

Globalisation of Concern II

Essays on Education, Health, Climate Change and Cyberspace

Aidan G. Msafiri

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Change, and Cyberspace*

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Aidan G. Msafiri

Globethics.net Focus

Series editor: Christoph Stückelberger. Founder and Executive Director of Globethics.net and Professor of Ethics, University of Basel

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150 route de Ferney

1211 Geneva 2, Switzerland

Website: www.globethics.net

Email: info@globethics.net

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Dedication

To my late Father Mwalimu Gregory C. Mmbando
for the gifts of care and prayers in my life

This work addresses key issues for Christian universities, especially in Africa. These institutions commonly operate without all the resources their counterparts in the Western world enjoy and yet cannot isolate themselves from today's global society. I heartily commend it to readers, not only in Africa but all in the wider global society. I also urge them, not only to read, but to take up the challenge to further concerted action.

*Prof Stuart Fowler, Faculty of Management and Commerce,
University of Fort Hare*

The world of today can be described as a fast lane. There is much that is happening in all the fronts of life. This text highlights some of these realities – information technology, environmental issues, justice and peace, climate change, medicine, risk and trust, higher education and Christian education. The onus is thrown to higher education, and particularly Christian education, to serve as the “soul” in responding to these weighty matters. These ideas are worth the attention and critique of scholars, religious leaders, community mobilisers and all people of good will. The bottom line is to be alert to the implications of the fast lane, and to determine how and where to travel, because it is a journey that cannot be ignored or postponed. If anything, it is gathering momentum.

*Prof Mary N Getui, Department of Religious Studies,
Catholic University of Eastern Africa*

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May I also express my sincere thanks particularly to Maurice Gama and Brother Bakanja OSB for their invaluable moral support and solidarity. I also wish to express my appreciations to the administration, colleagues and students of Stella Maris Mtwara University College (STEMMUCO), a constituent college of St Augustine University of Tanzania (SAUT), for their constant moral support.

Last but not least, I wish to extend a vote of thanks to all friends, editors, readers who directly or indirectly assisted towards the fruition of this noble goal. May God reward you all abundantly.

PREFACE

*Dovhani Reckson Thakhathi*¹

Dr Aidan G. Msafiri is a servant of God who understands clearly his calling by God. He is an outstanding intellectual with a distinguished record of serving God and his people in many ways, but most importantly by writing books that are impactful and empowering.

This book comes at the right time, when the world is confronted with so many challenges that need leaders, academics, and ministers to generate solutions. Going through the book was a great experience. I read it with passion and interest. It is an academic masterpiece. I could not put it down.

“Whoever wishes to be great among you must be your servant, and whoever wishes to be first among you must be your slave; just as the Son of Man came not to be served but to serve, and to give his life a ransom for many.” (Matt. 20:27f.) We have been saved to serve. This gospel message calls us all to look at the world with new eyes and do something valuable. In this book, Aidan has poured out his heart to the world and demonstrated that knowledge is precious. He unpacks many complex issues for us that demand our response – issues of technology, climate change, international politics, African values, environmental imperatives, public health, higher education, Christian service, and community development. I am amazed at the wealth of wisdom and knowledge to be found within the covers of a single book.

¹ Prof. Dovhani Reckson Thakhathi, Professor of Public Administration, Faculty of Management and Commerce, University of Fort Hare, Eastern Cape, South Africa.

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Aidan's book has taught me that the secrets of life are only revealed to those who pursue them. It has reminded me that *vision + inspiration + persistence = success*. It is in line with a South African service delivery slogan that I like very much: "We serve, we care, we belong".

This son of Africa has written a book that will change the world for good. It reflects on the real issues that are challenging globalisation and all the world's religions, especially the Christian religion. It calls us to be critical and strategic thinkers – innovators and activists in transformation in economics, development, science, technology, and service delivery. An African proverb says: "If you want to walk fast, walk alone; but if you want to walk far, walk with the other people." A Dayak proverb from Borneo adds: "Where the heart is willing, it will find a thousand ways; where it is unwilling, it will find a thousand excuses."

My friend, you have written a good book. "If God is for us who can be against us." (Rom. 8:31) May God richly bless you!!!

HOMO CYBER: THE HUMAN PERSON WITH ENORMOUS OPPORTUNITIES AND POTENTIAL RISKS

Abstract

This chapter seeks to unveil the enormous opportunities as well as the potential risks linked with the rapid development in information and communication technology today. This redefines the human person ever more radically as a cyber person: *homo cyber*, living in a postmodern cyber society.

First, and positively, cyber society offers immense opportunities and socio-economic, human, political, and cultural advantages. Statistically, cyber users in Africa, for instance, increased by 31% in 2007, with a rise to about 4.7%, opening much cheaper and quicker communication opportunities necessary for social transformation. This is evidenced in the rise of an “all-time-connected” society, placeless markets, e-learning, tele-education, genetic resources, tele-medicine, e-commerce, bio-technology, nano-technology, genome technology, e-governance...

Cyber technology is becoming a crucial platform redefining human society, life economy and political processes. In Africa, mobile and smart phones are becoming the most popular form of personal technology, replacing the laptop computer, TV, and the credit card. This is transforming people into multi-players, developing their competence, foresight, knowledge and skills. Cyber technology empowers the human person to do more than ever before.

Second, and negatively, the cyber revolution and cyber society create multiple risks and dangers. A few people can cause immense damage in minutes or even seconds. Worldwide websites, blogs and entertainment channels systematically brainwash hundreds of millions of people – the world’s youth in particular – with immoral and abominable lifestyles and perverse views. The internet is awash with child pornography, paedophilia, homosexuality; spyware, virus plagues, and phishing, decreasing the possibility of secrecy and privacy; piracy, drug trafficking, and digital bullying.

The 2008 *Global State of the Future Report* shows that world’s illicit cyber trade to be over USD 1 trillion per year, with counterfeiting and piracy at USD 533 billion. The recent *Fast Future Report* indicates that around 120 billion junk

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messages are sent worldwide daily. The spam business is now estimated to be worth USD 200 billion a year!

The risks and uncertainties wrought by the cyber revolution cannot be exaggerated. They are real. Today, virtual reality resulting from advances in information technology can make people fail to distinguish between the virtual and the real. The online virtual world, Second Life, is becoming more prominent in almost every sphere of life, political, economic, social, technological, environmental, and even religious.

Given the exponential growth of cyber society and cyberculture, it is absolutely necessary and urgent for human beings to rethink the immense opportunities and the imminent dangers linked with cyber technology. Prudence, foresight, and ethics are crucial. Hence the need for a concerted scholarly global reflection spearheading a shift to a new and better paradigm.

Key words

Cyber society, cyber revolution, opportunities, chances, risks, dangers, threats, cyberspace, cyberculture, information technology, new paradigm

1.1 The Development of Cyber Society

We begin with a brief inventory.

Mainframe computers

“During the 1950s and 60s, Unisys (maker of the UNIVAC computer), International Business Machines Corporation (IBM), and other companies made large, expensive computers of increasing power. They were used by major corporations and government research laboratories, typically as the sole computer in the organisation. In 1959 the IBM 1401 computer rented for \$8,000 per month (early IBM machines were almost always leased rather than sold), and in 1964 the largest IBM S/360 computer cost several million dollars. Such systems remain important today...now called servers rather than mainframes.”²

Personal computers

“The story of two whiz kids, Stephen G. Wozniak and Steven P. Jobs... Wozniak purchased one of the early microprocessors, the Mo-

² Freiburger, Paul A./ Swaine, Michael R., “Mainframe”, in: *Encyclopædia Britannica Online*.

stek 6502 (made by MOS Technology), and used it to design a computer [The Apple]... Their initial plans were modest. Jobs figured that they could sell it for \$50, twice what the parts cost them, and that they could sell hundreds of them to hobbyists... To raise the capital to buy the parts they needed, Jobs sold his minibus and Wozniak his calculator. They met their 30-day deadline and continued production in Jobs's parents' garage.

After their initial success, Jobs sought out the kind of help that other industry pioneers had shunned. While he and Wozniak began work on the Apple II he consulted with a venture capitalist and enlisted an advertising company to aid him in marketing... Apple quickly built well-engineered products that made the Apple II far more useful: a printer card, a serial card, a communications card, a memory card, and a floppy disk. This distinctive approach resonated well in the marketplace.”³

Others followed some ten years later, notably Microsoft.

Internet

“A system architecture that has revolutionised communications and methods of commerce by allowing various computer networks around the world to interconnect. Sometimes referred to as a ‘network of networks’, the internet emerged in the United States in the 1970s but did not become visible to the general public until the early 1990s.

The internet provides a capability so powerful and general that it can be used for almost any purpose that depends on information, and it is accessible by every individual who connects to one of its constituent networks.”⁴

World Wide Web

“The development of the World Wide Web was begun in 1989 by Tim Berners-Lee and his colleagues at CERN, an international

³ “Computer”, in: *Encyclopædia Britannica Online*.

⁴ Kahn, Robert, “Internet”, in: *Encyclopædia Britannica Online*.

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scientific organisation based in Geneva, Switzerland. They created a protocol, hypertext transfer protocol (HTTP), which standardised communication between servers and clients.”⁵

Social media

Facebook, Twitter, LinkedIn, Google+...

Mobile phones

Mobile or cell phones “...are portable devices that may be used in motor vehicles or by pedestrians. Communicating by radio waves, they permit a significant degree of mobility within a defined serving region that may range in area from a few city blocks to hundreds of square kilometres. The first mobile and portable subscriber units for cellular systems were large and heavy. With significant advances in component technology, though, the weight and size of portable transceivers have been significantly reduced.”⁶

Smartphone

“...mobile telephone with a display screen (typically a liquid crystal display, or LCD), built-in personal information management programmes (such as an electronic calendar and address book) typically found in a personal digital assistant (PDA), and an operating system (OS) that allows other computer software to be installed for Web browsing, email, music, video, and other applications. A smartphone may be thought of as a handheld computer integrated within a mobile telephone.”⁷

VoIP

Or “voice over internet protocol communications technology for carrying voice telephone traffic over a data network such as the internet.

⁵ “World Wide Web (WWW)”, in: *Encyclopædia Britannica Online*.

⁶ Borth, David E., “Mobile Telephone”, in: *Encyclopædia Britannica Online*.

⁷ Hosch, William L., “Smartphone”, in: *Encyclopædia Britannica Online*.

VoIP uses the Internet Protocol (IP)—one half of the Transmission Control Protocol/Internet Protocol (TCP/IP), a global addressing system for sending and receiving packets of data over the internet.

VoIP works by converting sound into a digital signal, which is then sent over a data network such as the internet. The conversion is done by a device, such as a personal computer (PC) or special VoIP phone... Because of the digital nature of VoIP, call quality is normally much higher than that of a standard telephone. Another advantage is that VoIP frequently costs less than standard telephone and long-distance service.”⁸ Skype, the Luxembourg-based VoIP, is free.

Web 2.0

Tim Berners-Lee, inventor of the World Wide Web, points out that “Web 1.0 was all about connecting people. It was an interactive space, and I think Web 2.0 is of course a piece of jargon, nobody even knows what it means. If Web 2.0 for you is blogs and wikis, then that is people to people. But that was what the Web was supposed to be all along. That is, social networking has always been central to the Web.”⁹ In other words, what is called Web 2.0 adds nothing structurally new.

Semantic Web

“An extension of the World Wide Web (WWW) in which data are given meaning (semantics) to enable computers to look up and ‘reason’ in response to user searches. One of the strongest proponents of the Semantic Web is Sir Tim Berners-Lee, the British inventor of the WWW and the director of the World Wide Web Consortium (W3C), which oversees standards for the project.

Berners-Lee had envisioned the Semantic Web by at least 1994, only a few years after he began developing the WWW in 1989. He unveiled

⁸ “VoIP”, in: *Encyclopædia Britannica Online*.

⁹ Hosch, William L., “Web 2.0”, in: *Encyclopædia Britannica Online*.

his idea for the Semantic Web at the First International WWW Conference, held in 1994, which resulted in the formation of the W3C...

Although adding metadata to Web pages has often been viewed as too labour intensive, the idea was embraced in 2008 by Yahoo! Inc., an American search engine company noted for its hierarchal retrieval structure.

Berners-Lee's concept of the Semantic Web is in marked contrast to the advocates of Web 2.0, which he has strongly criticised. The Semantic Web may more properly be referred to as one development of Web 3.0, which includes further improvements in the "back-end" data infrastructure, especially data tags, to support natural language searches and data mining."¹⁰

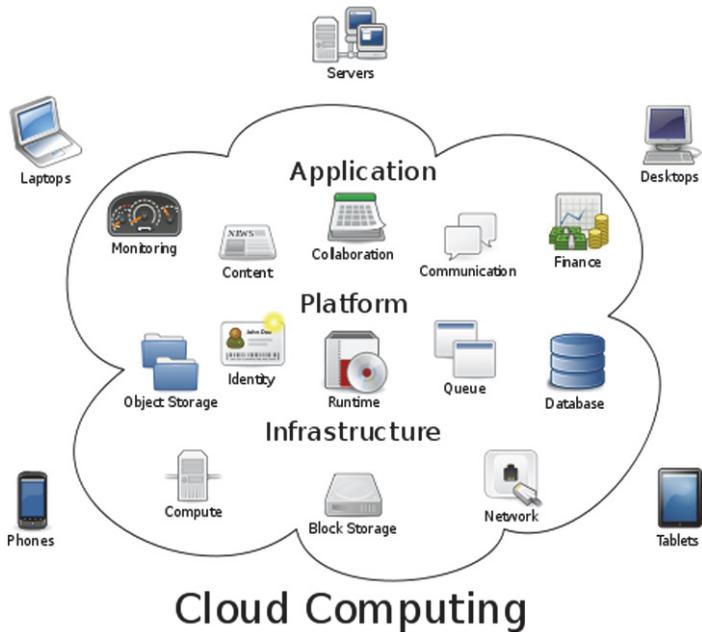
Cloud computing

"Cloud computing encompasses a number of different services. One set of services, sometimes called software as a service (SaaS), involves the supply of a discrete application to outside users. The application can be geared either to business users (such as an accounting application) or to consumers (such as an application for storing and sharing personal photographs). Another set of services, variously called utility computing, grid computing, and hardware as a service (HaaS), involves the provision of computer processing and data storage to outside users, who are able to run their own applications and store their own data on the remote system. A third set of services, sometimes called platform as a service (PaaS), involves the supply of remote computing capacity along with a set of software development tools for use by outside software programmers.

Construction of the large data centres that run cloud-computing services often requires investments of hundreds of millions of dollars. The centres typically contain thousands of server computers networked to-

¹⁰Hosch, William L., "Semantic Web", in: *Encyclopædia Britannica Online*.

gether into parallel-processing or grid-computing systems. The centres also often employ sophisticated virtualisation technologies, which allow computer systems to be divided into many virtual machines that can be rented temporarily to customers. Because of their intensive use of electricity, the centres are often located near hydroelectric dams or other sources of cheap and plentiful electricity



Because cloud computing involves the storage of often sensitive personal or commercial information in central database systems run by third parties it raises concerns about data privacy and security as well as the transmission of data across national boundaries. It also stirs fears about the eventual creation of data monopolies or oligopolies. Some be-

lieve that cloud computing will, like other public utilities, come to be heavily regulated by government.”¹¹

Note that cloud computing does not make laptop or desktop computers redundant. It just provides options for making internet connections that enables users to do what they need in the most efficient and economical way. Users need to know that, while convenient, it can be expensive if there is another way of doing what they want.

The issue in question

Human society in the twenty-first century is characterised by a revolutionary breakthrough in information and communication technology. Cyberspace offers not only immense opportunities to humans, but also great risks. These impact all aspects of life – political, social, economic, environmental, technological, ethical, spiritual, cultural and pastoral.

The advent of *homo cyber* is a crucial moment to critically rethink the imminent dangers linked with the new era and to seek a proactive, preventive and protective stance.

Justification

This chapter has a twofold goal. First, it examines the opportunities and strengths of the cyber revolution, particularly in spearheading all-round social change and transformation – personally, locally and globally. Second, it attempts to raise a proper awareness of the multifaceted dangers and risks of the cyber world today and in the future. Humans need to escape cyber naivety and stupidity before we plunge into unfathomable depths of cyber menace and technological hubris.

Scope and vision

This chapter seeks a more sustainable and peaceful information and knowledge society in the future. This requires us to take preventive ap-

¹¹ Carr, Nicholas, “Cloud Computing”, in: *Encyclopædia Britannica Online*, accessed 23 January 2012.

proaches and measures on the potential risks and dangers linked with cyber technology. The principles of technological selectivity, accountability, governability, foresight and sustainability need to be reconsidered and implemented anew.

Structure

This chapter is in three parts. The first attempts to identify the excellence of the cyber revolution in terms of its opportunities for people and societies. The second attempts to unveil the limits and weaknesses of cyber society. These include risks and dangers across the whole spectrum of human and social life. The third tries to set necessary benchmarks as alternatives and for a technological shift. In no way does this paper claim to be exhaustive. It initiates an unfinished scholarly process for future investigative research, foresight and concerted action.

1.2 Homo Cyber: Strengths and Opportunities

Technological and educational opportunities: speed, universality and efficiency

The technology of the cyber revolution, with electronic websites accessed via the internet, using wireless or cable connections, mobile phones, TV, and other broadband and wireless communication, provides the most rapid and efficient global communication avenues ever. This has given birth to an “always connected society”.¹² It is characterised by an exponential growth of information and knowledge.

The era of *homo cyber* is radically transforming the educational and informative paradigms developed during the period of *homo technicus*, the technical-industrial age. It is creating a “knowledge-based society”. Unlike former days, when “schools determined what, where and when to

¹² *Megatrend Korea*, Seoul: Korea Information Society Development Institute, 2007, 5.

teach, nowadays learners choose the learning method and content based on their own specific needs and preference...”¹³

In some countries the internet is used to provide online degree courses at major universities. These degrees have the same standing in the academic world as degrees gained on campus. “Study online and graduate with a degree from a leading Australian University. With over 130 courses & 1100 units to study, there’s something for everyone.”¹⁴

Economic and development opportunities

Today *homo cyber* can transfer money, trade currency, and move capital for investment and development from one corner of the globe to the other in a instant. Information and communication technology is a leading sector in global economic leadership and development. The cyber revolution is the most powerful driving engine for twenty-first century economic development and transformation worldwide.

Improvements in IT are a major stimulus in promoting investment flow and maximising investment efficiency. Digitalisation of local and global economies gives rise to new values fostering true and integral development – creativity, foresight, freedom, diversity, autonomy, adaptability, flexibility, solidarity and networking. The Korean experience is worth mention. It is estimated that “e-commerce volume in Korea grew about 3.5 times in 5 years, from 118 trillion 980 billion won in 2001 to 413 trillion 584 billion won in 2006. On-line stock trading in 2006 in particular accounted for 54.4% of total e-trade”.¹⁵

Cyberspace enables employees, managers, economists, entrepreneurs, development gurus, forecasters and think tanks to move beyond taboos, rigid channels, narrow worldviews, and closed systems characterised by unnecessary bureaucracy and repetition, thus bringing about

¹³ Ibid., 35.

¹⁴ Open Universities Australia. See e.g. informe.com/open.edu.au/

¹⁵ *Megatrend Korea*, 22.

fundamental restructuring¹⁶ and breaking open geographical and geopolitical bottlenecks. What “has changed is not the kind of activities humankind engaged in, but its technological ability to use as a direct productive force what distinguishes our species as a biological oddity: its superior capacity to produce symbols.”¹⁷

The cyber revolution brings about a higher economic contribution from women and older people. Unlike the former industrial age (the era of *homo industrialis*), the cyber era offers them superior labour skills, ability, competence, knowledge and information and allows them to play a key role as drivers of future economic growth.¹⁸

Here are some statistics for the economic participation of women with college or higher education: Korea 54.5%, Iceland 83.5%, Japan 60.8%, OECD average 60.4% (2006). In 1994, only 35% of workers in the age group 50-64 were high school graduates. But the number is expected to rise to 88% by 2025.¹⁹

The emergence of the global innovation economy is digitalising and transforming every industry for efficiency, speed and productivity. This includes health care, financial services, manufacturing, transportation and all social and biological sciences. A new integrative systems approach is being born, referred to as convergent technologies, or NBIC: nanotech, biotech, infotech and cognotech (or neurotech).²⁰ These enhance human performance and have a significant impact on global economic transformation and development. In India, IT workers are not only “providing valuable goods and services to United States consumers, but they are also sitting at terminals with Dell Computers, using Mi-

¹⁶ Anderson, Walter Truett, *All Connected Now. Life in the First Global Civilization*, Colorado: Westview Press, 2004, 122.

¹⁷ Castells, Manuel, *The Information Age: Economy, Society and Culture*, Vol. I: *The Rise of the Network Society*, Oxford: Blackwell, 1996, 92.

¹⁸ *Megatrend Korea*, 23.

¹⁹ *Ibid.*, 23.

²⁰ Canton, James, *The Extreme Future. The Top Trends that will Reshape the World in the Next 20 Years*, New York: Penguin, 2006, 71.

crosoft and SAP software, Cisco routers, and dozens of other empowering pieces of technology imported from the developed countries.”²¹

Access to electronic information on weather forecasts could be of significant assistance to farmers in making proper decisions about what, when and how much to produce. In 2001, for example, EID Parry launched internet kiosks in sixteen villages around its sugar factory in Nellikuppam, Tamil Nadu, India.²² As a result, it is claimed, “EID Parry has acquired a strong rural presence...The four sugar factories in Tamil Nadu have 150 people who are involved in producing sugarcane. These people have intimate knowledge of rural India and have developed close relationships with farmers and their communities...”²³

Cyberspace is becoming the landmark of “a global civilisation, the placeless place where people go for trade and finance...People and businesses are now growing accustomed to doing some of their shopping there...”²⁴ A recent study has demonstrated that the growth of cyberspace accelerates business productivity in developing countries in particular, generating income, jobs and government revenue. Analysing the social and economic impact of cyberspace, Boston Consulting Group and Telenor Group show that a 10% increase of cyberspace has promoted new business activities by 1% and boosted GDP by 1% to 2.5%.²⁵

Socio-cultural and humanistic opportunities

The age of *homo cyber* gives birth to the era of the multi-player. Borders and boundaries are systematically disappearing. Formerly dominant rigid socio-cultural channels and departments with their cy-

²¹ Sachs, Jeffrey D., *The End of Poverty. Economic Possibilities for our Time*, New York: Penguin, 2005, 16.

²² Prahalad, C.K., *The Fortune at the Bottom of the Pyramid. Eradicating Poverty through Profit*, Upper Saddle River, NJ: Wharton School Publishing, 2006, 150.

²³ *Ibid.*, 150.

²⁴ Anderson, *All Connected Now*, 129.

²⁵ “*Info-Superhighway. Internet Accelerate Business Productivity. Study*”, The Citizen, Thursday, 12 November 2009, 2.

berocracy are fading away at all levels of jobs, society and academia. Proper management skills, expertise, and experience are becoming the most decisive factors. There is an ever-growing demand for the ability to “search” and “combine” knowledge in order to become multiple players.

Locally and globally, many people are forced to play multiple roles. College professors do their own secretarial work. A business advisor works as a consultant, entrepreneur and media researcher, a sociologist as a cultural anthropologist, ethicist and entertainer, a preacher as a sports promoter, film actor, etc.

The development of cyber technology and communication has contributed substantially to the expansion of social networking. In the past, most human networks were based on social class or status. In cyberspace, these are quite irrelevant. According to recent findings, “the main objectives of forming a cyber community are: sharing of tastes (50.9%), information sharing (25%) and strengthening ties (24.1%)”.²⁶ Human resource management becomes more important than ever before.

Cyberspace technology enables individuals and local communities to act as senders of culture. Today, such a hybrid global culture²⁷ surpasses the speed of people’s physical movement. It entails basic advantages or strengths. The global sports mania and infotainment culture exemplified by the British Premier League, World Cup 2010 champions in South Africa, the Williams sisters tennis stars, American baseball heroes, UEFA Champions, Formula One, etc, indicates individuals as key senders of culture globally.

Cyber technology gives rise to a new society characterised by multiculturalism, solidarity and interdependence. Gangwon province in Korea, for instance, “started to sell tour packages that allowed people to experience the ‘rural life’ via internet in 2003. In that year, it succeeded

²⁶ *Megatrend Korea*, 25.

²⁷ Msafiri, Aidan G., “New Challenges and Hopes. A Tanzanian Perspective”, in: Pontifical Council for Culture, *New Evangelisation, Globalisation, African Cultures*, Vatican: Urbaniana University Press, 2009, 236.

in attracting 450 clients, followed by 362 in 2004, 1,545 in 2005, 6,800 in 2006 and 15,492 up to July 2007.”²⁸ The exponential increase in web visitors is quite significant.

Today, lifelong learning is being redefined through the new avenues and possibilities of online learning. Communication skills, multilingualism, and computer literacy are increasingly becoming prerequisites to acquiring a job worldwide. The most cherished professors are those who deliver online (cyber) lectures simultaneously to different universities. Further, it has been claimed that the “future is female... Today, in many countries the majority of university graduates are women... The consequence of an increasing number of women among the educational elite will soon be apparent: more and more women will occupy leading management positions in companies.”²⁹

The advent of “Web 2.0” weakens the clout of mass media.³⁰ Personal media become a new socio-cultural phenomenon. Cyberspace makes it possible for individuals to choose information they want or need. Studies indicate that individuals today prefer to go to the internet, whether booking road, sea, or air tickets, hotels, registering for schools, colleges, paying for goods, services, books, or making subscriptions.

Political opportunities

Cyberspace is gradually becoming the centre for political discussions and public affairs. The political participatory role and influence of individuals and citizens globally is making itself felt. Professor Woo-Suk Hwang (2005) asserts that “the time has come for half-baked professionals to take their exit.”³¹

The era of *homo cyber* is gradually facilitating a paradigm shift from “organisation-centred” alliances to a “citizens-centred” model. Closed,

²⁸ See www.greengangwon.com

²⁹ Reinhardt, Ulrich/ Roos, George T. (eds.), *Future Expectations for Europe*, Darmstadt: Primus Verlag, 2008, 75.

³⁰ *Megatrend Korea*, 34.

³¹ *Ibid.*, 13.

rigoristic and hierarchical political organisations and systems are vanishing. Individuals and civic groups are getting the upper hand. Self-organisation of “volunteers around the world via Web sites is increasing transparency and creating new forms of decision-making. Today’s challenges cannot be addressed by governments, corporations, NGOs, universities and intergovernmental bodies acting alone...”³²

Cyberspace increases pressure for government accountability, transparency and credibility. E-Government employs the internet and the World Wide Web to engage with citizens. Cyber technology enables citizens “to analyse the situation of service production and delivery in a more objective manner.”³³ E-Government becomes a driving engine in promoting democratisation, feedback channels, electoral processes, public-private partnerships, peace processes, and political justice.

Cyber technology brings about a remarkable change from bureaucratic to open, participatory structures of government. Cyberspace is used widely to facilitate direct communication between ministers and their staff. Information sharing becomes more active through adoption of the intranet.³⁴ This promotes good governance, civic participation, transparency in decision-making and democracy.

Medical and biotechnological opportunities

Patients are increasingly empowered by cyberspace, especially in the doctor-patient relationship, transforming them from passive to proactive clients. Through wider access to wireless real-time-patient-info-systems, patients have more options in “choosing the right medical services for themselves and play a more active role in the medical service delivery and /or medical decision making process.”³⁵

³² Glenn, Jerome C./ Gordon, Theodore J., *2008 State of the Future*, Washington, D.C.: Millennium Project, 2008, 28.

³³ *Megatrend Korea*, 15.

³⁴ *Ibid.*, 18.

³⁵ *Ibid.*, 38.

Introduction of electronic health recording and health insurance cards or chips has significantly improved life quality and expectancy. Advances in nanotechnology, biotechnology and neurotechnology are revolutionising personal medicine, with new drugs and medical therapies, DNA profiles, sequencing etc. The biotech and neurotech prognosis for 2020 includes genetic vaccines, restoration therapy, longevity medicine, genetic restoration therapy, genomic disease prevention, bio-engineered organs, stem cell therapy, and neural engineering to rewire the brain to combat mental illness, depressions, and trauma.³⁶ At this juncture humans will have only one option that is, digitalise or perish!

Walter Truett Anderson holds that “the global network of genetic resources becomes ever more valuable, essential not only to scientific and economic progress but conceivably to the future of the biosphere. Gene banks are more important to the world right now than that the banks with money in them. The gene banks, the technologies that support them, the information networks that link them, and the organisations that manage them constitute yet another piece of the global bio-information society.”³⁷

Religious and spiritual opportunities

Religious groups, organisations, and communities worldwide are also utilising cyberspace, developing educative and formative websites. Their range includes spiritual, catechetical, health or medical, charitable and socio-economic websites. Major Catholic websites include: www.vatican.va; www.cef.fr; www.croive.com; www.ndweb.org. There are also national, diocesan and ecumenical websites. Today, there are even “cyber churches”, where the members are scattered physically but know one another through cyberspace. Cyberspace is becoming a key tool for church communication, information, and even formation.

³⁶ Canton, *The Extreme Future*, 76-77.

³⁷ Anderson, *All Connected Now*, 147.

Cyberspace serves as a means of dialogue and exchange among churches and ecclesial communities, fostering both external and internal communication and interaction. Pierre Babin, a prominent French theologian, asserts that “the church would be marginalising itself and would be disloyal to its mission if it did not engage more fully in the new media which are integral to a social revolution.”³⁸ From an ecumenical perspective, cyber media enhance the development of inter-church relations and dialogue towards common vision and understanding.

Cyberspace also plays a facilitating role in rendering religious and spiritual services to local churches, groups, communities and organisations. It allows church leaders to communicate with, and increase the number of, believers who are physically distant from the church. Even in church, often “people no longer carry a hymn book because the church is equipped with an overhead projector, so they can read the words of the hymns...People feel recognised, accompanied as they enter the modern age...”³⁹

Besides being a key tool in awakening spiritual communities today, cyberspace also helps believers to personalise their faith.⁴⁰ A “pedagogical and didactic exchange is possible, allowing an educational relationship to be established through this medium...A major change has been introduced by this new media.”⁴¹ French sociologist Jean-Paul Willaime stresses “the link between the emergence of the internet and the new religious context that favours individual emotions and personal feelings rather than a reflection founded on the dogmas and a rigorous analysis of the things on which faith is based”.⁴²

³⁸ Bazin, Jean-Nicolas/ Cottin, Jerome, *Virtual Christianity*, Geneva: WCC, 2004, 63.

³⁹ Rolando P. Vela, in Sabanes Plou, Dafne, *Global Communication. Is There A Place For Human Dignity?* Geneva: WCC, 1996, 57.

⁴⁰ Bazin/ Cottin, *Virtual Christianity*, 56.

⁴¹ *Ibid.*, 80.

⁴² *Ibid.*, 56.

Last but not least, cyberspace is an efficient means in building new ecclesial ties and networks and a culture of solidarity with the poor, downtrodden and marginalised. By its very nature and calling, the church is all-embracing. Cyberspace also knows no borders. It can foster new religious and spiritual relationships besides the profit or business relationships.

The economic, technological, developmental, political, spiritual and religious opportunities inherent in cyberspace cannot be exaggerated. They are real and crucial. However, such opportunities come at a price. There are multiple risks and dangers as well.

1.3 Homo Cyber: Challenges and Risks

The spread of cybercrime, cyberwar and cyberterrorism

Cyberthreats are increasing both in magnitude and form. About “120 billion junk messages are sent worldwide every day, and the spam business is now estimated to be worth \$ 200 billion a year. Spyware viruses and phishing caused an estimated \$ 7.1 billion of damage to U.S. computers alone in 2007...”⁴³ Note the spurious “Emergency” and “I need help” hacked emails we receive daily!

It is claimed that “China leads the world in intellectual-property piracy. From cell phones to software, automotive parts to drugs, music to movies, Nike sneakers to design watches, China rules the piracy world with knock offs...China’s excellent design and manufacturing capacity, so precise as to fool even the brand owners themselves, has gone lawless...”⁴⁴

Cybercrime fuels organised crime syndicates, money and drug trafficking, and terrorist attacks. As James Canton (2007) puts it, there is

⁴³ Talwar, Rohit/ Golden, Garry, *Designing your Future. Key Trends, Challenges, and Choices Facing Association and Nonprofit Leaders*, Washington D.C: Asae & The Centre for Association Leadership, 2008, 85.

⁴⁴ Canton, *The Extreme Future*, 309.

evidence of “a brisk barter trade between criminals and terrorists, with drugs for software, arms for fake currency, music for medicine, auto parts for human organs...The border of North Korea and China is already a hotbed of that kind of multidimensional criminal piracy and rogue commerce.”⁴⁵

The cyber revolution and megatechnology systematically alienate people from responsibility for their own actions. As Tim Hindle (2004) says, “Soldiers need only to press buttons in a distant computer room for lethal ammunition to be sent on its way to destroy human life. In modern warfare, nobody sees the whites of their victims’ eyes any more.”⁴⁶

These and other potentially nihilistic scenarios pose huge dangers to humanity.

The collapse of secrecy, trust and privacy

Today, military secrets are simply non-existent. High-tech video cameras, mobile phones with video capability, artificial intelligence from enemies allow for espionage and surveillance and fully fledged evaluation. As Richard Brass puts it, “the activities of soldiers and other military professionals are just as liable to immediate transmission all over the world as any other, being seen by local civilians, citizens of the soldiers’ home countries... and any other interested parties.”⁴⁷

Personal privacy is threatened by the spread of email hackers and the daily multiplication of internet viruses. “Yahoo Account Alert”, “Donation”, “Award Winner”, “Prize Won” (GBP 250,000,000, two Dell Laptops) etc. tempt recipients to unveil their user name, password, date of birth, country and other confidential and private information such as bank accounts, medical information. Recent findings show a strong increase in internet-related crime.⁴⁸

⁴⁵ Ibid., 311.

⁴⁶ Hindle, Tim, “Ethics and Knowledge”, in: Krasna, Beth (ed.). *Thinking Ethics*. London: Profile, 2005, 32.

⁴⁷ Brass, Richard, “Ethics in Real Time”, in Krasna, (ed.). *Thinking Ethics*, 120.

⁴⁸ Reinhardt/ Roos (eds.), *Future Expectations for Europe*, 157.

From biomedical and genetic perspectives, modern technological research has multiple risks and dangers. Tim Hindle (2005) has doubts about the protection for privacy. “There are obvious lines to be drawn between the distribution of knowledge for the public good and the patient’s right to privacy concerning his or her own affairs. The human genome for instance, is a sort of internet of information about the human being. But how far can that information be used for the public benefit without it being an intrusion into the individual’s right to privacy?”⁴⁹

Longevity medicine is becoming commonplace. Innovations, “from stem cells to biotech, entice us every day with the promises of the next new thing... More than 300 new drugs are in the pipeline... Billions in research is targeting the longevity consumer – you. You want to live longer and business wants to charge you for the privilege.”⁵⁰ Arguably, this risks commercialising and commodifying human medicine.

Political campaigning today is notably conducted through cyberspace. How are voters not to be seduced? What ethical criteria or benchmarks are to be used to help voters trust (or distrust) candidates?

The means is now becoming the end

Cyberspace is constantly convincing people worldwide that the medium is the message. Consequently, “the medium or the process of our time – electronic technology – is reshaping and restructuring patterns of social interdependence and every aspect of our personal life... Everything is changing: you, your family, your neighbourhood, your education, your job...”⁵¹

The entire operating dynamics of modern cyberspace tends to make the means an end (*telos*) in itself, instrumentalising human life and values. E-marriages, e-friendships, fantasy and sensationalism testify to this claim.

⁴⁹ Hindle, Tim, “Ethics and Knowledge”, in: Krasna (ed.), *Thinking Ethics*, 43f.

⁵⁰ Canton, *The Extreme Future*, 151.

⁵¹ Bazin/ Cottin, *Virtual Christianity*, 47.

Cyberspace puts too much emphasis on the horizontal audio-visual trajectories, overlooking vertical, transcendental or ontological truths and dimensions. “Cyber idols” are created and worshipped. Human dignity, the role of institutions and God are questioned and denied, giving rise to an anti-institutional, anti-hierarchical, and atheistic cybersociety.

The growth of the digital divide

There is unequal access to and distribution of cyberspace worldwide. Such inequalities are qualitative as well as quantitative. They favour the rich against than the poor. They empower and accelerate the development of the haves and frustrates the hopes of the have nots.⁴⁰

Much content available on the web is expensive and in most cases it does not deal with crucial information such as education, creativity, values, ethics, foresight, empowerment, equality etc most needed by low-income people worldwide. In Africa, many “internet service providers (ISPs) argue that they are forced to impose high charges because they have a relatively small customer base...”⁵² Cyber technology is not universal as it is claimed. The disparities are real.

The spread of individualism and functionalism

Cyberspace runs the risk of making individuals and not communities the sole senders and controllers of culture, opinion, and content. It can become addictive, promoting self-gratification and leading to cyberdependency. It marks the beginning of an “I” culture instead of the “we” culture and group, resulting in the loss of social and human ties.

The human person as a micro-cosmos with body, soul, will and intelligence is devalued. As Jean-Nicolas Bazin and Jerome Cottin (2004) put it: “At best, the body is a nuisance; at worst, it is an enemy. We return to a dualist vision of human beings...We encounter a world-view close to gnosticism, which is distrustful of the body...”⁵³

⁵² Ford, Neil, “Rebranding Africa”, in: *African Business*, November 2009, 41.

⁵³ Bazin/ Cottin, *Virtual Christianity*, 50.

Dismantling of moral authority and necessary power

Cyberspace is largely non-hierarchical. It neither recognises fundamental ethical values nor accepts human or ecclesial authorities. It knows no boundaries, standards, benchmarks, or delimitation. It is chaotic, seductive, and anarchic and disobedient. It is controlled, insofar as it is controlled at all, by a few powerful editors or owners.

Cyberspace is a real symbol of the total decentralisation of power. It is characterised by limitless freedom. It circulates unethical and destructive ideas and lifestyles daily worldwide.

It has given rise to the mushrooming of cyber-churches, which have neither physical organisational structures nor authority with hierarchy. Usually, such churches are made up of millions of “sheep” scattered worldwide without physical “shepherds”. The sole forum and means of communicating is through cyberspace. This has multiple weaknesses as far as the physical proximity and presence of church communities are concerned.

1.4 Which Way Forward?

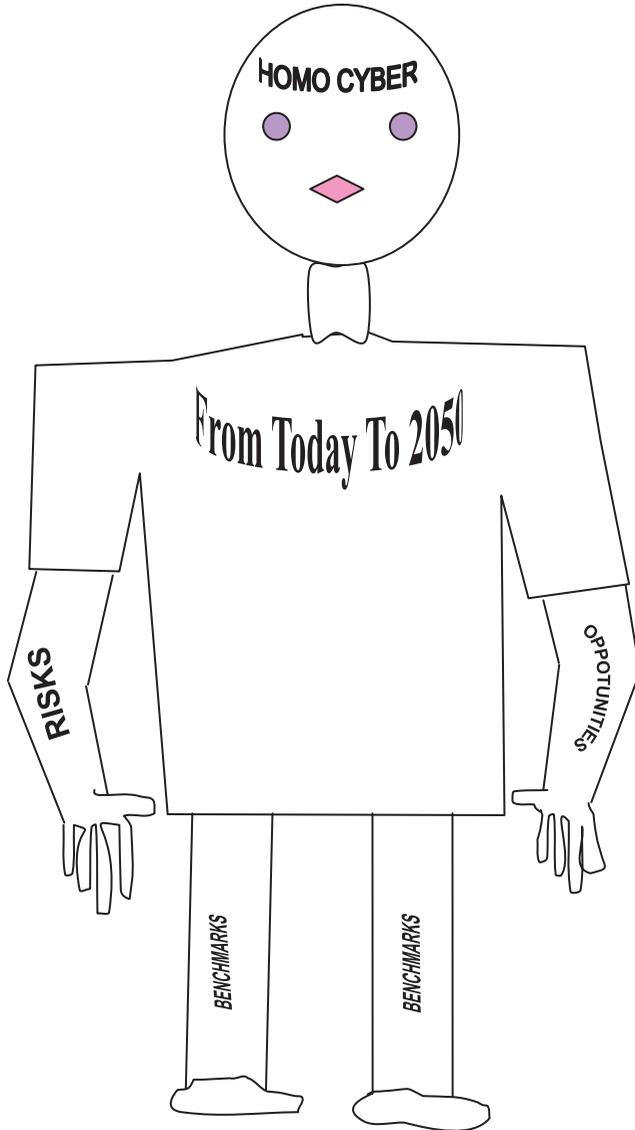
The image of God and the principle of human dignity

First, this requires reaffirming the oldest truth that every human person is created in the image and likeness of God (Gen 1:26ff). This would empower and guide humans to strive towards authentic civilisation through the use of cyberspace and modern information technology.

Second, there is need to unmask the idol in cyberspace, avoiding the temptation of both idolatry and self-worship. Cyberspace should not be seen as an end (*telos*) in itself.

Third, the new communication technologies are not value-free gadgets. They have both strengths and weakness. Consequently, human beings should avoid aspiring to become as their creator. Humans are dignified with soul, free will, rationality and conscience.

HOMO CYBER: OPPORTUNITIES AND RISKS



Rethinking the principle of true love (agape) of oneself and neighbour

Undoubtedly, the love of God and neighbour has far-reaching technological and ethical implications. It warns *homo cyber* of the dangers and destructiveness of egoistic lifestyles. Embracing “We” culture” instead of “I” culture, it demands that cyberspace and technology serve human beings in constantly striving to bring harmony between God, myself and society.

Rethinking the principle of responsibility

Humans in cybersociety need to acknowledge that they are rational responsible beings. Actions or decisions in cyber and technical fields need to go beyond mere emotions to avoid endangering life.

Second, the concept and practice of responsibility entails three key dimensions. These are public, private as well as planetary responsibility.

The call to avoid “comparing the incomparable”

First, today humans need to avoid equating the secular with the transcendent, the technical and the spiritual, the profane and the sacred, the non-lasting and the eternal etc.

Second, there is urgent need today particularly in the field of cyber communication and revolution to avoid exaggerating the ability of natural science and technology as a whole. Indeed, they are neither omnipotent nor absolute.

Third, scientific findings and breakthroughs in all spheres of natural medical and technological sciences should not be hailed as the Truth. Moreover, scientists and innovation gurus should not simply think that everything which is scientifically “workable” or “achievable” is by ipso facto, ethically right and good to humans and society.

The call for deep change instead of incremental change

If cybersociety is not to plunge to a point of no return, there is urgent need for humans to reflect on the need to change internally. Deep

change demands new ways of thinking, judging and handling. It requires all humans to undergo radical change particularly in their intellects and hearts.

The need for cyberspace ethics

Cyber communication needs to be inspired with the ethical norms of quality, competence and acceptance, restoring welfare, dignity, justice, love and solidarity for the individual and the community. Cyberspace and technology need to become a true instrument to humanise society, promoting a new culture of tolerance, interdependence and abundant life.

The need to rethink the narrative approach in communicating

Equally urgent is the need to reconsider the role played by storytelling before the birth of cyberspace. Stories entertain, energise, and foster shared values, beliefs, hopes, visions and consensus. They help to evaluate uncertainty, engage feelings, and promote mutual understanding and affirmation.

The need for foresight (futures) benchmarks

Cyberspace needs to adopt a proactive, preventive and protective stance against potential risks. The cyber revolution can play a unique role in enhancing signs of positive change and transformation, avoiding worst-case scenarios and promoting best-case scenarios.

1.5 Conclusion

Cyberspace and technology offer huge opportunities and threats to humankind and society today. The opportunities need to be exploited to spearhead collective efforts towards transforming human life and societies for the better.

On the other hand, cyberspace and technology have the possibility to plunge people and societies into depths of destruction, politically, economically, socially, ethically, technologically, culturally, environmentally and religiously. Basic ethical standards, criteria and principles in guiding cyberspace and technology are of paramount importance.

People need to be pro-active, prudent and focused. Futures thinking and foresight culture as regards the strengths and weaknesses of cyberspace should be realised through dialogue and action between individuals, scientists, academics, politicians, ethicists, companies, governments, communities, non-governmental organisations, religious authorities, future intelligence, and think tanks. This should be an ongoing process, locally and globally.

EDUCATING FOR TRANSFORMATIVE ENVIRONMENTAL JUSTICE AND PEACE IN AFRICAN UNIVERSITIES: A PARADIGM SHIFT

Abstract

This paper has a twofold goal. It tries to critically rethink the centrality and relevance of tertiary environmental education in promoting holistic justice and peace in Africa and to uncover the weaknesses of the current education paradigm with reference to methods, content and impact.

No credible and effective educational process can be considered as pure theoretical or value free. It must be values-based, holistic and transformative.

Today, as humanity and the earth head towards more and more environmental crises ensuing from socio-economic, ecological and biological injustice and disorder, there is need to critically revisit the role of African universities and scholars in the quest of more viable methodological approaches, alternatives and solutions in fostering holistic environmental justice and peace.

University education as source and disseminator of lifelong knowledge and skills needs to be revisited, reconstructed and re-empowered to be more liberative, pro-active and holistic. Effective, viable, sustainable environmental peace and justice cannot be realised in a vacuum. Our working hypothesis that is peace and justice are inseparable and need to be considered jointly.

Key words

Holistic education, transformative environmental education, holistic justice and peace, environmental justice (eco-justice), sustainable peace, fundamental and core values, deconstruction, paradigm shift (change), deconstruction, construction

2.1 Terms and Questions

Education

Lant Pritchett (2004) defines education as a lifelong process that “equips people with the range of competencies (including both cognitive and non-cognitive skills knowledge and attitudes) necessary to lead productive, fulfilling lives full integrated into their societies and communities”.⁵⁴ The primary goal of education must remain focused on creating such competencies. In this holistic sense education is much more than mere schooling.

Environmental justice

Bunyan Bryant (2000), a renowned researcher in this field, writes that “environmental justice refers to those cultural norms and values, rules, regulations, behaviours, policies and decisions which support sustainable communities where people can interact with confidence that their environment is safe, nurturing and productive...Environmental justice is supported by decent paying and safe jobs, quality schools, and recreation, decent housing and adequate health care; democratic decision making and personal empowerment, communities free of violence, drugs and poverty.”⁵⁵ In short, all the core values and dimensions of distributive justice prevail.

Environmental peace

Environmental peace is defined by Christoph Stückelberger (2002) as the “just distribution of natural resources [which] means the renunciation of the violent appropriation and defence of basic necessities. Peace contractually regulates the fair distribution of their use.”⁵⁶

⁵⁴ Pritchett, Lant, “*Access to Education*”, in: Lomborg, Bjørn (ed.), *Global Crises, Global Solutions*, Cambridge: Cambridge University Press, 2004, 175.

⁵⁵ Bryant, Bunyan (ed.), *Introduction to Environmental Justice. Issues, Policies and Solutions*, Washington DC: Island Press, 1995, 6.

⁵⁶ Stückelberger, Christoph, *Global Trade Ethics*, Geneva: WCC, 2002, 57.

Stückelberger adds that peace means “respect for the dignity of non-human entities that is independent of humanity”⁵⁷ Environmental peace is the fruit of true solidarity between humans and the rest of creation.

The issue at stake

In recent decades, literature, awareness, interest and concern on environmental issues and their impact have mushroomed, not only among environmentalists and scholars, but also on humanitarian, social, political and religious levels, both locally and globally. We see this in the launching of lucrative environmental programmes, clubs, societies, centres, ministries, curricula, NGOs, community-based organisations (CBOs), and partnerships.

Analysis of the environmental and economic situation shows that humanity is heading towards a point of no return, a time bomb, an existential disaster. From an eco-justice and eco-peace perspective, the issue is not lack of awareness or knowledge or information, but the failure of the current environmental paradigm to address the perils adequately and effectively.

At this juncture, the unique relevance of universities in Africa cannot be overlooked or minimised. This is a *sine qua non* for achieving a fair distribution of resources and harmony between humans, flora and fauna, the entire cosmos and future generations too.

Justification

According to the adage “I am because we are” (John S. Mbiti), individually and collectively human beings have an unavoidable responsibility to foster the interrelatedness that sustains a just and peaceful existence, communion, and interdependence between living and non-living things. That is, to struggle against environmental injustices and disharmony.

⁵⁷ Ibid., 57.

As fountains of knowledge and skill, universities in Africa have a specific responsibility, especially through research, publication, conscientisation, mobilisation and consultancy. Educating for transformative environmental justice and peace is a duty and challenge for every university in Africa. It embraces learning to know, to do, to live together, to care, to be and to become. In accord with Paulo Freire's pedagogy of the oppressed, it is more than intellectual awareness-raising. It is holistic knowledge, going far beyond dishing out information, knowledge or skills. It demands formative, informative and transformative solutions. However, the existing paradigm in education for environmental justice and peace leaves much to be desired.

Scope and vision

This chapter is an interdisciplinary endeavour searching for more effective, viable, and sustainable methodologies in fostering environmental justice and peace in tertiary education in Africa. It is focused on a paradigm shift in the current educational model in its content and approach and on developing a truly holistic approach that is applicable and effective in academic and non-academic circles.

Structure

The chapter is in three sections. The first critiques the existing environmental education model from an African perspective. The second tries to underpin the fundamental ethical values and holistic views constitutive of a new paradigm by synthesising four different models. The third tries to bridge the gap between theory and action and calls for a radical paradigm change: from information to formation, from indifference to active participation, from knowledge to concerted and true action.

Briefly, the existing educational model still has certain weaknesses. Environmental knowledge and expertise is not a monopoly of university scholars. It is a right for everyone regardless of gender, status, religious

adherence, intelligence and origin. It is especially a right for those at the bottom of the pyramid – the poor, the oppressed, women and children. Hence the call for holistic thinking and local transformative action.

2.2 Critiquing Current Environmental Educational Models

Does the current model for educating for environmental justice and peace at the tertiary levels respond to its objectives? How relevant is it in practice? Who are its stakeholders? Is it a monopoly of scholars? Does it truly exist at all?

What are the major socio-ethical, cultural, political, religious, financial, economic, environmental factors for the weaknesses (inadequacies) of the current models and approaches?

Lack of information or knowledge on the current state of environment

Most students in tertiary institutions in Africa lack basic knowledge about the environment and the impending impact of environmental degradation. This has its roots in primary and secondary education. Even at the university level, environmental awareness is seen as an intellectual and theoretical luxury or as an easy way to get good credits. Such knowledge does not lead to concrete change. It does not result in action and transformation. Few universities have environmental education for peace and justice in their academic curricula; and most of these are driven by a mere specialisation syndrome. This accounts for both personal and institutional bottlenecks in responding timely and adequately to the environmental crises in Africa.

Departmentalism and compartmentalisation

There is a growing trend among scholars and higher institutions of learning to consider environmental education and awareness as the monopoly of a certain group of experts. Relevant environmental knowledge and expertise are confined to departments, faculties or centres. Lacking

are interdisciplinary, interdepartmental, institutional and interuniversity courses in responding to global warming, water crisis, accelerated desertification, air and water pollution, disappearance of biodiversity.

Absent also is the nexus between environmental crises, injustice, war, disharmony and poverty as whole. Truly, environmental destruction and poverty are two sides of the same coin!

Commodification of environmental NGOs (CBOs) in Africa

Western governmental donors spend millions in financing different universities, institutions, groups and centres for environmental education. The more the money, the greater the mushrooming of environmental NGOs, centres, institutions, partnerships, societies, and departments. Some of these institutions simply squander the funds on their personal and private interests. What is really at stake when foreign donors inject more and more money to address environmental crises in Africa, but the situation is noticeably not getting better?

Lack of a clear nexus between environmental justice and peace

Many environmental scholars, activists, trainers, experts, practitioners, politicians, and *periti* lack a holistic view of the intrinsic interconnectedness of environmental justice and peace. Hence, the content taught, decisions made and strategies planned usually are superficial and short-lived.

The pictorial representation opposite was developed by Aidan G. Msafiri (2009).

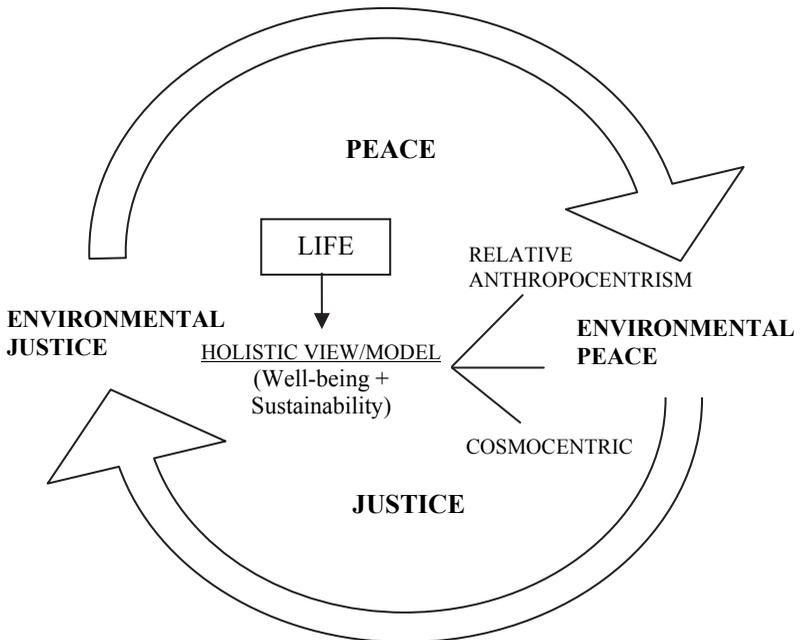
Lack of a credible mobilisation for civic environmental education

The current environmental educational paradigm is predominantly confined to academic circles. Most environmentalists, activists and scholars have little or no interest in truly transforming the majority, especially those at the bottom of the social pyramid, that is, the poor.

Most educational seminars, workshops, symposia, and conferences take place in university academic halls for scholars only or in isolated five-star hotels or luxurious resorts, mostly with politicians and academics as the only participants. Many attend for extrinsic reasons: the *per diem*, stipend, fame, tourism, holiday, publication, or business to gain.

This has long-lasting destructive consequences, especially in hindering the spread of knowledge through and by civil society and the populace as a whole. The result is growing disharmony and restlessness among the victims of environmental crises.

THE NEXUS BETWEEN ENVIRONMENTAL JUSTICE AND PEACE



*Absence of think tanks and a culture of foresight*⁵⁸

There are few outstanding role models in environmental education for justice and peace. Most African universities consider recruitment and human resource management in this field an irrelevant luxury.

Lacking also are future-oriented research approaches on environmental challenges and threats and challenges. The approach is largely retroactive, not proactive or preventive. There is little or no research activity on the impact of global warming and climate change.

Credible environmental education at the tertiary level must contribute to addressing justice, peace, sustainable human development, and the standard as well as the dignity and quality of life.⁵⁹

Disintegration of the classical Western model of education

The current model of education in all its different disciplines is more and more fragmented.⁶⁰ Lacking is a holistic approach. There is an increasingly greater emphasis on empiricism, mathematical formulae, statistics, pure data, quantitative research approaches, functions, and the like. Overstressing these aspects is now giving rise to “Encyclopaedism”, “Wikipediaism”, and “Googleism”.

Exclusion of religious, spiritual and fundamental ethical values

Due to a growing secularist culture paralleled with the breakthrough in modern science and technology, the current paradigms for education largely neglect the role of earth-caring values, norms, belief, traditions, worldviews, taboos, virtues, principles, liturgies, and *ethos* in fostering true environmental education for justice and peace.⁶¹

⁵⁸ Knoblauch, Jörg W./ Marquardt, Horst (eds.), *Mit Werten Zukunft gestalten. Konzepte christlicher Führungskräfte*, Stuttgart: Idea Dokumentation, Hänssler, 2007, 83-84.

⁵⁹ “Christian Education Belongs to the Whole Church”, *Education and Ecumenical Formation (EEF-NET) 14*, April 2004, 16.

⁶⁰ Krasna, Beth (ed.), *Thinking Ethics*, 44f.

⁶¹ Msafiri, Aidan G., *Towards a Credible Environmental Ethics for Africa. A Tanzanian Perspective*, Nairobi: CUEA Publications, 2007, 41-60.

Environmental studies, workshops, seminars and syllabi direct little or no emphasis to the foundations of a Christian environmental ethics such as the golden rule (Mt 22:37-39), the dignity of the human person, the principles of personality, subsidiarity, solidarity, natural law, motivation, accountability, responsibility, virtue ethics and sustainability.⁶²

Moreover, education for justice and peace relies heavily on modern information technology, which reaches less than a quarter of the victims or sufferers in East Africa.

Government failure and absence of core competencies

Most national and environmental organisations in Africa are not good at working with the poor. They do not “spend much time listening to voices from local communities...But environmental justice groups remind us that issues at the macro level are still about what affects people locally, at the micro level on a day-to-day basis.”⁶³

There is lack of core competencies for lifelong learning.⁶⁴ As Horst Opaschowski says, “anyone who gives up learning in future, might as well give up living”.⁶⁵ The same applies to the role of universities, particularly with regard to holistic environmental justice and peace.

Both on the academic and political-governmental levels, people responsible for fostering knowledge and skills in environmental justice and peace subscribe to contemporary fads and fashions. Their loyalty to primary and secondary groups of the poor masses is daily weakening. Many scholars, politicians, environmentalists and others succumb to the “network taste groups”,⁶⁶ especially on critical environmental issues.

⁶² Ibid., 85-120.

⁶³ Hessel, Dieter T./ Ruether, Rosemary Radford, *Christianity and Ecology*, Cambridge, MA: Harvard University Press, 2000, 570.

⁶⁴ Reinhardt/ Roos (eds.), *Future Expectations for Europe*, 73.

⁶⁵ Opaschowski, Horst W, *Deutschland 2030. Wie wir in Zukunft leben*, Gütersloh: Gütersloher Verlagshaus, 2008, 449.

⁶⁶ *Megatrend Korea*, 33-34.

Last but not least, in East Africa in particular there is lack of political will for action, coupled with an absence of green political parties. The contrast with Germany or Austria, for example, is stark.

2.3 A New Paradigm: Justice and Peace as Core Values

This part tries to integrate interdisciplinary models as an alternative. These are derived from Christoph Stückelberger's model, Hans Küng's model, Aidan Msafiri's African model, and finally the United Nations Conference on Environment and Development (UNCED) model. They constitute some of the key contours and benchmarks for a transformative and holistic environmental education for justice and peace as a whole. That is education for seeing-judging-acting. These models have both strengths and weaknesses. For clarity and convenience, only the strengths are underscored.

These four models are profoundly interrelated and interdependent. Mnemonically they can be encapsulated in the German word **SCHAU**, which means "show": Stückelberger Christopher, Hans Küng, Aidan Msafiri and UNCED. Let us briefly identify the basic components of each approach and see how they foster and knowledge and skill for holistic environmental justice and peace in Africa.

*Stückelberger's model: environmental justice and peace (2002)*⁶⁷

According to Christoph Stückelberger, environmental justice and peace are interdependent. The former serves and promotes the later. For him, the lack of peace and ever-growing conflicts, locally and globally, have their roots in unfair use and distribution of natural resources and wealth.⁶⁸

⁶⁷ Stückelberger, *Global Trade Ethics*, 48.

⁶⁸ Mathwig, Frank/ Stückelberger, Christoph, *Grundwerte. Eine theologisch-ethische Orientierung*, Zurich: TVZ Theologischer Verlag, 2007, 91f.

Environmental justice

Stückelberger understands justice with regard to ecology as “a sustainable use and fair distribution of resources and a reduction in and a fair distribution of environmental burdens”. He writes that a “fair distribution of resources and burdens extends to three dimensions: between generations living today, between today’s and tomorrow’s generations, and between human beings and their non-human environment.”⁶⁹

Environmental justice has a deep-seated peace-securing component. This is because the fight for resources is one of the most frequent causes for conflict, abuse of power, oppression, and war. In Tanzania, the growing conflict between the local population and foreign investors in the mining industry provides a vivid example.

Needs-related justice

According to Stückelberger, a fair distribution of goods must take into consideration basic human needs (food, shelter and clothing) and a healthy and dignified life.⁷⁰

In Tanzania, for instance, the Wazo Hill Cement Company (25km north of Dar es Salaam) is a source of multiple health hazards to citizens living in the nearby Kunduchi, Boko, Tegeta, Madale, Kisauke and Wazo Hill communities.⁷¹ Many people suffer from various respiratory illnesses as a result of toxic emissions and dust.⁷²

Interlinked justice

Justice must be seen as just one of several fundamental values. This safeguards the equilibrium between justice and the other values: peace,

⁶⁹ Ibid., 48.

⁷⁰ Ibid., 47.

⁷¹ Interview with Darius Mkiza, a journalist based in Dar es Salaam, 24 March 2009.

⁷² Center for Energy, Environment, Science and Technology (CEEST), *Environmental impact, pcc Dar es Salaam Tanzania* (Dar es Salaam, 2006), 57-59.

preservation of life, freedom, dignity, solidarity, partnership, true forgiveness, accountability, sustainability and responsibility.⁷³

Environmental peace

This has two key components:

Peace as just distribution of natural resources

According to Stückelberger this means “the renunciation of the violent appropriation and defence of basic necessities”.⁷⁴ Peace becomes both an essential means and a goal in the fair distribution of resources.

Peace as security

This means “a network of political, economic, social, medical, cultural, religion and community relations” and guarantees their protection constitutionally.⁷⁵ Stückelberger uncovers the intrinsic interdependency of environmental justice and peace. Every human person desires and cherishes peace and security.

Hans Küng’s model: global ethics and responsibility (2004)

Five elements are fundamental in Hans Küng’s approach.

Moving from freedom to peace

According to Küng, the global community needs to develop a systemic way “in which man and women possess equal rights and live in solidarity with one another: a way from differences between poor and rich, between powerful and powerless...”⁷⁶ He emphasises the link between true freedom and justice as well as the need to go beyond freedom. This is holistic justice and peace.

⁷³ Stückelberger, *Global Trade Ethics*, 41-69 *passim*.

⁷⁴ *Ibid.*, 57.

⁷⁵ *Ibid.*, 57.

⁷⁶ Küng, Hans, *In Search of a New World Ethic*, Oregon: Wipf and Stock, 2004, 67.

From equality to plurality

A key component in the search for true global order is a new global culture of tolerance, understanding, multiplicity and unity in diversity between culture, traditions, peoples, nations and religions.⁷⁷

From isolated brotherhood to inclusive sisterhood

This gender-oriented paradigm stresses a renewed understanding of the roles of men and women in society today. It underscores gender equality, sensitivity and inclusiveness in all socio-political, cultural, economic, environmental, educational and religious issues.⁷⁸ This has direct or indirect implications for environmental justice and peace.

From coexistence to holistic peace

For Küng, humanity needs to go beyond mere peaceful living. This entails global solidarity: true concern and care, and joint efforts in fostering the common good and dignity and well-being for everyone.⁷⁹

From productivity to solidarity with nature

This aspect underscores Küng's environmental model: A "way must be found to a community of human beings with all creatures in which their rights and integrity are respected. A way from separation between human beings and the rest of creation, a way from a lifestyle and economic means of production which severely damage natureWhat we need is world order which is friendly to nature."⁸⁰

In short, Küng argues for a paradigm shift from commodity to dignity, from destructive individualism to constructive inclusiveness, and from consumerism to sustainability.

⁷⁷ Ibid., 67.

⁷⁸ Ibid., 67.

⁷⁹ Ibid., 68.

⁸⁰ Ibid., 69.

From passive tolerance to transformative interreligious dialogue

The quest for holistic justice and peace requires constant forgiveness, reconciliation and renewal,⁸¹ particularly between conflicting socio-political, religious, or economic groups. Educating for environmental justice and peace, locally or globally, cannot be fully realised while ignoring conflict resolution approaches.

Aidan Msafiri's model: environmental justice and peace (2007)

In his thesis and book *Towards A Credible Environmental Ethics for Africa: Tanzanian Perspective* (2007), Aidan G. Msafiri tries to develop a profoundly Afrocentric interdisciplinary environmental ethics, emphasising five key aspects.

Afrocentric views and beliefs on creation

Unlike Western evolutionist views on nature, traditional African views attribute creation to a supreme being, who is a liberator, caretaker, just fighter, provider, and promoter of peace, welfare, dignity, harmony and tranquillity.⁸² Consequently, all nature acquires a “divine” character. Humans are seen as stewards and protectors. Traditional African religious beliefs offer fundamental values, norms, taboos to care for and protect nature.

Anthropocentric perspectives and benchmarks

The great religious traditions, including Islam (51-52), Judaism (53-56), and Greek religion (79-82), provide a coherent and systematic view on the interrelatedness and equilibrium between humans and the environment for peaceful and just living together.

⁸¹ Ibid., 69.

⁸² Ibid., 69.

Ethical and theological perspectives on justice and peace

Msafiri's model also emphasises the role of values, norms and *ethos* in fostering environmental integrity and harmony (85-135). Ethical and theological values, virtues and benchmarks play an indispensable role in devising, motivating and securing more equitable, accountable and sustainable living for every creature, human and non-human, living and non-living.⁸³

Western (classical) ecotheology

Msafiri's model underscores the indispensability of classical theological views for holistic justice and peace. These include: humans created in the image and likeness of God, human responsibility, the centrality of Jesus Christ and the Holy Spirit in and with the created world, and nature as a "sacrament" longing for its culmination.⁸⁴ The strengths of Western ecotheology are redefined and re-emphasised. They promote harmony and peace not only existential but more so human and environmental.

From talking the talk to walking the walk

Besides the theoretical underpinnings and benchmarks of this paradigm, Aidan Msafiri puts even greater emphasis on the practical level. Seeing (observation) and judging (analysis) must lead to acting (transformation).

Acting for environmental justice and peace requires collaborative efforts – personally and communally, but also ecclesially, ecumenically, academically, governmentally, privately, nationally and globally (194-203). Global thinking, local action.⁸⁵

⁸³ Ibid., 133.

⁸⁴ Ibid., 135-191.

⁸⁵ Ibid.

UNCED model

The Earth Summit – the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992 – was a breakthrough in creating global awareness, concern and interest on the state of humanity and the earth. It sought to establish “a new and equitable global partnership through the creation of new levels of cooperation among states, key sectors of societies and people”.⁸⁶ It developed a unique roadmap in the search for holistic justice and peace, development and sustainability.

Since then, scholars, politicians, industrialists, engineers, environmentalists, and religious leaders have joined in partnership in responding to the global environmental crises as everybody’s business.⁸⁷

Principle 24 of the Rio Declaration states that “peace, development and environmental protection are interdependent and indivisible”.⁸⁸

Principle 10 states that environmental issues “are best handled with the participation of all concerned citizens”. It stresses the need for individuals to have access to appropriate information and the opportunity to participate in decision-making.⁸⁹

The Earth Summit stresses the importance of promoting education, training and capacity-building, reorienting education towards sustainable development. “To be effective, environment and development education should deal with the dynamics of both the physical/biological and socio-economic environment and human (which may include spiritual) development, should be integrated in all disciplines, and should employ formal and non-formal methods and effective means of communication”.⁹⁰ This restates the need for a multidisciplinary approach.

⁸⁶ *Ibid.*, 9.

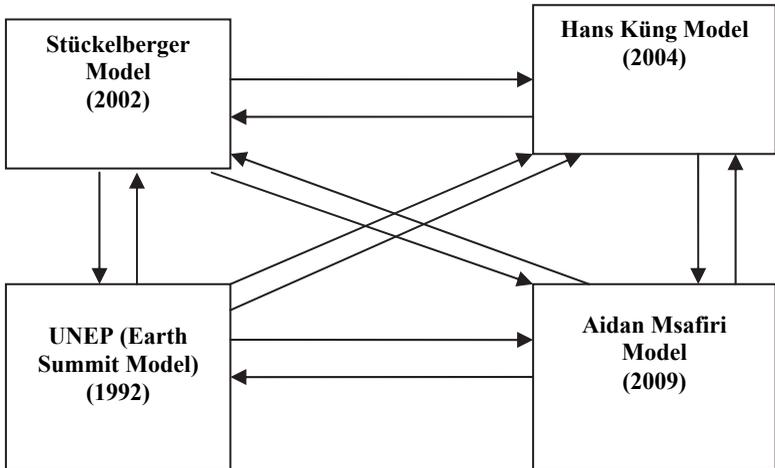
⁸⁷ *Agenda 21. Earth Summit. The United Nations Programme of Action From Rio*, New York: UN, 1994, 3.

⁸⁸ *Ibid.*, 11.

⁸⁹ *Ibid.*, 10.

⁹⁰ *Ibid.*, 264.

**THE “SCHAU” PARADIGM FOR HOLISTIC
ENVIRONMENTAL
JUSTICE AND PEACE EDUCATION**



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2.4 Ten Theses on Education for Justice and Peace in Africa

The quest of a new model for educating on environmental justice and peace needs to critically rethink the following key elements in particular.

1. Methodological deconstruction

The current model needs to be radically revised to be more effective, down to earth, holistic and future-oriented. It needs to bridge the gap between knowledge and action.

2. Socio-economic, political, religious deconstruction

Environmental justice and peace cannot adequately be addressed while overlooking other interrelated core aspects such as socio-economic, political and justice. Hence, a holistic approach is inevitable.

3. *Cultural deconstruction*

African scholars and environmental educationists need to recognise, disseminate and promote relevant African models and knowledge for environmental justice and peace,⁹¹ educating for both human and natural resource management. Think tanks need to be prioritised.

4. *Political deconstruction*

Governments in Africa need to move away from the current “policy-oriented syndrome” to true transformation and action, not simply talking the talk, but walking the walk. Political interests for money or power should not endanger the interest of communities and humans today and of future generations. Governments need to remove planning as well as legislative bottlenecks and constraints.

5. *Deconstruction of the parochial mentality among scholars*

This entails a radical transformation of the current short-term approaches and methods in responding to environmental justice and peace. A foresight proactive culture needs to be redefined and re-emphasised.

6. *Deconstructing the current environmental scholarship model*

Scholarship programmes on holistic education for justice and peace need to be reconsidered, and funding of local research efforts enhanced. This is a *sine qua non* in promoting environmental research, publication, consultancy and leadership, especially in East Africa.

7. *Reaffirming the role of religions and ecclesial communities*

There is urgent need to adopt truly ecumenical approaches in environmental education and formation. The prophetic and formative role of religious values and teachings on holistic justice and peace cannot be overlooked.

⁹¹ Gethui, Mary N/ Theuri, Matthew M. (eds.), *Quest For Abundant Life in Africa*. Nairobi: Acton, 2002, 184.

8. *Shifting from our own space to a global perspective*

“I am because we are” (John S. Mbiti). We need to reaffirm the intrinsic interconnectedness of all life forms, human and non-human, thus moving from an “I” culture to a “We” culture, educating for global solidarity.

9. *Expanding alternative educational opportunities*

The modern “loci” for learning are no longer confined to the university lecture hall or conference room. The new educational paradigm should include flexible learning networks. Learning can take place at all times and in all places. Further, there must be a shift from being a passive to an active learner and performer.

10. *Investing in knowledge capital and environmental stewardship*

There is a need to revisit organisational and educational procedures which pay more attention to those at the bottom of the pyramid. The poor are the mostly innocent victims of environmental injustice and disharmony, and the most affected. They need to be empowered economically, socially, and environmentally.

2.5 Conclusion

The quest for a credible and effective educational model for environmental justice and peace in African universities remains a crucial project. Such a pedagogical model needs to be profoundly holistic, transformative and oriented towards the poor both in content and method. It needs to integrate fundamental ethical values, preservation of life, justice, freedom, sustainability, peace, solidarity, dignity, partnership, trust, power and responsibility, forgiveness, *agape*, and foresight, crowned by what Pope Benedict XVI calls cooperation in truth. Universities in Africa need to strive concretely for excellence in transforming local communities to live justly, peacefully and sustainably.

This paper does not claim to be exhaustive. It marks the beginning of long but important academic and existential journey towards a new paradigm.

INCULTURATING TRADITIONAL MEDICINE IN AFRICA: REALITY OR MYTH?

Abstract

This chapter has a twofold purpose: to identify the real and potential benefits of traditional and alternative medicine in Tanzania and to uncover the obstacles facing traditional medicine in Tanzania and in Africa in general. The last part is a roadmap that encompasses some essential methodological considerations and levels of action in the quest of a real and sustainable inculturation of traditional and alternative medicine in Tanzania.

Key words

Holistic, inculturation, healing, sickness, medicine, therapy traditional, benefits, opportunities, obstacles, challenges, ethnomedicine, model, paradigm, witchcraft, methodology think tanks

3.1 Defining our Terms

Medicine

David Crystal (2000) defines medicine as the “science and practice of preventing, alleviating, and curing human illness. From the earliest times, trial-and-error revealed plants and parts of animals to be poisonous, edible or useful in disease...”⁹²

⁹² Crystal, David (ed.), *The Cambridge Encyclopedia*, Cambridge: Cambridge University Press, 2000, 713.

Inculturation: towards a functional definition

As a socio-cultural and anthropological buzz word in recent decades, inculturation has been variably defined.

Samuel Kobia (2003) describes inculturation as the “appropriation or internalisation of values into a culture without necessarily distorting or destroying essential identity.”⁹³ For Clement Majawa (2005), inculturation signifies the “insertion of the Christian message analogous to Christ’s incarnation in human history”.⁹⁴ Majawa tries to show the links and the divergences between adaptation, accommodation, indigenisation and contextualisation.

According to the famous African Jesuit theologian A.E. Orobator (2008) inculturation is essentially “a relational term. It involves an encounter between two realities...Word encounters flesh and makes of it its dwelling place...Word and flesh are not the same thing. Each party has something to contribute to the process of encounter: questions, challenges, acceptance, rejection, giving and taking.”⁹⁵

Several related terms attempt to capture the meaning and scope of inculturation: “One term that describes the relationship between faith and culture is adaptation. It involves a selective modification of Christian faith and worship using elements from African religion that are considered compatible with the Christian message. In this sense, one hopes that the new will not completely supplant the old. Another term that has been used is accommodation. It implies that while not entirely accepting the contents of other religious tenets, Christianity allows for or tolerates certain aspects of African religion...On occasion, the term indigenisation has been preferred...A final term is contextualisation. It recognises the need to take into account the situation-in-life of the local people in

⁹³ Kobia, Samuel, *The Courage to Hope*. Geneva: WCC, 2003, 181.

⁹⁴ Majawa, Clement Chinkambako Abenguni. *Integrated Approach to African Christian Theology of Inculturation*. Nairobi: Kijabe, 2005, 9

⁹⁵ Orobator, Agbonkhianmeghe E., *Theology Brewed in an African Pot*, Maryknoll, NY: Orbis Books, 2008, 129.

understanding the meaning and practice of Christianity. Nowadays, some theologians and experts talk about translation as yet another way...⁹⁶

Aidan G. Msafiri (2008) holds that inculturation of the gospel cannot be actualised in “an empty space or vacuum. It necessarily requires a definitive cultural milieu (*Sitz im Leben*)...As the Word of God took flesh (John 1:1ff.) in and among the Jewish people and culture almost 2000 years ago...”⁹⁷

Today, inculturation is becoming more complicated than ever before. We live in a constantly changing multicultural society characterised by powerful cultural polycentricism and metamorphoses. Globalisation and cultural globalisation in particular are giving rise to newness, discontinuity, mutations and hybrid cultures.

Inculturation – be it medical, liturgical, theological, technological etc. – must be our goal and concern if it truly and substantially helps to transform the entire fabric of human life and values in Tanzania or Africa, religiously, socially, biologically, existentially, theologically, technologically, environmentally and politically. Conversely, inculturation is a dangerous utopia if it perpetuates ignorance (*homo idioticus*), illusions, witchcraft beliefs, underdevelopment, disease, and the lack of innovativeness, creativity and a truly transformative forward-looking culture in Tanzania in particular and Africa in general.

Illness/sickness/malady

Illness or disease refers to “conditions of the body or mind that cause pain, dysfunction or distress”. Sometimes the term is used broadly to include injuries, syndromes, infections, symptoms, and deviant behaviour.⁹⁸

⁹⁶ Ibid., 128.

⁹⁷ Msafiri, “*New Challenges and Hopes*”, 229f.

⁹⁸ See en.wikipedia.org/wiki/illness#physical

Treatment/healing/therapy

Treatment is a “method of combating, ameliorating or preventing a disease, disorder or injury. Active or curative treatment is designed to cure; palliative treatment is directed to relieve pain and distress; prophylactic treatment is for the prevention of disease or disorder; causal treatment focuses on the cause of disorder; conservative treatment avoids radical measures and procedures...”⁹⁹

Thought-provoking questions

Does inculturation mean the wholesale embracing of old traditional artefacts and outmoded cultural practices and beliefs? Or does inculturation mean accepting everything blindly from orthodox, classical or scientific medicine? Can scholars, academics, medical experts, researchers and think tanks simply copy and paste models and methodologies in inculturating traditional medicine? Or do scholars need to adopt a profoundly clear, critical, corrective and creative approach for a truly transformative and sustainable inculturation today?

How traditional is traditional medicine? Could we adopt other terminologies such as “alternative”, “biofriendly”, or “natural” medicine? Is *homo africanus* simply a *tabula rasa* so far as basic medical knowledge and skills are concerned? Is inculturation of medicine in Africa tantamount to witchcraft? Is inculturation a monopoly of African scholars, academics, and think tanks or does it necessarily involve the ordinary people and communities at the bottom of the pyramid? Do African scholars need to adopt a new paradigm of inculturation that is more collaborative, viable and forward looking?

How long does inculturation take? Does it take a few decades or it can take centuries and sometimes millennia? How long did it take in China or Europe? Do we have sufficient medical and technological

⁹⁹ See medical-dictionary.thefreedictionary.com/treatment

competence, expertise, standards and qualities to truly inculturate medicine in Africa as the Chinese have recently done?

Lastly, do the powerful forces of globalisation, and particularly cultural globalisation, have any negative impact on the inculturation of traditional medicine?

Scope and vision

This chapter attempts to go beyond existing inculturation models and paradigms. It envisages a radically new era of hope and opportunity based on a viable model and a credible new methodology of inculturation of medicine. This needs to be more pro-active, preventive, prophylactic and curative, improving the lives of Tanzanians, medically, socially, spiritually, economically, environmentally and psychologically. It focuses on a new paradigm encapsulating the strengths of both classical Western medicine and traditional and alternative medicine in Tanzania.

Structure

This chapter is in three parts. The first part highlights the fundamental benefits and opportunities of traditional and alternative medicine in Africa. The second looks at weaknesses and threats. The third identifies some models and methodological considerations necessary for a concrete way forward. It concludes by urging African scholars, academics, think tanks and visionaries to engage in a radically holistic, collaborative, transformative, sustainable, ethno-medical inculturation. This needs to be done co-creatively and co-innovatively through global thinking and local action. The current Tanzania-Chinese Medicine endeavours are a concrete example. In China and India this has been institutionalised. Needless to say, there is still a long way before Tanzanians and Africans realise the actual results and fruits.

3.2 Strengths and Opportunities

Traditional medicine has been practiced since the earliest beginnings of life on the earth, from the time of *homo habilis*. Even before classical scientific medical discoveries and technologies, humans have relieved pain and illness through trial and error, using various plants, herbs, animal organs, roots, leaves, soils, etc. One of the most powerful characteristics of traditional medicine in Africa is that, unlike classical or orthodox medicine, it touches the whole person. It is all-embracing, responding deeply and broadly to physical, social, religious, cultural, spiritual, existential, biological and psychological aspects of human beings.

The holistic role and dimension of traditional African medicine

For many Africans, there is a close link between the rational, biological, physical and spiritual worlds.¹⁰⁰ From an African philosophical and epistemological perspective, religious and social prognosis, explanations and treatments go beyond empirical, functionalist categories and explanations. Belief in multifaceted causality brings with it a corresponding multiplicity of therapies and cures.

Homo africanus sees life as a unity of soul, mind, psyche, senses, vitality, cosmic forces, mystical energies and body relationships, encompassing both the physical and the metaphysical domains. The moral, spiritual and religious are extremely important domains for African well-being. Good health is the sum total of “all knowledge and practices (whether they can be explained or not) used in the prevention, diagnosis and elimination of physical, mental or social imbalances...These rely exclusively on practical experience handed down from generation to generation whether orally or in writing.”¹⁰¹

¹⁰⁰ Jacobson-Widding, Anita/ Westerlund, David (eds.), *Culture, Experience and Pluralism. Essays on African ideas of illness and healing*, Stockholm: Almqvist & Wiksell International, 1989, 180.

¹⁰¹ *Tanzania Medical Journal. Special Issue*, Dar es Salaam, 1986, 2.

John S. Mbiti (1985) writes that for Africans “the word medicine has a lot of meaning. Traditional African medicine is used for many purposes, one of which is to put things right and to counter the forces of mystical evil. There are, therefore, friends of society who engage in positive use of mystical forces. These are chiefly the medicine men, women, herbalists, diviners, mediums, rain-makers, priests and even rulers... They help to stabilise society with their knowledge, skills and religious activities like prayers and rituals and sacrifices. They are the channels of good health, good fortune fertility, peace and welfare”¹⁰² In short, the “physical and spiritual are but two dimensions of one and same universe...To African peoples this religious universe is not an academic proposition: it is an empirical experience which reaches its height in act of worship.”¹⁰³

The role of forests and land in ethnomedicine in Africa

Africans see a close interconnection between forests, life and ethnomedicine. According to Prof. Ali Mazrui (1986), a forest provides “the African with all basic needs – food, materials for building a home, medicine, and rain; it also provides a sanctuary for religious practices as well and a home for the fugitive; in addition, it serves as a cemetery and the abode of ancestral spirits. In short, the forest is everything for the African.”¹⁰⁴

Forests and land are the basis of an integral ethno-spiritual and medicinal, paradigm. The Masai in Tanzania and Kenya believe that the earth is the source of their whole life.¹⁰⁵ The earth provides “grass, other plants and water on which their livestock depend on survival...That on

¹⁰² Mbiti, John S., *Introduction to African Religion*, London: Heineman, 1986, 170.

¹⁰³ Mbiti, John S., *African Religions and Philosophy*, New York: Doubleday, 1970, 73-74.

¹⁰⁴ Mazrui, Ali, *The Africans. A Public Broadcasting Service Television Series*, 1986.

¹⁰⁵ Msafiri, *Towards a Credible Environmental Ethics for Africa*, 186-187.

the earth grow plants which provide them with sacred plants (*oreteti*) used for...rituals and medicines. Sacred mountains, hills and other lands – the *endoinyoormorwak*, where age groups begin to constitute a vital element in rituals which must be performed regularly...”¹⁰⁶

Traditional birth attendants or midwives (Swahili: “Wakunga wa Jadi”)

Traditional birth attendants are a crucial segment of community medicine in Africa. Indeed, “they constitute a special category in the whole structure of traditional medicine. They form the main body of primary health care workers in the maternal and child delivery... It is an established fact that in developing countries, many deliveries occur not in the hospitals but in homes, and it is traditional, midwives who deliver the babies. It is estimated that approximately 60% of the deliveries in Tanzania are done by traditional midwives...”¹⁰⁷

Traditional birth attendants play a significant role that is not always replaced in modern midwifery procedures. They offer unique physical and psychological support, confidentiality, care, trust, encouragement, and hope to expectant mothers during the maternity period and in assisting them during and after delivery.¹⁰⁸

The broad-spectrum therapeutic role of ethnomedicinal plants in Africa

Plants are an important ingredient in Afro-medical traditions, practices and ethno-pharmacology. In many African societies they constitute the main source of broad-spectrum medicines or drugs. Many plants are rich in vitamins, antioxidants, antitoxins, etc. Since “only a fraction of the world’s plants has been studied, just think of the major changes in the practice of medicine that was brought about by examples of the discovery of only three drugs from plants. Consider the impact of curare of

¹⁰⁶ Koryongi, O., “*Land and Spirituality*”: *The Case of the Maasai of Tanzania in: Echoes 16*, Geneva: WCC, 1999, 25.

¹⁰⁷ *Tanzania Medical Journal* (see note 101).

¹⁰⁸ *Ibid.*, 2.

the act of surgery. The importance of penicillin on morbidity and mortality of communicable disease. And the effect of reserpine on high blood pressure. These three drugs alone have dramatically altered our life expectancy and indeed the quality of life on earth.”¹⁰⁹

Ethnoveterinary and ethnobotanical research shows that the Masai pastoralists, for instance, are self-taught naturalists. They possess a remarkable and profound knowledge about curative plants in their environment. They use diverse plants and plant parts for medicinal activity. They used woody plants and herbs to cure their own illnesses and the diseases of their domestic animals. Through skilful self-taught knowledge, they also recognise insects such as mites, fleas, lice and ticks as vectors of various diseases in the livestock they keep.¹¹⁰

Table I: Plants with Bactericidal Properties: A Sample

No	Scientific Name	Masai Name	Active Part(s)	Disease Treatment
1	<i>Cussonia barteri</i>	Oltumaroi	Roots, bark	Brucellosis
2	<i>Carissa edulis</i>	Alamuriaki	Roots	Against gram ± ve
3	<i>Croton macrostachyus</i>	Enjani-Olpurkel	Roots	Against gram ± ve
4	<i>Adansonia digitata</i>	Olmusira	Bark, branches	Enhances immunity
5	<i>Erythrina abyssinica</i>	Olng'arooji	Bark, branches	Enhances immunity
6	<i>Euphorbia Cuneata</i>	Emame	Roots decoction or sap	Enhances immunity

SOURCE: Ethnobiology and Conservation of Cultural and Biological Diversity

¹⁰⁹ Malone, M.H., “The Pharmacological Evaluation of Natural Products. General and Specific Approaches to Screening Ethnopharmaceuticals”, in: *Journal of Ethnopharmacology* 8, 1983, 127-47.

¹¹⁰ Kabuye, Christine H.S. (ed.), *Ethno-biology and Conservation of Cultural and Biological Diversity*, Nairobi: Majestic, 2002, 359.

The role of herbal medicine and nutritional plants in Africa

Today herbal medicine is becoming commonplace in the rich North Atlantic countries, as well as in China and India. This includes mostly non-genetically modified herbal and food products, commonly referred to as “bio-products”. These derivative herbal products include health food, herbal teas, juices, drinks, supplements, vitamins, proteins.

From a Tanzanian perspective the following ethnoherbal food plants and medicinal ingredients are worth mention. First, the tamarind (*tamarandus indica*) plant, commonly known as *mkwaju*, *mkwesu*, *mkwazu* for the Swahili, Nyaturu, Bondei Zaramo tribes. For the Hehe, Sukuma, Sambia, Nyamwezi and Zinza it is *msisi*, *mshishi*, *nshishi*, *bushishi*, and *masisa*. The Chagga call it *moya* while the Masai name it *olmasambrai*. The English and Indians call it tamarind.¹¹¹

Tamarind pulp leaves and bark are widely used in treating illnesses. These include gastrointestinal problems, sore throat, constipation, paralysis, leprosy, pile, liver pain, allergic dermatitis, and cholera. Such broad-spectrum ethno-medicine and herbs are also used to treat urinary tract infections, malaria, dysentery, snakebite, rheumatism, wounds, diarrhoea, ringworms, skin, fungal disease, measles, hypertension, filariasis, diabetes, inflammatory problems and jaundice.

Second, the baobab fruit (*adansonia digitata*). This tree is called *mbuyu* in Swahili, *mkondo* among the Hehe and Sangu, *msera* for the Masai and Arusha tribes. For the Pare it is called *gendaryandi*, for the Iraqw *mwiji*, among the Luguru, Rangi and Mbugwe *muwiye*. The English call it baobab, or cream of tartar tree, or monkey-bread tree. A decoction of its root is used as a remedy for lassitude. Its bark is boiled in water and drunk as a therapy for physical pains. Moreover, this drink is used to cure fever.¹¹²

¹¹¹ See Institute of Traditional Medicine, Muhimbili University of Health and Allied Sciences. Brochure, front page.

¹¹² Ibid.

Nutritionally, the dried white powder of the baobab fruits is rich in ascorbic acid. Its leaves too are rich in vitamin C, sugar, potassium, tartar and calcium.¹¹³

Like other African ethnic groups, the Chagga have a wide range of plants, products, herbs and ingredients with multiple curative and nutritional potentialities and benefits. A recent interview by the writer unveils the unique strengths of traditional Chagga medicine. The list is not exhaustive. It calls for further research.

Traditional Chagga Medicines

No	Chagga Name	Treatment
1	Kiana	Asharis (Worms)
2	Ngetsi	Tape worms, Rheumatism
3	Mkananga	Malaria Stomach pains
4	Mnafu	Wounds
5	Kokowe	Wounds
6	Ibangasa	Typhoid
7	Msesewe	Kidney problems
8	Iwombo	Stomach problems
9	Iratune	Malaria Wounds
10	Mlale	Stomach problems
11	Kimaroro	Stomach problems
12	Sangari	Malaria
13	Madaisa	Flu
14	Ikafi	Chronic boils
15	Kawale	Stomach problems burns etc
16	Ichameri	Stomach problems skin ailments

¹¹³ Ibid.

The role of traditional African psychotherapy and counselling

Africans are not a *tabula rasa* as far as psychotherapy is concerned. Many African ethnic groups have helpful techniques and skills in psychotherapeutic care. These try to address such psychological problems as fears, trauma, shock, depression, madness, post-war, phobia, hunger emotions, volatile behaviour, in a profound and holistic manner.

For classical (Western) psychotherapists, African ethno-psychotherapy is *terra incognita*. Offering sacrifice – *mrumo* (Chagga), *tambiko* (Kiswahili) – to ancestors or the living dead is commonplace in sub-Saharan Africa. This underlines the transcendental aspect of ethnomedicine in Africa, which takes priority over the horizontal dimension. Besides this, African psychotherapeutic healers adopt diverse psycho-social methods in the healing process. These include singing, dancing, beating drums, petitions, rituals, oblations, incantations, laying on of hands, divinations, exorcisms, community prayers, inducement of courage, trust, self-assurance, counselling, conviction, fasting, suggestions and recommendations.¹¹⁴ Undoubtedly, traditional African psychotherapeutic procedures go beyond Western empirical, rigorist, functionalist and mechanically oriented models and methodologies.

The role of protective and preventive medicine in Africa

Many African ethnic groups strongly believe in supernatural powers. The Chagga, for example, see *Ruwa* (God) as the creator, provider and sustainer of all forms of life and the created universe. He is the *maanga ang'anyi* (the most powerful doctor). He is the provider of health, success, harmony, peace, fecundity and blessings in plenitude.

If *Ruwa* is humbly invoked in a trusting way, then he offers health, help, etc. *Ruwa* comes first in all protective or preventive medical procedures. He is invoked before people receive medical treatment or protective procedures. These include protection of children, cattle, spouse,

¹¹⁴ Ntomchukwu, Sylvester *et al.* (eds.), *Psychotherapy in Africa*, Vienna: Anton Riegelnik, 1996, 16.

land, household, possessions against accidents, bad luck, misfortunes and natural catastrophes.

For “Africans, life, health, sickness, healing and other experiences of human beings are interrelated and form one whole. So, for the Africans there is nothing strange about positive or negative communications back and forth, between all three stages of life, that is embryonic, terrestrial and spiritual. Africans believe their protective medicines work within this holistic view of life. This means that both protection and healing can be administered at any of these stages. To Africans, protective medicine is part of the whole...For example when seeking protection for a homestead, the diviner might ask the family to make a sacrifice to the ancestors to mend any broken relationships.”¹¹⁵

Among the Chagga, parents name their children after the grand- or great-grandparents to protect their offspring. For Africans, medicine has broader and deeper dimensions going beyond mere empirical research, facts, observations, and statistics. Ethnomedicine in Africa and Tanzania in particular involves first and foremost the transcendental dimension. The communitarian purpose of medicine is more strongly emphasised than in Western individualist, functionalist, compartmentalised and profit-oriented views. For Africans, the human person is more important than all the money and riches in the world.

3.3 Weaknesses and Threats

Exaggeration of the spiritual dimension of medicine

Notwithstanding the unanimous affirmation of the central and indispensable role of spiritual aspects in traditional medical practice and understanding in Africa, many Africans tend to exaggerate the spiritual dimension, giving rise to witchcraft beliefs and practices as the real, reliable alternative therapy for Africans. Among many African ethnic

¹¹⁵ Ntomchukwu, Sylvester *et al.* (eds.), *Psychotherapy in Africa*, 108.

groups, there is a growing tendency today to attribute every natural, biological or social problem to witchcraft. Almost 30 years after the discovery of the HIV/AIDS virus, some Africans still attribute this pandemic to witchcraft. Witchcraft is the universal explanation, diagnosis, prognosis, scanning procedure and cure!

Lack of a systematic medical edifice, standards and quality assurance

Standards and quality issues need to be addressed. Administration of traditional medicine quite often runs the risks of overdose, poor handling, processing, packaging, sanitation, hygiene, malpractice.¹¹⁶ Traditional African health practitioners lack necessary government and private support especially in the quest to formalise their industry and disseminate relevant information. Neither do governments give adequate support to research and development. In fact, very few institutions conduct concrete research on ethnomedicine. Lacking are associations to moderate issues of policy, governance and training. There are multiple problems of awareness, documentation, mobilisation, and knowledge transfer.

Illiteracy and ignorance among traditional medical practitioners

A remarkable segment of traditional medicine practitioners have a very low educational background. They operate mainly by trial and error, endangering the life and health of people especially in the poor rural areas.

Lacking a syllabus for systematic training, traditional ethnomedicine in Tanzania tends to be a short-term and largely private practice. Tight secrecy is encouraged as a means of preserving intellectual property rights. It “is difficult to access the information because of the methodol-

¹¹⁶ An egregious example: witches who engage in sexual activity with women patients as a means to inject the medicine! Note the massive risks for HIV/AIDS infection.

ogy of approaching the healers...¹¹⁷ There is little or no research, innovation and forward-looking effort. In today's world characterised by cut-throat competition, lagging behind in innovation and technological progress means extinction.

The impact of globalisation

The omnipresent forces of globalisation bring complex and systemic challenges to millions of Africans who simply lack the courage and foresight to cope. The market rules, and the rate of change is exponential. The world has become a global jungle favouring the rich and powerful. Intellectual property rights and regimes are powerful weapons in this battle,¹¹⁸ and confront the practitioners of traditional medicine with growing risks. There "is increasing conflict between the rights of the discoverers of new knowledge and other public-policy areas...The patent system protects the commercial use of knowledge..."¹¹⁹

The biggest holders of patent rights are either individuals or private companies, most of them from America, Japan and Europe. Tim Hindle (2005) wonders how "is this system to take account of Chinese traditional medicine for example, or African methods of healing? There is a growing feeling that is, it should provide proper protection for these different systems..."¹²⁰

Hindle cites one example from an ethnic group living in the Kalahari desert. This tribe has known for centuries that eating a particular cactus reduces one's appetite. Western "scientists analysed the cactus and obtained a patent for a version of its ingredients that were duly recycled as a treatment for obesity. The Kalahari tribe obtains no benefit from this

¹¹⁷ *National Stakeholders Workshop on the Network on Medicinal Plants and Traditional Medicine (Eastern Africa)*, Morogoro, 13-16 February 2005, 15.

¹¹⁸ *Scenarios for the Future. How might IP regimes evolve by 2025? What global legitimacy might such regimes have?* Munich: European Patent Office, 2007, 8-11.

¹¹⁹ Krasna, Beth (ed.) *Thinking Ethics*, Geneva: Profile Books, 2005, 40.

¹²⁰ *Ibid.*, p.41

commercial use of their knowledge. It is a form of biopiracy.¹²¹ This example is characteristic of the commercialisation and commodification of intellectual property worldwide.

Unfortunately from an African point of view, substantial sums of donor aid to establish or empower ethnomedical organisations, centres and institutions in Africa are simply being misused, due to abject poverty, selfishness and corruption. African governments, scholars, politicians and medical experts are to blame.

The growth of traditional medicine is constantly impeded by lack of proper and efficient coordinating machinery. Traditional medicine receives relatively low coverage from the mass media, but this is crucial to get in touch with commercial channels, linkages, and advocacy. The few institutions engaged in promoting traditional medicine engage in unsustainable, unecofriendly harvesting of plants, herbs etc resulting into their total extinction.¹²² There are no strong, effective, and relevant legal mechanisms and policies to protect the practice of traditional medicine in Africa in general and Tanzania in particular.

3.4 Inculturating Traditional Medicine

We come to the crux of our endeavour. How are we to develop concrete working models and methodologies for inculturating traditional medicine in Tanzania? At this juncture, it is necessary to ask a self-critical question. Will the models and methodologies previously adopted by African theologians and scholars to inculturate the gospel fit this new question? Is there only one model, method or different models and methodologies for concrete action and a way forward?

We offer the following as a roadmap. It is not mere intellectual gymnastics of the kind that is common among academics today. The question we face is an existential responsibility for scholars and think tanks

¹²¹ *Ibid.*, 41.

¹²² *National Stakeholder Workshop*, 33.

in poor African countries, Tanzania in particular. We shall examine four models and then state four principles.

The do it alone model

This model is superficial and ineffective. It discourages innovation through creativity and foresight, reducing African culture to a museum display simply good for admiration. It takes a very narrow view of the quest for objective, natural and supernatural truths. It overlooks the importance of a profound interdisciplinary and intercultural methodology for inculturating not only the gospel, but also medical technology, expertise and knowledge. It makes the ignorant more desperate. We need equally to avoid destructive syncretistic models and approaches.

Witchcraft mania model

Witchcraft in Tanzania is neither value free nor without destructive effects on human life and society. Most ethnic groups who invest in witchcraft beliefs and practices as the solution for their underdevelopment are daily becoming more desperate. This model is irrelevant in our quest to inculturate medicine in Tanzania. African societies and peoples simply cannot live on witchcraft heresies. There is urgent need to do away with *ungu* (witchcraft beliefs) technology and embrace cyber technology and the modern world.

Co-design and co-create model

This seems a more plausible and pragmatic approach. It involves research and development through innovation and creativity. It takes seriously the dictum “No research, no right to speak”. It encourages a new, broad-spectrum way of thinking and doing things, thinking globally, acting locally.¹²³ It synthesises Euro-American, Asian and African values and traditions that could be beneficial. This is arguably less harmful than generic orthodox medicinal brands. As an example, we cite the recent

¹²³ The glocal principle is reflected in the title of this book and its processor.

collaborative ethnomedical research (2008-2009) between China and Tanzania on treatment of chronic disease including HIV/AIDS:

Traditional Chinese Medicine (TCM) project started at the Muhimbili Medical Centre in 1987 after the late President J.K. Nyerere asked the Chinese Government to assist Tanzania in treating the HIV and AIDS patients as there was no other treatment by then... The experts from the China Academy of Chinese Medical Sciences started coming in groups of 6 who stayed for 18 months and then exchanged. A total of 54 experts have worked here so far. These HIV & AIDS patients received treatment at our hospital and a total of 1,054 people have been treated, although none was cured but >75% improved their health status. When ARVs started being available in 2004, those patients with CD4 count <200 were transferred to that clinic. While treating HIV & AIDS patients, some staff with chronic ailments asked for assistance and because the medicine were available, they were treated and responded well. Examples are asthmatic children and adults, arthritis, gout luteal phase insufficiency women, just to mention a few, benefited from the treatment. In China, TCM is a parallel system to the Western medicine and used for those who cannot benefit from Western medicine.¹²⁴

Transcendental inculturation

African epistemology (understanding of reality) and ontology (understanding of one's being) has a strong supernatural trajectory. As John S. Pobee (1998) puts it, "in the African's way of thinking reality and existence cannot be satisfactorily explained without reference to the supernatural. The African therefore is not at home in the Western style which puts much store by the intellectuals..."¹²⁵

¹²⁴ *Clinical Report of the 7th stage of cooperation between China and Tanzania on treatment of chronic diseases with TCM between 2008 and 2010*, Dar es Salaam, reported by Dr. Li Bo, Dr. Naomi Mpemba and Dr. Bai Wenshan, 2.

¹²⁵ Pobee, John S., *Celebrating the Jubilee of the World Council of Churches*, Accra: Asempa Publishers, 1998, 94.

Pobee adds that, “Western thought about being is marked by individualism. Perhaps we can take the philosopher Descartes’ famous statement that ‘I think therefore I am’ as the classic statement of the individualism characteristic of the Westerner today. By contrast, the African would rather say ‘I have blood relations, therefore I am’. Thus for the African reality is communitarian and relational and belonging.”¹²⁶ This profoundly communitarian world view plays multiple functions in the preventive, protective, curative and therapeutic needs of the entire person. It justifies our quest for a new Christian ethnomedical model. It is the crown of all other models and methodologies. It purifies, directs, vivifies and transforms all the horizontal (naturalist/biological/scientific) aspects and truths. In Christian terms, its three pillars are theological, Christological, and pneumatological.

The theocentric foundation of ethnomedicine: Yahweh (*Ruwa, Ngai, Mulungu*, etc.) as the source and creator of the cosmos with all its flora and fauna. Ethnomedicine acquires a theocentric-metaphysical causality. Its use and practice has theocentric implications and consequences (Gen. 1:1, 1:21-27, 14:22, Ps. 148:5).

The Christocentric foundation of ethnomedicine: Christ who is the firstborn and the centre of the created world (Col 1:15), Christ who is “our ancestor” (Charles Nyamiti), is also our Alpha and Omega (Rev. 1:8). His healing ministry renews human beings holistically, by curing their physical, moral-spiritual, psycho-emotional social and ecological disorders (Matt. 10:8, Matt. 8:1-4, Luke 8:5-17, Mark 2:17, 5:21-43). Christ is the healer and medicine *par excellence*. The risen Christ transforms traditional African medicine. Ethnomedicine is transformed by Christ’s saving and redeeming powers. He is our health (Mark 2:17).

The pneumatological foundation of ethnomedicine: The Holy Spirit as the power, generator, life, provider of all forms of health. The Spirit should not be seen as a distant metaphysical entity, but as a real-life sus-

¹²⁶ Ibid., 97.

taining and healing force. The Spirit fosters all forms of life, human and non-human. The Spirit is the wisdom, intelligence, creativity and innovativeness in the minds of medical experts in the quest for bio-medicine, eco-medicine, smart medicine, and hybrid-medical models (John 14:15-31, 16:5-16, Luke 3:21-22, 4:1-27, Ps. 51:11, Is. 11:1-5, Rom. 8:1-17).

The networking principle

Networking fosters collaborative research, creativity, training, sustainability, advocacy, standards, processing, quality assurance, practice, and promotion of practice.

The principle of multiplication

The project of inculturating ethnomedicine needs to go beyond local, indigenous boundaries, bringing about sustainable growth and expansion. Ethnomedicine needs to scatter its seeds abroad, just as one tree gives birth to many.

The recycling principle

To ensure environmental sustainability, care and caution in the use of flora and fauna as the key sources of traditional medicine is extremely necessary. Recycling of natural medical products is to be encouraged. This could be a solution to environmentally unfriendly practices.

The principle of functionality

In God's creation, everything has a definite purpose: "By their fruit you will recognise them. Do people pick grapes from thorn bushes or fig from thistles?" (Matt. 7:16-17). The use and practice of traditional medicine in Tanzania needs to have a positive impact on people's health and lives. If this purpose is not realised, then we must agree that certain aspects of ethnomedicine need to be rejected: "Every tree that does not bear good fruit is cut down and thrown into fire. Thus, by their fruit you will know them" (Matt. 7:19-20). So also with ethnomedicine.

3.5 Conclusion

African scholars, academics, and traditional medicine practitioners need to redefine in an objective way the strengths and potential benefits of ethnomedicine, avoiding negative stereotypes or throwing the baby out with the bath water. They need the courage for a true inculturation process and methodology.

Equally, African medical practitioners and scholars need to escape the cave of ignorance and illusion that blindly affirm traditional medicine in all its aspects, including the destructive and irrelevant beliefs and practices of witchcraft. Transparency, objectivity, and truth are crucial.

It is absolutely necessary to re-emphasise the metaphysical or theocentric aspect of all created things, and medicine in particular. The African concept of God as creator, life-provider and sustainer of the world is therapeutic in itself and in its function in ethnomedicine as a whole.

Inculturation of traditional medicine should be a continuous collaborative process, open, educative, transformative, forward looking, local and global.

We are living in an always-connected global society. It is high time for traditional African medicine to be more open to European, American, Asian models methodologies and practices of medicine. These too are important sources of medical information, practice, skill and expertise. Admittedly, we need a solution to the threat of biopiracy and patent rights.

These insights and remarks offer a platform towards the inculturation of traditional medicine in Africa in general and Tanzania in particular. The road is still very long, but let us start now.

THE DYNAMICS OF RISK AND TRUST IN A GLOBALISED WORLD

Abstract

This chapter underscores the need for positive and constructive risking and trusting. In a volatile, unpredictable and sometimes unreliable world, with multiple dangers and uncertainties, this is not easy.

Risk is an integral part of human life and survival. From birth to death, every human person is confronted with socio-biological, economic, environmental, political, cultural, medical, technological, nutritional, scientific, infrastructural risks. Every day, from the time we get up in the morning and go to school, church, or work until the time we get back to bed, we face innumerable dangers.

But “no risk, no progress”. Only because our ancestors dared to risk were the technological innovations and socio-economic transformations from *homo habilis* to today’s *homo cyber* possible. Threats to risk and trust are always real. Often, what is most difficult is daring to escape from obsolete beliefs and practices.

Positive risk and trust are prerequisites for foresight and future strategising. “If one does not know to which port one is sailing, no wind is favourable” (Seneca the Younger).

This chapter attempts to go beyond merely empirical and functionalist approaches to risk and trust. It adopts a qualitative and interdisciplinary approach to risk and trust in all spheres of human life.

The chapter is in three parts. Part one describes the anatomy of trust (trustonomy). The second part underlines the strengths and opportunities of constructive risk and trust. The third part deals with the weaknesses and dangers of blind risk and trust.

Key words

Risk, trust, business, ethics, fundamental values, model, innovation, holistic, formation, profit

4.1 Clarifying our Terms

Risk

According to Garratt (2003), the concept of “risk” comes from the Italian word “risicare”, which means to dare.¹²⁷ Garratt says that risk “concerns the real or possible events that reduce the likelihood of reaching business goals, and increases the probability of losses”.¹²⁸ Deon Rossouw (2010) defines risk as a plethora of “conditions or behaviours that can affect a company either beneficially or detrimentally”.¹²⁹ This includes both positive and negative risks.

Trust

Collins’ *World English Dictionary* brings out the complexity of trust. Trust is “reliance on and confidence in the truth worth, reliability, etc, of a person or thing”, but also “a group of commercial enterprises combined to monopolise and control the market for any commodity”. It is “the obligation of someone in a responsible position”. It is “custody, charge or care: a child placed in my trust.”¹³⁰

Changing Minds notes that trust has both emotional and logical aspects. “Emotions associated with trust include companionship, friendship, love, agreement, relaxation, comfort.”

Trust involves predictability, value exchange, delayed reciprocity, and exposed vulnerabilities. It means “being able to predict what other people will do and what situations will occur. If we can surround ourselves with people we trust, then we can create a safe present and an even better future”. It means “making an exchange with someone when you do not have full knowledge about them, their intent and the things

¹²⁷ Garrat, B., *Thin on Top. Why Corporate Governance Matters and How To Measure, Manage and Improve Board Performance*, London: Nicolas Brealey, 2003, 194.

¹²⁸ *Ibid.*, 194.

¹²⁹ Rossouw, Deon/ Van Vuuren, Leon, *Business Ethics*, Cape Town: Oxford University Press, 2010, 217.

¹³⁰ dictionary.reference.com/browse/trust

they are offering to you”. It means “giving something now with an expectation that it will be repaid, possibly in some unspecified way at some unspecified time in the future”. It means “enabling other people to take advantage of your vulnerabilities – but expecting that they will not do this”.¹³¹

The nexus between risk and trust

Risk and trust are interrelated and interdependent. In the business world, quite often the greater the trust, the higher the risk, as there are so many dangers and uncertainties. Nonetheless, the dictum “No risk, no gain” remains the driving force for economic development and social transformation. Unfortunately, in the last few decades the degree of trust among businesses people has diminished remarkably.

The inherent problems, dangers and dilemmas

With rapid new discoveries in almost every sphere of life, many uncertainties and dilemmas arise from the quest to shape the future of humanity and the globe. As John S. Ratcliffe and Paolo Ronchetti (2007) put it, a “blurring of boundaries between disciplines, industries and social enterprises is taking place. As those boundaries fade the lines connecting the constituent parts become more critical...”¹³²

There are dilemmas linked with securing guarantees in the degree of risk, trust and expected outcome. From a European Patent Rights’ perspective, for instance, there are many unanswered questions. “As information becomes increasingly abundant, what knowledge has value? Complex issues of knowledge access, search, management, production and ownership for us to question the equation: ‘more information equals more knowledge and then to ask: Are there cheaper, quicker methods of protecting and exploiting knowledge than the patent system?’”¹³³

¹³¹ changingminds.org/explanations/trust/what_is_trust.htm

¹³² Reinhardt/ Roos (eds.), *Future Expectations for Europe*, 10.

¹³³ *Scenarios for the Future*, 10.

Next are the dangers and dilemmas posed by risks in the flow of money, goods, services and experience and risks created by human dependence on the natural and man-made systems that support human life. Such risks are now “changing from traditional ones to complex systemic risks. These have been created by the many stresses and uncertainties that together could threaten the integrity of interconnected systems whether they are economic, social or environmental...”¹³⁴ The clearest example is the wanton consumerism leading to the total depletion of the world’s resources – plants, animals, biodiversity.

The ethical dilemmas connected with risk and trust taking.

The effect of risk and trust goes well beyond economics or the environment: “the Pill, television, antibiotics, vaccines, cell phones, the internet etc... have all had a huge impact in the way we live our lives and shape our societies. The three likely most likely transformations that will dominate the first half of this century are genetics (biotechnology), nanotechnology and robotics (artificial intelligence). In the foreseeable future – and even now – ethical issues concerning certain technological developments could force us to question our morality and the rules that ought to govern human conduct.”¹³⁵

Risk and trust have also a transcendental dimension. Belief in God, however variously understood, plays a significant role in motivating people to risk and trust and provides a sense of security in doing so.

4.2 The Anatomy, Role and Importance of Trust

Trust as a fundamental value

Trust is one of the eleven fundamental values guiding human interrelationships and ethical conduct. The other ten values include preservation of life, justice, freedom, sustainability, peace, solidarity, dignity,

¹³⁴ Ibid., 10.

¹³⁵ Ibid., 8.

partnership, responsibility and forgiveness. True trust motivates, orientates, empowers, moves and transforms.

Unfortunately, trust is in danger of losing its deeper meaning and seriousness. As Juan (Kiko) Suarez (2010), puts it: “Politicians make grandiose promises. Movie stars use their bright smiles. Athletes offer pledges. And teenagers beg for more freedom. Anyone that needs the support of others, but has exhausted more rational explanations, tries the ‘trust me’ formula to get what they want. Perhaps they succeed and perhaps they do not.”¹³⁶

Trust as a global currency

In our everyday relationships, business exchanges, and quest for socio-economic success, we depend greatly on the flow of trust. This makes trust a kind of currency, exchanged in our day-to-day lives. As Juan Suarez puts it, a “clear example of the trust currency is with regard to climate change. Those who believe that climate change is simply a monetary issue, are missing the big picture. While the economy is the key for the political system, the ‘trustonomy’ becomes vital and more relevant when voters cast their choices for world leaders. Sustainability, ethics, social responsibility are all forms of this trustonomy that are becoming more visible in our world”.¹³⁷

Trust as a necessary social phenomenon

Trust facilitates human interaction and enhances reputation, confidence, influence, credibility, benevolence and integrity. Trust involves two parties, “the trustor” and “the trustee”. The former extends trust and the latter responds to it.¹³⁸ The degree of trust can vary from one person or firm to another. Quite often it depends on past experiences, positive or negative.

¹³⁶ theductor.blogspot.ch/2008/02/trustonomy-economy-of-trust-age-of.html

¹³⁷ Ibid.

¹³⁸ Rossouw/ Van Vuuren, *Business Ethics*, 142.

Trust as a perennial risk or danger

One of the basic characteristics of trust is vulnerability. In most cases trust occasions danger or risk to the trustor. Consequently, it demands an active decision of constructive faith. One has to believe that the other person or party will respect the confidence vested in them despite the fact that there is no 100% guarantee.¹³⁹ In this sense, trust and risk are inseparable. The economy of trust (trustonomy) and the economy of risk (riskonomy) are two faces of the same coin.

Investors, for instance, are risk averse. In their investment strategies, foreign banks or insurance companies may not dare to support small medium enterprises (SMEs) in developing countries, such as Tanzania, which are seen as too risky. They would rather trust their capital to the corporate world, which has a higher reputation for safe returns.

Further, to avoid risking their business, multinational or national foreign companies try to allocate the top management – CEO, president or managing director – from their country of origin.¹⁴⁰

For trust to endure, a well-balanced approach is necessary for both internal and external shareholders, or trustor and trustee, to get optimal benefits from their trust relationship.

Trust as confidence vested in product branding

Product branding is a crucial component in building and maintaining trust. A brand is “a promise to the customer that goes beyond the generic product, the technical and physical attributes. When selling a branded product, the company promises the customer will achieve special qualities by using the product, different qualities than when using a similar non-branded or different branded product.”¹⁴¹ Brands elevate the status of their consumer or bearer, as evidenced in the lifestyle of people in high society.

¹³⁹ *Ibid.*, 151.

¹⁴⁰ For example, in the petroleum industry in Mtwara town in southern Tanzania.

¹⁴¹ www.brandxpress.net/2006/02/corporate-branding-vs-product-branding

Emotional intelligence as a means to promote trust

Emotional intelligence is the ability to perceive, use and understand different emotions in oneself, others and groups. Emotional intelligence helps in forecasting consumption patterns. It plays a crucial role in marketing strategies and in winning future customers, locally or globally.

Emotional intelligence can help in stress and crisis management, coping with systemic loss, financial crises and depressions. It can encourage diversity, tolerance and alternative solutions. It can promote innovation, confidence, and leadership skills.

4.3 Positive Risk and Trust

Positive risk and trust in economic and business circles

Risk and trust play an indispensable role in spearheading economic and business development. China and India provide good examples. Rohit Talwar and Garry Golden (2008) indicate that almost “40 percent of the increase in global GDP in the next 15 years is forecast to come from China (27 percent) and India (12 percent)... The Organisation for Economic Cooperation and Development (OECD) latest forecast suggests that China could overtake the United States as the world’s largest economy before 2015 and account for about a quarter of world’s GDP by 2030.”¹⁴² Further, “Goldman Sachs now forecasts that India can maintain a growth rate of 8 percent through to 2020 and that its GDP will overtake the United States in dollar terms by 2050 to make it the second largest economy even as India’s GDP per capita is expected to quadruple over the period from 2007 to 2020.”¹⁴³

Undoubtedly, such growth is propelled by positive or constructive risk and trust. Chinese success stories stem from the current economic philosophies of “success through quality promotion and excellence”, “survival of the fastest” and “innovation drive”.

¹⁴² Talwar/ Golden, *Designing Your Future*, 96.

¹⁴³ *Ibid.*, 96.

Take, for example, the Hisense information technology and electrical company. Bob Wertz (2008) reports that every year, Hisense produces more than 10 million TV sets, 3 million air conditioners, 1.7 million refrigerators, and 1.2 million computers. It is now establishing production centres in Europe and the United States. In France and Hungary, it produces high definition computer flat screens. It has established a research institute in Shandong University, Qingdao, one of the biggest high-tech incubation centres in the world. It has another research centre in Eindhoven in the Netherlands.¹⁴⁴

Matthias Horx (2006) reports a continuous growth in cheaper consumer products and goods globally, contributing to an increasing standard of living in poorer countries through risk-taking and trust.

The Dutch and British-based transnational company Unilever successfully sells washing and hair-washing products in the low-earners market in Indian at relatively low prices. The returns are massive. Similarly, the mobile phone companies Ericsson and Nokia have developed special phones for the large poorer populations in Asia with dust-proof covers and fair prices.

Bradesco, the biggest private bank in Brazil established ATM services for the poor in all its branches countrywide. It was an investment of USD 100 million, winning 1.6 million new customers.¹⁴⁵

Constructive risk and trust for environmental sustainability

The environmental dimension of sustainable development means the careful use and preservation of “the basic necessities, resources, ecosystems and biodiversity for an existence in dignity for both present and future generations and for nature, and social peace in particular”.¹⁴⁶

¹⁴⁴ Wertz, Bob, *Gigant China. Das Geschäft mit der am Schnellsten Wachsenden Wirtschaftsmacht der Welt*, Aschau: Klaus Oberbeil, 2008, 112-114.

¹⁴⁵ Horx, Matthias. *Wie wir leben werden. Unsere Zukunft beginnt jetzt*. Frankfurt: Campus Verlag, 2006, 185f.

¹⁴⁶ Stückelberger, *Global Trade Ethics*, 53.

Aidan G. Msafiri (2007) argues that sustainability means “authentic development which brings a good quality of life to the dignity of everyone. Indeed, everyone is called to a lifestyle of sufficiency and not rampant consumerism. Second, every human person is called to care for and respect the environment... Lastly, humanity should recognise the truth that caring for the environment is essentially a moral and spiritual problem as much as it is an economic and political one”.¹⁴⁷

Certain companies in Europe have ventured to risk and trust in environmental sustainability. One is the ABB Group, a power and technological company committed to developing alternative energy. It has provided employment to more than 100,000 people and it has branches in more than 100 countries worldwide.¹⁴⁸ Another is Syngenta, a world-leading agribusiness companies, committed to promote sustainable agriculture through innovative research and technology. Syngenta is working with Greenpeace and the World Bank in analysing global food challenges and requirements.¹⁴⁹ Certain European car manufacturers too have invested in new technologies to produce smart, hybrid, and environmentally friendly cars to curb carbon emissions.

In recent years, green parties based on the rights of environment have grown in popularity, especially in Germany and Austria.

In Tanzania too, there are individual and collective efforts towards environmental sustainability. For the last five years, the town of Moshi, located at the foot of Africa’s highest mountain, Mount Kilimanjaro, has engaged unemployed youth to enforce environmental laws and keep the town clean. The young people move around from 7am to 8pm, making sure that drivers park their cars properly and vendors and passersby do not throw litter on the streets. Their pay comes from the fines collected from transgressors. As a consequence, Moshi has for the last four years won the first prize for environmental protection in East Africa.

¹⁴⁷ Msafiri, *Towards a Credible Environmental Ethics for Africa*, 106.

¹⁴⁸ Krashna (ed.), *Thinking Ethics*, 11.

¹⁴⁹ *Ibid.*, 12.

These are just some examples of constructive risk and trust in the service of a sustainable world.

Worth quoting in this context is a remark by Irish academic John S. Ratcliffe: “Socialism collapsed because it did not allow prices to tell the economic truth. Capitalism may collapse because it does not allow prices to tell the ecological truth”.¹⁵⁰

There is urgent need for new solutions. With expensive “oil and rising gas prices, a strong euro and a decline in consumer demand, a high cost of living and new taxes – consumers in Europe face an uncertain future and don’t know for how long or whether they will be able to maintain their present standard of living. Nearly two-thirds of Europeans anticipate higher prices for everyday items such as food.”¹⁵¹

Positive risk and trust in discovering ethical values and multiculturalism

From a transcendental point of view, trust and risk cannot be motivated solely by secular goals. The meta-economic ethical components need to be rediscovered. Most of the socio-economic, business, technological, and environmental challenges facing humans have to do with neglect of ethical values. In a business context, we may instance the systemic corruption revealed by the ENRON and AIG scandals.

“All that is necessary for the triumph of evil is that good men do nothing” (attributed to Edmund Burke). But how to get good people?

Aidan G. Msafiri (2010) underlines the need for African societies to risk and trust for a more ethically oriented society by reintroducing fundamental ethical values in the education of children and youth.¹⁵²

Holistic formation of the mind, will, heart, and life view provides us with an ambience conducive to risking positively in forming values in all spheres of human life.¹⁵³

¹⁵⁰ Reinhardt/ Roos (eds.), *Future Expectations for Europe*, 30-32.

¹⁵¹ *Ibid.*, 81.

¹⁵² Msafiri, Aidan G., *Rediscovering Christian and Traditional Values for Moral Formation*, Nairobi: CUEA, 2010.

¹⁵³ *Ibid.*, 1-7.

Bertrand Russell, one of the most famous philosophers of the last century, comments that the two major causes of human sadness are natural catastrophes and the results of unethical human behaviour. Over natural catastrophes humans have little influence. War or global warming are due to destructive human decisions and actions.

The role of values in business production and investment cannot be exaggerated. More and more, enterprises describe their vision and mission and vision in values terms. Values produce value. A responsible, value-oriented company is likely to earn not only a good reputation and public confidence, but also long-term returns.

People also need to risk and trust a multicultural approach in promoting excellence. “Most institutions both private sector and public are fairly ecumenical about the sources of their management ideas: they do not care if a business method was invented by a Canadian management guru such as Henry Mitzberg or a Taiwanese computer maker such as Acer. All that matters is that it works ...”¹⁵⁴

The benefit of positive technological risk and trust

The speed of technological innovation is staggering. Take, for example, the transition from old-fashioned clunky mobile phones to the latest touch-screen phones. With “over 3.2 billion mobile phones in circulation globally at the start of 2008, they have become the most widespread form of personal technology outstripping the laptop, TV, and credit card. Global scales of the new generation of ‘smart’ phones now outstrip scales of laptops. With a wide range of applications migrating to the palm of your hand, in the next five years, your mobile phone could become your credit card, banker, ticket broker, concierge, and shopping partner. The proliferation of personal digital devices, such as cell phones

¹⁵⁴ Micklethwait, John/ Wooldridge Adrian, *A Future Perfect. The Challenge and Hidden Promise of Globalisation*, New York: Crown, 2000, 67.

and portable games, is expected to replace laptops as the primary digital interface for most users.”¹⁵⁵

Technical innovation has led to exponential growth in “creative sectors” and “creative economies” worldwide. These embrace the five Cs: computing, caring, consulting, catering and coaching. The creative class in developed countries includes 25 to 30% of the working population. Matthias Horx (2007) make a litany from A to Z of those in this class. They include: architects, analysts, authors, beauty surgeons, caterers, clowns, coaches, comedians, designers, DJs, dancers, entertainers, fitness trainers, graphic designers, judges, lawyers, lecturers, life counsellors, logistic gurus, massage experts, magicians, mediators, motivators, models, model counsellors, managers, preachers, praxis healers, philosophers, politicians, rappers, etc.¹⁵⁶ All these and many others are benefitting from the risk they have taken and the trust many people have in them.

Positive risk and trust in life learning and academic excellence

Education is changing society into a knowledge-based society. Positive risk and trust in improving knowledge, skills and core competences is growing dramatically. The relationship between lifetime and learning time is being redefined. As Ulrich Reinhardt (2008) puts it, “those who do not continue to learn will not advance in life either. So far this has been understood by the Swiss (52%) and the French (62%). In both countries, the majority of inhabitants are of the opinion that employees will receive advanced training at least once a year as standard.”¹⁵⁷

The risk and trust for multilingualism is becoming a prerequisite in many occupations worldwide. More and more companies and NGOs employ professionals who have the ability to speak more than once language. Indeed, this ability adds value to any profession today.

¹⁵⁵ Talwar/ Golden, *Designing Your Future*, 8.

¹⁵⁶ Horx, *Wie wir leben werden*, 130.

¹⁵⁷ Reinhardt/ Roos (eds.), *Future Expectations for Europe*, 52.

Last, there is ever-growing demand for online or e-learning. The traditional school paradigm is being replaced by this new education model that transcends national borders.

Constructive risk and trust in futures studies and foresight cultures

The courage to risk and trust in forward thinking is becoming a prerequisite for future fitness. It requires us to assess risks and identify opportunities for sustainability and growth.

“The future is not a coincidence. It doesn’t just happen. It is shaped. For example by politics, which sets the course and provided the framework, by the media, which report and inform, down to corporate enterprises, which also influence the future through their actions ...”¹⁵⁸

Future fitness is not a coincidence; it is shaped for years, decades or centuries. As Sikka Heinonen and Markku Wilenius (2008) say, “anticipating tomorrow gives strategic benefits to nations and a competitive edge to companies and organisations. Futures research means a proactive approach for identifying and interpreting signs for change: starting from megatrends, to trends, discontinuities, wild cards and weak signals. On this basis, the goal of futures studies is to foresee where the world is going, where we are heading for, to envision alternative development paths”.¹⁵⁹

Positive risk and trust in exploring the future helps in building foresight capacity. It needs to foster dialogue “between public authorities, academia, companies, civic associations and ordinary citizens. All these together would form a collective base in constant dialogue for foresight intelligence”.¹⁶⁰

¹⁵⁸ Ibid., 7-8.

¹⁵⁹ Ibid., 121.

¹⁶⁰ Ibid., 122.

4.4. When People Risk and Trust Blindly

Destructive risk from trusting fake and dangerous technologies

Africa is becoming a dumping ground for poor-quality and dangerous goods. Buyers and consumers are enticed with lucrative advertisements for these products, but the risks are great, and trust fades away.

African markets are being flooded by fake or low-quality electrical and electronic products from China in particular. Many carry the labels of European or Japanese companies (Phillips, Hitachi, Sony, Samsung, Eriksson, etc.) that have enjoyed credibility for years. The lifespan of these products is very short and accidents are commonplace.

There are growing dangers linked with low-quality education models in Tanzania. The copy and paste syndrome in primary, secondary and tertiary education is alarming. In many cases, it kills the learner's ability for clear, critical, and creative thinking. These risks are found in private schools and in public education, and they are not unique to Tanzania. Prof. Manfred Prisching makes a salient if sarcastic observation on the risks and dangers of the current mechanical educational model in Austria: *Operation gelungen, Patient tot. Bildung gelungen, Schüler blod.*¹⁶¹

Dangerous risks and trust resulting from environmental destruction

In a Tanzanian context, Aidan G. Msafiri (2007) claims that there are real signs and symptoms "which show concrete signs of a worsening ecological situation in the country. This is seen in the massive soil degradation, lack of good quality water in urban and rural areas, increased desertification, loss of wildlife habitats and biodiversity, air and water pollution, overstocking, massive spread of garbage and plastic wastes (e.g. in the city of Dar es Salaam)."¹⁶²

¹⁶¹ Literally: "Operation successful, the patient died. Education successful, the student was still stupid." Prisching, Manfred, *Bildungsideologien. Ein zeitdiagnostischer Essay an der Schwelle zur Wissensgesellschaft*, Graz: VS Verlag für Sociowissenschaften, 2008, 55.

¹⁶² Msafiri, *Towards a Credible Environmental Ethics for Africa*, xv.

Bjørn Lomborg (2007) complains that the “media rarely present us with information about actual risks. In a survey of 26 American newspapers, a group of scientists asked for the papers’ best articles on environmental risks. As many as 68 percent of returned articles did not contain any information on risk. So, newspapers and television only give us an indirect impression of the danger of different phenomena by reason of their frequency”.¹⁶³

Globally, the threats posed by greenhouse emissions leading to anthropogenic climate change are exponential. Global warming “is an emerging new risk landscape that threatens business, society, and security in fundamental ways. Game Changers are big trends, big risks, often global in scope with the potential to upset all other trends and therefore make the future complex to forecast. Climate change is a Game Changer.”¹⁶⁴ Should we risk continuing carbonisation or turn to decarbonisation, put our trust in BP (British Petroleum) or adopt “beyond petroleum” lifestyles?

Risks linked with ICT, IPR and new genetic technologies.

The risks of technological piracy are on the rise. So too are cyber crime, cyber-war and cyber-terrorism. Wikileaks reveals secrets government would prefer to conceal, phone hackers invade personal privacy, the Internet poses threats of identity theft. In China, the piracy industry “fuels organised global-crime syndicates, drug trafficking and global war on terrorism”.¹⁶⁵

There “are already huge strains on the world’s systems for managing intellectual property rights (IPR). Consumers are demanding cheap or even free access to patented or copyright protected goods. Patent groups have been pressuring governments over the use of costly patented medi-

¹⁶³ Lomborg, Bjørn, *The Skeptical Environmentalist. Measuring the Real State of the World*, Cambridge: Cambridge University Press, 2007, 336.

¹⁶⁴ Canton, *The Extreme Future*, 157.

¹⁶⁵ *Ibid.*, 310.

cines. Scientists are fighting patents that they feel are blocking research. Programmers are pushing open source projects as an alternative to the established models of IP ownership in the software industry”.¹⁶⁶

There are also uncertainties linked with the environmental and health risks of genetically modified organisms. Today shopping malls, particularly in the USA, Europe and Asia, are filled with GMO products. Fears are widespread that modern biotechnology, genetic engineering and nanotechnology could have harmful effects for human life.

A short list of other risks arising from science and technology would include radioactive waste, nuclear reactor and coal-mining accidents, asbestos, mercury, carbon monoxide from lorries and cars, pesticides, nerve gas accidents, and storage and transport of liquefied natural gas.¹⁶⁷

Also worth mentioning are global pandemics, earthquakes, interstate and civil wars, systemic corruption, international terrorism, global financial crises, proliferation of weapons of mass destruction, oil price shocks, Middle East instability, the Chinese scramble for Africa, and the demographic explosion.

The risk of economic idolatry

For all the fine talk about stakeholder capitalism, companies still put profits first, reward their managers exorbitantly, and pay more attention to shareholders than workers, consumers and society at large.

In Tanzania, investor interest and profit seem to have the upper hand over true development. Sale of gold mines to foreign companies – for instance, the Buzwagi gold mine in Shinyanga – puts the poor at risk.

1 month's production = 32,000 ounces of Gold

¹⁶⁶ *Scenarios for the Future*, 70. Among the risks discussed in this report (71-78) are the tech backlash, the failure to provide affordable medicines in large numbers to vulnerable populations, food rights, patenting “life”, playing God with IP by patenting living organisms, and genetic IP. It concludes that “if IPR are seen to be blocking a ‘social good’ (or empowering a social ill), the system will lose the support of society” (79).

¹⁶⁷ *Ibid.*, 78. “Familiar risks are not viewed as [as] risky as complex, ubiquitous risks with high scientific uncertainty over which society has little control...”

1 ounce is worth USD 1,000 (May 2010)

Therefore in one month = USD 32,000,000

In one year (12 months) = USD 32,000,000x12 = USD 384,000,000

Despite (or because of) such massive economic rewards, Shinyanga remains the poorest region in Tanzania, with few schools, roads or hospitals. On the global level, Tanzania remains one of the poorest countries! Should we as Tanzanians keep on blindly risking?

Consumers are also at risk from companies that try to seduce consumers through multiple price tricks and mechanisms.¹⁶⁸ The most obvious trick is through price tags just a cent under the round price.

An Acer laptop at €699,99. In reality one spends €700.

A Blackberry Mobile phone at €499,99 (€500).

A pair of Levi's jeans at €29.99 instead of €30.

Dar es Salaam to Amsterdam return air ticket at €1,999,99 (€2,000).

The growing risks resulting from the "bluff society"

We live with casino capitalism in a casino world, operating very much like Las Vegas. The global banking meltdown in 2008 should have persuaded us of the risks, but we are still tempted to try our luck.

Post-modernism turns life into a piece of a theatre or film. Existence is replaced by aesthetics, reality by virtual or simulated reality, real human personality by celebrities, stars and supermodels, concreteness by symbolism. In Europe, for instance, the Audi A8 symbolises high performance in all spheres of life, the latest brands of perfume symbolise high society.

There is a growing mania for therapy revealed by the proliferation of child psychologists, education advisors, job coaches, fitness coaches, beauty counsellors and trainers, healing experts, post-divorce psycholo-

¹⁶⁸ Waibl, Elmar, *Angewandte Wirtschaftsethik*, Wien: WUV Universitätsverlag, 2005, 163.

gists, etc. The risk here is of commercialising almost every aspect of life.

According to the psychoanalyst Hans-Joachim Maaz, society is also succumbing to sex mania. There are millions of sex-oriented businesses worldwide.¹⁶⁹ These include pornography in the internet, mobile phones, sex markets, supermarkets, and even malls, with all kinds of sex gadgets, drugs against impotence, etc. Limitless pleasure is the rule.

4.5 Which Way Forward?

“We are like dwarfs on the shoulders of giants, so that we can see more than they, and things at a greater distance, not by virtue of any sharpness or sight on our part, or any physical distinction, but because we are carried high and raised up by their giant size.”¹⁷⁰

As the Chinese proverb says “For every misfortune, there is fortune”. For all its dangers, risk is a *sine qua non* for life, for change, for transformation. From *homo habilis* to *homo cyber*, the major socio-political, economic, technological, medical and scientific breakthroughs and innovations occurred through taking risks and trusting in people.

People, companies, organisations, governments, stakeholders of all kinds need to develop a culture of daring to risk and trust, but positively and constructively. Also needed is a culture of foresight in facing uncertainty, managing risk and crisis, and planning for the future. The alternative is stagnation and death.

From a theological perspective, Professor Harald Mandl’s views are extremely important.¹⁷¹ According to him, human beings and world religions need to rediscover their fire in responding to today’s global challenges and crises. This demands rediscovering the moral virtues, particu-

¹⁶⁹ Prisching, Manfred, *Das Selbst, Die Maske, Der Bluff. Über die Inszenierung der eigenen Person*, Wien: Molden, 2009, 158.

¹⁷⁰ *Scenarios for the Future*, 9.

¹⁷¹ Prof. Harald Mandl’s views, Vienna, January 2011.

larly wisdom, courage and justice. The motivating principle of the new fire and courage for constructive risk and trust lies in the faith that there are higher values and a higher Being. This gives us the strength to “risk beyond risk” and trust beyond trust.

Leaders in business and society play a key role in the quest constructive risk and trusting people. They lead not only by what they say, but even more by what they show: they need to move “from preaching water to drinking wine”! Let leaders risk and trust in promoting competence, innovation and foresight.

Winners make commitments, but losers make promises. Albert Einstein once said, “Two things are endless, the universe and human ignorance. But as regards the universe, I am not very sure.” Hans Jonas says, “Act in such a manner that your actions may have permanent and concrete positive impact to humans and human life on the globe.”¹⁷² This underscores the need for the courage to be different and to risk positively in bringing about intellectual and social transformation.

A wise African proverb says, “Do not risk going to a place where people would not remember that you were there”. Let us adopt a more optimistic stance towards risking and trusting people, as encapsulated in the following concluding story from Africa:

The King was lucky: the tribes of his kingdom had explored all his lands to bring him great riches and knowledge. The mountain people used their ropes to climb the highest peaks. The river-dwellers built boats to explore tributaries and deltas. And the desert nomads had learned clever ways to conserve water for long journeys.

He knew that there were many more lands that might hold greater wealth and wisdom. He issued a proclamation: “All the peoples of my kingdom shall compete to discover new territories. Those that bring back knowledge and treasure will have half the share!”

The river-dwellers were overjoyed. “With our ships, no one can beat us to the new lands,” said their chieftain. Two months went by, and finally one of the

¹⁷² Cf. the South-Western German saying *Schaffe, Schaffe heusle, baue nicht auf schoene Maedle schau.* (Work, and work hard, do not waste time looking for beautiful girls.)

ships returned. But there was no gold or treasure. "We sighted land, but were running short of water so returned home empty-handed," said the captain. The river chieftain would not give up though. He went to the desert nomads. "Give us the secret of water storage so we can try again," he said. The nomads scoffed, "What's in it for us?" "We will give you a third of all the treasure," he replied and the deal was done.

Three months went by before the ship returned. "We spent a month seeking an inlet," said the captain. "But there was none, and we had no way of climbing the cliffs. Our food ran out and we had to return." "Let us try, using your boats," said the prince of the mountain people. "We can make food last, and climbing cliffs is easy!" The King agreed – but the river-dwellers refused because they could not agree how to share the spoils.

Years passed. The kingdom grew weary of disputes, and because the tribes spent all their time trying to discover each other's secrets, they let hunger and disease spread across the land.

Finally the King had had enough. "I shall lead a new expedition using ships from the river people, we shall take nomads to store our water and mountain people to scale the cliffs. All our skills shall be used – and all of us shall reap rewards from the new lands we discover!"

The mission succeeded. They returned with food, medicines and new allies from the far-off lands.¹⁷³

This story has a powerful transformative message for us all. Let us dare to risk and trust in our strengths, creativity, intelligence, values, competence and skills to bring about systematic change and benefits locally and globally. Let us begin now. Yes we can, and we must embark on this process worthy of venturing, risking and trusting.

¹⁷³ *Scenarios for the Future*, 85.

CLIMATE CHANGE AND GLOBAL WARMING IN TANZANIA: THEOLOGICAL AND ETHICAL CONSIDERATIONS

Abstract

Climate change and global warming are not only potential disasters, but actual calamities with far-reaching environmental, health, economic, thermal, agricultural and cultural consequences, locally and globally.

The threat posed by climate change and global warming to Tanzania and the entire world cannot be exaggerated. The dignity and future survival of poor communities and developing nations like Tanzania are at great risk in both short and long terms.

The most common visible effects include prolonged dry spells or seasons, desertification, rising sea levels, acid rain, floods, famine, increase in temperature, hurricanes, storms, disappearance of snow and ice (Mount Kilimanjaro), spread of vector diseases such as malaria, dysentery, cholera and meningitis, and disappearance of biodiversity.

There are also deep-seated and long-term invisible (not quantifiable) hazards, for poor nations like Tanzania in particular.

Quite often such value-based effects are forgotten by the politics and tangible criteria and calculations used. Hence, the quest for a more balanced, value-based and ethically oriented model in considering such effects. All these need to be revisited with a therapeutic pro-active stance before we reach a point of no return.

Key words

Climate change, global warming, visible effects, invisible effects, fundamental human values, flora, fauna, eco-justice, foresight, mother earth

5.1 Background and Terminology

Climate change

The Intergovernmental Panel on Climate Change (IPCC) defines climate change as “any change in climate over time, whether due to natural variability or as a result of human activity”. The IPCC adds, “This usage differs from that in the Framework Convention on Climate Change, where climate change refers to a change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and that is in addition to natural climate variability observed over comparable time periods.”¹⁷⁴

The difference is in perspective: the Framework Convention is focused on the global threats posed by anthropogenic (human-induced) climate change.

Global warming

“The Earth absorbs radiation from the Sun, mainly at the surface. This energy is then redistributed by the atmospheric and oceanic circulations and radiated back to space... Any factor that alters the radiation received from the Sun or lost to space, or that alters the redistribution of energy within the atmosphere and between the atmosphere, land, and ocean, can affect climate...”

“Increases in the concentrations of greenhouse gases will reduce the efficiency with which the Earth’s surface radiates to space... Because less heat escapes to space, this is the enhanced greenhouse effect – an enhancement of an effect that has operated in the Earth’s atmosphere for billions of years due to the presence of naturally occurring greenhouse gases: water vapour, carbon dioxide, ozone, methane and nitrous oxide.”¹⁷⁵

¹⁷⁴ IPCC, 2001: *Climate Change 2001. The Scientific Basis. Contribution of Working Group I to the Third Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press, 2001, 2.

¹⁷⁵ *Ibid.*, 24.

Justification and rationale

In 2007, the IPCC reported that “global atmospheric concentrations of carbon dioxide, methane and nitrous oxide have increased markedly as a result of human activities since 1750 and now far exceed pre-industrial values... The global increases in carbon dioxide concentration are due primarily to fossil fuel use and land use change, while those of methane and nitrous oxide are primarily due to agriculture.”¹⁷⁶

“Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level.”

Numerous long-term changes in climate “include changes in arctic temperatures and ice, widespread changes in precipitation amounts, ocean salinity, wind patterns and aspects of extreme weather including droughts, heavy precipitation, heat waves and the intensity of tropical cyclones.”

The IPCC reported that “the warmth of the last half century is unusual in at least the previous 1,300 years. The last time the polar regions were significantly warmer than present for an extended period (about 125,000 years ago), reductions in polar ice volume led to 4 to 6 m of sea level rise.”

The IPCC concluded that “most of the observed increase in global average temperatures since the mid-20th century is *very likely* due to the observed increase in anthropogenic greenhouse gas concentrations.” It added that “discernible human influences now extend to other aspects of climate, including ocean warming, continental-average temperatures, temperature extremes and wind patterns... Continued greenhouse gas emissions at or above current rates would cause further warming and in-

¹⁷⁶ For this and the following quotes, see IPCC, 2007: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press, 2007, 2-16.

duce many changes in the global climate system during the 21st century that would *very likely* be larger than those observed during the 20th century... Anthropogenic warming and sea level rise would continue for centuries due to the time scales associated with climate processes and feedbacks, even if greenhouse gas concentrations were to be stabilised.¹⁷⁷

Anthropogenic climate change and global warming threaten the planet as a whole. But the poor are the most vulnerable. Miges Baumann (2008) asserts that climate change and global warming hit hardest those who have least contributed to it, including the poorest of the poor in the global South. This poses questions of social justice that demand immediate but long-lasting solutions.¹⁷⁸

How and whether we are to live tomorrow depends on how we live today. The threats of climate change and global warming are real and not fictitious. They are a wakeup call to every person on the planet. They demand a new solidarity and a common responsibility. They require moral solutions. They call for a true respect for life and the dignity of the human person.¹⁷⁹

Structure

This paper is in three parts. Part one tries to identify the vital facts and figures of climate change and global warming in the Tanzanian context. The second part seeks a new paradigm and looks at theological, ethical, socio-economic and environmental responses. The third part ends with some fundamental affirmations.

¹⁷⁷ By “very likely”, the IPCC means an assessed likelihood greater than 90%.

¹⁷⁸ Baumann, Miges, *Gerechtigkeit im Klimawandel. Die Auswirkungen der Klimaerwärmung auf den Süden und ihre Folgen für die globale Ernährung*, Luzern: Fastenopfer, 2008, 3.

¹⁷⁹ Christiansen, Drew/ Grazer Walter (eds.), “*And God Saw That It Was Good.*” *Catholic Theology and the Environment*, Washington, DC: United States Catholic Conference, 1996, 220.

5.2 Visible Effects of Climate Change

Agricultural and pastoral effects

A study published in 1998 and included in the Initial National Communication (2003) predicted a rise in the mean annual temperature by 2-4°C. This is already resulting in a change in rainfall patterns.¹⁸⁰

The most affected cash and food crops include maize, coffee and cotton. With an increase in temperature of 2-4°C, maize production is estimated to decrease by 84% in the central regions (Singida, Arusha, and Dodoma), 22% in the north-eastern highlands (Usambara, Kilimanjaro, and Meru), 17% in the Lake Victoria region, and between 10% to 15% in the southern highlands (Iringa, Mbeya and Rukwa).¹⁸¹

Coffee and cotton production is projected to fall as a result of weather variability, erosion of natural minerals in the soil, and the effects of acid rain.

About 60% of the entire range land in Tanzania is infested by tsetse fly, making it unsuitable both for livestock rearing and human settlements. A gradual decrease of pastureland leads to conflict between pastoralists and crop growers in several parts of Tanzania.¹⁸²

Hydrothermal effects

Tanzania still depends almost entirely on hydroelectricity for electric power. Due to recent acute drought spells, the highest water levels in most of the hydroelectric power stations has constantly receded, especially since 2000. Recent findings from the Ministry of Energy and Minerals in Tanzania indicate that the highest water level in the Mtera HEP dam has declined from 695.8m asl to 688m asl in March 2006.¹⁸³

¹⁸⁰ "Tanzania Climate Change Factsheet", Edinburgh: Network of International Development Organisations in Scotland (NIDOS), July 2009, www.nidos.org.uk.

¹⁸¹ Ibid.

¹⁸² Ibid. Clashes between pastoralists and cash growers are becoming commonplace today, particularly in the Mara, Arusha, Morogoro, Kagera, and Mbeya regions. Sooner or later, this will acquire catastrophic proportions.

¹⁸³ asl: above sea level.

Production of hydroelectric power countrywide has fallen to about 40%, giving rise to power rationing, blackouts, and huge losses in industrial production as well as in the service sector in cities and towns such as Dar es Salaam, Mwanza, Morogoro, Tanga, Arusha, Moshi, Mbeya.

There are deeper implications of climate change for the availability of safe water for people, plants and animals. Recently it has been claimed that the annual flow of the Pangani river will be reduced by 6% to 10%. The Pangani basin gets its water from the glaciers of Mount Kilimanjaro, which are melting at an alarming speed. It is projected that by the year 2015 the entire glacier on top of Kilimanjaro will disappear. This will make the Kilimanjaro region a complete desert.¹⁸⁴

Health hazards

Water- and weather-related diseases have become more rampant. Malaria remains the leading disease of death in many regions and societies of Tanzania. In Rukwa it counts to about 24% of all deaths while in Dar es Salaam to about 48.9% and more.¹⁸⁵

There have been new outbreaks of acute dysentery and cholera in the Dar es Salaam and coastal regions. Parallel to this is an increase in airborne illnesses such as meningitis during hot seasons.

Medical research shows that the transmission of malaria is at its peak during the high temperatures and humidity immediately after the rainy season. Mosquitoes carrying malaria are now flourishing on the higher altitudes of Mount Kilimanjaro and Mount Meru. Formerly, people on these slopes could sleep at night without using mosquito nets. Today mosquito nets are a must.

¹⁸⁴ Mugurusi, Eric K., unpublished paper delivered at “Integrating Environmental Sustainability and Development in East Africa”, Inaugural Conference towards an Ecological Society for East Africa, Nairobi 3-4 May 2007, 15.

¹⁸⁵ “Tanzania Climate Change Factsheet”, www.nidos.org.uk.

Hydrological effects

Tanzania is endowed with several large rivers and river basins (Rufiji, Pangani, Mara, Ruaha, Malagarasi and others) that sustain the life and economy of millions of people. Rising temperatures and changing rainfall patterns affect the volume and flow of these rivers. Expected increases in temperature in the catchment areas of the Pangani river, with the resulting changes in rainfall patterns, will lead to a decrease in annual flow of 6 to 9%. The same study predicts a decrease of 10% in the annual runoff of the Rufiji river. Reduced runoff of these two rivers, which supply water and hydroelectricity to major towns, adversely affects socio-economic activities. Many lake basins that form essential components of the ecosystem are also affected by climate change.

Environmental effects

All forest areas and types are under threat of deforestation. In 2002, 38.8 million hectares (35% of Tanzania's total land) were covered by forests and woodlands, but the deforestation rate was estimated to be 91,276 hectares per year. The main reasons for deforestation include clearing for agriculture and settlement, overgrazing, wildfires, charcoal burning, and overexploitation of wood resources for commercial purposes. All these contribute greatly to the increase of CO₂ in the atmosphere. As the carbon sink is progressively reduced, climate change puts forests and wetlands in even greater danger.¹⁸⁶

Negative industrial and infrastructural effects

Industrialisation and urbanisation pose threats to the climate and deplete non-renewable natural resources, raising questions of sustainable development. Every year, heavy downpours resulting particularly from climate change cause massive destruction of Tanzanian infrastructure - roads, railways, ports, airports, and sewage systems. The most recent

¹⁸⁶ Msafiri, *Towards a Credible Environmental Ethics for Africa*, 1-13 passim.

examples include the central railway system from Dar es Salaam to Morogoro to Tabora to Kigoma. Road infrastructure in Dar es Salaam is in a very bad condition particularly during the rainy seasons, causing long, polluting traffic jams that contribute to the climate change crisis.

Negative coastal effects

The increase in mean temperatures has adverse effects on the coasts and islands of Tanzania, include rises in sea level that put human settlements at risk.

Most of the wetland habitat and mangroves¹⁸⁷ along the coastline and on the small islands are threatened with extinction. This endangers both fresh-water marine organisms and biodiversity.

Threats to tourism

With beautiful natural resources, including extensive tracts of wilderness and a rich diversity of scenery, Tanzania is one of the premier tourist destinations in Africa. Among the attractions are 12 national parks, including the famous Serengeti, 34 game reserves, and 38 game-controlled areas. Prime tourist attractions include Mount Kilimanjaro, Zanzibar's historic Stone Town, and the Olduvai Gorge.

However, the future of tourism is under threat from fragmentation of the ecosystem, rapid disappearance of biodiversity, and continued desertification resulting from increase in temperature and intermittent rainfall patterns. It is estimated that about 80% of the snow of Mount Kilimanjaro has disappeared.¹⁸⁸

¹⁸⁷ Mangrove trees are used for firewood and fish smoking, building boats and making traditional beds, drums, and food utensils.

¹⁸⁸ Ibid.

5.2 Invisible Effects

Towards a new paradigm

A value-based life view remains a *sine qua non* for a sustainable ethics of climate change and global warming in Tanzania. It necessarily goes beyond current politics and profit-based calculations.

Theological and philosophical perspectives

We need to reaffirm that “God is the Creator/Author and Sustainer of the universe. God had and still has a plan with all creatures human and non-humans. As *homo sapiens* and *homo rationis* (wise and thinking people), humans in particular need to exercise stewardship over the earth with love, wisdom, *ratio*, prudence and moderation.”¹⁸⁹ Secondly, agapic love, as encapsulated in the great commandment (Matt. 22:37-39), offers guidance in our vertical relationship with God and our horizontal relationships with fellow humans and non-human creatures.

From an African philosophical point of view, *homo africanus* considers life as a sum total of vitality, cosmic harmony and relationships including physical and metaphysical realities, soul, and mind.¹⁹⁰ Awe and reverence for life remain the basic principle determining human relationships with the environment and the world at large.

Fundamental human values and eco-justice

Fundamental values are violated when *homo industrialis* becomes the agent of climate change and global warming. Fundamental values – preservation of life, justice, agape, freedom, dignity, peace, accountability, trust, responsibility, solidarity, partnership and foresight) should orientate human actions and attitudes towards nurturing our mother earth!

¹⁸⁹ Msafiri, *Towards a Credible Environmental Ethics for Africa*, 233.

¹⁹⁰ Msafiri, Aidan G., “Inculcating Traditional Medicine in Africa. A Reality or Myths?” in: *Africa Tomorrow 12 (1)*, Salvatorian Institute of Philosophy and Theology, Monogoro, Tanzania, June 2010, 13. Revised as chapter 3 of this volume.

Christoph Stückelberger (2002) offers key ethical affirmations: “I want to live. I cannot live/survive on my own, but only in a community. All of us want to and should live/ survive in dignity. Other human beings and fellow creatures have a right to life and a will to live which are basically comparable to my own. I cannot generate my own life. It is a given, a gift. The world as a creation is beautiful and rich in diversity...I make mistakes and need an opportunity to restart again and again”.¹⁹¹

Climate change and global warming hit the poor (*anawim*) of the global South hardest. The rich simply need to change their wantonly consumerist lifestyles so that the poor can simply live. More is needed than the fine rhetoric of sharing the ecological burdens. More is needed than conventions, protocols and agreements that do little to slow the rate of global warming, still less halt or reverse it.

Bjørn Lomborg (2007) admits that humans today need to radically “change individual lifestyles, and move away from consumption. We must focus on sharing resources (e.g. through co-ownership), choosing free time instead of wealth, quality instead of quantity, and increase freedom while containing consumption. Because of climate change we have to remodel our world and find more appropriate lifestyles.”¹⁹²

The role of media in reshaping human values and priorities in the face of climate change is of extreme importance. “While the media can pose a barrier to GHG¹⁹³ mitigation by reinforcing current trends towards more GHG-intensive lifestyles, it may also offer opportunities. Raising awareness among media professionals of the need for GHG mitigation and the role of the media in shaping lifestyles and aspirations could be an effective way to encourage a wider cultural shift.”¹⁹⁴

¹⁹¹ Stückelberger, *Global Trade Ethics*, 43.

¹⁹² Lomborg, *The Skeptical Environmentalist*, 320.

¹⁹³ GHG: greenhouse gases

¹⁹⁴ IPCC, 2001: *Climate Change 2001: Mitigation. Contribution of Working Group III to the Third Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge: Cambridge University Press, 2001.

Justice, dignity and human rights

Justice has profound implications such as fairness, care, compassion, well being, common welfare, rights, moderation, equity, and the courage to be different. Western culture simply “regards nature as a source for use by human beings. Everything which has no price attached is considered as having a price of zero...”¹⁹⁵ Justice challenges the myth of unlimited growth and consumerism characteristic of the Western world in particular. Justice demands the radical transformation of *homo industrialis* into *homo integralis* and *homo conservator*. It calls for green lifestyles and green growth.

Justice involves concern for the most vulnerable and endangered, human and non-human – the “wretched of the earth”, and the poor, powerless Earth itself.¹⁹⁶ Paul M. Zulehner (1990) underscores the right of the poor from the prophetic literature of the Old Testament (Exod. 3:7-10, Deut. 24:148, Gen. 11:1-3 and Ps. 8:104).¹⁹⁷ The promise of Jesus of life in fullness (Phil. 2:6-11, John 10:10) underpins global solidarity and interdependence and rejects the neoliberal law of the jungle.

“In the realm of ends everything has either a price or a dignity. That which has a price can be replaced by something else, as an equivalent; that which is priceless, and thus allows of no equivalent, has a dignity.”¹⁹⁸ Dignity is inalienable. Dignity implies rights and duties. Human dignity is rooted in the anthropological and theological truth that men and women are made in the image and likeness of God (Gen.1:26ff). This implies a special responsibility of humans towards the non-human world as a whole. The dignity of creatures is biblically grounded in God’s covenant with Noah (Gen. 9:9-11).

¹⁹⁵ World Council of Churches, *Climate Change and the Quest for Sustainable Societies*, Geneva: WCC, 1998, 31.

¹⁹⁶ Msafiri, Aidan G., *Globalisation of Concern I*, Dar es Salaam: Dar es Salaam University Press, 2008, 16-17.

¹⁹⁷ Zulehner, Paul M. *et al.*, *Pastoraltheologie, 4 Bde. Bd.4, Pastorale Futurologie*, Düsseldorf: Patmos, 1990, 251-265.

¹⁹⁸ Immanuel Kant, quoted by Christoph Stückelberger, *Global Trade Ethics*, 60.

A wake-up call for life or death

“Climate change directly impacts peoples’ livelihoods, endangers the existence of small island states, reduces the availability of fresh water and diminishes Earth’s biodiversity. It has far-reaching impacts on food security, the health of people and the living habits of growing part of population... Global warming and ecological destruction become more and more a question of life or death.”¹⁹⁹

This ecumenical call to action from the global forum and AGAPE celebration in Bogor, Indonesia, is the latest fruit of the AGAPE (Alternative Globalisation Addressing Peoples and the Earth) process affirmed by the ninth assembly of the World Council of Churches in Porto Alegre in 2006. The preparatory document for the assembly called for just trade, just finance, transformative action and living alternative.²⁰⁰

But it is not just churches who have been speaking on the challenges of climate change. In a sign of the times, just months after the stark warning of the IPCC’s fourth assessment report, Time magazine devoted its 9 April 2007 edition to a “global warming survival guide”.

“Our feverish planet badly needs a cure,” Time argued, “...and it will take a lot of people to fix it. There’s a role for big thinkers, power players, those with deep pockets – and the rest of us.” In addition to Time’s usual breathless analysis, the issue also listed fifty-one things we personally can do to make a difference.²⁰¹

¹⁹⁹ World Council of Churches, “Economy of Life, Justice, and Peace for All: A Call to Action”, 19 July 2012, www.oikoumene.org/en/resources/documents/wcc-programmes/public-witness-addressing-power-affirming-peace/poverty-wealth-and-ecology/neoliberal-paradigm/agape-call-for-action-2012.html

²⁰⁰ World Council of Churches, “Alternative Globalization Addressing Peoples and Earth (AGAPE). A Background Document”, Geneva: WCC, 2005.

²⁰¹ For details, see Time magazine, 9 April 2007, 56-79. Available online at www.time.com/time/magazine/0,9263,7601070409,00.html.

5.3 Conclusion

Urgently needed is a paradigm shift to a faith-based model of assessing the effects of climate change and global warming. A credible ethics of climate change and global warming in Tanzania needs to be rooted in the commandment of love (Matt.22:37-39), but also in the fundamental human values. These are preservation of life, dignity, *agape*, sustainability, accountability, conversion (*metanoia*), trust, justice, partnership, freedom, transparency and solidarity.

Climate change and global warming already pose ominous threats to life. Ironically, human beings are both the cause and the victims of this global crisis. This calls for conversion: a true, deep change of heart and conscience empowering a new culture of care and a preferential option for the poor. *Homo industrialis* needs to make a radical option for an alternative lifestyle that does not threaten the common good and well-being of human and non-human life. *Homo conservator* needs move from a culture of having to a culture of being, to consume less, share more, and live more simply so that the planet may simply live.

A truly Christian perception of creation offers us a real motivation to curb the damaging effects wrought by climate change and global warming in Tanzania and beyond. Let us begin now.

THE ROLE OF A CHRISTIAN HIGHER EDUCATION MODEL AMID HIGHLY GLOBALISED AND SECULARIST MODELS

Abstract

Higher education in the twenty-first century is engulfed by secularist and profit-oriented education models. These include the larger house model, the bank-management model, the pragmatic model, the event-oriented model, the high-speed model, the job and market model, the certificate/diploma/degree model, the management model, the Western/classic model, and the university as business model. All have strengths and weaknesses.

These paradigms are not value-free. They affect the thinking and action of learner and society, positively or negatively. They lack transformative, transcendental, teleological, deontological and agapic trajectories.

True learning is deep and multifaceted. It requires inspirational teachers, role models and great learning facilities. It is a systematic, lifelong, content- and contact-based process of interaction, affection, and transformation.

A specifically Christian model of higher education needs values, virtues, ethical norms, and life and world views. Values do not fall from the skies. Academic excellence does not happen by itself. Christian and fundamental human values mould, orient, guide, transform, and make a difference. They form the basic pillars of a specifically Christian higher education. They need to be rediscovered as a critique of and alternative to secularist and profit-oriented models.

The first part of this chapter attempts to identify the key secularist educational models, their strengths and weaknesses. The second part unveils the key determinants of a specifically Christian higher education model. In the third part, effort is made to elucidate St Augustine University of Tanzania (SAUT) as a university with a soul that reveals itself in diverse senses.

Key words

Christian higher education, model, paradigm, learning, education, mentoring, technology, globalisation, secularism, transformation, ethical values, deep change, soul, profit, bluff society and culture

6.2 Secularist Higher Education Models

We identify nine educational models. Despite their strengths in content, method and worldly *telos*, they are often fragmented and profit-oriented. They lack value- or virtue-oriented transcendental dimensions.

The larger house or banking model

The larger house or banking model is based on the knowledge explosion and the ideological belief that knowledge is power. It is a result of the information- and knowledge-based society, the always-connected society. The approach to education is the endless pursuit of knowledge. The more knowledge one possesses, the greater one's power. Satisfaction becomes a vice. Resting on your laurels is taboo. There is an exponential growth of knowledge and professionals, locally and worldwide, under the motto, "knowledge is unfathomable and an endless mine". In turn, this widens the gap between elites and non-elites.

This model sees the learner as a passive recipient of encyclopaedic knowledge. Knowledge can be funnelled into the receiver's mind and is known for its own sake. Education is an end in itself, not a means towards a dignified goal. The model sees knowledge as money or capital, without regard to socio-ethical, human needs or considerations.

For Manfred Prisching (2008), the larger house model has a deep ideological conviction that knowledge is "transportable" through a knowledge ladder.²⁰² Alvin and Heidi Toffler (1995) affirm that knowledge has become a global product for mass production, distribution and consumption, particularly through universities and higher institutions of learning.²⁰³ It gives rise to a new knowledge-based society in contrast to the small, illiterate society.

²⁰² Prisching, Manfred, *Bildungsideologien*, 15-16, 20.

²⁰³ Toffler, Alvin/ Toffler, Heidi, *Creating a New Civilisation. The Politics of the Third Wave*, Atlanta, GA: Turner, 1995, 36.

The larger house or banking model overemphasises the cognitive aspect of knowledge acquisition, causing an imbalance between the cognitive, affective and psychomotor dimensions of learning. It gives rise to new cultural trends and syndromes: Encyclopaedianism, Wikipedianism, Facebook and Twitter cultures.

In short, the larger house or banking model overemphasises the endless acquisition and consumption of knowledge and information as the hallmark of academic leadership and a goal to be achieved at all costs.

The data-bank management model

This model sees the classical approach to education, information and knowledge as moribund and completely obsolete. It emphasises the individual ability to analyse, associate and effectively manage a myriad of facts and figures collected in the knowledge springs and wells of information technology and the Internet.²⁰⁴ The knowledge society is a continuum of education rooted especially in electronic networking and search engines.

Education is not learner-centred. Learners are not obliged to remember (to “save”) key facts or figures. They can always find them in their computer or through the search engines. This model holds out the promise of education without stress or pain. It is a “cool” learning process requiring no special acquisitive efforts from the learner.

It emphasises e-learning, distance learning and networks. Rohit Talwar and Garry Golden (2008) assert that the “shift to online education is growing not only in the formal educational system, but also in the professional development... Students and instructors are attracted by the ease of use...Online education promises to expand access (by learner life stage, geography and time commitment) and could eventually reduce the cost of delivering education around the nation and the world.”²⁰⁵

²⁰⁴ Prisching, *Bildungsideologien*, 35.

²⁰⁵ Talwar/ Golden, *Designing Your Future*, 64.

This model affirms the ability of learners to be well versed in global knowledge just through data analysis. Knowledge is, literally, at one's fingertips. Unfortunately, it gives rise to "empty brains, full data banks."²⁰⁶

The model contradicts itself in that a learner cannot acquire knowledge or life skills in the abstract, or in a totally wrong environment. As Manfred Prisching puts it, one cannot learn to play tennis while the coach describes on a coffee table how to kick the ball.²⁰⁷ The same applies to any practically oriented profession or expertise. What counts in effective knowledge acquisition is not primarily quantity but quality and usefulness. True education needs to be transformative.

The problem with the data-bank management model is not just the requirements for the acquisition of true knowledge, but also consumer dissatisfaction resulting from an insatiable craving for more and more, particularly given the current information explosion.²⁰⁸

Horst Opachowski cautions that "anyone who gives up learning in future, might as well give up living".²⁰⁹ The data management model runs the risk of collective illiteracy, where learners know how to electronically interpret data bases, facts, figures, findings, but lack core competencies, skills, and aptitudes essential for a critical mind.

"One becomes what one does", as the saying goes. Hence true and transformative higher education must be an integral and associative, well-coordinated and interpretation-oriented human process between the learner and the facilitator, an interaction between an active receiver and a face-to-face facilitator, thus avoiding the functionalist, impersonal character of the data-management model.

In short, the data-management or banking model has many weaknesses and risks: "Education successful, but the students are illiterate."

²⁰⁶ Prisching, *Bildungsideologien*, 40.

²⁰⁷ *Ibid.*, 44.

²⁰⁸ *Ibid.*, 46-48.

²⁰⁹ Opachowski, *Deutschland 2030*, 449.

The day-to-day practical education model

This model stresses the practical and existential functions of learning. It focuses on real-life needs rather than acquisition of core knowledge: doing more than knowing, practice more than theory. It prefers applied mathematics to pure mathematics, social ethics to ancient history, project management to rocket science. Education is for transformation of real life here and now. The emphasis is on psychomotor utility rather than cognitive intelligence.

True learning involves more than acquisition of day-to-day skills or competencies. Holistic education forms personal identity.²¹⁰ This is a complex but crucial process going beyond the day-to-day functionalist learning characteristic of post-modern consumerist society. Integral learning and formation of personal identity is a profound, all-embracing process that goes beyond linguistic abilities, sports, free-time hobbies, sexual relationships, music maestro, superstar, hero mania, etc.

The model ignores the interdependent aspect of human intelligence and life. Human life is a complex and diverse reality. For day-to-day life skills, a person needs multiple intelligences: verbal, cognitive, mathematical, artistic, philosophical, inter-human, socio-economic, cultural and ethical.

Knowledge and skills must be acquired through practice. Practice makes perfect: learning must strike a balance between knowledge and action, information and transformation, seeing and doing. Erich D. Hirsch (1990) remarks that regardless of one's musical talents, one cannot really become a maestro without much exercise and drill. So also, regardless of mathematical ability, a child cannot become a great mathematician simply through osmosis.²¹¹

But the model overemphasises the aspect of life experience. This is epitomised by the project-oriented method. Substance is compromised

²¹⁰ Prisching, *Bildungsideologien*, 66.

²¹¹ Hirsch, Jr., Eric D., *The Schools We Need and Why We Don't Have Them*, New York: Doubleday, 1996, 87.

by sheer performance. Quality learning for important professions becomes quite short-lived. As Manfred Prisching puts it, a school which has ceased to be a place of values, norms, concentration, reflection, contemplation, and analytical and critical thinking has ceased to be a school.²¹² Schools are more than places of resolving life problems.

The high-speed model

Speed imposes itself as a value in all spheres of life today. People believe that “faster is better and get caught in an endless cycle of buying a faster car, catching a faster plane, eating fast foods and even taking a faster quick nap just so that we may be able to save time...Speed is in fact the unchallenged idol of this generation..”²¹³ The idol of speed gives birth to a high-speed education model, locally and globally.

This model emphasises less time, shorter courses and greater efficiency. At the university level, learners are given less and less time for conducting seminars, presentations, discussions and assignments. Learning becomes like Formula One racing or fast food chains such as McDonalds: the McDonaldisation of education.

This model has far-reaching negative consequences for curriculum development, with new educational products, ideas, literature, programmes and syllabi constantly replacing the old. In Tanzania, this syndrome affects curriculum development from pre-primary to tertiary education. Books that used to be classics in literature, mathematics, or art are now considered obsolete.

From the professional point of view, doctors, lawyers, business managers, economists, or ICT experts who graduated, say, five years ago risk losing their jobs simply because they have missed the latest packages in their field that just arrived in the market this year. Novelty is a virtue; slowness is a vice.

²¹² Prisching, *Bildungsideologien*, 81.

²¹³ Peacock, Philip Vinod, “Challenging The Idols of Speed”, in: *Reformed World 61 (1)*, March 2011, 68-72.

But quality learning needs quality time, quality input and a quality environment, not just novelty and speed. A consequence of the model is the growing distance between facilitators (teachers, lecturers, professors) and learners (children, pupils, students). Quite often learners and facilitators live in two different worlds.²¹⁴

Turbo-speed education is seen as a means and an end. It is geared towards churning out the required workforce, at the expense of personal and professional excellence.

The event-oriented model

Learning on this model is viewed as an event that offers a unique experience to the learner: a sensational “happening”, or a fascinating film such as a Harry Potter thriller.

This model overemphasises the individual rights, views and hobbies of a learner, making it difficult for both learner and facilitator to strike the balance between personal and collective interests, rights and duties. It affirms the relativist and subjective aspects of the learning process but rejects the classical and objective aspects. It risks becoming dictatorial.

It gives unlimited freedom to feeling, pleasure, world view, ecstasy, and fun. Learning is simply considered as an action film.²¹⁵ But it runs the risk of producing half-baked graduates. It deprives learners of their human awareness as active recipients and learners. The absence of a secure individual self-consciousness gives rise to stress, panic, ignorance, and hectic superficiality.²¹⁶

The job- and market-oriented model

This model is based on the view that society is nothing more than a workforce and human capital with competitive abilities. Education is for the job market. Lifelong learning is a useless and expensive luxury. Re-

²¹⁴ Prisching, *Bildungsideologien*, 113.

²¹⁵ *Ibid.*, 94.

²¹⁶ *Ibid.*, 98.

search by the learner is seen as a stepping stone to and an advertisement for a certain job in the market.²¹⁷

This forces schools, universities and curricula to conform to the dictates of the job market. The market defines the *telos*, the general and specific objectives of education, and the expected learning outcomes.

The model undermines the epistemological relevance of holistic learning, with a radical shift from *homo sapiens* to *homo faber* – from thinking to manufacturing. Productivity, profit, excellence, efficiency and competence become the defining values of education.

This model overemphasises the practical ability of the learner: hence, the “Leonardo da Vinci-world syndrome”,²¹⁸ exaggerating practical disciplines such as engineering, construction, science, research and technological breakthrough and innovation.

It undermines disciplines that do not bring tangible results and profit to the learner. These include the study of fine art, classics, music, cosmology, history, religion, ethics, philosophy, and other branches of the human sciences. Knowledge is useful just as long as it conforms to the job market. What is seen as most important is a good profession, a lucrative income and a high standard of living.

In former days education was focused on truth and immutable values. This model redefines it by the principle of utilitarianism. It is a major source of the “I” society” and “I” culture. Community, values and principles are compromised by excessive individualism.

On the job market, the best CEOs, managers, and directors are determined not by what they are, but by what they produce: huge profits, improved efficiency. Social skills, hobbies, brand of car, iPhone, shoes, iPad, wrist watch, perfume, house, smile, shave, posture, if “cool”, are seen as an added value.

²¹⁷ *Ibid.*, 119-121.

²¹⁸ *Ibid.*, 123.

The certificate-oriented model

This model is focused on the multiplication of certificates, diplomas, and degrees as a testimony to one's academic competence and excellence and a mark of one's acceptability in the job market. It promotes a "show off" culture regardless of actual output in the workplace.²¹⁹

Besides the quantity of certificates, their source and origin is also important: Harvard, Princeton, Yale, Massachusetts Institute of Technology (MIT), Stanford, Berkeley, Chicago, or Oxford, Cambridge, and London. In East Africa, Makerere, Kenyatta, Nairobi, Dar es Salaam.

In some cases the names still have quality and excellence, in others not. But even the best certificates do not guarantee first-class performance. Instances of forged certificates are also not uncommon.

Neither do the best certificates guarantee job opportunities, as shown by the post-2008 global job crisis. There may be an exponential growth of graduates with first-class degrees, but this does not guarantee growth in their quality of life, never mind social transformation. It takes time for these socio-human realities to grow and flourish.

The management model

As Manfred Prisching puts it, the neo-liberal global economy is *par excellence* a manager-oriented economy.²²⁰ Management of education is the driving force of this model. It sees management skills and competencies as the motor and the soul of learning institutions today. Graduates need to become management gurus who can make everything faster, cheaper, more productive, and cost-efficient!

This model risks making knowledge simply a market good. It forces universities to become entrepreneurial universities. Schools, primary and secondary, become entrepreneurial schools. But entrepreneurship is not an absolute value. It cannot marketise all of life.

²¹⁹ Ibid., 144.

²²⁰ Ibid., 153.

In the most neo-liberal and management-oriented societies, generation of more money and profit radically redefines the establishment and the existence of universities. Intellectual truth and reputation resulting from research, consultancy, and publication, service and quality assurance are no longer the core business of the universities. Moneyism becomes the determining factor.

This model discourages personal feelings and abilities in the quest to excel as individual scholars or professionals. The acquisition of managerial skills is group-oriented. Collective abilities and competencies are given priority. An individual graduate, scholar, or professional who lacks the virtues of networking and synergy is seen as useless. Other values such as personal discipline and accountability are irrelevant. Iris Saliterer *et al.* (2011) react strongly against this wrong stance by affirming that the personal factor is an important condition for success in academic research. “Therefore organisational and political goals have to be broken down and linked with the individual level. Both groups of actors (politics and management as well as academic staff) have to accept the results of performance measurement whereas values, attitudes and behaviour of individuals and executives are a major prerequisite.”²²¹

The management model risks overemphasising certain qualifications from new graduates or scholars: presentation of academic papers, foreign experience, two or three doctorates, several research projects, etc.²²² Admittedly, all these provide for academic excellence. Insisting on too-rigid criteria, however, encourages the survival of the fittest and the survival of the fastest and can increase the rate of dropout.

Vision and mission statements centre leadership and performance on values and set quality standards, but do they really do what they say? Having a mission statement is one thing, putting it into practice another.

²²¹ Saliterer, Iris *et al.*, “Intellectual capital steering in universities – realising an external/internal governance fit?” in: Rondo-Brovetto, Paolo/ Saliterer, Iris (eds.), *The University as a Business?* Wiesbaden: VS Verlag, 2011, 104.

²²² Prisching, *Bildungsideologien*, 180f.

“World class”, “world leading”, “centre of excellence”: such phrases risk becoming no more than a decoration on university homepages.

Moreover, the evaluation of universities is becoming highly complex and painful, especially in poor, developing nations like Tanzania.

The Western (classical) model

The Western or classical model of education is monocultural. It tries to homogenise all socio-cultural, epistemological, ontological, economic, existential, historical, environmental, biographical, religious and life views to conform to Western standards. Knowledge is viewed not as what few know, but as what the majority wants to know.²²³

This model gives rise to a dangerous global culture of indifference instead of solidarity and tolerance. Everything sacred, ethical and passionate is considered as primitive, antagonistic and irrelevant. Education is redefined by the dictates of neo-liberal capitalist success and profit-oriented criteria. Learning is no longer seen as value-centred but as an ideology of “bestsellers,” “survival of the fittest,” “winner takes all”.

Research and teaching are subject to too much bureaucracy and hard criteria: “for instance the granting of financial means for research, the acceptance of articles to be published in international top journals, the feedback for PhD papers, the habilitation, successful appointments, invitations to become a visiting professor, renewed awards, acquired scholarships etc...When examining a university’s excellence a number of other factors also play a role, such as teaching didactics, course guidance and supervision, the kind of course of study including selection and admission of students, the recognition of academic credits...”²²⁴

The Western paradigm downplays the role of parables, riddles, beliefs, myths, Christian stories, legends, drama, and practices in human formation and transformation. Against this, Aidan G. Msafiri (2010)

²²³ Prisching, *Bildungsideologien*, 196.

²²⁴ Rondo-Brovetto/ Saliterer (eds.), *The University as a Business?* 34.

strongly reiterates the invaluable role of tradition and Christian values, *ethos* and life views for integral learning.²²⁵

A profoundly all-embracing and holistic education has to do with being human, not just with profit or material wealth. The Western model emphasises moneyism instead of humanism, individualism instead of common welfare, personal alienation instead of personal identity, empiricism instead of values, and utilitarianism instead of accountability. Values such as truthfulness, responsibility, loyalty, care, preservation of life, sustainability, peace, and justice are overwhelmed by the winds of flexibility, adaptability, pleasure, profit, globalisation of opportunity, newness, brands, trending, etc.

The business-oriented model

Higher institutions of learning are non-business institutions. As Dietmar Braeunig says, “the principle of economic equivalence does not apply to them. Leaving aside tuition fees, the (public/private non-profit) owner refunds the costs of lectures and research services.... Students are not customers, but beneficiaries with respect to care-holders.”²²⁶ However, higher institutions of learning today are at risk of turning into market- or profit-oriented entities.

We may thus distinguish two types of university: on the one hand, the university of the mind with its focus on thinking, service, attention, and awareness formation; on the other the university of buying, selling and commoditisation of learning and services.

Paul Kellermann (2007) observes that “moneyism increasingly converts everything, even including human beings, into commodities. Commodities require markets for selling and buying. In order to be able to sell and buy something, it must be produced. The purpose of production is no longer primarily to meet the diversity of human needs but to

²²⁵ Msafiri, Aidan G., *Rediscovering Christian and Traditional Values for Moral Formation*, Nairobi: CUEA, 2010.

²²⁶ Rondo-Brovetto/ Saliterer (eds.), *The University as a Business?* 23.

make money. The function of a hospital is no longer to heal illnesses, but the illnesses of people allow the hospital to become a business.²²⁷

Likewise, a university is no longer considered as a place for young people to acquire knowledge, life skills, formation, research competencies, but rather as a means to make huge profits. It becomes “an object for controlling money input and money output. Knowledge and institution no longer have special purposes in the development and evolution of science; science itself has become an instrument of making money. The nomination of modern society as a knowledge society is, in fact, a misnomer, because more or less everything is oriented towards money. Thus, we should honestly speak of a money society.”²²⁸

6.3 The Christian model of education

A specifically Christian model of higher education should be endowed with unique values, norms, world views, and life views. These do not fall from the skies. They are nurtured and formed. Values have deep transformative, deontological and transcendental dimensions (cf. 2 Cor. 4:18). These mould, orient, refocus, and transform and give deeper meaning and purpose to life endeavours particularly in the learning process. This redefines higher education today.

The point of departure is the Christian view that men and women are made in the image of God (Gen.1.27). This is both a given fact and an ongoing process – a task demanding personal and collective affirmation. The second point is found in the Great Commandment (Matt. 22:37-39). *Agape* or true love is a real compass to guide holistic learning in the storms of secularism and globalisation. Christians are called to edify the world (Matt. 28:19-20).

²²⁷ Kellermann, Paul, “Moneyismus – Der Glaube an Geld als Alltagsreligion”, in: Kellermann, Paul (ed.), *Die Geldgesellschaft und ihr Glaube*, Wiesbaden: VS Verlag für Sozialwissenschaften, 2007, 115-126.

²²⁸ Rondo-Brovetto/ Saliterer (eds.), *The University as a Business?* 114.

The life, teaching attitudes and work of Jesus as key determinants

The life and work of Jesus of Nazareth offers learners, scholars and society healing experiences and hopes (John 10:10) amidst the wounds of secularism. They have a profoundly inspirational impact in transforming secularist education models.

A Christocentric life view reintegrates fundamental values with mainstream academic culture. It denies Western dualism separating religious values from purely economic-oriented views and interests. It amalgamates theory and praxis in a truthful and holistic manner. Hence, as Faith Nguru (2006) argues, the “quality of life of a Christian college experience is higher than any other. Christian educators have an additional motivation to do their work with excellence. Quality may also be enhanced by the emphasis on subjects and teaching deemed by God to be of first importance.”²²⁹ Today in Tanzania one is not surprised to see that students applying for higher education prefer Christian universities such as SAUT, Mwenge, Tumaini, or St John to secular ones.

The role of Christian academics, lecturers and professionals

The Christian world view, *ethos* and faith are an integral part of the learning process. When Christian scholars and teachers act as experts in intellectual, socio-economic, political, technological and environmental transformation, their apostolate is an added value. They really make a difference amidst highly secularist models. They act as the right compass in enhancing academic sustainability, foresight, truthfulness, passion, care, and the preferential option for the poor and disadvantaged. Indeed, Christian universities and higher institutes of learning in Tanzania are seen as spearheading this goal.

²²⁹ Nguru, Faith, “What can Christian Higher Education Do to Promote Educational Wellbeing in Africa?” in: Kuria, Mike (ed.), *Integrating Faith and Learning. Interdisciplinary Perspectives*, Daystar University, Nairobi, 2006, 30.

Christian ethics as a motivating principle for “future fitness”

Christian ethics integrates the horizontal and vertical dimensions of human existence and destiny, acting as a higher motivating principle for learner and facilitator alike. The entire corpus and tradition of Christian ethics provide immense resources and criteria in the quest to rediscover more humane, pro-active and holistic higher education models and values. It gives a far deeper meaning and value beyond today’s secularist money-centred culture. It promotes a true Christian avant-garde.

Christian higher education tries to foster an all-embracing higher education model and life view. It encourages integration instead of fragmentation, cooperation instead of cut-throat competition, holism instead of dualism, and inclusivity against exclusivity. It engages and radically transforms the whole person: soul, mind, body and conscience.

The Christian education model is characterised by service-oriented character-building, problem-based learning, collaboration, nobility, integrity, accountability, purity, love, excellence, hope, affirmation, truthfulness, transcendentalism and the power of example.

Responsible Christian leadership as prophetic call and witness

Christian leadership necessarily involves the courage to witness in a prophetic and missionary way: see among other Biblical passages Is. 43:1-4 and John 1:12. It needs to be the engine of total liberation and transformation, giving new hope, direction, and example. Academic leadership is more likely to be exercised and academic excellence realised in a Christian institute of higher learning than in a secular one.

Unlike secular and profit-oriented higher education models, which focus mostly on facts, figures and financial gain, the Christian model is centred on personal dignity, reality, and goals for each and every person. It harmonises all academic, financial, humanitarian, social, ethical and professional values in promoting role models and well-being, educational leadership, witness and excellence.

Pope John Paul II argued in the apostolic constitution *Ex Corde Ecclesiae* (1990) that the prophetic role of a Catholic university is “to assure in an institutional manner a Christian presence in the university world confronting the great problems of society and culture”. Its essential characteristics include “a Christian inspiration not only of individual but of the university community as such”, “fidelity to the Christian message as it comes to us through the church”, and “an institutional commitment to service of the people of God and the human family in their pilgrimage to the transcendent goal which gives meaning to life”.²³⁰

6.4 Rediscovering the Soul of a Christian University

Today, it remains urgent and imperative to rediscover the soul of a truly Christian university as an alternative to the secular trends and models discussed above. A soul is the form of a living being. It reveals itself in diverse ways. Let us identify how this plays out in St Augustine University of Tanzania (SAUT).

The SAUT vision and mission as the soul of its existence

SAUT’s vision is not only to “impart academic and professional skills”, but also to “inculcate fundamental values of civic and social learning and ethics, such as acquisition of national identity, cultural norms, political growth and responsible citizenship”. Thus its vision is “the holistic development of a person and respect for human dignity”.²³¹

SAUT strives to be “a centre of excellence by providing a high quality of education, research and public service; promoting the pursuit and defence of truth with transparency and honesty, and service with competence and dedication; developing a sense of caring for personal and community property.” It aims at “a holistic development of the person

²³⁰ John Paul II, apostolic constitution *Ex Corde Ecclesiae*, 1990, n. 13.

²³¹ St Augustine University of Tanzania, Prospectus 2010-2011, Mwanza: Inland, 2010, 2.

by providing sound knowledge, higher analytical ability and commitment to generous service and respect for humankind.”²³²

Briefly, the SAUT vision and mission affirm both the horizontal and the vertical goals necessary in higher education. The transcendent aspect differentiates SAUT from its secular counterparts.

Social ethics as a mentoring soul

SAUT offers social ethics to all its students. This discipline emphasises not only the informative aspects but even more the formative and transformative dimensions of learning. It inculcates fundamental human values such as dignity, respect, nobility, unity, commitment, truthfulness, transparency, preservation of life, justice, peace, agape, sustainability, trust, solidarity and forgiveness. This galvanises theory and action, profession and commitment, in the holistic formation of learners in responding to the growing ethical crises and challenges nationally and globally. Social ethics at SAUT is an added value, edifying other secular disciplines and inspiring them with a profound Christian and human *ethos*. It is no coincidence that most employers nowadays prefer graduates with an ethical formation.

In addition, SAUT offers courses in business ethics, environmental ethics, media ethics, and legal ethics. Other subjects include an introduction to critical thinking, philosophy, and comparative religion. These courses aim at critical, creative, clear reasoning, high academic and moral integrity, and global solidarity and tolerance.

Campus ministry and chaplaincy as a pastoral and ecclesial soul

Beside the standard functions of teaching, research, publication, consultancy, outreach and development, SAUT offers pastoral services to Christian and non-Christian learners. These include daily celebration of the Mass and ecumenical prayers before lectures. For Catholic students,

²³² Ibid., 2-3.

there is administration of the sacrament of reconciliation, sometimes also the sacraments of baptism and marriage, and even ordination to the diaconate and priesthood. As a Christian university, SAUT pursues its goal to mould society by the very spirit of Christ.

To promote a truly Christian community culture and spirit, the chaplaincy department encourages “small Christian communities”. These re-incarnate the values of togetherness, sharing and love exemplified in the early Christian community (Acts 4:32). Other avenues for Christian formation include alumni movements such as TYCS, CPT, and the Legion of Mary.

The aim is not to proselytise – to make all students Catholic – but to provide for believers in other faith traditions to mature religiously, emotionally, communally, spiritually. The Christian world and life view and *ethos* should inspire an Anglican to become a better Anglican, a Jehovah’s Witness a better witness of Jehovah, a Moslem a better Moslem, a traditionalist a better traditionalist. The goal is to foster unity in diversity, complementarity, reciprocity, and interdependence.

Academic excellence as the intellectual soul

As a comprehensive organ of higher education (*universitas litterarum*), SAUT strives to be a real centre of excellence and entrepreneurship and become a world-class university. Truly, this is not easy. It depends on the profile and core competencies of the university; admission of quality students and recruitment of quality lecturers for all disciplines, departments, faculties, centres, and schools; infrastructure; and organisational structures.²³³

As Peter Eichhorn (2011) writes, the “success of research and teaching is subject to different parameters. Hard factors are, for instance, the granting for financial means for research, the acceptance of articles to be published in the international top journals, the feedback for PhD pa-

²³³ Eichhorn, Peter, “Determinants for University Excellence”, in: Rondo-Brovetto/ Salilter (eds.), *The University as a Business?* 34.

pers... successful appointments, invitation to become a visiting professor, renowned awards, acquired scholarships etc.²³⁴

In all its constituent colleges, SAUT has created centres or departments of quality assurance. Adopting rigorous quality assurance mechanisms has enhanced SAUT's reputation not only among Tanzanians universities, but also internationally. The evidence shows that companies and firms, banks, media houses, schools, and NGOs are happy to employ huge numbers of SAUT alumni.

SAUT tries to spearhead academic excellence in learning, research, publication, and service through quantitative, but even more through systemic qualitative growth. In the search to realise true quality in admission, recruiting and marketability in conjunction with its vision and mission, SAUT reflects annually on such issues as: What type of learners do we enrol this year? Do we have enough quality facilitators? What are the current and future needs? Which pedagogical methodologies need to be adopted? What are the aims and expected learning outcomes of every course or discipline? What are the strengths, weaknesses, opportunities and threats? How is SAUT's strategic plan reflected in the entire learning process?

SAUT has created resource centres for human rights and environmental challenges. I myself have been giving consultative services in Tanzania and Kenya on climate change and adaptation, as well as business ethics. In Mtwara College, there are efforts to establish a centre for applied and professional ethics.

The scope of SAUT's activities is being widened to be an outreach programme in schools, institutions, and civil community in Mtwara Municipal and beyond. This academic but service-oriented outreach programme addresses diverse socio-environmental ethical, economic, political and sociological challenges and threats today, making SAUT a real problem-solving and future-oriented academic institution.

²³⁴ Ibid.

Extra-curricular activities as emotional and formative soul

Mens sana in corpora sano (a healthy mind in a healthy body) is an old Latin tag SAUT has always taken seriously. On all its campuses, the SAUT sports culture is supported and encouraged. This includes football, netball, basketball, and athletics. Mwanza campus, for instance, has the inter-faculty Father Walters Sports Competition. In Mwara college, the inter-class Bishop Gabriel Sports Competition for Recreation and Ethics and the Inter College Pro-Life Competitions are becoming famous.

Sport has physical, mental, cultural, and social benefits. It promotes cooperation, mutual appreciation and tolerance, discipline, and good health. Sports competitions and activities are second only to the annual graduation ceremonies in bringing learners and facilitators, friends and neighbours together being. SAUT has a deep passion and soul to rediscover the formative family and communitarian values of sport and recreational activities. Together with the SAUT Community Day these events transcend the individualism characteristic many graduates and elites, locally and globally.

Extra-curricular activities add value to SAUT, rounding out the life of a university that goes intellectualism, professionalism, and profit.

6.5 Conclusion

The search for a holistic Christian model of higher learning imbued with excellence remains an urgent imperative. Admittedly, this is not an easy or one-day task. It is a highly complex process.

First, a credible Christian model of higher education needs to synergise the core values in the Christian message with the strengths of secular models. A modern Christian university needs to demonstrate its Christian faith and values concretely in its day-to-day activities.

Second, a Christian university must constantly re-evaluate its vision, mission and strategic plan to keep abreast of local and global challenges

without compromising its core values. Its degrees and professional products need to go beyond the value-for-money syndrome.

Third, as socio-political, economic and cultural critique, a Christian university has to avoid the commercialisation of knowledge, research, academic life, and professionalism. Of course, it needs recruitment and proper management of its human and financial resources. It needs to be independent and self-funding to maximise the quality and quantity of its teaching, research, training, consultancy and community services.

Fourth, a Christian model of higher education needs to heal the cancer common among scholars, graduates and professionals of failing to bridge the gap between theory and praxis, pure knowledge and action. As former President Julius K. Nyerere says: “I believe that the pure learning can be a luxury in society: whether it is or not, depends upon the conditions in the society lives...When people are dying because existing knowledge is not applied, when the very basic social and public services are not available to all members of a society, then that society is misusing its resources if it pursues pure learning for its own sake”.²³⁵

The Tanzania statesman goes on to say that we “must not establish in our new young countries institutions of higher learning which simply receive. They must give as well...And it is my conviction that universities in countries like Tanzania have other urgent tasks to fulfil which test their resources—human and material to the utmost. I do not believe that they can at this stage pursue research and knowledge for its own...”.²³⁶

Fourth, Christian higher education is not only an avenue for new worldly knowledge and innovation but a place to rediscover eternal Christian truths, values, attitudes, and lifestyles (Matt. 22:37-39). A truly Christian model of higher learning must share in the re-evangelisation of the secularist world. “The primary mission of the church is to preach the gospel in such a way that a relationship between

²³⁵ Nyerere, Julius K., *Nyerere On Education*, Vol. II, Dar es Salaam: Oxford University Press, 2005, 27.

²³⁶ *Ibid.*, 28.

faith and life is established in each individual and in the socio-cultural context in which individuals live and act and communicate with one another. ‘Evangelisation means bringing the good news into all strata of humanity and through its influence transforming humanity from within and making it new...’²³⁷

Sixth, holistic education is a wonderful mosaic: experiential, scientific, duty based (deontological), value based, problem solving, hope giving, future oriented (teleological), empowering, inspiring, mentoring, character building and cooperative. It is inclusive, proactive, preventive, supportive, human oriented, and communitarian. It is encountering the other. It is learning to unlearn. It is thinking globally and acting locally. It is affirmative, creative and transformative, promoting well-being, and “building the city of God” as in SAUT’s motto.

Finally, a Christian model of higher learning must be reformative, avoiding the manipulative cultures and ideologies transmitted by destructive music, pornography, media giants, advertisement companies, materialistic and profit-oriented gurus, anti-Christian movements, etc.

Marguerite A. Peeters (2007) affirms that the “new values of education are now good citizenship, exercising one’s rights, quality of life, protection from diseases such as HIV/AIDS, respect for the future generations, individual autonomy, tolerance, social inclusion, good governance, living together (peace education), the celebration of diversity and multiculturalism, free choice of one’s opinions, social role and identity and sustainable development.”²³⁸ A Christian model of higher education in Tanzania needs to be truly holistic. It must go beyond secularist, globalised, individualistic and functionalist models and life views. The process is far from being realised. Nonetheless it is worth pursuing now.

²³⁷ John Paul II, *Ex Corde Ecclesiae*, n. 48, citing Paul VI, apostolic exhortation *Evangelii Nuntiandi*, nn. 18ff.

²³⁸ Peeters, Margarite A., *The Globalisation of the Western Cultural Revolution*. Institute for Intercultural Dialogue Dynamics, 2007, 159.

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Dr. Aidan G. Msafiri is Senior Lecturer and Head of the Philosophy and Ethics Department, St Augustine University of Tanzania, and serves on the Advisory Board of Globethics.net East Africa. He is the author of *Towards a Credible Environmental Ethics for Africa* (2007) and *Globalisation of Concern I* (2008), to which this volume is a sequel. He publishes regularly in national and international journals. His latest book is *Rediscovering Christian and Traditional Values For Moral Formation* (2010).