

Chapter 7

The Rise of Telcos and Africa's Knowledge Society: What Have Telchambs¹ Got to Do With It?

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ABSTRACT

The growing penetration of mobile telephony in Africa reflects arguably the continent's increasing embeddedness into the concourses of the rapidly evolving global high technology environment. The mobile telephony sphere in Africa therefore holds the greatest potential for connecting people, government, business, and the third sector in the ways contemplated by the idea of societies in which knowledge creation, manipulation, storage, and transmission is central for growth and development. It should be clear then that the sophistication of mobile telephony policy takes on a peculiar salience for Africa's high technological leap in the coming decades. This chapter argues that the recent emergence of telecommunication chambers in African countries must be seen as a key loop in crafting mobile telephony policies that respond deftly to current developmental challenges and positions Africa for the future. Focusing on existing African telchambs, the chapter surveys their emergence, analyzes the empirics of their interface with policymakers, and provides directions for the future.

INTRODUCTION

The emergence and current ubiquity of mobile telecommunications worldwide must be located within the wide arc of humanity's long and arduous technological strivings. In evolutionary man's² wanderings from his original African home the technological reflex is reflected in the various objects and contraptions wrought in response to

existential challenges to guarantee survival. In Africa's classical antiquity the Egyptian Pyramids³ expressed in that era the apogee of humanity's sapienization directed at solving spatial problems . Here the Promethean Myth comes to mind regarding the ways in which understanding and responding to natural phenomena has captivated the fascination of human beings. In the twentieth century the United States became the beehive of

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technological breakthroughs that would impact the world in profound ways. The Atomic Age had laid the foundations for this given the centrality of the science of electronics in shaping this era of bits⁴ and bytes⁵. The biography of Steve Jobs (Isaacson, 2011) chronicles the facilitating ecology of companies, investments, labs, counter-culture, architecture, universities, high schools, serendipity and talent out of which ICTs grew. It was through a research project (part of America's defense system) that the first part of the tripod that constitutes the entire ICT infrastructure was fabricated. The first part of this tripod was the construction of the open network architecture which was an offshoot of the work of the Advanced Research Project Agency (ARPA) which was mandated to secure communications between the US government and the military in case a nuclear war broke out. APRANET sought to ensure that boffins working on ARPA matters could tap into the processing power of the different computers under use. Initially a closed network computers outside the system notably those of research centers at UCLA, Stanford, UC at Santa Barbara and the University of Utah were added and thus was born the Internet. The Internet allowed digitized information to be transmitted (based on specific protocols) using packets rather than circuits (which analog phones depended on). With this technological breakthrough the next frontiers involved building the infrastructure that would allow more computers to be linked to each other and the emergence of interested players who would maintain, extend and provide content for the technology. It is within this mix that mobile telephony has to be situated.

The mobile telecommunications sector is made up of an ensemble of hand set manufacturers and service providers (telephony, media, broadcast and software applications). In step with pushing the high technology barrier further mobile telecommunications has evolved from generations

1G (analog) through 3G⁶ to 4G⁷. In this generational iterations the central focus has been to enable the mobile phone to process, manage and store larger quanta of data and to transmit same at increasingly higher speeds. Today the mobile phone has essentially morphed into the smart phone with sharper graphics, larger storage capacity, Web browsing functionality and a scintillating range of applications. Latest figures underscore the pervasive presence of mobile phones in every corner of the globe. The International Telecommunication Union (ITU) as of February 2013 reports that there were an estimated 6.8 billion mobile subscriptions equivalent to some 96% of the world's population. The data for 2011 (6.0 billion) and 2010 (5.4 billion) provide further comparative perspective in the startling growth of mobile telephony.⁸ Wireless Intelligence reports that globally for the first quarter of 2013 mobile broadband connections stood at 1.6 billion. The numbers in terms of market value are staggering as "the total global mobile phone and smartphone market is expected to be worth \$341.4 billion by 2015 while smartphone revenue will account for 75.8% of the overall mobile handset revenue at \$258.9 billion in the same year" (marketsandmarkets.com, 2011)⁹. The data (to which we turn in the next section) also shows that the future of mobile telephony lies in Africa, the Middle East and Asia Pacific. Vital questions are implicated in the data notably the potential social and economic possibilities that can be opened up for Africa's rapid transformation. The sophistication of mobile telephony policy therefore becomes critical for Africa's high technological leap in the coming decades. This chapter will argue that the recent emergence of telecommunication chambers in African countries must be seen as a key loop in crafting mobile telephony policies that respond deftly to current developmental challenges and positions Africa for the future. Focusing on a select collection of African telchamps the chapter

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