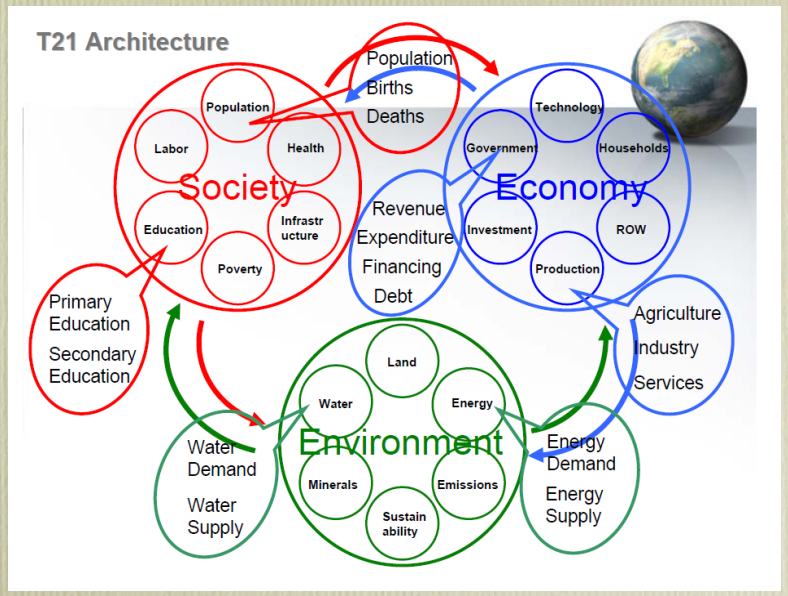
3. Communication-oriented Methodologies:

- **a. Policy Delphi**
- **b. Cross-Impact Matrix Analysis**
  (Probabilistic System Dynamics)

System Dynamic Simulation with Cause-and-Effect Analysis and Feedback Loop

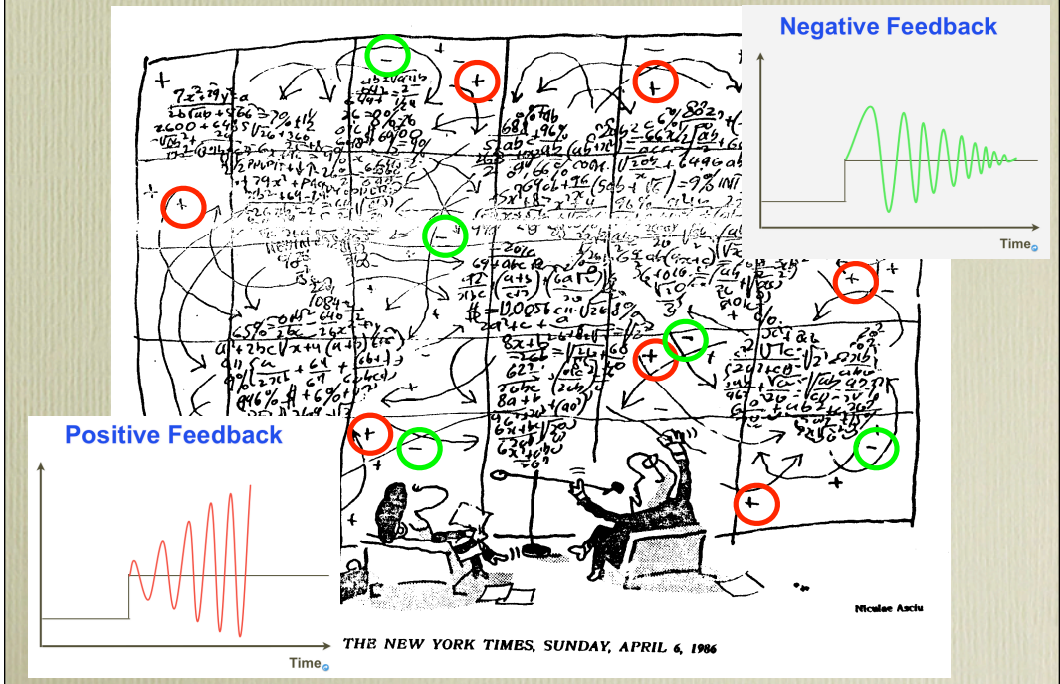
- Non-linear, holistic thinking of the whole system instead of linear, narrow, single issue thinking.
- Counter-intuitive, instead of intuitive.
- Learning the system mechanism and its behavior.
- Rational decision making habit based on FACTS and FIGURES.
- GOOD FOR POLICY ANALYSIS OF SOCIO-ECONOMIC SYSTEMS.

Cause and Effect Diagram



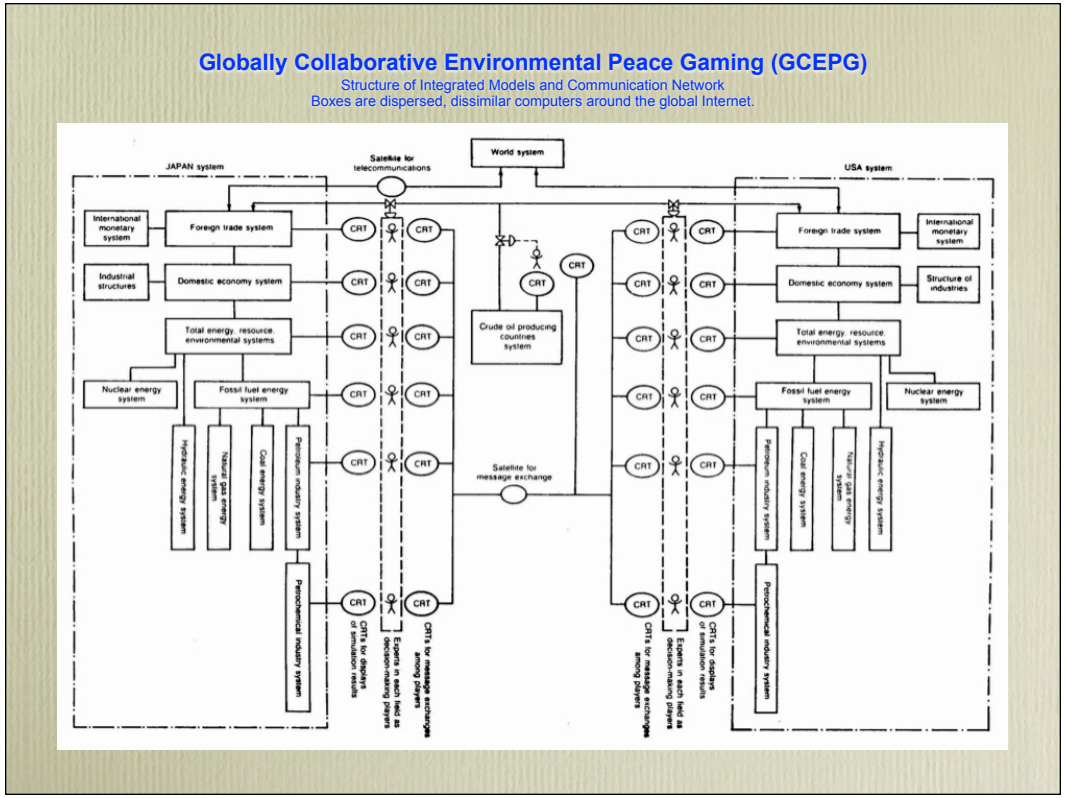
T21 Architecture <http://www.millenniuminstitute.net/integrated_planning/tools/T21>

Systems Analysis of the World



Needed: A Clearer Crystal Ball

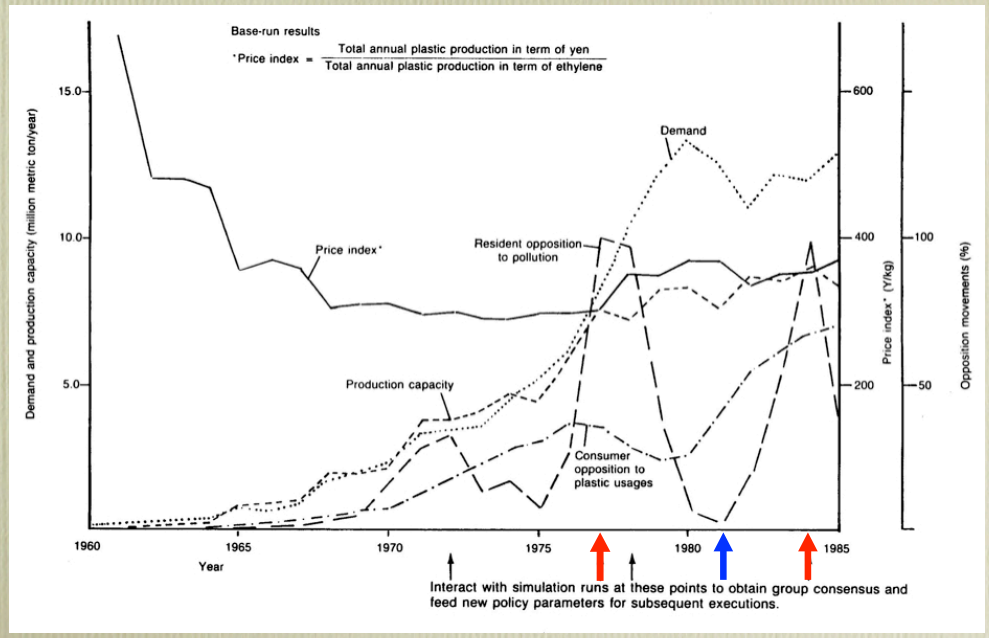
Shiller, Robert J., "Economic View: Needed: A Clearer Crystall Ball," New York Times, April 30, 2011 <http://www.nytimes.com/2011/05/01/business/economy/01view.html?scp=2&sq=Robert%20J.%20Shiller&st=cse>



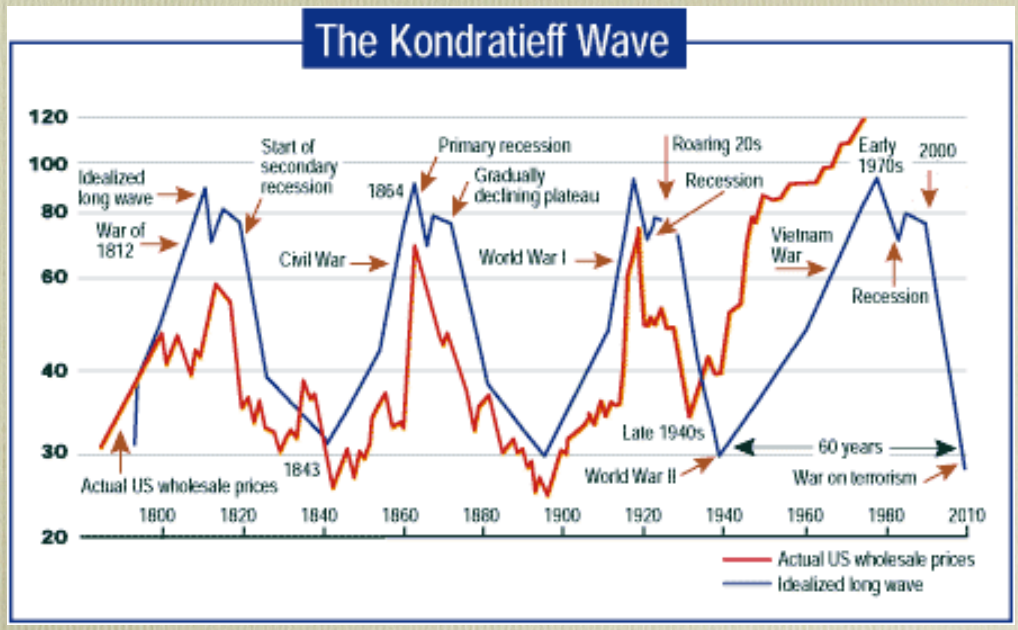
Global Peace Gaming for Oil Crisis

I once proposed a global peace gaming to cope with the oil crisis in early 1970s in response to Meadows' "Limit to the Growth." An outline of the hierarchical structure and distributed components of an integrated, interactive peace gaming/ simulation system for energy, economics, and foreign trade in the USA and the Japanese sides was depicted in this diagram. Each block in the figure represented dissimilar computers in those countries interconnected through data telecom network (e.g., Internet nowadays). These computers included simulation models designated in each block. All models would be executed in concertedly via satellite and terrestrial telecommunication links.

Growth of Japanese Petrochemical Industry

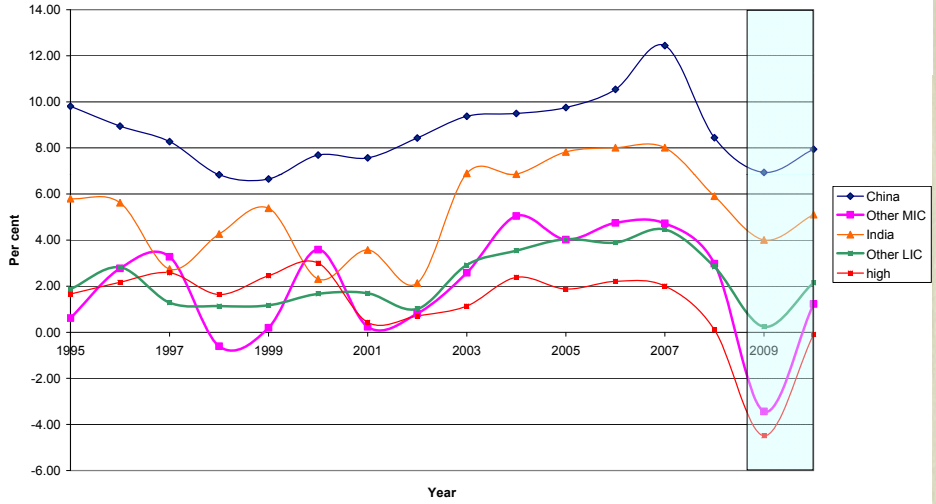


For example, suppose pollution in Japan exceeded a certain allowable level, say, around 1977 on this graph, the Japanese expert watching it on the display unit would stop the entire simulation. All participants, wherever they were located, would then try to find, with the use of the conferencing system, a consensus on a new set of pseudo-alternative policy parameters which would be executed until a new crisis appears, say, around 1984 on the figure. The process would be repeated for rational policy analysis, based on facts and figures, and with international cooperation of experts in both countries.



THE KONDRATIEFF WAVE. Peaks and troughs are associated with major political or cultural events.
http://www.kwaves.com/kond_overview.htm

Real GDP per capita growth rates of selected groups of countries: 1995-2007 + forecasts



http://www.ony.unu.edu/Dr.Bourguignon_Crisis_UN_presentation.pdf

Examples of Policy Analysis

- **Mr. Al Gore recently proposed to replace fossil fuel with renewable one to generate electricity in the USA in ten years.**
- **President Obama also recently proposed to supply 20% of the US total electricity generation with wind energy by the year 2030, compared with only 0.8% currently.**
- **97% of Nigerian government revenue comes from oil export, and 40% of its low-sulphur crude oil export is to north America for electricity generation. This will be nullified if Mr. Al Gore's and/or President Obama's propositions would succeed, thus, significant blow to the Nigerian government.**

GEWS Projects for Disaster Prevention and Conflict Resolution on World Water War

(a) **Bangladesh** for the region of India, Nepal and Bhutan — along Ganges River,

(b) **Rwanda** for the region of Egypt, Sudan, Ethiopia, Uganda, Tanzania, Kenya, the Democratic Republic of Congo (DRC), Burundi — along Nile River,

(c) **Democratic Republic of Congo (DRC**) for the region of Cameroon, Equatorial Guinea, Gabon, Congo, Angola, Burundi, Chad, Central African, etc., -- along Congo River.

Nigeria for the region of ECOWAS (with 15 western African countries) with Cloud Computing Simulation Center (CCSC) and -- along Niger River basin.

Paradigm Shift on political science with combined use of normative (role playing) gaming and quantitative (model based) simulation.

Global University System (GUS)

- Worldwide consortium of educational and healthcare institutions and NGOs, particularly benefiting those in remote/rural areas of developing countries for the eradication of poverty and isolation.
- Learners in those countries will be able to take their courses, via advanced broadband Internet, from member institutions around the world to receive a GUS degree.
- Learns, instructors and reserchers of partner institutions will also form a global forum for exchange of ideas and information and for conducting collaborative research and development with the emerging global GRID co
  network technology.
- Thus, the higher education institutions will clos
  divide, act as the knowledge center of their co
  lead their development.

1. Wordwide consortium

2. 21st century version of Fulbright exchange program

3. Globally collaborative Research and Development

Principle of Global E-Learning

- Collaborative Learning
- Experiential Learning
- Objective Learning
- Autonomous Learning

The word “University” has a connotation of “universe.” Hence, the university in remote/rural areas of developing countries ought to act as the knowledge center of their community for the eradication of poverty and isolation through the use of advanced Information and Communication Technologies (ICTs).

The university has to provide not only e-learning and e-healthcare services to their community, but also to lead their community development.

It also ought to be the gateway for globally collaborative research and development as fostering the Global Creative Economy in the borderless Knowledge Society of the 21st century.

Mission of GUS: GUS aims to build a higher level of humanity with mutual understanding across national and cultural boundaries for global peace.
The GUS helps higher educational institutions in remote/rural areas of developing countries to deploy broadband Internet in order for them to close the digital divide.
The GUS education thus will promote world prosperity, justice, and peace, based on moral principles rather than political or ideological doctrines. The aim is to achieve "education and healthcare for all", anywhere, anytime.

Goal of GUS: The GUS is a world-wide initiative to create broadband Internet infrastructure and educational programs for access to educational resources across national and cultural boundaries for global peace.
Education and job skills are the keys in determining a nation's wealth and influence.

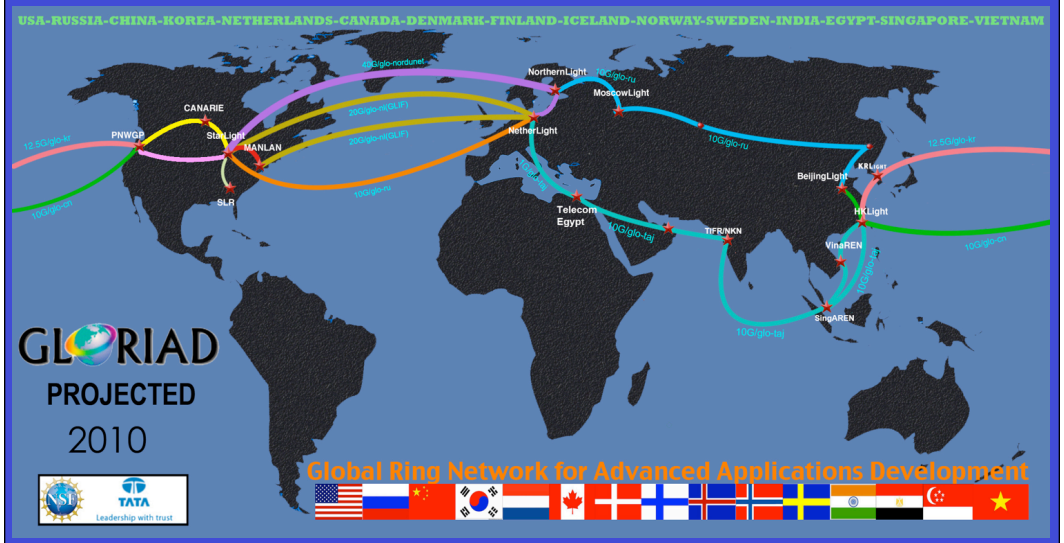
Activities of GUS: GUS has group activities in the major regions of the globe in partnership with higher learning and healthcare institutions. They foster the establishment of GUS in their respective regions, with the use of an advanced global broadband Internet virtual private network. Those institutions affiliated with GUS become members of the GUS/UNESCO/UNITWIN Networking Chair Program located at the University of Tampere in Finland.
Students in these regions will be able to take their courses, via advanced broadband Internet, from member institutions around the world to receive a GUS degree.
These students and their professors from participating institutions will form a global forum for exchange of ideas and information and for conducting collaborative research and development with the use of emerging GRID networking technology.

Expected Benefits

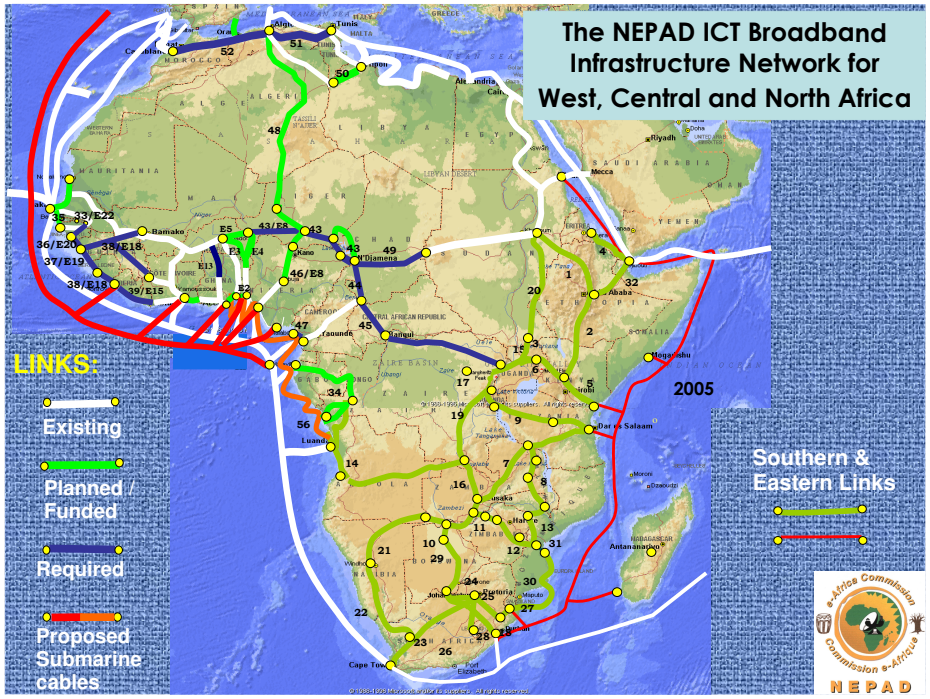
- Support of e-learners and e-healthcare
- Freedom from geographical limitations
- Global dialogues for global peace
- Exchange of ideas, information, knowledge
- Joint colloborative Hi-Tech research and development

Consortium member universities will be able to build the network of facilitators for support of e-learners,
Learners may take one course from a university of different country to get his/her degree from the GUS, thus freeing them from being confined with one philosophy of a university and a country,
The broadband Internet will enable web-based teaching with more interaction among/between learners and instructors compared with less interaction in replicating class-room teaching via analog broadcasting satellite, -- thus stimulating global dialogues among them to attain global peace,
Learners and faculties at the member universities can promote exchange of ideas, information, knowledge and joint research and development of web-based teaching materials, community development, and many others locally, regionally and even in global scale,
Researchers in even developing countries can perform joint collaborative Hi-Tech research and development with virtual reality and virtual laboratory of various academic and engineering subjects with colleagues in developed countries.

GLORIAD Topology



http://www.gloriad.org/gloriaddrupal/



http://www.eafricacommission.org/projects/126/nepad-ict-broadband-infrastructure-network

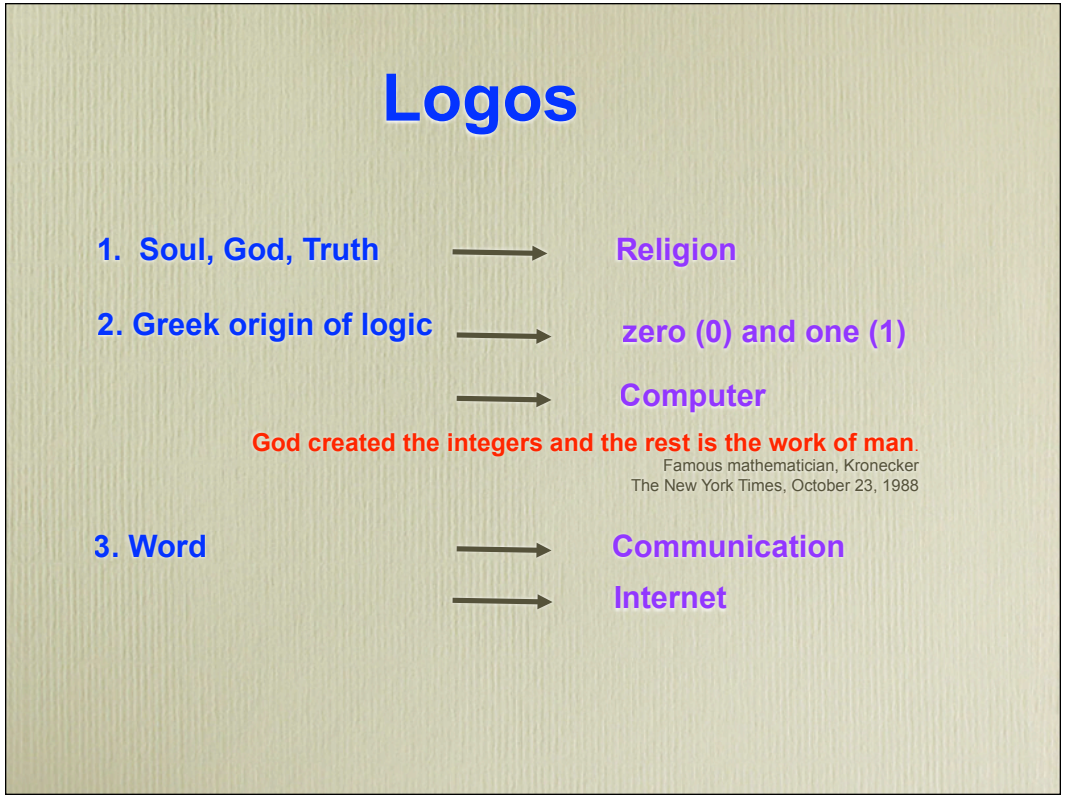
Financing

- 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.

INTER-CULTURE

I remembered this verse of the Book of John in the New Testament, which I learned in ancient Greek in my college age.

Dr. Joshua Lederberg, President emeritus, Rockefeller University and Nobel Laureate in Genetics, once said to me during a seminar at Columbia University that this phrase is his psyche.



The word “Logos” has the meaning of “Soul,” “God,” and “Truth,” in religion.

It is the Greek origin of the English word “logic,” -- like “Yes,” or “No,” and zero (0) and one (1) which are the basis of computer.

The “Logos” was also translated to “word” in King James Bible.

I thought that it was erroneous translation and it should have been translated to “logic.”

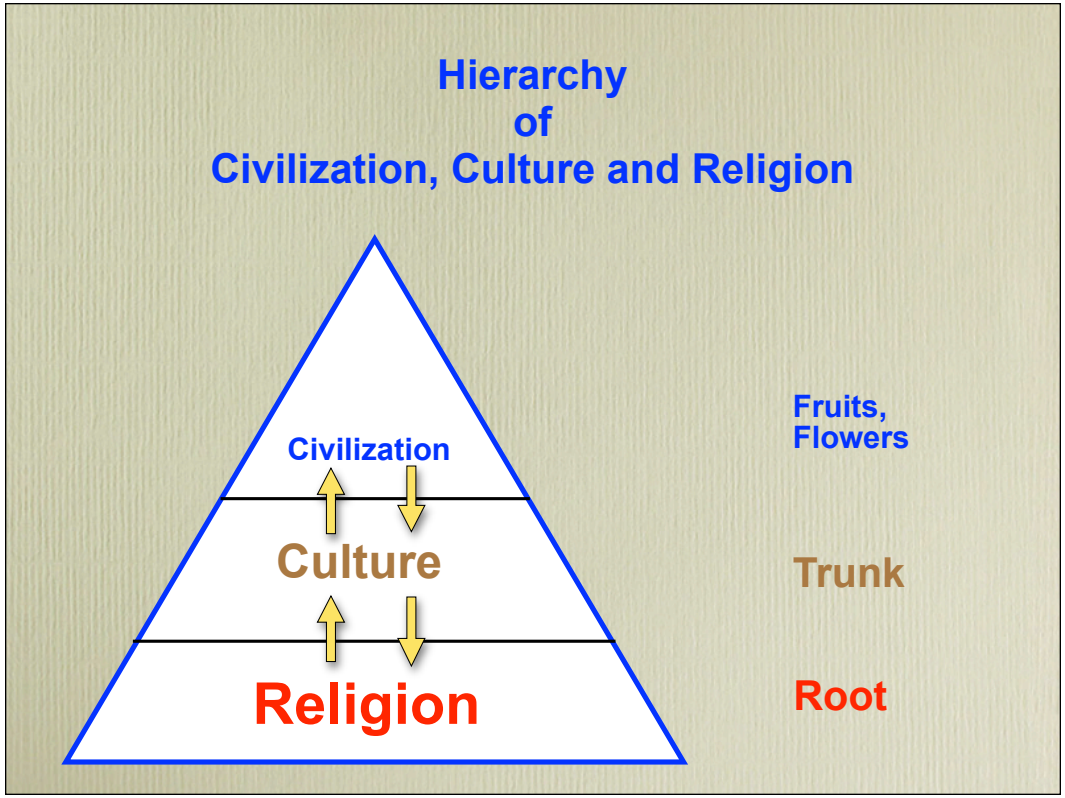
However, I realized that the “word” is the basis of communication which is the basis of human understanding for world peace. Internet is now becoming the future of telecommunications.

Almost a quarter century ago, I helped to extend the predecessor of Internet to various overseas countries, particularly to Japan, etc., (the so-called “Closing Digital Divide” nowadays), and also de-regulated the Japanese telecom policies for the use of email. This was emulated in many other countries -- nowadays, over 750 million people use email around the world.

Six Great Thoughts of East and West

East	West
Truth	Justice
Goodness	Equality
Beauty	Freedom

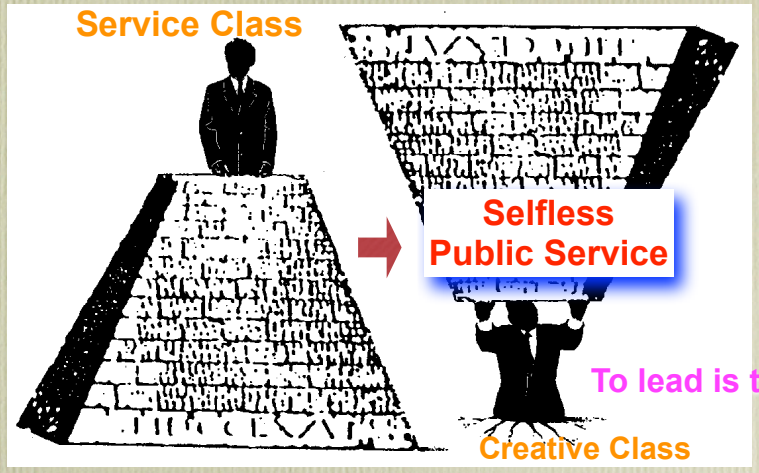
"Election alone do not make true democracy."
President Obama
Cairo University
June 4, 2009



Japan = cherry,
China = peach,
the U.S. = apple, etc.

We need a cross pollination for jointly creating a new global culture and civilization of a global society in the knowledge age of the 21st century by youngsters around the world.

Private vs Public Service



Industrial Society of 20th Century

Global Society of 21st Century

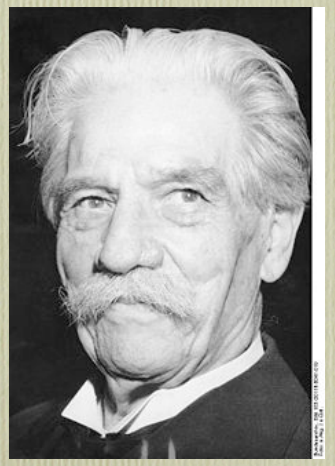
"Why Business Fail in Government," The New York Times, 1987

The Challenge seemed impossible. The performance was superhuman.
(The New York Times, April 17, 2005)

On the day of his first inauguration, March 4th 1933, Franklin Delano Roosevelt lifted America onto his shoulders, and never set it down again.
He carried it through 4 consecutive presidential elections, for over 12 years.
He carried it through a Great Depression that laid America low.
He carried it in a World War against both Germany and Japan.
He carried this crushing burden with such great flair, that most Americans were unaware that an earlier battle with polio left him unable to walk.
To call his performance superhuman is not unreasonable.

Albert Schweitzer

(14 January 1875 – 4 September 1965)



"I don't know what your destiny will be, but one thing I do know: the only ones among you who will be really happy are those who have sought and found how to serve."

Wikipedia, <http://en.wikipedia.org/wiki/Albert_Schweitzer>

Moral of Civilization

"Civilization consists not in the multiplication of wants but in the deliberate and voluntary reduction of wants."

Mahatma Gandhi (1869-1948)

The world has the resources to meet the needs of humanity, not the greed of humanity.

Mahatma Gandhi

忘己利他

(Forget Self and Benefit Others)

瀬戸内 晴美 (Harumi Setouchi)

2006年11月 文化勲章を受賞 (Laureate of the Order of Cultural Merit)

We must find a way to reconcile our ever-shrinking world with its ever-growing diversity -- diversity of thought, of culture, and of belief.

We must find a way to live together as one human family.

President Barack Obama
Notre Dame Commencement Speech,
May 17, 2009

CREATIVITY

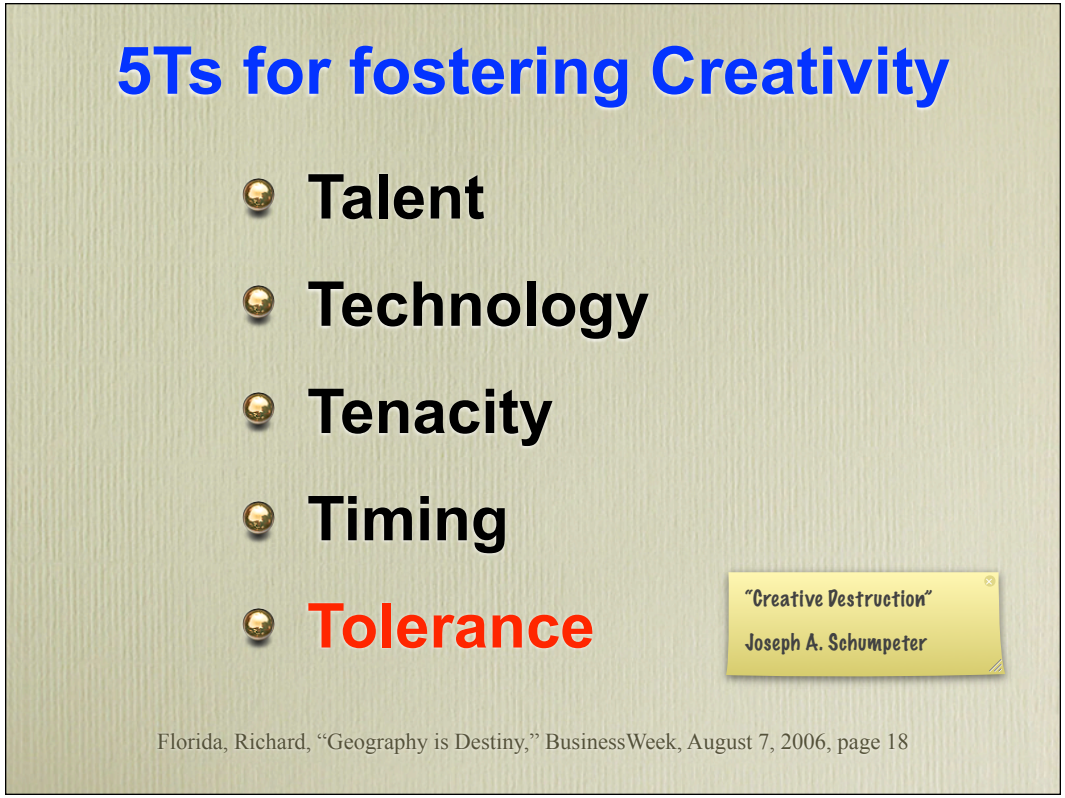
On Creativity

There is nothing higher than creativeness, and there is no greater joy. Therefore – create and rejoice! Be daring in creative flight. "Create courageously!"

Let thought undistorted and unrestricted be impressed in your being. Let it be free from the shadow of the censor's scalpel.

Be true to yourself because there is nothing higher than creativeness.

Slide taken from World Island Project



Entrepreneurs, musicians, scientists, designers, and engineers, made up 10% of the workforce in 1900.
Today they account for almost 30%, produce nearly half the country's yearly wages and salaries, and are far more mobile than ever before.

It's not the machines or the technology that matter, but "the knowledge, intelligence, and creativity of the people."

“Creative Destruction”?

Photo taken at Da Vinci Science and Technology Museum, Milan, Italy (March, 2005)

41

Dick Cogger of Cornell University invented CU-SeeMe videoconferencing system over Internet.

Mr. Anderssen, then a graduate student at the University of Illinois, invented MOSAIC, a predecessor of NETSCAPE, a web browser.

Mr. Kelvin, then a graduate student at the University of Illinois, invented Voice over Internet Protocol (VoIP).

We need to help their breaking their shells.

“**Innovations threaten the establishment, and the reaction is often to get rid of the person promoting the innovation**,” said Jay M. Cohen, the under secretary for research and development in the Department of Homeland Security. (G. Pascal Zachary, “When the Military Needs It Yesterday,” The New York Times, Sunday, October 21, 2007)

Your work is going to fill a large part of your life and the only way to be truly satisfied is to do what you believe is great work.

少年よ大志を抱け！

The only way to do great work is to love what you do.

Steve Jobs, CEO of Apple, Speech made at Stanford University, 2005
http://gawker.com/5042795/bloomberg-runs-steve-jobs-obituary

America is so much more innovative a place than any other country. America allows you to explore your mind. America is the greatest engine of innovation that has ever existed, and it can't be duplicated anytime soon, because it is the product of a multitude of factors:
* Extreme **freedom of thought**,
* An emphasis on **independent thinking**,
* A steady **immigration of new minds**,
* A **risk-taking** culture with no stigma attached to trying and failing,
* A **non-corrupt bureaucracy**, and
* **Financial markets and a venture capital** system that are unrivaled at taking new ideas and turning them into global products.

These institutions, which nurture innovation, are the real crown jewels of American culture. The whole process where people get an idea and put together a team, raise the capital, create a product and main-stream it -- that can only be done in the U.S.
The U.S. tech workers must keep creating leading edge technologies that make their companies more productive -- especially innovations that spark entirely new markets.
This is America's real edge.

How to Fire Up The Innovation Machine

BusinessWeek, October 11, 2004, Page 240

At a time of intense division, with deep political and religious fault lines splitting the world, innovation stands out as a powerful integrative force.

It ties countries, companies, and consumers together in creating value, solving problems, and generating wealth.

An innovation economy demands that society be open, dynamic, educated, international, and risk-taking. Given a chance, innovation can improve all our lives.

Financial risk-taking is the fuel that powers the process of change.

Worldwide innovation networks are the new keys to R&D vitality -- and competitiveness.

CONCLUSION

Change the World

"Never doubt that a small group of dedicated individuals can change the world. In fact, it is the only thing that ever has."

American anthropologist, Margaret Mead (1901-1978)

Four Arts

武術:
Art of Peace-Making
To attain global peace

学術:
Art of Learning
To cherish old and learn new

仁術:
Art of Wisdom/Virtue
To heal illness of nation and globe

医術:
Art of Medicine
To heal illness of individual human

武: 戈 (sword) + 止 (stop) = Peace

士: Samurai = Chivalry

武士: Takeshi = Chivalry of Peace

GLOSAS Projects

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

http://www.friends-partners.org/GLOSAS/

Click "Current Reference Websites" in this home page.

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)

Thank you for your listening.