

FORUM AND OUTREACH DAY OF THE AFRICAN SCHOOL OF FUNDAMENTAL PHYSICS AND ITS APPLICATIONS

16 AUGUST 2014
DAKAR, SENEGAL

ICT DEVELOPMENTS IN AFRICA

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Distinguished students,
Dear colleagues,
Ladies and gentlemen,

- It is a great honour and a real pleasure to be here with you in the fine city of Dakar for this *'Forum and Outreach Day of the African School of Fundamental Physics and its Applications'*.
- I am delighted to see so many of you here today, and also to be joined by colleagues from important scientific organizations such as CERN, as well as many experts from other areas.
- I am also delighted that ITU was able to provide scholarships to ten students for the APS programme this summer.
- In line with our ambitions across all of our work at ITU to respect gender balance, I am pleased to see that the ITU-sponsored students have included five young women and five young men – and I would like to offer each one of you our very best wishes for your time here in Senegal, both from ITU as an organization, and from me, personally, as the Secretary-General.

- It is also very good that we have also been able to give priority to the UN-designated Least Developed Countries, with all but one of the ten scholarships having gone to the LDCs.

Ladies and gentlemen,

- I have been asked to focus on '*ICT Developments in Africa*' – and I would like to address in particular their significance to what are arguably the most important and influential segments of Africa's population: Africa's youth, including Africa's girls, young women and persons with disabilities.
- Information and communication technologies are of crucial importance to all of you here – and to all scientists around the world. Without ICTs, we cannot properly share large volumes of information, collaborate effectively, engage in technology transfer, or harness the power of grid computing.
- Indeed, it is hard to imagine a school of fundamental physics even existing in the 21st century without the power of ICTs, and in particular broadband – and I am sure that many of the distinguished colleagues here have been reinforcing this message about the importance of leveraging technology in our work, through the duration of this summer school.
- As you are all aware, the ICT sector in Africa has experienced quite extraordinary growth in recent years, especially in terms of mobile cellular communications – with penetration rates in sub-Saharan Africa almost doubling in the past five years, to reach 69.3% by the end of 2014. Here in Senegal, there are almost as many mobile cellular subscriptions as there are inhabitants.
- We have also seen very solid progress in terms of increased internet use in sub-Saharan Africa, with more than two and a half times as many people online at the end of 2014 as there were at the end of 2009.
- However, there is no denying that we still have far to go – with four fifths of people in sub-Saharan Africa still offline at the end of 2014.

- That's four fifths of the people on this fine continent who are denied access to the incredible wealth of knowledge and richness that the internet can bring into our lives – and four fifths of the population that cannot properly engage in scientific research and innovation.
- Even for those who do have access, it is still far too expensive, with mobile broadband still costing up to half of average income in some countries in sub-Saharan Africa.
- As Secretary-General of ITU, the United Nations specialized agency for ICTs, I am proud of Africa's progress to date, and its commitment to do even better as we move ahead. And I am hugely optimistic for the future – with good reason, as we watch the incredibly rapid uptake here of new technologies, including mobile broadband.
- Indeed, in terms of mobile broadband penetration rates, Africa is now only one year behind the Arab States and Asia-Pacific regions, with Africa's penetration at the end of 2014 close to those other regions at the end of 2013.
- With ongoing technological breakthroughs, and the will to succeed, I am confident that Africa will be able to catch up completely in the near future!

Distinguished colleagues,

- ICT development of course is not just about where countries stand in statistical league tables. It is about businesses, jobs, lifestyles, education, healthcare, and government – and so much more.
- ICT-driven Africa is a place where people will prosper; where communities will continue to develop strong bonds; where businesses will thrive; and where governments will enable strong and sustainable development as well as efficiently and effectively serving their people.
- This is already happening, and I am absolutely confident this will continue to happen: because of you – Africa's brilliant young minds!

- Those of you here today are already at the forefront; but the important thing is to ensure that many, many more young people get the opportunities to forge ahead, as you have already started to do.
- In Africa, in the 21st century, it is not enough to have opportunities; you need to have *digital* opportunities. It is not enough just to be smart; you need to be *digitally* smart.
- The most obvious example of this is the employment market, where digital literacy is now an essential prerequisite in all countries for getting a job or starting a business.
- Fortunately, there have never been more or better opportunities for acquiring the necessary digital skills – whether formally, at school, or informally, online – and it is tremendously encouraging to see the proliferation of MOOCs, Massive Open Online Courses, as well as open courseware and mobile learning, hackathons, and mobile app competitions.
- We highlighted these and other opportunities last September, at the Global Youth Summit, which was hosted by Costa Rica, under the theme of 'BYND 2015'.
- The Youth Summit was held to discover how young people are using technology – and to help them use it in new, innovate and constructive ways.
- Onsite, in San José, we had over 500 participants from 68 nationalities – with a further 8,000 from 173 countries actively tuning-in online to contribute to the Summit's crowdsourcing platform, and to participate in the remote workshops and mini-Summits hosted by the 43 official Hubs situated in 31 locations around the world.
- At the event, young people participated in workshops and capacity building sessions to help them develop their ICT skills – and they were encouraged to think of ways technology could be used to empower marginalized youth from around the world.

- The young delegates also actively participated in the drafting sessions to help develop the outcome declaration, highlighting their desire to play an active role in such activities.
- The result was the BYND2015 Declaration, which serves as a high-level framework to encourage and guide ITU Members in the development of their own ICT-based youth initiatives – while mandating universal access to ICTs for young people, regardless of social setting.
- The Declaration was taken by President Laura Chinchilla to the UN General Assembly last year.
- Let me also draw your attention to ITU's latest youth report, focusing on '*Digital Opportunities: Innovative ICT Solutions for Youth Employment*', which is freely available on our website.

Ladies and gentlemen,

- When we talk about youth being critical to Africa's success, that of course includes girls, and equal access to ICTs will be an essential part of the solution.
- So we need to ensure that girls and young women, as well as persons with disabilities, get hands-on experience early on in their lives, just like most boys already do – learning to code and picking up digital literacy skills at the same time as they get to grips with basic literacy and numeracy.
- Happily, the importance of getting girls and young women interested in tech at an early age has been widely recognized by governments, the private sector, and international organizations such as ITU, and there is a proliferation of new programmes and initiatives in this area – including ITU's *International Girls in ICT Day*, which is celebrated on the fourth Thursday in April every year.
- Girls in ICT Day is an opportunity for girls and young women to get an insight into the ICT sector and to consider ICT careers through open days at ICT institutions, meeting women role models, and getting hands-on experience in technology.

- These celebrations raise awareness and inspire young girls and women to see technology in a whole new light, and between 2011 and 2014, around 3,000 events took place in over 140 countries, empowering close to 100,000 girls and young women globally.
- In addition to the career side, we are also globally advocating ICTs themselves as a tool to increase the social and economic empowerment of women, girls, and persons with disabilities.
- As one example of our work, we have a long-standing partnership with telecentre.org, which had already trained over a million women in digital literacy by March this year.
- Women who have had training are now coming back for more, as they see the real potential – not just in traditional areas such as healthcare and education, but also in entrepreneurship.
- ITU's membership has also established a fund to expand our activities in the area of accessible ICTs – which is really important, when we consider that about 15% of the world's population, or some one billion people globally, live with some sort of disability.
- ICTs, such as mobile phones, satellites or the internet, are a unique infrastructure that helps expand access to key public services, promoting digital inclusion for persons with disabilities, and many are already benefitting from the advantages of ICT-enabled applications. ICTs can also help ensure that persons with disabilities can play a full and participatory role in the field of scientific development.

Distinguished students,

- At ITU, our goal is to help create a world where everyone – and especially young people – understands the incredible opportunities out there, and has the freedom to choose.
- We would like parents and teachers – who have such an enormous influence over the career paths young people take – to realize that an ICT career can be a terrific choice, not just for boys, but for girls too.

- Neelie Kroes – the Deputy President of the European Commission – made a great point when she spoke at our own Girls in ICT event in Geneva this year, when she said how important it was to get girls coding in class from a young age.
- This is indeed the new literacy.
- Finally, we would like the media and entertainment industries to start creating more role models that young girls can aspire to, and we would like companies and organizations to strive to create female-friendly environments for new graduates.
- We are encouraging tech companies to set targets for female recruitment and promotion, and such commitments could lead to greater equality and empowerment.
- We would also like to invite academies, universities and vocational training centres to forge active partnerships with the ITU Academy in building human and institutional capacity within the ICT sector, and we would be delighted to leverage synergies here in a mutually beneficial way.
- In closing, let me encourage each and every one of you, personally, to act as an ICT ambassador – spreading the word and helping us to meet our goal of connecting the world.
- You are the future – and the future is in your hands!

Thank you for your attention.

1,850 words