

Preface

Overcoming Challenges in ICT

Information and communication technology (ICT) has taken a centre stage in the day to day activities of people in every country today, from social interactions to business and pleasure. The technologically advanced countries have been experiencing rapid changes in their way of life, through the fruits of research and developments in ICT. Many developing countries have also joined to contribute to global advancement in ICT and have indeed made fundamental changes to the lifestyle and working habit of their people.

ICT has empowered people throughout the world. In terms of the job market, not only has ICT created hi-tech jobs, it has also impacted the nature of most other jobs throughout the world. ICT is being used in nearly all aspects of human endeavor, and is already influencing our way of life and our way of doing business. Information and communication technology should empower not only those who can afford it, but also people in underprivileged environments, and bring more opportunities to them. Yet, while ICT has broken down traditional geographical boundaries between people, many, especially those in developing countries are left further and further behind in the Digital Divide.

Many of us had been privileged to be empowered with higher education. We are therefore also capable of using our acquired skills and knowledge to improve the lives of people in our society. The vision of this Journal is to make the fruits of research and education in information and communication technology available to anyone regardless of their geographic region or affluence. This Journal is international. Yet we call it "African" Journal to emphasis that the fruits of ICT can serve people of all nations including the developing countries in Africa. The title also underlines the fact that people in developing countries, such as those in Africa and elsewhere, can serve not just as a consumer of research results in information and communication technology, but equally as a source of ideas and solutions to some of the difficult problems in this area. We therefore encourage authors to include tutorial materials in each paper to make it understandable to a diverse audience. In addition to sharing the general ICT research problems, the Journal will also include papers on ICT research problems relevant to the specific needs of developing countries.

To be educated in a developing country is a privilege of high premium and its rewards are expected to be shared with the larger community. This is often not verbally expressed but understood. Those of us who were singled out of our generations to enjoy the privilege of education must therefore shoulder the responsibilities of improving our societies and making the future better for our children and generations to come. We share the words of Nelson Mandela when he said, "We were not unaware of nor blind to the extent, depth and gravity of the challenges ahead of us as we set out on that day to transform, reconstruct and develop our nation and our society. ...We live in a world where there is enough reason for cynicism and despair"¹. The cynicism

¹ Nelson Mandela, Address - Joint Sitting of South African Parliament to Mark 10 Years of Democracy, 10 May, 2004, Cape Town, South Africa

and despair often still remain, and as rephrased in the words of a young African female electrical engineer when she said if we do "not apply diligence to our own matters ... no one else will"². Applying diligence to issues related to availability of current technical publications in information and communication technology (ICT) is really what this Journal is about. It has taken us more than a whole year of planning and reviewing of papers to reach where we are today.

The Journal has used the goodwill and diligence of many countries and people. It is a global effort of intellectuals from many countries. The Library of the University of Technology Sydney, Australia is the formal host for the Journal. The other editors work with the University of Cape Town, South Africa and West Virginia University USA, respectively. We acknowledge the contributions of The Marketing and Web Development Committee of the Faculty of Engineering, UTS and its Chairperson Ms Sandra Meiras. We also thank the Dean of Engineering Prof. Archie Johnston for approval to create a site for the Journal within the Faculty's site. We thank Michel de la Villefromoy who worked on the first site and for suggesting to the Editor-in-chief to consider using the UTS ePress. This suggestion has led to significant enhancement of the administration of the online Journal. We thank the UTS Library and in particular Ms Fides Lawton and Mr Richard Buggy for making the Journal a reality and for helping to deploy the software used in administering this Journal.

The papers in this first issue of the Journal come from different countries around the world. They deal with emerging technologies and have touched upon new and existing areas of information and communication technology (ICT). The seven papers originate from China, Italy, Germany, Norway, South Africa, United Kingdom and the USA. The papers are put together by the editors Professors Donald A. Adjeroh, H. Anthony Chan and Johnson I Agbinya. We are pleased and honoured to be of service in editing the Journal and to ensure it is available as an open source periodical of high quality, dealing with contemporary and emerging technical, policy and regulatory matters in ICT.

Many international reviewers have also contributed immensely to this issue. We thank them for the time invested to see that the papers are reviewed properly and for the African Journal of Information and Communication Technology to be a reality.

We acknowledge the contributions of the Open Journal System (OJS) whose Journal administration software has been used to make this a success.

To our new generation of scientists, intellectuals and their friends all over the world we wish you happy reading. A stanza in one African national anthem echoes our sentiments and wishes as we embark on this journey:

*"Nkosi sikelel' iAfrika
 ...From our blue heavens
 From our deep seas breaking round
 Over everlasting mountains
 Where the echoing crags resound..."*

(Excerpts and adaptation from the South African National Anthem)

² Palesa Shabalala, *Private communications, Transtel, South Africa, 2005*

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Johnson I. Agbinya
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 During 2001-2003, he was visiting
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