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Chairholder: Professor Tapio Varis
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UNESCO Chair in Global e-Learning with applications to multiple domains

ANNUAL REPORT OF THE UNESCO CHAIR IN GLOBAL E-LEARNING
AT THE UNIVERSITY OF TAMPERE, FINLAND 2005

The Agreement between UNESCO and the University of Tampere was signed by the Director-General of UNESCO, Mr. Koichiro Matsuura on the 23rd November 2001 and by the Rector of the University of Tampere, Mr. Jorma Sipila, on the 9th January 2002. According to the Agreement Article 1:

“The University shall, in cooperation with UNESCO, establish a UNESCO Chair in global e-learning with applications to multiple domains (hereinafter referred to as "the Chair") at its Faculty of Education.”

Article 2 of the Agreement defines the purpose of the Chair as follows:

“The purpose of the Chair shall be to promote an integrated system of research, training, information and documentation in the field of global e-learning with applications to multiple domains. It will serve as a means of facilitating collaboration between high level, internationally recognized researchers and teaching staff of the University and other institutions in Finland and Europe and other regions in the world.”

Article 3 determines the procedure of appointing the Chairholder as follows:

“The University, in consultation with UNESCO, shall appoint the Chairholder who will be selected by means of a procedure to be mutually agreed upon.”

Following this Agreement the University of Tampere in consultation with UNESCO appointed Dr. **Tapio Varis**, professor of media education in the Research Centre for Vocational Education and in the Hypermedia laboratory as the Chairholder for the period 2002-2006. Full text of the Agreement and the previous annual reports are available at: <http://www.uta.fi/~titava>.

This Report is divided into three parts. Part I describes the regular activities of the Chairholder, Professor Tapio Varis. Part II describes progress in the creation of the Global University System (GUS). Part III gives information of the financing of the Chair.

Part I: Regular activities of the Chairholder, Professor Tapio Varis

A. Keynote Lectures and Presentations in 2005

Meeting of UNESCO Baltic Sea Subregion Education for All (EFA) Coordination Working Group, St. Petersburg, Russia, 15-18 January, 2005

Microsoft Government Leaders Forum-Europe, Prague, January 31-February 2, 2005, Background ideas for Session: Discussion Forum I - Track A: Employment and Social Inclusion, Education and e-Skills in a Knowledge-Based Economy

“Information and Communication Technologies for Capacity-Building: Critical Success Factors, UNESCO & Club of Rome World Conference, Paris 10-14 May, Moderator of the Latin American Sessions

“e-Learning and higher education,” eLearning Conference “Towards a learning society”, Brussels 19-20 May

“Media Skills and Competence” Conference, Tampere, 26-27 May, Co-Chair and research director (including world-wide videoconferencing)

“Challenges of Learning Society”, LETTET Conference, University of Joensuu, Savonlinna 3-5 August, Keynote presentation

“e-Learning, Corporate Competence, and Higher Education,” UNESCO – UNEVOC International Seminar “Vocational Content in Mass Higher Education: Responses to Challenges of the Labour Market and the Work-Place”, Bonn 9-10. September 2005

“Catalyst” Conference, Arts Council of the UK, Manchester 15-16 September, Keynote presentation

Media and e-Learning Skills and Competences, Wien 21, Austria October 2005, Keynote presentation

World Summit on the Information Society, Tunis 14-19 November, UNESCO Chair Session and participation in UNESCO Session. Also presentation on a session on Nov 18th was related to "Media Education Beyond Tunis And Within E-Learning " with the following panellists: Tapio Varis, Unesco Chair E-Learning, Mustapha Ennaifar, Cenaffe, Janique Landouar, Numedia-Edu, Abdelkarim Hizaoui, Ipsi

Expert on Higher Education Evaluation, Council of Higher Education, South Africa, 27 November – 2 December, South Africa

B. Publications

Uusrenessanssikasvatus, digitaalinen osaaminen ja monikulttuurisuuteen kasvaminen. Tapio Varis (toim.), Helsinki: Okka-säätiö, 2005.

eLearning in Higher Education. International Journal of Mobile Learning and Organization (Forthcoming 2005).

Globaali Yliopisto ja rauha, Kosmopolis, Vol 34: UV60/2004, p.151-158

Digital Literacy and e-Learning in the Global University. Teoksessa "Ammatti ja kasvatus - ammattikasvatuksen tutkimuksia vuonna 2004." Toim. Markku Tuominen & Jari Wihersaari. Hämeenlinna 2005. S.275-295.

The Use of Information and Communication Technologies to Promote Community and Sustainable Development, Universidad Veracruzana, Xalapa, Mexico, published in http://www.tukkk.fi/tutu/Julkaisut/pdf/ffrc_publications_6_2005.pdf

"Towards a New Digital Learning Culture", in "eReflections – Ten Years of Educational Technology Studies at the University of Oulu. Essays contributed by the network builders," edited by Juha Pohjonen, p.99-108, <http://herkules oulu.fi/isbn9514276329>

"Global E-learning from a Finnish Higher Education Perspective," in

"E-Learning in Europe – Learning Europe", edited by Ullrich Dittler, Helge Kahler, Michael Kindt & Christine Schwarz, Munster 2005, p.95-110.

"E-oppiminen ja kirkon missio", in "Trendi, brandi ja evankeloumi," edited by Kalle Vaismaa, Jyvaskyla 2005, p. 136-146.

Introduction to "Viestintää jo vähän kaikki" by Jyrki Pietilä, Tampere 2005

C. Lecturing, Courses and Thesis Instruction

Doctoral seminar and lecture course in master programme, University of Tampere, Finland

New Media, Communication and Peace in the Global Knowledge Society, 5 study points (3 Finnish credits). University of Helsinki, Finland

Master seminar in communication studies, University of Helsinki, Finland

D. Expert evaluations

University of Tartu, Estonia, Evaluation of Candidates for the Position of Professorship in Educational Technology , 26 November 2005

E. Other Activities

Organization of a visit by Brazilian academic delegation from Centro Universitário Feevale, Feevale 6-9 April

Research planning meeting with Dr. Margarita Pavlova, St. Petersburg, Russia 8-10 October

Videoconference to the Taganrog State University of Radio Engineering, Russia, 12 December

Videoconference to Bogota, Colombia 19 December, <http://www.karisma.org.co/conversatorio2005/>

Keynote speeches in national conferences in Finland

Part II: Creation of the Global University System (GUS)

As was described in the Annual Report of 2003 of the Chair, the main activity of the Chair has been to create the Global University System (GUS) and build the network for this project. The global activities and networks of the Chair are presented by **Dr. Takeshi Utsumi** (full materials are available at the following address):

http://www.friends-partners.org/GLOSAS/Global_University/Global%20University%20System/Reference_web_sites.html

A. The Global University System (GUS) activities in 2005 include the following:

1. Videoconferencing

a. May 26, 2005

We held a multicasting videoconferencing with the following participants and discussed on global e-learning at the occasions of the Conference on “Knowledge Society Challenges for e-Learning” at the Kaunas University of Technology in Kanaus, Lithuania and of the Conference on “Media Skills and Competence” at University of Tampere, Finland;

- i. CorStar, Inc., New York,
- ii. Green Sphere, Inc., New York,
- iii. Houston Community College, Texas,
- iv. Kaunas University of Technology, Lithuania,
- v. Taganrog State University of Radio Engineering, Russia,
- vi. University of Helsinki, Finland,
- vii. University of Tampere, Finland.

The recorded video of this event is now available at <http://www.cs.helsinki.fi/u/andberg/video/GUS/>.

b. December 1, 2005

With the success of the above, we are invited to participate in the “Increasing Empathy Through Video Conference” of Ohio State University <<http://www.megaconference.org>>, which will have more than 415 participants around the world, which is probably the largest megavideoconference attempting only through the use of broadband Internet — without any use of satellite dish antenna and viewing videoconferencing room, etc.

This clearly indicates that the day of analog broadcasting satellite videoconferencing is over, many of which we have done once or twice every year in the past decades, with the so-called “Global Lecture Hall (GLH)” multipoint-to-multipoint, multimedia, interactive videoconferencing as spanning globe — see Chapter 2 of the following book draft;

“Electronic Global University System and Services”

http://www.friends-partners.org/GLOSAS/Bookwriting/Contents_of_Book.html

Satellite approach was too expensive for regular use. In contrast to it, videoconferencing with H323 protocol takes the advantage of SHARING feature of packet-switching telecom, i.e. Internet, thus bringing drastic cost reduction.

We plan to have this kind of videoconferencing system as regular basis along with the Global University Phone System <<http://www.aboutreef.org/GUPS>> and Access Grid <<http://www-fp.mcs.anl.gov/fl/accessgrid/default.htm>> through Global Broadband Internet among member institutions (educational and healthcare) of GUS/UNESCO/UNITWIN Networking Chair program.

2. Speeches and Papers

a. ELeGI conference in Vico Equense, Italy, March 14 to 16, 2005

Dr. Utsumi was invited to this conference, since he has been appointed as a Scientific Advisory Board member of this ELeGI consortium of about a dozen prominent universities in Europe.

European Learning GRID Infrastructure (ELeGI) Project [5], [[Allison, et al, 2003](#)], which is now funded by the European Commission, aims to design and implement advanced service-oriented GRID-based software architecture for learning. This project will develop a new paradigm focused on knowledge construction using experiential based and collaborative learning approaches in a contextualized, personalized and ubiquitous way. This will replace the current information transfer paradigm, which is based on content, and on the key authoritative figure of the teacher who provides information.

See also Globally Collaborative Environmental Peace Gaming (GCEPG) Project in the Section “Related activities of GUS” below.

1st International ELeGI Conference <<http://www.elegi.org>> on

Advanced Technology for Enhanced Learning
 Hotel Oriente, Vico Equense - Napoli (Italy) from 14th to 16th March 2005
<http://makeashorterlink.com/?T198618CA>

Takeshi Utsumi
**"Global University System with Globally Collaborative Environmental
 Peace Gaming Project"**
<http://makeashorterlink.com/?O6D01210B>

- b. University of Milan, Italy, March 21, 2005

Presentation of the above paper by Dr. Utsumi
 Visit also the above URL of ELeGI conference.

- c. Università Cattolica del Sacro Cuore in Piacenza, Italy, March 21, 2005

Presentation of the above paper by Dr. Utsumi
 Visit also the above URL of ELeGI conference.

- d. InfoPoverty Meeting at UNDP in New Cork, May 13, 2005

Presentation about Global University System by Dr. Utsumi

- e. Opening speech at the annual conference of the American Society for Cybernetics (AAC), Washington, D.C., October 28, 2005 <<http://www.asc-cybernetics.org/2005/index.htm>>

Takeshi Utsumi
"Global E-Learning for Global Peace"
<http://makeashorterlink.com/?F44621BDB>

- f. European Journal of Engineering Education, September, 2005

Takeshi Utsumi
**"Global University System for Engineering Education in the Age of
 Globalization"**
<http://makeashorterlink.com/?A1FD2633C>

- g. A session (which was later aborted) at the World Summit on Information Society (WSIS) in Tunis, Tunisia, November 14-18, 2005

Takeshi Utsumi
**"Global University System with Globally Collaborative Innovation
 Network"**
<http://makeashorterlink.com/?W155410BB>

- h. Paper for the forthcoming publication "*Communication and Learning in the Multicultural World*" by the University of Tampere, edited by Pekka Ruohotie, to celebrate the 60th birthday of the GUS Acting President Tapio Varis in June 2006

Takeshi Utsumi
“Global E-Learning for Global Peace with Global University System”
<http://makeashorterlink.com/?Q5512436C>

3. Attendances at:

- a. Conference on “African Research and Education Networking Infrastructure” of Association of African Universities, November 14 and 15, 2005, Tunis, Tunisia
<http://www.aau.org/tunis/>
- b. Following UNESCO forums at the World Summit on Information Society (WSIS-II), November 16 and 18, 2005, Tunis, Tunisia;
 - i. High Level Round Table Forum; “Shaping the Future through Knowledge,” (November 17th) and
 - ii. “The Role of UNESCO in the Construction of Knowledge Societies through the UNITWIN/UNESCO Chairs Program,” (November 18th)

B. The GUS activities in developing countries include the following:

1. GUS/Malawi

- a. PowerPoint Presentation by T. Utsumi
[At Permanent Mission of Malawi to the United Nations](#)
- b. Concept Paper: "**The Establishment of Maravi-Net (MARNET) and Local Community Development Networks (LCDNs) for E-learning and E-healthcare in Malawi**"
[Application for Japan Social Development Fund \(JSDF\)/Seed Fund](#)

2. GUS/Nigeria

- a. PowerPoint Presentation by T. Utsumi
[Nigerians In Diaspora Organization \(NIDO\)/Americas Professional Summit in Flushing, NY on 4/27/02](#)
- b. Filled questionnaires for Importing E-Learning Courses from Developed Countries Abia University Teaching Hospital (Dated on November 1, 2004) ([MS/WORD file, 84 KB](#))
- c. Oji, D. E., T. Utsumi and C. Uwaje, "**International Centers of Excellence for e-Health in Africa with Global University System in Nigeria**," Paper published in the eHealth International Journal, International eHealth Association (IeHA), University of Michigan Health System, September 25, 2005

The initial focus of this project is on the Prevention of Mother-to-Child HIV/AIDS Transmission in Nigeria, and will cope with severe doctor shortage in African countries as bringing advanced continuing medical education from prominent American medical schools, e.g., the University of Michigan Health System and Harvard University Medical School, etc.

Medical errors account for about 2 million deaths in Africa. Majority of these deaths occur in rural areas, mostly among children and women. Nelson Mandela suggested that “giving life is NOT to die,” in referring to the fact that almost 300,000 women die during childbirth annually in Africa.

3. GUS/Ethiopia

- a. Project Proposal (Draft: 12/27/03) "**The Establishment of ICT-Center and Local Community Development Networks (LCDNs) for E-Learning and E-Healthcare in Ethiopia**"
Application for Japan Social Development Fund (JSDF)/Seed Fund
- b. "**International Symposium on ICT Education and Application in Developing Countries**," October 19-21, 2004, Addis Ababa, Ethiopia

Takeshi Utsumi, Tesfaye Teshome and Berhanu Beyene
"**Establishing Global University System in Ethiopia (GUS/Ethiopia)**"

Similar activities are now formulating in Kenya, Mozambique, Sierra Leone, Philippines, Cambodia, etc., and we received inquiries to join in our GUS from many other developing countries.

The outcome of the workshops in those countries will be a comprehensive project proposal to 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.

In December, an initial talk on a joint work was held at Stevens Institute of Technology in New Jersey, which is now practicing the extension of their courses to Beijing Institute of Technology. They want to work with us for their project in Zambia with a possible fund from the UNDP in South Africa, and for our projects mentioned above.

C. Related activities of GUS:

Since Dr. Utsumi initiated the concept of GRID networking technology in 1972 [6], he has been working on the following interwoven projects;

- (a) Global University System (GUS) [1], [2],
- (b) Globally Collaborative Environmental Peace Gaming (GCEPG) [3],
- (c) Globally Collaborative Innovation Network (GCIN) [4].

The GUS is a worldwide initiative to create advanced telecom infrastructure for accessing educational resources across national and cultural boundaries for global peace. The aim is to achieve "education and healthcare for all," anywhere, anytime and at any pace.

The GCEPG conceived by Dr. Utsumi in the 1972 as a globally distributed computer simulation system, is a computerized gaming/simulation to help decision makers construct a globally distributed decision-support system for positive sum/win-win alternatives to conflict and war. The idea involves interconnecting experts in many countries via the global Internet to collaborate in the discovering of new solutions for world crises, such as the deteriorating ecology of our globe, and to

explore new alternatives for a world order capable of addressing the problems and opportunities of an interdependent globe.

The GCEPG is to train would-be decision makers in crisis management, conflict resolution, and negotiation techniques with a globally distributed socio-economic-environmental computer simulation system in various countries through a GRID computer network – see Figure 2 of Reference [3]. GUS' in various countries are to supply tech support, modelers, and gaming players to this GCEPG project. GUS' in developing countries assist K-12 education with GCEPG to train would-be leaders for understanding interwoven world phenomena with rational analysis and critical thinking.

We consider the simulations as fundamental aspects for implementing experiential based and contextualized learning approaches. GCEPG project could be a complete and powerful demonstrator of ELeGI Project, which was mentioned above, to show (1) the advantages coming from using advanced technologies (i.e., GRID for accessing to computing resources and collaboration environments) for supporting simulations execution, data analysis, etc., and (2) simulations for learning through the definition of innovative pedagogical models (i.e., socio-constructivist contextualized learning approach), and (3) to show all the benefits coming from the harmonized and synergistic use of advanced technologies together with innovative pedagogical models for learning, i.e., ELeGI.

The following organizations have indicated their strong interest in participating in our GCEPG project;

- Millennium Institute
<<http://www.millenniuminstitute.net/>>
- Research Committee 51 (RC51) of the International Sociological Association (ISA)
<<http://www.unizar.es/sociocybernetics>>
- Trans-European Research and Education Networking Association (TERENA)
<<http://www.terena.nl>>
- GLORIAD
<<http://www.gloriad.org/>>
- McLeod Institute of Simulation Sciences (MISS)
<<http://www.simulationscience.org/>>
- The Club of Rome
<<http://www.clubofrome.org/>>
- Prof. Onishi in Japan with Futures of Global Interdependence (FUGI) model, the world largest econometric model, and many others.

The Millennium Institute in Arlington, VA has indicated their willingness to participate in this project with their national system dynamics models of Bangladesh, China, Ghana, Guyana, Italy, Malawi, Somaliland, Tunisia, and the United States. They also indicated that their institute would be willing to be the global center of our GCEPG project, as firstly organizing a planning workshop at the Institute as soon as we confirm a fund from the joint European Commission/National Science Foundation funding program. This is because Dr. Utsumi is one of the Scientific Advisory Board members of the European Learning GRID Infrastructure (ELeGI) Project, which has already been funded by the European Commission with about USD 6 million. The ELeGI hopes to make this GCEPG a powerful demonstration of their project, too.

Incidentally, this project was the second contender to the Fifth Generation Computer Program of the Japanese government (USD 500 million for 10 years) about two decades ago. Dr. Utsumi rekindled

this in late 1990s and resulted to the Japanese government's pledge of US\$15 billion during the Okinawa Summit in July of 2000 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. They are now available through the Japan Social Development Fund at the World Bank, Japan Special Fund at the Inter-American Development Bank, Japan Fund at the Asian Development Bank, etc. The Japanese government is now doubling their aid particularly to African countries, especially to help their education and healthcare. After solidifying our GCEPG project between the US and Europe, Dr. Utsumi plan to re-approach to the Japanese government.

The GCIN is an extension of GCEPG and will foster creativity of youngsters around the world. Researchers in developing countries can co-work with colleagues in advanced countries to perform joint collaborative research with use of virtual laboratories for experiential/constructive learning and creation of knowledge through the global GRID technology, thus forming GCIN.

The principle of Internet is "SHARING," -- we are extending it to the sharing of knowledge and even wisdom with GUS. The principle of GRID is "COLLABORATION." Those two principles are the very basis of attaining global peace, which ought to be the ultimate aim of education rather than mere enhancement of job skills.

Since early 1970s, Dr. Utsumi pioneered the closing "digital divide" with substantial time, effort and private fund as extending U.S. data telecom to Asian countries, particularly to Japan, and made de-regulation of Japanese telecom policies for the use of email, and de-monopolization and privatization of Japanese telecom industries, which have been emulated in other countries with over one billion email users around the world nowadays. American and other countries' university courses now reach many developing countries.

Dr. Utsumi then received Lord Perry Award for Excellence in Distance Education in 1994. Two-year senior of the award was Arthur C. Clarke, the inventor of satellite.

We envision to inter-link GUS consortium member institutions in various developing countries, which will affiliate with GUS/UNESCO/NETWORKING Chair Program at the University of Tampere, through broadband Private Virtual Network to conduct megavideoconferences as well as GUS, GCEPG, and GCIN projects.

D. Conclusions

Economic interdependence among nations and cultures is spawning a global economy. Globalisation highlights clashes of divergent cultures and belief systems. If global peace is ever to be achieved, global-scale education, with the use of modern ICT, will be needed to create mutual understanding among people of the world.

The mission of our projects is to prepare environment with advanced ICT, where youngsters around the world can collaboratively cross-pollinate synthetic eastern and analytical western cultures to create their own in the Knowledge Age of the 21st century for global peace. Senator Fulbright once said, "*Learning together and working together are the first steps towards global peace.*"

REFERENCES: (All URLs below were retrieved on November 22, 2005.)

[1] Tapio Varis - Takeshi Utsumi - William Klemm (Eds.)

"Global Peace Through The Global University System"

University of Tampere, Finland, 2003

ISBN 951-44-5695-5

The entire contents of this book can be retrieved at;

<http://makeashorterlink.com/?M2D252E09>

[2] Takeshi Utsumi, P. Tapio Varis, and W. R. Klemm

"Creating Global University System," 2003

<http://makeashorterlink.com/?I2F231019>

[3] Takeshi Utsumi

"Globally Collaborative Environmental Peace Gaming (GCEPG)," 2003

<http://makeashorterlink.com/?E1D121E09>

[4] Takeshi Utsumi

"Global University System with Globally Collaborative Innovation Network," 2005

<http://makeashorterlink.com/?W2F412E1B>

[5] Allison, C., et al, (2003), **"Human Learning as a Global Challenge: European Learning**

GRID Infrastructure," *Global Peace Through The Global University System*, University of

Tampere Press, Tampere, Finland

<http://makeashorterlink.com/?Z1D031A39>

[6] McLeod, J., **"Power (?) Grid!,"** *Simulation in the Service of Society*, Simulation, September 2000

