

IBM Meeting Minutes

By Aomar Benslimane, November 9, 2009

Date: November 3rd, 2009
Location: IBM Headquarters, 1 Orchard Road, Armonk NY 10504.
Time: 3 pm – 4 pm
Attendees: Dr. Takeshi Utsumi (GLOSAS/USA),
Dr. Harold Sjursen (Polytechnic Institute of New York University),
Dr. Aomar Benslimane (AB4World),
Mr. Daniel Perdomo (Center of International Conflict Resolution (CICR) of
Columbia University),
Dr. Andrea Bassi (Millenium Institute) joined via audio-teleconferencing,
Dr. Kristof Kloeckner (IBM), CTO, Enterprise Initiatives and Vice President of
Cloud Computing Platforms and Florence Hudson, Energy and Environment
Mr. Jai Menon (IBM) joined via audio-teleconferencing.

A meeting took place on November 3rd at the IBM Headquarter in North White Plains, New York. The main objective of the meeting was to discuss with IBM and particularly with Dr Kristof Kloeckner, the possible use of cloud computing technology for the following projects:

- a) The Global University System (GUS)
- b) The Globally Collaborative Environmental Peace Gaming (GCPEG)
- c) The Global Early Warning Systems (GEWS) as an extension of the GCEPG project
- d) IBM's possible support of iLab Consortium.

See attached reference documents for details on each item included in the handout provided to the attendees, or at the following URL;

(20091101) Visit to IBM on November 3rd, 2009

<http://tinyurl.com/yfa53zx>

After each of the attendees made a short introduction with regard to their background and interest in the current project, the presentation started.

- Dr Utsumi made a presentation on the Global University System/Peace Gaming/Energy Modeling basic principles since introduced by the Global System Analysis and simulation Association (GLOSAS) which he founded, its mission and objectives were outlined. GUS with its 2 main components e-Learning and e-Healthcare was presented as a worldwide initiative to create advanced telecom infrastructure around the world for global e-learning and e-healthcare/telemedicine. The GUS main objective was presented as the creation of worldwide consortium of educational and healthcare institutions to provide all world citizens with special emphasis on the undeveloped world with access to 21st century education and healthcare via broadband Internet through the use of advanced Information and Communication Technologies (ICTs).

The Globally Collaborative Environmental Peace Gaming (GCEPG) was presented with its 2 main components, for instance:

- Peace Modeling and Simulation
- Energy Modeling and Simulation using the Millennium Institute's T21 system.

(see his handouts at <<http://tinyurl.com/yfa53zx>>)

A citation from Tak that illustrates the purpose:

“ The ultimate goal of the project is to attain global peace as promoting mutual understanding among young would-be decision makers, as having them engage in

Peace Gaming for Conflict Resolution of various environmental issues in local, regional and global scale with the extensive use of most advanced Information and Communication Technologies (ICTs). Education of youngsters/adults on a global scale is the best future investment for global peace and progress. We will also foster creativity of youngsters around the world as enabling them in developing countries co-work with colleagues in advanced countries to perform joint collaborative research with the use of virtual laboratories for hands on experiential/constructive learning and creation of knowledge through the global GRID technology. “

- Andrea Bassi made a brief introduction on the Millennium Institute background and goals, core capabilities, worldwide applications and introduced its clients and partners, which consist mainly in government agencies, international organizations, private sector, academia and NGOs. Local partners are generally involved in data collection and model customization. The main MI objectives consist in the following:
 - Building a network of supporters and partners across the globe to inspire, promote, endow, and implement rational, integrated planning.
 - Increasing capacity among a broad range of partners to promote sustainable development using all modern tools and means of communication and establishing centers of excellence in System Dynamics and Threshold 21 around the world.
 - Applying the lessons learned to improve the efficiency of our activities and capacity to serve.

A review of the characteristics of the main tools used by the MI were reviewed briefly, for instance, the systems dynamics methodology which is based on a wide range of existing sector models and analyses and built to reflect observed real world relations in the specific country of application. The three main pillars: economic, social and environmental were briefly discussed outlining the fact that adapted to specific data, issues, objectives, these actual relations or models when calibrated against history can provide reality checks.

(see his handouts at <<http://tinyurl.com/yfa53zx>>)

- Daniel Perdomo, Program Assistant of the Center of International Conflict Resolution (CICR) of Columbia University made a brief introduction on the Fund for Global Environment and Conflict Resolution (The Fund) being a collaborative effort between the Italian Ministry for the Environment, Land and Sea (IMELS) and the CICR at Columbia University. The IMELS, created in 1986, is committed to promoting and supporting international partnership and cooperation towards global sustainable development. The CICR mandates in terms of Research, Education and Practice are clearly detailed in the handout given prior to the meeting.

(see his handouts at <<http://tinyurl.com/yfa53zx>>)

- Dr Harold Sjurson (Polytechnic Institute of New York University) made a brief introduction on Poly NYU interest in sharing its expertise with the project. Poly has interest/expertise in the areas of (peace) gaming *and* IT training and development (both onsite and online). On the latter topic, in collaboration with other universities and industry, Poly has undertaken a project focused in the BCIM (Bangladesh, China, India, Myanmar) region. The project has received limited support from the Chinese central government.
- Dr Aomar Benslimane (AB4World) made a brief introduction on his background, shared his enthusiasm and readiness to help further implementing the GUS/GLOSAS system in

North Africa by fostering joint research programs and reaching out to interested parties. His main interest would be to focus on Climate Change related models.

During Andrea's presentation, the key issue of the high computing architectural system needed to move the GUS system further was emphasized which led to the need of soliciting the help from IBM cloud computing technology to be used as a platform.

Key questions/inquiries from Kristof:

- Is GUS pursued by any relevant communities?
 - Nigeria, Congo, and other several developing countries – there are many difficulties such as tuition, credit transfer, and accreditation, etc.
- How do the various models interface (either energy, weather or grid)?
 - Initially focused on energy economy simulation. We hope to interlink with climate simulation system in the future, since the basic simulation mechanisms of both are different each other. We hope to use cloud computing rather than grid, because of the philosophical difference between them – former democratic with consensus building and bottom-up approach, compared with the command control hierarchical top-down approach of the grid.
- Relationship with the UN agencies?
 - Our GUS is a part of GUS/UNESCO/UNITWIN Networking Program <<http://tinyurl.com/2xntj7>>, which headquarters is located at the University of Tampere in Finland, with Acting President Prof. Tapio Varis who is a former Rector of the U.N. University of Peace in Costa Rica.
 - We plan in cooperation with Millennium Institute to make our project to be one of the United Nations University/Research and Training Programs.
- How do the Distance Learning and Peace Gaming fit together?
 - Each country will have their national socio-economic-energy-environment simulation model, which will be autonomously refined, improved and administered by the experts of those countries, and yet those models are to be interconnected each other to form a single global scale simulation model. We expect those experts would be mostly located in academia, particularly in developing countries.
 - They would then train young would-be decision makers for understanding interwoven world phenomena with rational analysis and critical thinking capabilities, and then in crisis management, conflict resolution, and negotiation techniques basing on "**facts and figures.**"
 - The System Dynamics' cause-and-effect analysis based on feedback theory, along with computer simulation modeling, is the best tool to understand the inter-relatedness and inter-dependency of various complex interwoven world phenomena.
 - Millennium Institute has already been providing seminars on system dynamics methodology in various developing countries, e.g., Bangladesh in early October, etc.
 - We are start working with the Center for International Conflict Resolution (CICR) of Columbia University.
- On development of GUS/GCEPG projects?
 - Over the past three decades, Dr. Utsumi's GLOSAS/USA played a major pioneering role in extending U.S. data communication networks to other countries and deregulating Japanese telecommunication policies for the use of e-mail (thanks to help from the Late Commerce Secretary Malcolm Baldrige). This triggered the de-monopolization and privatization of Japanese telecommunications industries. This movement has later been emulated in many other countries, as having more than one billion email users around the world nowadays.

- For over a dozen years since 1986, we conducted once or twice a year a series of innovative distance teaching trials with "Global Lecture Hall (GLH)" videoconferencing using hybrid delivery technologies, which often spanned the globe.
- Thanks to such efforts and for initiating global e-learning movement since early 1980s, Dr. Utsumi received the prestigious Lord Perry Award for Excellence in Distance Education in the fall of 1994 from Lord Perry, the founder of the U.K. Open University. The two-year senior recipient of the same award was Sir Arthur C. Clarke, the inventor of satellites.
- See more in; Utsumi, T., (2008), "Development History of Peace Gaming and Global University System," (September 7, 2008) <<http://tinyurl.com/bdcjha>>

We were informed that IBM is currently running a cloud computing with Google, which involves 20 universities.

The following were also discussed:

- Support from Carter Center to MI,
- Need for an official center for training at MI -- with some attempt to connect with the United National University,
- Risk analysis and impact for mitigation issues.

A pilot project to apply the IBM cloud computing platform would be our demonstration (*) of gaming/simulation on the energy policies proposed by Former Vice President, Mr. Al Gore and President Barack Obama to replace fossil fuel with renewable one to generate electricity in the United States in relation to appropriate allocation of oil revenue in Niger Delta of Nigeria, -- What would be the consequences to other economic and social structures in the US and in other countries, particularly Nigeria? — this is because 95% of Nigerian revenue comes from oil export, 40% of which is exported to north America.

(*) This is to be held during Global Symposium on: Climate Change and International Peace and Security, Global Challenges and Global Solutions: Interdisciplinary Approaches Center for International Conflict Resolution (CICR) at Columbia University in May 2010.

The main issues/challenges so far encountered, as summarized by Andrea are:

- The sharing of available models.
- Privacy as many governmental organizations like to keep their data confidential, especially in politically charged environments.
- Harmonization/homogenization of models/results for a better communication.
- Main challenge in Africa: Internet availability and reliability especially in remote areas.

The wrap up / closing remarks were made by Jai Menon in connecting the dots:

- World Community Grid project available for us to join: it basically links a variety of computers (instead of working through centralized servers - and probably a couple of these computers can be used as small servers).
- Blue Gene supercomputer in Morocco available to be used for Africa as a donation.
- Potential to be used as the World Simulator for research collaborative efforts.
- The Blue Sky: Remote education using the cloud option.

Additional Observations:

- Further Documentation on IBM Cloud computing technology and a contact person to be forwarded to us via email by Kristof,
- Main upcoming events with IBM: Nov 28, 1 day session at Columbia.