Book Review - 1

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Jasper Grosskruth (ed.), *Futures of Technology in Africa*, **The Hague, Netherlands: STT Publication, 2010: 83 pages; ISBN: 978-90-809613-7-1.**

The 'Futures of Technology in Africa' wishes to explore Africa's science and technology neither with pessimism nor with optimism, but with realism. It heralds an approach or perspective not to see Africa's future by using stereotyping that is either flattering or condemnatory. It argues for an approach and perspective to understand what is really going on in Africa. It thus provides a lesson on how and why stereotyping must be avoided and realistic analytical approaches have to be preferred. Africa has been branded either by unending hunger, conflicts, corruption, poverty, crises mismanagement, emergencies and/or wild animals, game reserves and exotic beau-

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ty. The Futures of Technology in Africa contests this and tries to reframe Africa's futures.

The authors approached to do it differently by not going too specific at the 'cost of comprehensiveness,' (p.8) and applying 'broad brush strokes, providing an overview' at the cost of 'precision and depth' (p.9). They did four months of literature search and interviews with experts coming from the triple helix of government, academy and business working on technology and development.

The selection of Africa for a futures and foresight study appears to have been done based on appreciation of the positive turn Africa is said to have embarked upon: "Africa has outgrown the world economy and despite the recent financial crisis, this trend is projected to continue in the future" (p.9). This optimistic take off Africa's rise goes against the conventional wisdom that puts often Africa on the bottom of the pyramid in almost every indicator of economic, social, human and scientific and technological advancement. The authors further claim that, "For some technologies Africa even exhibits the highest growth rates in the world, mobile communication being the most prominent example. Africa is really rising" (ibid.).

Having raised our optimism and expectations high, the authors bring back the sobering persistent trends that Africa continues to experience. "The global technological gap is most persistent, poverty is denser than elsewhere and less is known about technology in Africa when compared with other developing regions (ibid.).

Despite the attempt to go beyond the crises stereotype and the exotic stereotypes, the science, engineering, technology and innovation perspective to re-frame Africa's development challenges still remains at an early stage. Africa is still described with a bifurcated picture that 'some are rising lions and a large number of countries are in a state of big failure.' The opportunity for a possible dynamic rise faces the big constraints that Africa still remains at the lower levels of the global technological gap with a persistent, dense and desperate poverty. Together these combinations provide researchers big challenges to find out ways of how the quality of life of the population can be improved with an inclusive, smart and sustainable growth based on a dynamic science, engineering, technology, innovation development.

The main objective of the authors is to change the perception about how the way of thinking and seeing Africa has been undertaken to date so that Africa's futures is put on a more realistic and non-pessimistic new journey. The objective is to question the reader's and others ideas about Africa by adding to the global conversation a technological reading of Africa's futures. Interviews from Rwanda, Kenya, Uganda, Nigeria, Ghana, South Africa have been collected and used in the book. Sources for the study have been collected from literature survey, quantitative and statistical projections,

workshops and by identifying four pillars for the different chapters. The first pillar is to do with long-term thinking. The second deal with futures in ICT, energy, infrastructure and agriculture. The third pillar focuses on societal futures. The last pillar is to see African futures with science fiction story and an Afrocentric perspective.

The first part broaches the problem of Africa's futures for the 21st century. Chapter one addresses the problem of how to see Africa beyond the stereotypes and tries to show that there is much uneducated representation or misrepresentation of Africa. Africa has "widespread vibrant entrepreneurship, sophisticated intellectual elites and the ambition to be seen as a respected partner in the global community" (p.18). The author gives uplifting stories claiming that some African economies score the highest growth rates in the world. Improvement in political stability and a cheetah generation of young high entrepreneurs are rising. It is Africans that must solve African problems. It is not anywhere else but from Africa that African solutions to Africa's problems come.

The population growth is projected to move from its current 820 million in Sub-Saharan Africa to 1.7 billion by 2050 making the current 12% share to rise to 19% by 2050. The challenge of making this population productive by increasing education and skills and raising the ratio of the population that can work as opposed to those that remain idle is critically important.

Population growth is a challenge, but if the rate of economic growth continues as projected by all the international institutions that Africa is the second most dynamic economic region in the world next to Asia, the opportunity to turn the rise of population numbers into factors for more economic growth is likely to grow higher. "If Africa can provide its young people with education and skills they need, this large workforce could account for a significant share of both global consumption and production" (MGI, 2010). It is expected that well before the year 2050 Nigeria might overtake South Africa by becoming the largest African economy (p.21).

Economic growth in Africa is correlated with political stability, reduction of conflicts, political reform, rule of law, elimination of corruption and sustained improvement in governance. The number of peaceful change is growing. Through better governance there can be macroeconomic stability, micro-economic reforms and maintaining better budgetary discipline. Many countries are recording reforms for doing better business as reported by World Bank. Some 67 reforms have been reported.

At the centre of all these improvements lies technology making Africa's 21st century a technology driven change.

The next two chapters on African future studies by Geci Karui-Sebina (Chapter 2) and Exploring Technology Futures (Chapter 3) basically introduce futures thinking in Africa and how from being a 'white spot on the

world map' of futures and foresight thinking that Africa has come to the forefront receiving attention by futurologists. None of the global futures issues such as climate, population, economic growth, food and agriculture, energy, resources and social trends can be studied with the exclusion of Africa's presence. Geci says: "Africa's future matters globally" (p.27) and outlines an inventory of African foresight and scenarios. On technology futures both the negative and positive contributions have been outlined by advising Africa to navigate thoughtfully in making the Africa century being driven by technological change.

Chapter 4 describes how mobile telephone will make Africa flat taking the example of Thomas Friedman. Chapter 5 describes the energy futures and the way to meet this. Currently, 70% of Africa's electricity is in South Africa. Energy is very unevenly distributed and a serious energy futures is needed to electrify Africa. Chapter 6 describes the infrastructure deficits and how the infrastructure futures of road, rail, air and sea can be developed and streamlined. Chapter 7 discusses the use of technology, ICTs and others to modernise agriculture. Chapter 8 explores a variety of futures by exploring opportunities, ambitions, threats and fears based on interviews of what the next 20 years holds for Africa. It discusses the diversity of possible futures based on technology, politics, economics, culture, life style and other factors (p.100).

Chapter 9 addresses technology in context of both as opportunities and threats. Chapter 10 reverses the learning not as always Africa learning from the rest of the world, but the opposite, the rest of the world learning from Africa. This was also based on interviews. The author concluded: "Africa will have a lot more to teach the West and the West would be wise to listen as much to Africa as to any other world region" (p.131). Chapter 11 dealt with a guide for African futures by taking infrastructure, electricity, global technology, agriculture, regional diversity, knowledge and information and explores the future of the future of technology in Africa showing both the challenges and the promises (p.138).

The last chapter is a science fiction story by the Kenyan Wambura Kimunyu, an African writer, observer, thinker and dreamer. This is an excellent way to close the chapter of the book with a dreamer.

Finally, this study puts technology at the centre for imagining Africa's futures. Where the work suffers is from the need to still prove to the West that things in Africa are working. The best way to demonstrate this to Africans is not to tell the West how good things are going to be in Africa, but to be able to do them. The only way this message will be powerful is when Africans learn to unite using technology to build African futures. So let Africans make their futures.