

COMPUTER PROFESSIONALS (REGISTRATION COUNCIL OF NIGERIA)

2011 ANNUAL INFORMATION TECHNOLOGY PROFESSIONALS’ ASSEMBLY

30th June, 2011



COMMUNIQUE

INTRODUCTION

The annual CPN Information Technology Professionals’ Assembly is a yearly gathering of Information Technology practitioners in Nigeria and diaspora with the objective of discussing and strategizing on emergent issues in Information Technology in order to come out with recommendations and decisions that will impart positively on the industry and the nation. The programme was preceded by the induction of new members into the profession which took place on **Wednesday, June 29, 2011**. The newly-admitted members of the profession were comprehensively briefed on their duties and obligations to society and the profession. Different speakers made presentations to the new inductees on the ethics of the profession, tips for running a successful Information Technology organization as well as other issues that are germane to their professional growth.

The theme for this years’ assembly was **“Information Technology and Democratic Dividends: Issues and Prospects”**. Lead speakers presented papers on the different topics that are associated with the main theme of the event. Papers were presented on **Mobilizing IT Professionals for WSIS and MDG 2015 and V20 2020 Goal Realization**. Additionally, papers were also delivered on **Nigeria Generation Next Through Multilateral and Multi Stakeholder Approach to IT Development, IT Industry in Nigeria: Need for a Paradigm Shift**. After the delivery of the papers, the assembly was divided

into four parallel interactive sessions dwelling on **Sectoral IT Development and Business Opportunities** with the following topics:

- i. **Software Development: The Critical Strategic Focus for FOREX Preservation, Earnings & Jobs Creation**
- ii. **Oil and Gas: IT Deployment, Local Content and Business Opportunities**
- iii. **Education and Capacity Building: IT Deployment as a tool for Rapid Transformation**
- iv. **National Security and Intelligence: IT Enabled National Security and Intelligence**

The event was interactive and learner-centered. It featured group work, experience -sharing, individual exercises and lecture presentations. The assembly broke-up into syndicate groups for the discussion of the highlights of the four topics mentioned above.

INTERACTIVE SESSION I:

SOFTWARE DEVELOPMENT: THE CRITICAL STRATEGIC FOCUS FOR FOREX PRESERVATION, EARNINGS & JOBS CREATION

The session on **Software Development: The Critical Strategic Focus for Forex Preservation, Earnings & Jobs Creation** agreed on the following:

- i. That the country loses billions of naira annually to the importation of software from foreign countries.
- ii. That in spite of the availability of locally produced software in the country, consumers, including government prefers foreign software.
- iii. That over reliance on foreign software product will seriously undermine national security.
- iv. That the country has the human capacity and expertise to produce software not only for local users but also for exportation, thereby serving source of FOREX earning.
- v. That, the software industry, if well harnessed, will provide jobs for thousands of Nigerian youths and boost the economy.

CHALLENGES

- i. Lack of conducive environment for the software industry to thrive,
- ii. Lack of adequate funding to support and encourage investment in the software industry (R & D)
- iii. Lack of government support and patronage for local software producers and developers
- iv. Lack of cohesion among the various agencies in the forefront of the promotion of software industry,
- v. Absence of commercialization policy for the industry,
- vi. Current IT curriculum and learning facilities in our institutions are not adequate to provide the necessary skills required to produce human capital for the dynamic software industry.

WAY FORWARD

- i. Government should evolve policies that will promote the industry,
- ii. Government should provide adequate fund for investment,
- iii. Government and its agencies must patronize and support local software producers and developers
- iv. In order to protect innovations, government must strengthen the intellectual property law in the country,
- v. There must be cohesion and synergy among the various agencies promoting software industry in the country,
- vi. Need to review the current of IT curricula at all levels of education,
- vii. Government to partner with local industry to promote and export Nigerian products,
- viii. Since government alone cannot bring about the desired change in the local software industry, organized private sector must also support the government by having faith and investing in the indigenous software,
- ix. Nigerian youth must be actively involved in the effort to promote software industry,
- x. Human capital development and capacity should be given priority,
- xi. There should be provision of the infrastructure to support the smooth operation of the industry

INTERACTIVE SESSION II:

OIL AND GAS: IT DEPLOYMENT, LOCAL CONTENT AND BUSINESS OPPORTUNITIES'

The following observations and recommendations were made on the **Oil and Gas: It Deployment, Local Content and Business Opportunities'**

Challenges

- i. After many decades of significant petroleum development, Nigeria still depends on the international oil companies (IOCs) and foreign contractors for about 95 percent of activities in the industry. Resource development has been largely carried out by the IOCs as operators in the joint ventures with the Nigerian National Petroleum Corporation (NNPC).
- ii. The Nigerian Content Development Board, after close to three years of its establishment is doing very little in its bid to minimize the nation's spending through the encouragement and development of local content and initiatives thereby ensuring cost reduction, develop local IT industry, provision of employment and staff development among other things.

Recommendations:

- i. Research and development should be encouraged and government should invest to develop software research centers.
- ii. It is important that the Act which applies to all matters pertaining to Nigerian content in respect of all operations connected with the oil and gas industry be fully enforced.
- iii. The Obasanjo - led administration initiated the local content policy in the oil and gas industry in order to increase the participation of Nigerians in the industry. All oil and gas contracts subsequent to the commencement of the Act relating to any operation or transaction in the Nigerian oil and gas industry shall be in conformity with the provisions of the Act.

INTERACTIVE SESSION III: EDUCATION AND CAPACITY BUILDING: IT DEPLOYMENT AS A TOOL FOR RAPID TRANSFORMATION

The Session examined the broad outline of government policy on IT education and its development, which include the following:

- to facilitate the teaching and learning processes.
- to promote problem-solving, critical thinking and innovative skills.
- to promote life-long learning.
- to enhance the various teaching/learning strategies required to meet the needs of the population.
- to foster research and development. to support effective and efficient education administration.
- to enhance universal access to information.
- to widen access to education and the range of instructional options and opportunities for anywhere, anytime, any pace and any path learning.

The Session agreed that Computer Education should enable the learners to:

- Develop reasonable level of Competence in ICT applications that will engender entrepreneurial skills i.e. Technology Literacy by incorporating Technology skills in learning
- Improve Knowledge to solve complex, real-world problems
- produce new knowledge and benefit from this knowledge

The Following are Recognized Challenges of Implementing the Policy:

- There is a highly insufficient pool of IT teachers and administrators in the education sector. The few IT staff available were trained using formal and traditional modes of education delivery, have little exposure to new and emerging trends and are therefore mostly not at the cutting edge of IT innovation. Pre-service teachers are also being trained using the traditional approach.
- There is a dearth of IT infrastructure including bandwidth and power problems especially in institutions in rural areas.
- Inequities in IT deployment between urban and rural schools and between public and private schools with regards to availability of

IT personnel and resource .The curricula generally have not been digitized.

- IT curricula at various levels are mostly obsolete in view of the highly dynamic nature of IT. In addition, integration of IT into existing curricula is barely in its infancy.
- Insufficient Infrastructure in terms of Computer hardware, Software and accessories
- Presence of “illiterate ICT” Teachers in our Basic and SSS level
- Inadequacy of Facilities (electricity, connectivity, etc.)
- Inadequacy of current Textbooks an ICT

Suggestions on the Way Forward

This include:

- Strong visionary leadership and political will
- Adequate funding by both the public and private sector
- Recruitment of highly qualified IT professionals
- Effective change management strategy
- Effective programme management and coordination
- Appropriate legal and regulatory frame work and Societal appreciation of the need for IT in Education development
- Education and training of the inservice and pre-service teachers
- Implementing effective monitoring and evaluation
 - A Phased Plan for providing Schools with Computer Hardware, Software and connectivity
 - Specialist Teachers training programmes to produce Computer Studies to commence as a matter of urgency.
 - Private sector driven programme for providing schools with ICT infrastructure and facilities should be encouraged.
 - Authors to intensify the development of school texts.
 - Computer Studies /literacy should be made compulsory and a pre-condition for graduation in teacher education programmes.
 - Industry practitioners and individual volunteer should endeavour to partner with educational institutions to update them on current issues and knowledge in the IT world.
 - The IT industry should be more responsive to the needs of the educational institutions by taking appropriate steps to ensure that IT organizations engage students for the Industrial Work Experience Scheme and stop rejecting them, even if they will have to pay below what they are actually expected to pay.

- There should be an initiative to set up computer clubs in schools, whereby students can belong and participate in activities that can assist them to improve on their IT appreciation.
- IT awareness should be extended to parents in order to fill the knowledge gap between them and their children and thereby empower them able to effectively put in appropriate parental monitoring and control of the use of the Internet.
- Special directives should be given to all institutions to earmark funds specifically for conducting train-the trainers programmes in It.
- There should also be a FG/State/Local-Private sector collaboration in organizing these workshops.
- Local chapters of CPN can also make a remarkable difference by mounting basic awareness workshops in their various environments.
- The CPN and NCS should produce a position paper for submission to the government that will result in the release of the 140,000 laptops acquired by INEC to the national Open University for the purposes of kick-starting Online Learning initiative. Several Arts, Social Science and Business Studies courses can be mounted base on the modality of Online Learning.
- Experienced industry practitioners should take it upon themselves to volunteer their services to nearby academic institutions.

PARALLEL INTERACTIVE SESSION IV:

NATIONAL SECURITY AND INTELLIGENCE: IT ENABLED NATIONAL SECURITY AND INTELLIGENCE

The Paper was in two broad parts.

National Security is a defense posture capable of resisting hostile or destructive action from within or outside the shores of the country. National Security encompasses the following:

1. Food Security
2. People Security
3. Economic Security
4. Social Security
5. Environmental Security
6. Military Security

In other words, to be secured, a nation needs to possess socio-economic security. Security means development. According to Chutter, “Development requires security and security requires government intervention...”

How can IT serve as Enabler to National Security? This he explored by considering:

Impact of IT on the Military; Summary of Threat Analysis

The first thing to consider is where the threat is coming from. E.g. internal Vs External security. The internal security poses more problem, e.g.,

- A). Boarder or boundary Conflict
- B). Resource Conflicts
- C). Terrorism – present bombings
- D). Post –Election Violence. E). Armed Robbery/Kidnapping
- F). Ethno-Religion Conflict

Common Areas of IT Application in Military and National Security

1. Intelligence, Surveillance and Reconnaissance ----As captured by IT equipments like Drones, UAVs (unmanned Area Vehicle), etc, can be used to acquire information on surveillance, launch attacks; jam

frequencies, e.g., Radio Kudirat fame during the crisis of June 12 1993 elections.

2. Maritime Operation---Via maritime Domain Awareness to enable us see all territorial waters, i.e., to monitor what happens within the maritime boundaries, like piracy, oil bunkering, among other security threats. But no platform for immediate/adequate interception/confrontation of infiltrators. Also, Automatic Identification System (AIS) on sea can be used to monitor ships and its content for security reasons in parts of the world.
3. Precision Guided Munition – using IT & GPS to hit target without causing much collateral damage
4. Simulators: pre - war prosecution, etc and using IT Simulation to test try strategies and facilities.
5. Administrative and Logistics Applications, use IT to create HR, etc for proper personnel Management (HR – Human Resources)
6. National Public Security Communication System-----Via Voice, Video Advanced IP Technologies, IP Cloud for IP Cameras.

The Following agencies could benefit from NPSCS:-

- A. Police – equip the Police by providing IP cloud for proper identification, using intelligence cameras on the streets to support improved coverage for the rapid response to crimes, e.g., bombings. i.e., using IP cloud to fight bombings or even detect people or vehicles carrying bombs.
- B. Immigration – Nigeria has porous borders that can be manned using IP camera for long distance surveillance
- C. Custom – Using IT cameras to scan the cargoes before clearance
- D. Federal Road Safety Commission – Using IP technologies to monitor accidents, traffic jams, etc, vehicle identity and drivers license
- E. Prisons – Monitoring prisoners and their activities in the prison yards
- F. NEMA – predict/manage disasters, etc

Impact of IT on Politics

1. Applying it to conduct credible elections---e-election, e-voters registration, e-voting, e-campaign – Good elections enhance national security and poorly conducted elections are threats to national security.

Impact on Economy

1. Economic Planning e.g. National ID – For proper planning
2. Revenue Collection e.g. FIRS - Online Payment, etc
3. Tourism, e.g., Dubai: Using IP cameras for monitoring and identifying visitors
4. Exploration, e.g., exploring mineral deposits using Remote Sensing, GPS, satellite images, etc
5. Software Development e.g. as in the case of India, which is said to be generating revenue from software more than what Nigeria is getting from oil. To encourage our idle youth to get employed as a way of fighting poverty and crimes.

Impact on Environment

These could be positive and negative

Positive:

1. Monitoring of Environmental Issues
2. Metrics and Information to fight pollution
3. Monitoring and Responding to Disasters, e.g., The Tsunami in Japan
4. Assist in protecting the environment
5. Remote in sensing and mapping resources
6. Reduction in paper consumption.

Negative

1. How to handle e-waste - Management of e-Waste resulting from IT

Challenges Militating Against the Use of IT.

1. Poor IT Infrastructure
2. Inadequate Funding of IT projects among others.

Conclusions and Recommendations:

IT has a high positive impact on the environment than its negative impact; therefore, it is indispensable in national security.

Recommendation:

1. Geared towards wealth Creation
2. Nigeria should be transformed to ICT country to enable social economic development

Recommendations

1. To create a platform that would enable the security agencies, especially the Nigerian Navy to be able to give quick response on security challenges on the Nigerian territorial waters upon receiving intelligent distress signals using IT – enabled facilities such as IP cloud.
2. Establish in the office of the National Security Adviser (NSA), Cyber Defence Department in order to protect various critical national infrastructure from cyber attack.
3. Provide adequate IT infrastructure including Video Advanced IP technologies, to enable the various e-platforms such as e – Banking, e-Government, e-Security, etc, to drive the national economy and also provide national security for all her citizenry.
4. Local content to be built into the Nigeria security system using IT and not just borrowing in totality the perspectives of foreign agencies/technologies.
5. To classify the application of IT in the current security challenges in Nigeria into: short term, medium and long term programmes so as to be able to deal with the challenges once and for all.
6. Use the abundant IT professionals in Nigeria to address the various security challenges bedevilling the country.
7. Security issues are for all Nigerians, keep vigilance, get interested and be patriotic, by reporting all suspicious movements and security breaches to the appropriate quarters.

S.A. Shehu

Registrar/Secretary to Council