Interview

Talal Abu-Ghazaleh

"ICTs are a crucial building block with an enormous role to play in the development of 21st century global information society"

- What do you see as the most serious challenges in the realm of digital technology facing the engineering profession today?

The most serious challenge is to find the right balance of emphasis between the basic engineering skills and the important role of modern ICTs in the multifarious engineering professions. Despite their importance and relative inexpensiveness compared to capital intensive technologies that dominated in the industrial revolution, the fact is that ICTs do still often represent a serious level of investment for many countries. It takes careful analysis and planning to integrate ICTs into engineering education and business in the most beneficial and cost-effective manner.

In some engineering professions, ICTs, while important as always, are not necessarily the most important issue. Many basic construction projects are undertaken around the world with little resort to advanced ICTs, and the developing world still retains certain advantages in these areas.

On the other hand, there are many cutting edge fields where CAD/CAM, and other state of the art ICTs are very important. Knowing where to invest in and apply ICTs and when not, is an important issue. It comes down to priorities. This is a basic question, with regard to ICTs and development in general, and one that is attracting increasing attention in the community of development.

Going beyond this, I would say that one of the other major issues is the way in which ICTs are bridging the distance between continents, people, countries, societies, and even within the engineering profession itself.

Modern ICTs are creating linkages and new interchanges between people, that have instigated profound qualitative changes upon society that have yet to be fully realized. It is not easy to fully assess the total impact of these changes, but speaking intuitively I would say that they are extremely

significant. The challenge which these impacts provide countries and professions around the world with, is how not to be left behind, how not to inhibit the catalytic and dynamic processes that are creating new outlets and new modes of human interaction.

As we look at the engineering profession itself in its most basic and its most ancient applications, it requires a mix of individual creativity and innovation in conjunction with a cohesive social organization that provides the means to develop and build ideas into reality. The great Pyramids of Giza are just but one example of this. When we look at the impact of ICTs in connecting a new and vastly enlarged universe we see how it provides the opportunity for creation yet undreamt, yet unachieved. We need to find a way to make the opportunity to participate in this new reality something that all people of the world can join together in. To be honest, there are no easy answers, no simple maxims that can sum up everything, but if I was to venture a try at such a summation I would focus on education. There is nothing more important.

- How would you rate the Arab countries in terms of information access? If an imbalance exists, what steps are currently being taken to redress this imbalance? Is the Talal Abu-Ghazaleh Organization involved in helping to bridge the Digital Divide in Africa? If so, in what ways?

With regard to the first question, I would have to say that the answer is truly mixed. If you compare Egypt or Jordan with Saudi Arabia or Yemen, you get quite a range of answers. In countries like Saudi Arabia and UAE you have monopoly ICT providers that in some ways help, and in some ways restrict information access. It is widely accepted that provision of information services by monopolies is an unsatisfactory way to provide efficient services and rapid development. However when you look at the Arab countries you see great variety. Egypt, for example, has an excellent program that provides free internet access for anyone with a computer, modem, and telephone; it costs no more for internet access than a normal local telephone call in much of the country. The only impediment is the overall poverty, illiteracy, and general under development of the country that impacts overall human welfare as well as information access.

In the UAE you have a monopoly service provider that is helped by generous government support and forward looking policies. In Jordan there are still many impediments, including government and social barriers but the overall higher educational attainment of the population and its relatively small population size makes providing information access easier. Other Arab countries suffer various similar situations.

Overall, we cannot deny that the Arab world is far behind most regions of the world. The primary reasons for this are based on factors that include poverty, education, poor government policies, culture, and history.

TAGO is definitely involved in helping to bridge the Digital Divide in Africa. However, I must qualify this by noting that TAGO is an Arab organization and our focus is on the Arab world. Therefore, when we speak of Africa we are primarily concerned with North Africa, Egypt, and the other North African Arab countries. Nonetheless, TAGO is a committed supporter of the UN ICT Task Force, the International Chamber of Commerce (in which I am chairman of the EBITT Commission) and numerous other organizations that focus on developing countries, among others. So in a certain sense, TAGO's commitment is international and it focused on the developing world at large. The Arab world has a lot in common with other developing regions and that includes sub-Saharan Africa as well as Asia, Latin America and other parts of the world.

However, our focus on the Arabic language clearly shows the most significance in the MENA region. We have been extremely active in developing digital resources for the Arabic speaking world. With Cambridge International Examinations, a division of world-famous Cambridge University England, we have developed an Arabic language version of their computer education program. We have provided Arabic language versions of websites for numerous international organizations, including WTO, ICC, and UN organizations among others. We are also working on an Arab digital university and numerous other long-range projects.

- What message do you wish to convey to the Congress participants? What do you hope will be accomplished by the work of this Congress?

The primary message I would like to convey to Congress participants is that the current trend in the deployment of ICTs for development objectives is to focus on realistic outcomes and the mainstreaming of ICTs within overall development goals. ICTs are extremely important, influential and need to be always considered, but they will not always have the priority in every endeavor.

This may sound funny, coming from someone so closely identified with the emerging information society, but it is really the developing orthodoxy within development circles. There was a short period when most of us were perhaps unrealistically enthusiastic about ICTs; and now we are becoming realistically enthusiastic.

Along this vein, I would emphasize the continuing importance of education, both ICT related and also basic mathematics and science, the building

blocks of all engineering fields. The challenge, as always in life is to correctly appraise the differing demands and challenges and set the appropriate priorities. ICTs are a crucial building block with an enormous role to play in the development of 21st century global information society.

However, we also must balance them with the reality of the various demands of life.

Finally, I would remind congress participants of the long-standing association of engineering with the concept of building and manufacturing. In recent years, engineering has increasingly been identified in popular science and discussion with 'information technology'. While I would in no way wish to downplay the significance of the Information Revolution, I would also like to highlight the enduring importance of engineering as a building and manufacturing field. It is not in the interest of the engineering or the IT field that the distinction between these areas is ignored.