CYBER AND CELLULAR CULTURES IN THE GAMBIA: SOCIO-SPATIAL PERSPECTIVES ON GLOBALISATION, DEVELOPMENT AND THE DIGITAL DIVIDE

BY

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Abstract

The emergence of new information and communication technologies has generated much debate both in and out of academia in relation to theories ranging from economic advancement to imperialism. In the context of the Majority World (low-income countries), three dominant discourses associated with Information and Communication Technologies (ICTs) persist. The first is globalisation, as these nations open their regulatory gateways in order to engage with the global market in search of socio-economic advancement. Second, is the discourse of development, where it is predicted that nations which have joined the global market will use ICTs to harness global knowledge that shall enable them to be competitive and therefore attain development. Third, is the discourse of the digital divide which spans across the globe in the context of the North–South divide, and among nations and communities due to what has been described as the divide between information 'haves' and 'have nots' enabled by ICTs. A problematic issue is that so far analysis of these three discourses has tended to be economically or technically deterministic. In addition, whilst all three discourses have been independently and exhaustively researched, there are currently no known literatures that have researched the discourses of globalisation, development and the digital divide interdependently. In order to understand how these three discourses are interlinked according to the norms, practices and politics of people in particular communities in the South, a combination of policy analysis and over 1000 questionnaires were analysed from five geographical locations in The Gambia.

Three key conclusions have emerged from the research. First, there are diverse cyber and cellular cultures experienced by people in each location, as a result of their different information priorities. This diversity illustrates that there are different forms of information and knowledge acquisition and appropriation from global sources, a finding that directly challenges theories of cultural globalisation such as universalism. Second, there are different attitudes towards the ICTs in the different locations, which vary from cultural acceptance to rejection of ICTs, and this diversity is underpinned by the secularism of the people's information ecology. This result challenges the ICT4D agenda, and can directly be applied to reports of unsustainable ICT initiatives in especially Africa. Third, traditional inequities, such as between genders, are being reinforced and re-created in smaller divides by ICT implementation. As a consequence, in the translation of policy into practice, the role of culture cannot be overlooked as a contributing factor to the vicious cycle of the digital divide.

Keywords: globalisation, ICT-for-development, ICT4D, digital divide, cyber culture, cellular culture, ICTs, low-income countries, Africa, The Gambia.

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GLOSSARY

DFID: Department for International Development. UK

G8- DOT Force: G8 Digital Opportunity Task Force

ICT: Information and Communication Technology

ICT4D: Information and Communication Technology for Development

IDA: International Development Agency

IMF: International Monetary Fund

ISP: Internet Service Provider

ITU: International Telecommunication Union

MDGs: Millennium Development Goals

NGO: Non-Governmental Organisation

NICI: National information and Communication Infrastructure

PC: Personal Computer

POP: Points of Presence

SSA: Sub-Sahara Africa

UN: United Nations

UNDP: United Nations Development Programme

UNICT: United Nations Information and Communication Technology Task Force

WDIs: World Development Indicators

WSIS: World Summit on Information Society

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1. INTRODUCTION

New Information and Communication Technologies (ICTs) have been immersed in such extreme 'hypes' that debating them in 'real' terms can be problematic as it seems less colourful. ICTs appear to be firmly accepted by governments and ruling bodies as instruments of advancement both in the Global North and South. In particular, the hype that countries in the Global South – who are mostly considered low-income economies[1] - would be able to turn their economic misfortunes around and leapfrog to 'developed' status has led to overly energised ICT-for-Development (ICTD) led policies and initiatives endorsed by global funding bodies ranging from bi-lateral to multi-lateral agencies.

Whilst literatures on how to achieve speedy 'development' in order to have a voice in the global market is excellent, it is also very important to acknowledge that empirical literature on the role of social and cultural values in the ICT agenda is as equally significant in presenting a holistic picture. To date, however, debates on globalisation, development and the digital divide in the context of new technologies have focused more on socio-economic and technical issues than spatial, cultural and social issues. Furthermore, there seems to be a general assumption that the introduction of ICTs into civil society automatically establishes an ICT culture. Little consideration is given to the fact that for these predicted 'impacts' to take place, first there needs to be an ICT culture (such as a cyber culture from Internet use or a cellular culture from cell phone use[2]). In other words, it is all very well to introduce new technologies to countries of the Global South. However, if existing local cultures form a resistance to such changes, there will be an insignificant ICT culture and none of these significant impacts predicted in the context of globalisation, development and the digital divide.

Whilst for local and national governments and their sponsors a key aim is to create new policies and re-align old ones in order to generate access to ICTs for their

[1] Economies are divided according to 2007 GNI per capita, calculated using the World Bank Atlas method. The groups are: low income, $935 or less; lower middle income, $936 - $3,705; upper middle income, $3,706 - $11,455; and high income, $11,456 or more. Low-income and middle-income economies are sometimes referred to as developing economies. **Source:** http://go.worldbank.org/K2CKM78CC0

[2] see Appendix 4 for a detailed definition of cyber and cellular cultures

peoples, there are other factors that should not be excluded from the ICT adoption process. Although economic factors are usually considered in the translation of policies into practice, there are huge assumptions made in the socio-spatial context. These include assumptions about how norms, beliefs, practices, and protocols play a part in how the ICTs are engaged with in the communities to which they are introduced; how these factors help or hinder human processes in the engagement with the ICTs; how much they underpin how people in a community use ICTs to support their information ecologies (information and communication needs, priorities and structures) in order to establish cyber and cellular cultures.

My thesis' contribution to the literature is to show that due to some of these assumptions made in translating policy into practice:

- There are subtle differences in how ICTs are diffused in the communities of use in the context of access, use and perceived importance; and
- That differences between the communities of use reflect distinctive occupational groups, and gender and age also play a significant part;
- That the differences in access, use and perceived importance by the various occupational groups is guided by a cultural code (i.e. norms, practices and protocols), which is in turn informed by the moral symbols of religion; and
- That the cultural code has enabled a hierarchy of power relations that determines the type of *information and communicative structure* of each community of use, the subsequent *different priorities and information needs* of people in the different locations, and, how people use ICT to serve their information needs and priorities. This I describe as the formation of information ecologies.

I discuss the implications of these information ecologies in the context of:

- Globalisation – how different priorities based on the information needs and networks of people in particular locations have enabled the prioritisation of *diverse cyber and cellular culture* activities, and therefore *different experiences of globalisation* in relation to cultural globalisation theories.

- Development – how different attitudes towards the ICTs (in different information ecologies) have resulted in *diverse levels of acceptance of ICTs* and their integration into the ecologies in relation ICT-for-development initiatives.

- Digital divide - how policy together with other socio-spatial factors are re-enforcing existing social inequities as well as creating *smaller divides.* This has become a vicious cycle of exclusion.

The rest of the thesis is organised as follows:

Chapter 2: This is a critical review of the literature. It begins by highlighting the problematic descriptors of the 'new era', and describes how these descriptors focus on the economic or technological objects as the driving force, and have fundamentally excluded other crucial factors such as civil society and culture which may also be influential factors of the 'new era'. The review then focuses on the actual technologies that have underpinned the new society in the context of the socio-spatial debates associated with them. It then highlights the key concepts that have emerged from the socio-spatial debates of the technologies, and critically describes these concepts in the context of new ICTs and the new society by highlighting both theoretical and empirical gaps in the current literature. Using this as a foundation, the rationale, aim and case study design of the research are formulated.

Chapter 3: This is a comprehensive discussion of the research design and methodology. It introduces the methods used by firstly discussing the discourse analysis and how the findings of the discourse analysis together with informal observations made within the communities of practice informed the principal research method: questionnaires with free-text options. The final part of this chapter describes how this method was used to collect and analyse data, and the challenges that occurred both from the research and the researcher's positionality.

Chapter 4: This chapter puts into context socio-spatial factors on which the research is based. It starts by describing the case study (The Gambia) including its geography, its people in the context of society and religion, and its ICT history. This is followed

by a list of current ICT policies and projects in The Gambia, and a content and discursive analysis of current ICT-related policies here. The findings and conclusions of the discourse analysis are discussed in the context of policy and demographical, age and gender factors. I then discuss ICTs in the context of these factors, introduce the concept of information ecologies and then present my overall findings from the statistical analysis of the questionnaires.

Chapters 5-9: These comprise short chapters describing the analysis and findings of each location studied in the context of: the demography that forms the location; embeddedness (i.e. access, usage and perceived importance) of ICTs in each location; peoples' association with ICTs in the context of cyber and cellular cultures and the role they play in their daily lives; and an exploration of attitudes towards new ICTs and their cultures from the perspectives of key groups such as gender and age. Patterns and trends from these findings are discussed as themes in Chapter 9.

Chapter 10: This involves a contemporary discussion that pulls out the key themes, trends and patterns in the analysis and findings of the diverse locations studied, in order to answer the research questions.

Chapter 11: The concluding chapter uses the key themes in the discussion to relate to and answer the overall research aim.

1.1 WHAT ATTRACTED ME TO DO A PHD IN THIS SUBJECT

I have been working in and studying Information Technology (IT) and Information and Communication Technologies (ICTs) for the past 13 years. Whilst I started my career as a software programmer (working for Indygo New Media Ltd. in Chelsea, London), my interest was always in the end-user interaction of informatics. This includes how different characteristics of people enable them to interact uniquely with technology. In some disciplines, this is called Human- Computer Interaction (HCI). Whilst in the early stages, my interest was in the computing aspect of HCI, after my first degree in Information Management and Computing (as a mature student), my

focus shifted to the human aspect, due to a module that particularly inspired my interest – Information Work in Developing countries.

In order to explore this more, I had an opportunity to work in Uganda as a researcher consultant working on operational strategies for internally displaced peoples. After this work, my interest in this type of work was firmly established so I enrolled on a Master's course in Global Transformations. I wanted to do a PhD in this subject so as to explore the human aspect of HCI informatics in the context of development in order to further my career in development informatics. Doing it within the discipline of Geography has been a bonus as it has enabled me to combine technology, human, social and spatial dimensions of my interest from one disciplinary perspective. Nowadays, peers from conferences and seminars in the ICT and development field view me as cultural and development informatics expert on communities of practice.

2. TECHNOLOGIES AND THE 'NEW ERA': LANGUAGE, DEBATES AND CONCEPTS

2.1 INTRODUCTION: WELCOME TO THE 'NEW ERA'

In his foreword in Leer (2000), Tony Blair made the following statement:

> "The world's economy is undergoing a process of change as fundamental as the shift from agrarian to industrial production: the emergence of the knowledge driven economy, the digital economy.
>
> ...That revolution is being fuelled by three key drivers. First, the explosion of scientific and technical knowledge. Second, the success of the international community in opening up the global market, allowing knowledge to flow freely across borders. Third, the ability, through modern technologies, to codify that knowledge in a common digital language that can be manipulated, accessed and communicated at high speed.....the digital revolution will transform the way we live and work...the digital revolution is a global phenomenon" (Blair, 2000 pp. viii-ix).

In a similar mindset, Castells has argued the following:

> "Toward the end of the second millennium of the Christian era several events of historical significance transformed the social landscape of human life. A technological revolution, centred around information technologies, began to reshape, at accelerated pace, the material basis of society.
>
> ...Economies throughout the world have become globally interdependent, introducing a new form of relation between economy, state, and society in a system of variable geometry.....Social changes are as dramatic as the technological and economic processes of transformation...Bewildered by the scale and scope of historical change..., Prophets of technology preach the new age, extrapolating to social trends and organization the barely understood logic of computers and DNA

> .... And I propose that all major trends of change constituting our new, confusing world are related, and that we can make sense of their interrelationship...To take some first steps in this direction: we must treat technology seriously, using it as the point of departure of this inquiry" (Castells, 2000 pp. 1-4)

These excerpts demonstrate that, from diverging perspectives such as non-academic to academic, political to non-political, and from economic to social perspectives, there is an agreement on two issues: a) that we are in a new era, age or society; and b) that technologies are critical factors involved in the new society. However, it is also apparent from these excerpts that there is not an agreement on what to call the new era. Whilst Blair describes the new 'age' from an economic point of view, Castells contends that there may be lots of interrelated factors which need to be understood.

In addition, whilst it is apparent that the 'new era' is generally acknowledged and that, there is an agreement that new technologies have played a significant part in its establishment, it is not exactly clear which of the new ICTs are the 'propellers' of the new era. Moreover, whilst the new society has been discussed under various topics, a majority of socio-spatial debates tends to be either firmly in a positive (utopian) camp or negative (dystopian) camp. Broad theories under which new technologies and the new era are discussed tended to be economically driven. Those theories which can be organised under socio-spatial orientation are sometimes without empirical backing.

To enable these points to be discussed in detail, in the following sections, I discuss the problematic descriptors used to describe the 'new era' from the disciplines they usually originate from and explore how these exclude other disciplinary perspectives which might usefully inform our understanding of the new era. I shall then discuss the actual technologies that are supposedly debated to matter in the new society, and the special features and functions that set them apart from other technologies and enable them to be viewed as 'new era' technologies: this is done by critically drawing on the current literatures that engages with the social, spatial and cultural debates of these technologies in the new society. Following this, I discuss the key concepts that are associated with new technologies and the new society in socio-spatial debates and

highlight the empirical gaps within some of these debates that are missing but are crucial for contributing to holistic perspectives on ICTs and the new society.

2.2 INFORMATION OR DIGITAL SOCIETY?: DESCRIBING THE NEW SOCIETY

The subject of technology and its relationship with societal processes in political, cultural, economic and social aspects, diverging perspectives on it, and forecasts of its impact have been documented extensively in their respective disciplines. An earlier definition of technology by Bell (1973, p. xii) views it as a "rational ordering of means-end relations, a rationalization of work and even of sectors of life". In the so-called previous (industrial) society and the now 'post-industrial' society, technology has been documented as profoundly significant in either shaping or being shaped in every day logics of life. The recent shift from industrial technologies to increased use of new and still evolving information and communications technologies (ICTs) to drive nations' economies has inspired and re-emphasized a new focus on the subject of technology (Toffler, 1980; Rheingold, 1991, 1994; Negroponte, 1995; Kitchin 1998).

It has been debated that, whilst the industrial society focus on technology was to use it in order to harness energy for heavy machinery purposes in order to capitalise on mass production, in the 'post-industrial' economy, society is argued to primarily rely on 'intellectual technology' in the form of communication software and applications in order to create new knowledge and exploit old ones (Webster, 2004 p.1). One fundamental problem with this shift – one that has not been addressed sufficiently – is the use of phrases to describe the new ICT enabled society. Usually biased towards the discipline in which it was concocted, phrases used to describe this shift generally vary from 'electronic or digital age' (from the technological disciplines) to information or knowledge society (from the information oriented disciplines) whilst social and cultural disciplines tended to focus on the humanistic and community aspects such as 'global village' or 'fluid society'.

Many authors who use these descriptors regardless of which discipline in which they were concocted, dedicate very little attention to the challenges and the problematic meanings they might pose, and as Toffler (1980, p.23) stated, "...none of these terms including my own [super-industrial society] is adequate". The most commonly used phrases found in most academic and popular literature and government policies include 'information or knowledge society, 'information revolution/superhighway', 'digital society/age', 'knowledge society' and 'post-industrial society' all of which are either economically or technologically oriented and therefore view the new society from a one-dimensional perspective. Although some of these terms are used interchangeably and could be construed to have the same meaning, there are slight variations in their conceptual basis.

The Information society and the information revolution – The 'information society', which has until recently taken popular precedence over the other descriptors in recent literature, typically depicts a society's dependence on organised information, where the information and access to it determines societies' survival in the world's economy. According to Naisbitt (1984, p.24), "uncontrolled and unorganised information is no longer a resource in an information society". Van Winden (2001) defines it [Information Society] as economic, social and institutional changes that are driven and/or strongly supported by the revolutionary innovation in information and communications technology, and its widespread adoption by companies and citizens.

In the information society, it has been argued, demand for physical goods is replaced by the demand for information services. In Gore's (2000, p.7) 'Information Superhighway' for example, he predicted that, "new information and communication technologies will have a dramatic impact on the way we work, learn, live and interact with each other" and Fjørtoft, (1999 p.402) argues that the new 'poor' will be the information 'have-nots'). Information technologies will be used to re-invent politics, the economy and civil society so that social and class mobility will be independent of social origin and inheritance and be dependent on access to opportunities and social networks (Castells, 2001; Bell, 1973).

Indeed, these visions have recently been illustrated by politicians (such as US presidential candidate Senator Obama and UK opposition leader David Cameron) using the web and other electronic resources to drum-up political support. Also, 'placeless' online businesses have been shown to thrive and become serious part of economies. However, whilst the popular term 'information society' emphasises the significance of information and acknowledges the part technology plays in the society, it also generally assumes that previous 'societies' did not place as much importance on information as they construct face-to-face information networks. It overlooks the fact that societies may have always highly valued information and in addition, critically ignores the ambivalence of the word 'information', as what might be construed as information by an individual could be useless data for another.

The Knowledge society and the Digital society - With statements such as "we are drowning in information but starved for knowledge" (Naisbitt, 1984 p.24), the concept of the 'Knowledge Society' is derived from the exploitation of both tacit and explicit forms of knowledge for the creation of new knowledge that can be used in institutions and orgaisations alike (Megil, 2004; Krogh et al, 2000; Lesser et al, 2000; Nonaka & Takeuchi, 1995). The basis of the knowledge society concept is that, although knowledge may be largely intangible, it has a value which can be exploited for economic benefits. Bell (1973, p.xvii) explores the knowledge economy as a concept more focused on "knowledge theory of value" than "labour theory of value". This is an ideology which is more evident in institutions where high values are placed on human or intellectual capital[3] as equal to financial capital. In the knowledge society, a great emphasis therefore is placed on the knowledge of humans as just as valuable (if not more) than financial assets, since their ability to create knowledge can be exploited for greater value.

The 'knowledge society' concept on one level feeds into that of the 'digital society'; which is derived from the distribution of harnessed knowledge through digitised conventional ICT channels and electronic media such as television, radio and video channels, as well as new channels such as the Internet and portable electronic devices

[3] Human capital is the idea that, unharnessed knowledge could be harnessed from individuals as capital while intellectual capital consists of human tacit knowledge and other forms of explicit knowledge such as neglected or archived reports, ideas and documents. See Nonaka and Takeuchi (1995).

(Poster, 1995; Negroponte, 1995; Fjørtoft, 1999). Feldman (1997, p.1) describes the 'digital revolution' as "being forged by an accelerating move from a world familiar with analogue media to a world that will be increasingly dominated by digital media". Cheaper access and increased functionality symbolises increased mass access and therefore increased exploitation of digital media (Poster, 1995, p.18).

Through hybrid or multi-media systems there is increased interaction with other people, shared remote games or Internet access through television sets; while satellite communication technology has enabled universal distribution of information and knowledge including remote places which were previously inaccessible (Brunn & Leinbach, 1991 p.xvii). The aim, therefore, in the 'digital revolution' is, as Blair intoned, to exploit and distribute knowledge.

> "In the next century, the source of sustainable competitiveness will be the ability to create, disseminate and rapidly exploit knowledge" (Blair, 2000 p.Viii).

In Bauman's (1998, 2000) observations, the fact that new information and knowledge-based professional firms are cropping up everywhere to take advantage of the global reach of their services and are replacing conventional 'goods' businesses is a sign of liquid modernity where society is transforming from a solid into a liquid or fluid state.[4]

Both the concept of 'knowledge society' and 'digital society' are problematic in that whilst knowledge society brings in a humanistic and intangible factor by focusing on harnessing and exploiting knowledge, it disregards the involvement of technology by placing the "emphasis on 'information management' rather than 'information technology' (Feeny, 1999 p.180). Meanwhile, the concept of 'digital society' on the other hand strongly focuses its emphasis on technology and not its usability or effect on society. The 'digital revolution' concept also poses challenges to and disregards materials that cannot be digitized, such as food and drink, and since such material substances cannot currently be turned into 'bits and atoms' and transported through

[4] This debate is detailed later (in the globalisation section 2.4) in this thesis.

fibre optic cables (Negroponte, 1995 pp.1-2) one could argue that the 'digital revolution' concept cannot fully describe society yet.

The Network society: Castells (2001, p.62) contends that "the speed of transformation of the Internet has made it difficult for scholarly research to follow the pace of change...", however, Castells' concept of the "Network Society" appears broad enough to incorporate all different forms of networks (from technology to human) and yet individual enough to highlight the processes of the network society. Castells (1996, p.22, 275) uses the Network Society to describe how "new information technologies are integrating the world in global networks of instrumentality" in a new social form; one that is different from agriculture-led and industrial-led but is not independent of them. Although Castells sometimes uses 'information age' in his text, the concept of Network Society crucially moves away from focusing only on economically-propelled terminologies and instead addresses the *network* of social and cultural diversity in the adaptation to new ICTs, whilst it also equally focuses on the technological aspects.

What the concept of Network Society does is describe society's current technological point, whereby the level of integration of society (economic, political, social, cultural) enabled by ICTs has advanced from its previous states. We are simply a *more* networked society than previously, for while ICTs have enabled more connected societies (both high-income and low-income) we still rely on both agrarian tasks and industrial technologies.

However, while the network society is by far the most integrated descriptor, none of these descriptors of the new society in my view are integrated sufficiently to incorporate the various logics that occur within society simultaneously, and current concepts have been critiqued as reductionist, overslimplistic or stale. Although the speedy advancement of ICTs, especially the Internet and mobile phone, is partly to blame for the lack of an acceptable conceptual definition, and consequently the wide ranging theories, there are two objects clear in these descriptors and they are: a) a commonality in which they all acknowledge the significance of technology in the new society; and b) a discord in which they do not sufficiently take into consideration the significance of socio-spatial processes as much as they do the significance of political

economic processes. In the following section, I focus briefly on the broad socio-spatial debates on the new society in the context of the technologies, and then draw out the key concepts that have been highlighted in these debates in relation to this thesis.

2.3 BROAD SOCIO-SPATIAL PERSPECTIVES OF THE NETWORK SOCIETY

There is evidence of acknowledgement of the 'new society' in current literary materials endorsed by a large amount of varying theories and *some* empirical based analysis to support their many perspectives. Geographers in particular, have been interested in developing the spatial and social dimensions of this discourse on aspects of society, with early studies on what has been described as 'time-space convergence' (Kwan 2001, 2002; Dodge, 1999; Abler et al, 1975 p.11; Janelle 1973;), and more so in light of new ICTs (Batty & Barr, 1994;).

Whilst some commentators have highlighted, and made problematic descriptors, of the *actual* ICTs (not their influence), and their relative meanings in the 'real' world (Sheppard, 2002; Bartha-Smith and Hathaway, 2000; Graham, 1998), others have focused their literature on updating and expanding the theories in the context of geography and technology (Holloway and Valentine, 2001 a & b, 2003; Wilson and Corey, 2001; Graham and Marvin, 1996; Dodge and Kitchin, 2001; Kitchin, 1998; Brunn and Leinbach, 1991). Some academics, however, have offered empirical-based analyses to test hypotheses and the predicted consequences of techno-social change (Madge and O'Connor, 2005; Kwan, 2002; Holloway and Valentine, 2001b, 2003; Bingham et al, 1999; Wynn and Katz, 1997). Such theories and insights are very useful indeed, for not only do they demonstrate that academics are interested in the influences are being associated with new technologies in society but also that academics are acknowledging that indeed society is going through fundamental change enabled by technological advancements (Caincross, 1997; Castells 1996, 2001).

Abd Rashid (2005, p.24) notes that "Among many claims about the emergence of information society is the notion that the present society is being ushered out by the

information technologies". Notably, a commonality of the information technologies that have underpinned the network society is that they all offer interactivity where the end-user can interact intelligently with the technology contrary to older ICTs which were viewed by technological experts as 'dumb' terminals. This means that the ability for new ICTs to give the user a form of control over how the technology is used and what it is used for is a very significant factor in the new society. However, despite this commonality, there are differentiations among the new ICTs, which are sometimes blurred in the literature and which sometimes confuses debates associated with the technologies. Whilst some ICTs are effective on certain functions, others are flimsy; and whilst some ICTs offer multiple networks and interactivity, others can only offer a one-dimensional network and interactivity. For example whilst the Internet 'wired' enables a constant connection to the network, the cell phone is enabling mobility although it does not offer quite the same level interactivity as the Internet (functionalities of these ICTs are discussed further in following paragraphs).

The blurring of these technologies, however, sometimes demonstrates confusion of their different functions, especially if broad points are being made about ICTs in general. A majority of the literature discusses the technologies as ICTs without pointing out the differences between them apart from a few such as Dodge and Kitchin, (2001), Orford et al (1999); Kitchin (1998). For instance, whilst the wired nature[5] of the Internet decreases physical mobility, the wireless nature of the cell phone increases it; and whilst the flexible networkability of the Internet renders it the network of all networks, network limitations of the cell phone on its own turns it into a one channel network and therefore less interactive in comparison to the Internet.

Lack of a clear distinction also sometimes confuses theories of ICTs and the socio-spatial debates that surround them. For example, without clarification, an extreme utopian forecast associated with virtual reality technologies can be confused with the Internet as they have commonalities in terminologies such as cyber and virtual. Whilst the former is likely to involve a specialised 'cybercafé'- as illustrated in

[5] Wired nature is used to denote the requirement of cables/wires in order to be connected to the Internet. Although mobile technology has allowed 'wireless' Internet connection and therefore is making the 'wired' necessity redundant, most computers still need cables or wires in order to be constantly connected to the Internet as batteries do not last long.

Schroeder (1994) - on a highly functional interactive interface, the latter can be accessed in an ordinary 'internet/cyber café' usually with a web browser.

Therefore, whilst not focusing the literature on just technology, it is essential to distinguish between the various types of new ICTs, their specialised functions and the debates surrounding them, before one can authoritatively draw conclusions on which of the new technologies are stimulating pessimistic, realistic, neutralistic, or optimistic arguments. This also enables one to gauge the distribution of empirical based literature on the technologies. In the following section I discuss the two new ICTs that are debated the most: the Internet and the cell phone and their correlating debates in broad social-spatial contexts

2.3.1 The Internet

Rheingold (2002; 1993, pp.65-109), Castells (2001, pp.9-35), Kitchin (1998, pp.28-45) and Batty and Barr (1994) all provide a detailed account of the origins and the functions of the Internet, and its associated applications such as the World Wide Web (WWW) and Internet browsers. As Warf (2000) contends this [the Internet] is the largest electronic network on the planet; which Dodge (1999) extends by stating that "global computer-communication networks are most obviously represented by the Internet and the World Wide Web".

The role of the Internet has been dubbed as the ultimate globalisation tool as it involves relatively cheap costs compared to satellite technology and also has convenience of anytime, anywhere access to information as Al Gore was keen to establish (2000, pp.7-17). Unlike other content providing media, most of the content of the Internet is free with unlimited information (although its quality is not always assured), and the user is entirely active, has full interactivity and control of the information and communication process and therefore as a result it has become the tool for free choice information.

The global capabilities and mass audience reach of the Internet and the WWW has rendered it a powerful information and communication tool in today's society, as "core economic, social, political and cultural activities throughout the planet are being

structured by and around the Internet; and other computer networks" (Castells, 2001 p.3). For the past decade academics have been preoccupied by the dynamics of the Internet and have produced documentation on most aspects of the Internet. Geographers in particular have demonstrated particular spatial and social concerns of the Internet and the WWW as a virtual space where social processes take place in relation to, or as a continuation of, physical space processes. Subsequently, dualisms such as 'Cyberspace'/ Physical Space, Virtuality/Reality, and Online/Offline are used to describe the different spaces.

Dodge (1999) describes the most well-known cyberspace as the Internet which he also contends is the best studied. The consequence of cyberspace and its culture is therefore intensely debated; and this has emerged under the rubrics of technological determinism, social constructionism, political economy, post-modern and post-development theories. Whilst there were not adequate empirical based studies to support some of these debates in the early stages, most of the views or visions were, and in some case still are, based on assumptions which are largely pigeonholed as either optimistic or pessimistic. Castells (1996 p.3) condemns this labelling as "ideology and gossip... in understanding of this fundamental dimension of our lives". The "ideology and gossip" have however become segregated into what has been largely categorised as 'utopian' and 'dystopian' perspectives.

The utopian approach has been categorised as views of the Internet as a tool that will make obsolete spatial friction and create 'placelessness' more significantly over long distances, so that information and communication activities which were perhaps impossible or difficult over great distances before will be rendered possible at no great cost (Lewis 1998; Cairncross, 1997; Coyle, 1997), thereby causing geographers to be challenged in their representation of the world relative to time and distance (Brunn & Leinbach, 1991). This approach also portrays the Internet to be an instrument that will enable equal distribution of labour where the networking of ICTs will facilitate decentralised work spaces, thereby blurring private and public spaces (Cairncross, 1997; Rifkin, 1995 pp. 234-236; Naisbitt, 1984 p.127).

In addition, utopian predictions also include the Internet as a tool for equal opportunities and social inclusion, so that the ability to be socially integrated is

dependent on access to networked technologies. This has led to the introduction of Internet access schemes in both the North and the South including the generation of wind-up computers for children in the African region (The Australian, 2005). The Internet is also viewed as a tool for creating multiple identities and personal liberation, or "a technology for freedom" (Castells, 2001 p. 275-277); and a tool for poverty eradication and development, especially for low-income regions (Levy, 2001 a & b; Gore, 2000 p.8; Cairncross, 1997 pp.253-25)

Such visions were sharply detracted by the so called dystopists who debate the Internet and its associated applications in the context of cultural imperialism or the propagation of American and 'Western' hegemony of cyberspace, through content and product dominance, or through developmental practices, to non-'westernised' cultures (Hall, 1999; Escobar, 1994, 1995). The Internet's global infrastructure is also seen by dystopians as a tool which will render the decline of cities (Naisbitt, 1984, pp.122-129); and a capitalist tool for economically powerful regions to seek out and dominate distant markets in order to extend their capital markets and in the process overpower weaker competition (Hall, 1999).

Also, theories of social exclusion and marginalisation in favour of the elite who can afford such networks, and therefore will have access thereby excluding the material poor is evidently debated in the literature (Warf, 2000; Bolhuis & Colom, 1995 pp.75-76). This approach also shows concern over individual isolation from place-based people and communities as a result of the dependence of individuals on their computers which therefore creates the risk of them becoming isolated from physical communities as documented by Castells (2001 p. 277) and investigated by Longan (2002). Additional theories debate gender issues such as gender identities in virtual spaces and female exclusion from technology even in online places (Rathgeber and Adera, 2000; Shaw, 1997 pp.133-145).

Indeed as Longan (2002 p.) indicates, drawing on Dodge and Kitchin (2001), Sui (2000), Kitchin (1998), Amin and Graham (1997), and Graham and Marvin (1996), many of the popular academic debates about geography and information technology adopt overly deterministic, utopian (or dystopian) perspectives on the relationship between geography and technology. As Kitchin (2001, p.71) also enthused in a

broader context, all perspectives (both on specific subjects and broadly) should be rigorously tested and supported by empirical literature before established judgements can be made. For as Castells (2001, p.5) questions, how can we be certain of futurological prophecies based on the simplistic extrapolation of social consequences or critical dystopias, denouncing the supposedly alienating effects of the Internet before even practicing it?

New and emerging literature, mostly informed by empirical based studies, are however, forming a new 'heterotopian' perspective which does not outrightly reject both utopian and dystopian views but adopts an approach which views new ICTs as neither good nor bad but "dependent on what sort of technosocialities one chooses to focus on" (Crang et al, 1999 p.5). To prove this point, post-utopian/dystopian empirically based literatures have demonstrated evidence of both aspects of the dualistic visions impacting on real lives. These findings are seen as realistic, as the following illustrates.

For example, in the Caincross's predicted death of distance, Adams and Ghose (2004) find that cyberspace has strong uses in merging and integrating communities (especially ethnic ones) over long distances - such as Diasporas - and therefore, in effect through online networked technologies, ethnic groups share the same spaces and same cultures which they called 'bridgespace': a set of connections between here and there, in both a geographical and cultural sense. However, naturally, sharing the same space [bridgespace] constitutes sharing the same traditions and social practices that have been transferred from the physical place to the virtual space. In some cases, this means the transfer of power imbalances and discrimination which could be a deterrent to social inclusion. For instance, as Adams and Ghose (2004) discovered, Indian matrimonial sites are still using traditional Caste methods to match-make and arrange marriage thereby discriminating against skin colour, education and family background online.

Also, in the debate of the Internet's impact on social inclusion, exclusion and individual isolation, Longan (2002) for example, discovered that far from it, the Internet does not isolate individuals but instead enhances their place-based social interaction whilst offering new ways of expanding their social communities. The

Internet in this sense becomes a tool for extending an existing place-based community and a tool to connect to people all over the globe, thereby in effect, creating a bigger social place – "a global sense of place" (Longan, 2002). Contrarily, in the case of 'techno-optimism' studies done, Van Winden (2001) and Steaheli et al. (2002) illustrate that although the Internet provides a connection for people to find new social places, it does not provide a solution to the social inclusion concept which Van Winden consigns as 'technological utopianism":

> "We found no convincing evidence that social networks of excluded groups are being strengthened; nor did we find signs of increased political participation and influence of deprived groups in our case studies" (Van Winden, 2001).

Finally, these opposing findings demonstrate a realisation that the Internet offers realistic solutions, is neither utopian nor dystopian to such concerns [social exclusion and inclusion], and therefore should not be categorised as such. Because, whilst the Internet can be used to enhance a sense of community and offer new places for interaction, it does not render the individual void of physical space connection but rather enhances it, and whilst the Internet offers ways for the socially isolated individual to interact and belong, it is not a solution for full integration either socially or politically. However, in order for the realistic nature of the Internet to be fully exposed, there needs to be more comparable research on communities of practice, especially in the actual habitations of practice where both the people and the technology can be studied together (as opposed to approaches from either perspective) in order to better understand the 'real' nature of how people and the Internet co-exist.

2.3.2 The cell phone

Out of technologies such as mobile phones, smart phones, PDAs[6], pocket PCs, navigation systems, MP3 players and games consoles, mobile phone technology has thus far been the most successful wireless and portable of the small screen multi-media technologies. The history of the cell phone is well documented in Agar (2004) and Garrard (1998), whilst Steinbock (2005) and Brown et al. (2002) dedicate some

[6] PDA – Personal Digital (or Data) Assistant

of their work to the evolution of the cell phone. Although the cell phone's primary feature resembles that of the land phone, and has often been seen as the land phone's predecessor (Cooper, 2002); the cell phone is now being taken seriously as a truly influential technology which has enabled society to achieve what was previously unachievable, particularly in the mobility context. This is principally due to its wireless and portable status and, unlike the Internet (even with wireless broadband), the cell phone is truly mobile (Thompson and Cupples, 2008).

In addition, with features such as Short Message Service (SMS) which serves as an adequate, fast and cheap way of communication; multi-media usability such as picture messaging and video phoning (on Third Generation (3G) phones); information search functions such as Internet access through Wireless Application Protocol (WAP) or iMode (in Japan); continuous connection to the network regardless of place (roaming); and its instant wireless information transfer functions (e.g. Bluetooth and Infrared), the cell phone's rapid advancement in functionality has enabled it to surpass all new ICTs in popularity.

Consequently, the cell phone is now the highest owned new ICT in Northern countries. ITU statistics show a cautious average of 110 phones per every 100 inhabitants (ITU, 2007) in Europe; whilst also showing that the number of mobile cellular subscribers had overtaken the number of fixed-line subscribers. A problem however is that while both popular and academic literatures are saturated with documenting the technological and economic success of the cell phone; literatures in the spatial, social and cultural contexts are quite limited. In critique of the lack of attention given to mobile phone technology in the social sciences, Townsend (2002, p.62) argued that perhaps this was due to the pedestrian status of the mobile phone "compared to the fantastic, nebulous depths of cyberspace".

Recently however, few commentators on the subject have grappled with why cell phone users, as Townsend (2002 p.62) contends, have "outstripped the number of Internet users in the developed world". Following Cooper's (2002) initial warning that the cell phone's impact is in danger of being overlooked by the social disciplines, recent literatures have vaguely attempted to draw several conclusions on the social, political, cultural and spatial associations of the mobile phone. These perspectives are

organised around themes of mobility, space, organisation of the urban form, identity, modernity, culture of youth consumerism and development.

Geser (2004), for example, maintains in the context of space, mobility and the cell phone that two highly consistent physical constraints which have shaped the "evolution of Earth" (p.235) are: 1) the need for physical proximity; and 2) the need for stable dwelling places; and "that the achievement of higher levels of society complexity is based on the physical proximity of many human individuals in very stable locations (p.235). Therefore, in the Neolithic or Agrarian period, communication was structured around both these constraints, as farmers needed lands in which to dwell and farm on whilst they relied on close-knitted agricultural communities to form face-to–face interactions and complex relationships. Similarly in the industrial period, movement into cities with factories was shaped by workers wanting close proximity to work and their families in stable dwelling places.

Geser argues that rather than these constraints diminishing as they are fulfilled by the maintenance of close proximity and stable dwelling places, they instead increase as they collide with other factors in socio-cultural evolution. So that, for example, as people become too condensed in cities and move out in order to achieve better spatial forms, there is also an increase in the demand for better and continuous communication. For instance, when one is on public transport there is a desire not to be cut off from communication. Geser attributes the success of the cell phone to solving the problem of these two constraints and contends that "the significance of the mobile phone" which "lies in empowering people to engage in communication which are at the same time free from the constraints of physical proximity and spatial immobility"(p.236).

Kwan (2007) poses a similar argument as she reflects on the significance of current urban forms as the cell phone impacts on urban spaces, and the traditional factors (such as work and travel) that shape urban spaces. Kwan argues that since the cell phone allows "continuous access which also allows flexible use (such as to rearrange our schedules according to the needs of the present situation), this has impacted highly on activity-travel and socio-spatial interaction which in turn has influenced urban travel. Srivastava (2005) extends this argument in the broader context by

allowing that while "the always-on nature of the mobile phone" may have threatened face-to-face communication it has enabled a new social evolution that has created and replaced identities of *place*.

> "With the advent of anywhere, anytime mobile technologies, the sense of belonging to place may slowly be giving way to a sense of belonging to a communications network" (Srivastava, 2005 p.112).

Sritvastava then goes on to argue that the cell phone, in evolving social behaviour has influenced how identities are created in several ways in which identities can vary from individual identities (through the use of personalised wallpapers, ringtones etc.) to collective identities (such as social networks formed through the mobile phones). Using Rheingold's (2005) *Mass mob* thesis as an example, Srivastava draws parallels between the collectives of people who use the cell phone's instant message function to disseminate information to masses of people simultaneously and his concept of collective identities. Overall, Srivastava (2005) concludes that the use of cell phone to mass activities represents political and cultural identities, and that mobile phones in their convenience of continued connection and mobility, have also blurred public and private spaces as mothers can now go to work with the impression that they are constantly in connection with their children.

Wei and Leung (1999) and Wellman (2001) along similar lines also combine the cell phone's impact on spatial mobility and work spaces to for the cell phone's influence in blurring private and public spaces. In fact, according to Wellman (2001) the home or the office is therefore no longer the portal to the person. Instead, the person, by being connected to the cell phone, becomes the portal. A problem with this line of argument is the assumption that increased mobility and continuous connection to the outside world is liberalising. What these debates do not take into account is what Massey (1991) refers to as a *power geometries* in which she argues that the impact of these new flows is dependent on the type of social group involved. Not everyone will find the continued connection to the cell phone as liberalising but some will find it restricting; in the same power of geometry, not everyone who is in the new cell phone dominated space or has access to a cell phone can be assumed to have increased mobility and therefore freedom. Massey argues that:

> "Different social groups have distinct relationships to this anyway-differentiated mobility: some are more in charge of it than others; some initiate the flows and movement, others don't; some are more on the receiving end than others, some are effectively imprisoned by it" (Massey, 1991 p.61).

The logic to Massey's argument in particular brings to the fore different reported impacts of the cell phone accordant to social groups and social standings in different places and cultures. One instance is Wilska's (2003) documentation on the increased consumer culture promoted by mobile phone adoption by young people. Indeed, as Wilska found in the case of mobile phones, new technologies tended to be targeted at young people not because they are the only people with 'adequate' digital skills, but because they are addictive and impulsive when it comes to all things considered 'new' and 'trendy'.

Technological enthusiasm and trend-consciousness, therefore, have a large role to play in young people's large scale consumption of new technologies such as the high consumption rate of the cell phone. Srivastava (2005) also noted how new mobile phones are now marketed as fashion labels; however he attributes the success of the cell phone among young people to their ability to own and individualise something which is not controlled by a higher authority such as parents. Wilska (2003) however maintains that, the lifestyles and consumption patterns of young people determine the consumption of the whole population as young people drive the consumption levels of new phones.

Another instance of cell phone influence on different social groups is Geser (2002) and Lèvy's (2001b) vision of potential flat structures in traditional hierarchical societies. Geser envisaged that the cell phone had the potential of equalising social integration between men and women, and that both men and women can take equal part in activities that were previously traditionally gendered. Although Srivastava (2005) finds some evidence of this vision in India, as both women and men take part in voting using their mobile phones in places were men were only allowed to vote

previously, recent evidence from Zambia shows that mobile phones may be actually increasing the gender power divide in other parts of the world (Wakunuma, 2007).

Overall however, Castells (2007) combines both the negative and positive debates on identity, youth culture, consumerism, independency, development and mobility by concluding that:

> "Wireless communications technologies diffuse the networking logic of social organization and social practice everywhere, to all context ....this is neither vision or a commonsense technological statement. It is what emerges from observations..." (p. 258).

In conclusion, these socio-spatial perspectives demonstrate that literatures on cell phones' influence are also becoming dualistic even though these literatures are more recent. A majority of these literatures still assume that the cell phone either liberalises a society or has the opposite effect. In addition, what the current debates on the cell phone also demonstrate is that socio-spatial literature on the cell phone's association with society is still scarce and vague, particularly on the significance of different values placed on cell phones in their different communities of use, and therefore need to be researched further, particularly from nondeterministic perspectives.

2.3.3 Conclusion

Overall, reviewing the broader literature on the context of descriptors and the broad social-spatial debates associated with the new era have emphasised that a majority of the debates are pigeon-holed into a binary of good and bad. As a result, where some associate the various technologies with only good experiences, others offer only critiques. Although, some new materials such as Madge and O'Connor (2005, 2006); Adam and Ghose (2004) and Holloway and Valentine (2001a, 2001b) have moved away from taking sides of the good bad coin, the literature is still very dualistic in nature.

Although the debates cannot be strictly categorised, predominant themes that emerged from them were in 1) globalisation, as depicted by Adam and Ghose's evidence on

how people separated by distance use the Internet to close gaps and practice same cultures (Caste system) online, the use of the cell phone as debated by Rheingold to mobilize mass activity around the globe, Holloway and Valentine's (2001b) empirical work on the Americanisation of British children through online sources, and Hall (1999), Tomlinson and Escobar's (1995) debate on Western hegemony through ICTs; 2) development, such as Lèvy (2001a & b), Gore (2000), and Castell's (2001 p. 275-277) debates on ICTs providing liberalisation of networks and information that would enable low-income countries (mostly located in the global South) to leap-frog and bypass the teething stages of development and be competitive in the global market; and, 3) the digital divide such as Wakunuma (2007), Longan (2002) and Van Windin's (2001) debates on social exclusions as a result of new ICTs.

In the following sections, these broad concepts are narrowed down and discussed in detail in the context of the thesis. Therefore, whilst in globalisation, the literature focuses on discussing socio-cultural perspectives and empirical evidence of ICT-enabled globalisation, as nations deregulate laws and adopt new ICTs in order to become part of the global market and achieve development; in development, the literature focuses on evidence-base ICT-for-development as a new concept brought on by adoption of ICTs in order to become part of a global market; and, as nations prioritise certain communities' access to ICTs in order to achieve speedy development, different levels of the digital divide occurs as a consequence. Based on these discussions, I establish the empirical basis for the thesis. In the next section, I begin by providing a brief overview of globalisation's theoretical foundation in ICTs and the new society.

2.4 GLOBALISATION AND ICTS

Although some have tried to specifically define globalisation as a concept and/or process (Beck, 2000 p. Teeple, 2000 p. 9; Waters, 1995 p. 3), recent literature rejects the idea of a single definition, as some have argued that globalisation is in itself a constitution of many processes and uses, especially in contemporary debates (Youngs, 2003, p.3). For Ellwood (2001 p.8) and Pieterse (1995, p. 45), the concept of globalisation is not new but rather an "old story"; a long-term process which began

long ago with such things as first migrations, but which has received much focus recently due to a new twist of technological change. For commentators like Castells (1996, 2000), globalisation is a new phenomenon brought about by technological advancement, since previous technologies such as transport could not inspire the notion of a 'world society'.

Also, whilst some postulate that as a process globalisation is used to imply large scale and dramatic changes (Dalby, 2003; Youngs, 2003; Waters, 1995), others such as Robertson (1995, p.25) insist that the "evident tendency to think of globalization in a rather casual way of referring to very large-scale phenomena is very misleading". Robertson argues that this view of globalisation is very misleading because it has got questionable assumed attributes such as 'bigger is better'. Theories of globalisation have, however, been discussed under a wide variation of themes and contradictions. In geography for example, globalisation is mostly discussed in context of time and space using terminologies like "time-space distanciation" (Giddens 1990), "time-space compression" (Harvey, 1989), and, "time-space convergence" (Janelle, 1969) to describe new social and technological meanings of the temporal and spatial.

For those with optimistic views, globalisation denotes the demise of unfavourable discourses such as fascism and communism. Globalisation has also been argued to eradicate the time-space friction of geography and liberalise democratisation of politics; and therefore can cause the demise of 'history' (Wolf, 2004; Fukuyama, 1992); geography (Cairncross, 1997; Toffler and Toffler, 1995 p.123; O'Brien, 1992), and politics (Boggs, 2000).

Whilst for a sceptic like Huntington (1996, 2002), the new world order will bring about new conflicts originating from clash of cultures, others with pessimistic views see globalisation as a concept driven by trans-national capitalism which has become a replacement of, or a restructuring of, previous epochs such as imperialism, emerging as 'new imperialism' (Hardt and Negri, 2000, 2004; Tomlinson, 1999), colonialism, modernisation and Westernization (Hall, 1999; Banerjee and Linstead, 2001) and International relations (Youngs, 2003 pp.3-16). Banerjee and Linstead, for example, argue that no discourse operates in isolation from other discourses and often work in

close relation to other specific complimentary discourse therefore globalisation cannot be dissociated from other similar discourse (mentioned above).

Similarly, Appadurai (1996) and Pieterse (1995, pp.45-46) reject the idea of globalisation based on a single process of economics and contend that globalisation should be defined in the plural as globalisations. For while Appadurai defines it as multiple spaces of flows – *scapes* (as in *ethnoscapes*, *technoscapes*, *finanscapes*, *mediascapes* and *ideoscapes*), Pieterse urges us to view globalisation as globalisations of the different processes since the processes are conceived in the plural. This will therefore allow us to identify all the different logics involved in the process as relevant and as processes that unfold in multiple realms of existence simultaneously (p.45) and therefore not as by-products of economic globalisation.

This view of alternative definitions of what globalisation entails is especially reflected in the different logics or discourses, such as internationalisation as demonstrated by Youngs (2003, pp.3-16) and Agnew (2005); global political justice, security and welfare as demonstrated by Luard (1990); and, legal globalisation of legislating national and international laws and the local consequence as demonstrated in Audrestch and Bonser (2002). In addition, debates on ecological or environmental globalisation are focused on global multinational corporations' actions on the environment depicted in terminologies such as 'climate change', 'greenhouse effect', 'global warming' and 'eco-imperialism' for those whose livelihoods depend on a fertile environment yet have little means of fighting the consequences of ecological globalisation (Liverman, 2004; Dalby, 2003, pp. 35-46; Demeritt, 2000).

Despite this plural view of globalisation, economic globalisation is by far the most debated in the literature where focus is placed on the internalisation and the spread of capital. In the following excerpt, Ellwood critically sums up the logic of economic globalisation:

> "Giant private companies have become the driving force behind economic globalization, wielding more power than many nation-states. Business values of efficiency and competition at all costs now dominate the debate on social policy, the public interest and the role of

> the government. The tendency to monopoly combined with decreasing rates of profit drives and structures corporate decision-making – without regard for social, environment and economic consequences of these decisions" (Ellwood, 2001, p.53).

Originally a Northern (high income countries) logic, economic globalisation is being driven and powered by trans-national networks of cities (World cities) as discussed by Beaverstock (2005) and Sassen (1998 pp.81-109) not only through the flows of finance and production and the corporations themselves, but also increasingly the flow of labour force aided by ICTs in the network. As a result, small nations with economically non-vibrant or less vibrant cities have been deigned to increase their economic activities once they are able to join the network. In which case such nations are now able not only to advance their socio-economic situations but are also to compete with larger economies.

In this context, economic globalisation as Teeple (2000 p.10) and Giddens (1990 pp.71-78) contend is a 'triumph of capitalism' – that is, "the ascendancy of economics over politics, of corporate demands over public policy, of the private over the public interest, of the TNC[7] over the nation state" (Teeple, 2000. p.10). For some, economic globalisation is not just a 'triumph of capitalism' but also that of modernism where nations are being lured into the concept of material progress of desiring Western infrastructures that in some cases are difficult and perhaps unnecessary to attain (Inozemtsev, 2004; Pieterse, 1994). Economic globalisation, therefore, while enabling movement in activities that increases capital, disregards the fact that increased movement means increased import or export of other factors such as culture.

Cultural globalisation, however, is a very debated and yet unclear concept of globalisation. Whilst some view cultural globalisation as a by-product of economic globalisation, some view it as an independent or a stand-alone concept which is occurring due to various globalising processes. Still others believe cultural globalisation does not exist and therefore should not be a concept. Out of the few who have focused their literature on discussing globalisation from a cultural point of view,

[7] TNC: Trans-National Corporations

there is a tendency to focus on debating globalisation in the context of standardisation. Globalisation is in effect focused on "global communications, and the world-wide cultural standardization, such as CocaColonizaton and McDonaldization and postcolonial culture" (Pieterse, 1994, 1995. p.46). Berger, (2002, pp. 3-9) discusses this standardisation in the context of four facets of cultural globalisation which he describes as:

- *A Davos culture*: to denote the world-wide standard culture of the business elite promoted by the corporations where business professionals everywhere are encouraged to behave in a certain way in order to belong to the global culture;
- *A Faculty club culture*: to denote the global flow of the intellectual ideas and certain behaviour "invented by the West (mostly American)" (Berger, 2002. p.4);
- *McWorld*: to denote the emerging popular global culture "propagated in business enterprises of all sorts" (p.6) to broad masses of people all around the world; and
- *An Evangelical Protestantism*: to denote the wide and global spread of a mainly religious movement especially the Pentecostal religion originating from North America which Berger (p.8) describes as "a movement of astounding scope – in large areas of East and Southeast Asia, in the Pacific islands, in Sub-Saharan Africa, and most dramatically in Latin America".

Berger, however, acknowledges that the subject of cultural globalisation is a difficult and a complex one: one that cannot be easily controlled, and that more investigation is required in order to sufficiently understand the concept. Cultural globalisation is generally deemed to be a by-product of economic globalisation in that while nation-states openly relax their laws and regulations in order to attract investments, the free flow of economic migrants, products and ideas into indigenous cultural spaces enables a globalising effect.

Cultural globalisation too has its promoters and detractors. However, as a majority of the literature is debated in terms of standardisation of culture such as universalism,

and hybridisation, such discussion narrows what is actually known on cultural globalisation. Whilst universalism is used to denote risks of the diversity of cultures being completely eroded in order for them to be replaced by a standardised culture of the 'West' due to the import of western products; hybridisation is, as Berger (2002) describes, "a deliberate effort to synthesize foreign and native cultural traits" (p.10) into a hybrid culture which is not typically either of the two cultures. Berger, also describes this as localisation where the global culture is accepted but with significant local modifications.

In light of the new society, and the emergence of new technologies, several commentators (Hall 1999; Tomlinson 1999; Escobar 1994) have expressed concerns and debated the consequence of new ICTs becoming tools through which nations of the South and their cultures risk being globalised.

2.4.1 New technologies as tools of globalisation

For commentators such as Waters (1995, p.3), globalisation is nothing to do with technology but is instead a direct consequence of the expansion of European culture across the planet through "settlements, colonization and cultural mimesis". Pieterse (1995) echoes similar sentiments by declaring that there are many modes of "globalizing agents and dynamics or impulses" (p.46) including modes of long-distance cross-cultural trade, religious organisations, trans-national banks, international institutions and trans-national social networks of social movements. However, whilst the detractors from such views acknowledge that there are indeed many modes of globalising "agents", they also contend that it is however new technologies that are in fact the principal modes of the globalising "agents" and the driving force behind globalisation (McChesney, 2001; Castells, 1996, 1998; Giddens, 1991 p.8).

Giddens, for example, contends that globalisation as we are experiencing it is impossible without the emergence of new technologies (p.8) whilst McChesney maintains that new media *are* the mechanisms responsible for the activities of globalisation. From these perspectives, Poster (2001) and Anderson (1999) argue that, without the interaction through new technologies, the disembodied 'virtual'

experience of distant and different places by the individual is impossible and that there is a facet of globalisation in which the body is enabled through mediation technologies to freely flow in spaces which no longer limit the subject's position.

Poster (2001, p.17) explains the involvement of new technologies further by expanding that "perhaps it would be better to say that communication facilities extend the nervous system throughout the Earth to the point that it enwraps the planet in a noosphere". Nevertheless, although 'old' technologies such as transport and the telephone were previously seen as key elements of the time-space convergence, new information and communication technologies and their role in the globalisation processes and thus their creation of 'placelessness' and 'disembodiness' have become a major discourse as Poster continued to contemplate:

> "If I can speak directly or by electronic mail to a friend in Paris while sitting in California, if I can witness political and cultural events as they occur across the globe without leaving my home... and if I can shop in my home by using my TV or computer, then where am I and who am I?" (Poster, 2000 p.17).

New technologies have, therefore, become the tools for decentralisation and dispersed organisation of social, economical, political and cultural spaces. New ICTs such as the Internet and cell phones have been reported in both academic and popular literatures as making globalising impacts which Golding (2004, pp.v-vi) critiqued as generating a "dizzying euphoria about the imminent arrival of a new global society of equality, abundance, connectivity, and order".

In the cultural globalisation framework, the Internet is seen as having the capacity to connect diverse peoples and a fusion of cultures. However, since content can easily be dominated by material from a particular region due to that region's advanced technological know-how, the Internet is construed as playing a key role in promoting cultures from dominant regions. The Internet is seen as a globalising tool but has created divisions in its acceptance. Whilst governments in some regions are deregulating other policies in low-income regions in order to maximise access and use; others, however, in fear of the threats globalisation poses, especially "politically

and culturally autocratic states", have shown resistance in fully adopting the Internet. Norris (2001. p.9) however, critiques this idea that the Internet cannot be a full globalising technology due to its unpoliced, unorganised and uncontrolled information which intimidates even those with unrestricted access to it.

Unlike the Internet however, the cell phone does not require expensive telecom infrastructure in order to network people in throngs and across continents. In fact, Cooper (2002, p.20) observed that mobile telephony in many ways is an elusive phenomenon to conceptualise because while it may belong to the 'new media' category, it bears resemblance to its old ancestor the telephone and yet is not really reflected as a new spatially significant technological phenomenon in literature, unlike the Internet. Mobile phones, although late in development in comparison to the Internet, have emerged as a relatively cheap 'mass communication' tool without the need for wired devices and are currently proving to be a more globalising tool than the Internet with very high diffusion and penetration rates (Andonova, 2006; Goggin, 2006; Botelho and Pinto, 2004).

In fact, economically, due to its low infrastructural needs, easy accessibility and cheap costs, multinational telecommunications companies have switched from providing Internet access to mobile telephony in low-income regions. Recently, reports technology enabled economic advancement and globalisation on people in low-income regions is through mobile phones and not the prophesised Internet which caused Townsend to observe that:

> "While Internet use remained limited to the few and well-educated, entrepreneurs in squatter communities brought telecommunications to the illiterate poor through lease mobile phones (Townsend, 2002 pp.62-63)

Mobile phones have integrated social interactions between individuals in both the North and South. Despite this reported strength as a more globalising tool compared to the Internet, the cell phone cannot match the flexible nature of the Internet which caused Copper (2002, p.20) to reflect that the terms 'cyber' or 'virtual' cannot be used for the mobile phone as in the case of the Internet. In saying so, mobile telephony is

so far the only technology that has shown a high diffusion in countries of the South, and as intensively discussed by Rheingold (2002, pp.157-182), it has shown even more globalising potential than the Internet even though "there have been a variety of theories about the Internet as the nervous system of a global brain" (p.180).

2.4.2 Conclusion

Both the Internet and the cell phone are globalising mechanisms not only because of their ability to reach mass audiences and promote a mass culture but they also have the ability "to influence the meaning of space and time" (Gant & Kiesler, 2002 p.121). In their different ways, they contribute to time and movement in a global sense. In addition, through adoption of some of these technologies as modernisation tools, it is debated that nations of the South are able to solve their development problems and leap-frog in order to compete with nations in economically advanced regions and be part of the global order.

Although much research has been done on this theory in the economical context, the effect of globalisation on culture still remains to be thoroughly tested in the communities that have been mostly predicted to feel its influence. The subject of cultural globalisation, however, is still very much debated, as Pieterse argues against the concept, stating that the notion of global cultural standardisation:

> "...downplays the ambivalence of the globalizing momentum and ignores the role of the local reception of Western culture – for example the indigenization of Western elements. It fails to see the influence non-Western cultures have been exercising on one another. It has no room for crossover culture – as in the developing of 'third cultures' such as world music. It overrates homogeneity of Western culture and overlooks the fact that many standards exported by the west and its cultural industries themselves turn out to be of culturally mixed character if we examine their cultural lineages. (Pieterse, 2002, p.53)

Cerney (2003, p.219) endorses this view by rejecting globalisation as a homogenising concept and instead declares it as "an inherently heterogeneous and fuzzy phenomenon". This fuzzy phenomenon needs to be researched further for greater

understanding, as even from Pieterse's and Cerney's perspectives, one cannot help but notice the complexities involved in the concept. Therefore, as current literatures on the ICTs are lacking in actual empirical evidence, there is a need to examine cultural globalisation in practise, and test whether ICTs in practice actually promote cultural globalisation. Meanwhile, as the majority of nations of the global South have latched onto the very idea of joining the global network by relaxing national laws in order to maximise knowledge and material transfers through ICTs, a 'new' concept seems to have emerged from this and that which needs to be examined in practice. A concept that hails new ICTs as the new ultimate development tool in called ICT-for-Development; and, is a part of an old process: development.

2.5 ICT-LED DEVELOPMENT AS A BY-PRODUCT OF GLOBALISATION

Attempts to define the concept of development both as a concept or even a process are complex and problematic as it cannot be assigned a singular characterisation. Whilst some believe that the term was coined by president Truman in his 1949 address to congress (Sach, 1992 pp.2-3; Berg and Gordon, 1989 p.1), others contend that as a process, approaches to development have been in existence in previous centuries as far back as the 17th century rooted in the Enlightenment thinking of progress and civilisation (Power 2003; Bauzon, 1992). Power (2003, p.2) expounds that "the term 'development' often refers simply to vague notions of 'good change', an unquestionably positive phrase that in everyday parlance is practically synonymous with 'progress' and is viewed typically in terms of increased living standards, better health and well-being and other forms of common good which are seen to benefit society at large".

In defining development, Johnston et al. (2000) specify that development theory has been shaped by and draws on theories such as growth, neo-liberalism, Marxism and institutional streams. However, in the context of the countries with low national income, current reference to development implies "state and multilateral policy harnessed to the tasks of championing economic growth, 'catching up', improving welfare and producing governable subjects" (p.167). Whilst development on one hand is looked upon by some conservatives (politicians and humanitarians alike) as

the high-income countries' obligation to low-income countries as a way of alleviating economic inequalities, on the other hand, other commentators see it as a form of imperialism where giant global institutions such as the International Monetary Fund (IMF) and the World Trade Union (WTO), which are representatives of high-income countries, dictate to low-income countries' economies (Cuppitt et al., 2001, p.45; Foot et al., 2003, p.11.12).

As a discourse, development has been approached at local, national and international levels with a focus on those nations - identified in some of the literature as the Third World - that need to emulate and acquire a certain standard of life that Escobar (1995) critiqued as Western standards of life. Development though, however described or defined, continues to be problematic in its nature, terminology, actors and approach. The complex nature of development is largely acknowledged to be rooted and embedded in conceptions of modernity and modernisation; where modernity itself is the focus on 'progress' through the acquisition of scientific and technical knowledge, thereby elevating societies enriched with technical and scientific knowledge as modern.

As Slater and Bell (2002) reflect, development discourse can be dualistic in nature; in that whilst governments and international bodies see the concept of development as a positive idea, and that development assistance "has, amongst other things, contributed to a fall in child mortality, improved access to clean water, helped in the control of disease, brought better educational provision and generated a more efficient network of infrastructure and utilities" (p.337); there are others who tend to equate 'development' 'progress' and 'modernization' with negative characteristics such as Western imperialism.

Modernisation has, however, been critiqued as a concept that goes beyond knowledge acquisition where there is a certain linkage with material (socio-economic) wealth; and where the general perception is that materially wealthy societies are economically advanced and therefore modern. Hence, countries such as those in the global North armed with both scientific and technical knowledge and material wealth are perceived as advanced, modern (developed) and superior to other countries without (largely located in the global South). In fact, as Bauzon (1992, p.36) writes, "the evolutionary

bent of its [modernisation theory] practitioners conformed with their belief that the democratic countries of the West have indeed attained the Zenith of civilisation that the rest of the countries of the world must emulate". The nature of development in this context therefore views development as a discourse of linear progression of the socio-economic with disregard to other factors.

In fact, as Willis (2005, p.3) contends, people who define the nature of development in the context of modernity do so in economic terms. Willis draws on the World Bank's ranking of Gross National Product (GNP) as an indicator of wealth to illustrate this point. Even though other dimensions such as the United Nations (UN) Human Development Indicators (HDI) have of late been added to development ranking to take into account quality of life, Willis argues this is also flawed as the HDI dimension still focuses on wealth as central to development, so that countries which have high income are indicated as high on the HDI list, which confirms the modernist assumption that "with greater wealth comes an improved quality of life" (Willis, 2005 p.8).

Many believe that it is through this line of thinking that new ICTs have been hijacked as the new tool for development, as new ICTs are depicted as the new tools that will help economies to advance their wealth and therefore their quality of life. This is because, in light of the collapse of international laws that limited free trade and trans-border transactions, together with the advancement of technology that enables what has become known as time-space compression - which Castells (2000, p.161) notes are rumoured to yield growth in labour production - companies are now free to exploit capitalist ventures in other markets.

This brings about a consequence which is alleged to advance the socio-economic status of nation-sates who are competitors in the global market, and subsequently any nation-state that changes its policies and regulations in order to give more power to trans-national corporations. Globalisation and the increased use of ICTs have generated a variety of debates in development discourse. These are dominated by positive conceptions, such as the economic benefits of ICTs and consequently the 'leap-froging' of low-income countries to compete with high-income economies, which have become principally borne in the concept of ICT-for-development.

2.5.1 New technologies as new development mechanisms

The concept of ICT-for-development (ICT4D) which is also sometimes called ICT-for-Sustainable-Development (ICT-SD) or ICT-for-Accelerated-Development (ICT-AD) is a global agenda. It has been firmly grasped as the new idea in the long list of development theories and approaches. Spear-headed by international conglomerates such as the World Bank, the International Telecommunications Union (ITU), The United Nations ICT Task Force, and the World Summit on the Information Society (WSIS), there has been an impression created that local, regional and national governments in the global South have seized this idea as their opportunity to achieve modernisation and development – a chance that would enable them to become part of global economic voice.

Evidence of ICTs' economic aid in Northern countries has inspired Southern countries' desired adoption of ICTs in order to accelerate their development processes. The basis of the ICT4D concept is chiefly rooted in the free flow of ideas (knowledge), goods, trade and services (defined by Appadurai [1996] as 'scapes' and hinted on by Blair [2000]) from the North, through ICTs, so that countries in the South can take advantage and make use of these free flow of 'scapes' in order to improve two things: firstly, the economic status of the country and secondly, the quality of life of the people; as depicted in the Millennium Development Goals (MDGs, 2000). In fact, some of the theories went as far as to declare that with the help of ICTs, low-income countries can avoid and bypass all the teething problems of development in order to achieve a 'developed' state in a speedy way (Robins and Hilliard, 2002; Gore, 2000). As previous development concepts have, if anything, widened the gap between the North and the South, it is no wonder that this new concept has been seized upon with such vigour.

However, where some have expounded positively about this concept, others have logically argued that economically, low-income countries have not adequate resources (infrastructure and skills) to successfully adopt ICTs and take advantage of the free flow of the 'scapes' (Tong, 2001, pp. 65-82; Daly 1999). In fact, some cynics have quite plainly mocked the concept to be a 'super-hype-way' rather than the highly

rated 'superhighway' used freely by Al Gore (Ebo, 2001, pp.1-6). As the success of ICTs' implementation depends upon basic infrastructures which are so generally lacking in countries of the South, some fail to see how these countries can suddenly bypass the tedious stages of 'development'. In an extension to this argument, Tongia (2005) expounds that:

> "We live in a divided world...All technologies that we developed in the past centuries and all the policies we enacted from enhancing human development have not wiped out these glaring disparities."

New ICTs, therefore, are simply viewed by some as new tools that will neither help development nor bridge the economic or other gaps, but rather mirror and extend existing divides between the global North and South. These views rather resonates with the binary-oriented utopian/dystopian views in the wider literature on ICTs, in particular, the Internet.

The ICT4D concept, however, has bypassed all these critiques and is now a firmly established concept as there has been a drive to promote initiatives of the Internet and cell phones in Southern countries in order to fulfil the positive visions of development. This has largely been in the form of promoting 'virtual' or electronic forms of the 'real' logics under the rubrics of e-governance, e-learning, e-health, e-democracy, and e-commerce etc. For example, the concept of e-governance challenges that since democracy demonstrates development in encouraging liberalisation and transparency, low-income countries are encouraged to emulate high-income countries in establishing methods of transparency through ICT.

The World Bank, being a particular advocate of this, exerts that for governments in low-income countries to attain development, there must be transparency not only for the benefit of civil society but also to demonstrate credibility in the global sphere (World Bank, 2005). This has encouraged Southern governments to establish online political administrations in order to show their democracy levels, such as making available policy documents and decisions online and the provision of various government documents electronically.

However, whilst some truly believe that the object of promoting ICTs as development tools is indeed for the benefit of low-income countries (Sein & Harindranath, 2004; OleKambainei & Sintim-Misa, 2003), especially as it minimises censorship and threats to freedom of speech and engages civil society in all kinds of activities including political activities, others believe that the real agenda for the vigorous promotion of development agenda such as e-governance is to shift decision-making power from the national governments to the private sector multinationals which are interested primarily in the exploitation of resources (Cline-Cole and Powell, 2004; Hall, 1999; Escobar 1994).

This view echoes the post-development theory of exploitation of the South by the North for economic benefits. Similar to globalisation however, a majority of the ICT4D literatures have followed a socio-economic and political perspective where the focus has been on new ICTs (in particular the Internet and the cell phone) being marketed as tools for socio-economic development. Cultural impacts of new ICTs are rarely debated in these literatures, especially in evidenced-based literatures. Whilst some anthropologists and some cultural geographers have recently made efforts to research these theories (Mercer 2006, 2004; Yan 2002), empirical studies which will thoroughly test these are lacking.

2.5.2 Conclusion

A majority of the empirical based literatures on ICTs and culture seem to be centred on case studies of ICT systems. These often take a technological perspective rather than a humanistic perspective. From out of the few humanistic observers such as Mercer, ICT initiatives in low-income regions have been reported as unsustainable in their communities of practice. It is, therefore, crucial for further studies to be conducted in the context of cultures so as to explain why these initiatives work in some cultures and not others; and, in order to fully understand the problems, a combined technological and humanistic perspective is essential. A more imminent issue associated with the ICT4D concept however, is the prioritisation of access to ICTs. Whilst some communities are being fast equipped with new ICTs especially access to the Internet, other factors have restricted other communities' access and use of new ICTs. This questions exactly who is development for and who it benefits.

However, more importantly, this issue has created new forms or extended old forms of divisions which have been generally termed the digital divide.

2.6 COMPLEXITIES OF THE DIGITAL DIVIDE

A challenge new ICTs have introduced is the belief that access to them will not only create new opportunities for economical advancement for societies but also a solution to all problems. Although the influences of new ICTs cannot be overlooked, the high level of credence attributed to their impact has caused a furore over who is taking part or included in the new society and who is not. Those nations supposedly lagging behind are predicted to lose out on socio-economic advancement and those people without access are documented as suffering from 'exclusion' - be it technological or social.

Commentators such as Castells (2001, pp.247-274) and Ake (1995, p. 42) have however argued that there cannot be a new global society when some aspects of the globe are excluded from or not fully integrated in the society. Therefore, a global society (or economy) cannot really exist, unless there is to an extent a level of evenness of access to new technologies, and thereby there is no categorisation of who is included or excluded from the 'new economy'. This thought process is depicted in International Trade Union's (ITU's) attempts to get lower-income countries connected to new ICTs and therefore included in the global society, although some have argued it is primarily for capitalist reasons. New ICTs have, however, rejuvenated stratification debates on all levels.

Whilst some (Geser, 2004; Lévy, 2001a, 2001b) have argued that new technologies have the ability to bring all societies together and therefore rid us of traditional forms of stratifications, others warn that new technologies in fact risk introducing new forms of stratification (Bolhuis and Colom, 1995; Bauman, 1998); still a third perspective contends that new technologies will neither close nor open new gaps but will instead be a continuity - or an extension - of the current structures of societies. As Sassi (2005) observes, whatever one's perspective, it is undeniable that significant

differences seem to prevail among social groups within nations and among nations in the access and utilisation of new ICTs.

The issue of unequal access to and use of ICTs has, however, become popularly designated as the "digital divide" as contended by Warf (2000), Norris (2001, pp. 3-4) and Servon (2002, p.1) to mention only a few. Although its first definition was uni-dimensional, later reflections on the issue of the digital divide have been generally discussed on the scale of several dimensions – the global divide between Northern and Southern countries, the social inequality within nations which has caused it to be recently re-labelled as social 'inclusion and exclusion' (Warschauer, 2003a) and what Norris (2001) terms "the democratic divide".

Reactions towards the notion of a digital divide include postulations of' 'it' being a myth (Young, 2001), as non-existent (Thierer, 2000), a political construction (Horvath, 2000), or a total condemnation (Crabtree, 2001). Nonetheless, although the digital divide is a problematic metaphor, the origin of which is unclear (Gunkel, 2003), it has become not only used as a representation of the issue of unequal access, but has become a phrase that has been used to describe a broad set of complex issues spanning not only from the local to the global but also extending to sociology, politics and culture.

2.6.1 Access to the technologies

First, is the issue of using the phase 'digital divide' to represent inequity of access to new technologies within and across societies, where there is stratification of access to ICTs within a society between the material 'poor' and 'rich', across societies within the same region and amongst nations on a global scale. Amongst nations, the problem either has been attributed to lateness of adopting or reluctance of embedding ICTs as everyday tools into society, as can be found in the case of some European and Middle Eastern countries which already have adequate basic infrastructure but were late in adoption, or to the lack of basic infrastructure that is essential for ICT provision, usually attributed to the countries of the South.

Stratification on a regional level can be exemplified by the segregation between Eastern and Western Europe, although the European region as whole is considered high income and a leading region on the adoption of new technologies (Labrianidis and Kalogeressis (2006). Whilst the stratification within societies is usually considered to be between the material 'poor' and 'rich' located in high-income countries, other forms of new technology seclusion have been identified in the form of gender, race, ethnicity, demography and, rural versus urban (Mossberger et al, 2003). More recently, the access issue has become even more complex when digital divide has been used to depict "quality of the connection" where there is the difference between those with high-connection access such as Broadband users as the 'haves' and those without as the 'have-nots' (Castells, 2002 in Servon, p.xviii).

Governments and ruling bodies response to preventing technological polarisation has been to create policies which aim to maximise access from local solutions, such as providing public access in community areas, to global agenda such as deregulating both international and national laws in order to encourage and attract investors who it is believed will improve access to these technologies. In addition, new innovative ways to create more access for people without the wired infrastructure, including providing free wind-up laptops to peoples of low-income countries, are currently being explored by charitable institutions (The Australian, 18.11.05). However, other arguments have disputed the generalisation that mere *access* to new technologies will resolve the polarisation predicament.

Warf (2000) for example critiqued the approach to the solution to this problem as having "taken a decidedly technical approach to what is essentially a social and political problem". Mossberger et al. (2003, p.1) who chose instead to phrase the digital divide as a "multiple divide" continued this critique by extending that "the preponderance of programs, debate, and research has been restricted to the problem of *access* to technology" [original emphasis]. In the context of these critiques, the digital divide cannot be viewed as just a technical issue of access to technologies but also a social problem. Digital divide is defined under the rubric of not technological but social infrastructure of a society. Although this perspective does not totally dismiss the significant role of technology, it becomes secondary to the role of sociology.

2.6.2 Social and spatial dimensions

In the social context, the digital divide is used to mean the technological polarisation in terms of availability, skills, access and affordability between different social groups instead of just the issue of access. For example, while it has been argued that new technologies will cease traditional polarisations such as gender and class, and create new opportunities based on access to them, it has been argued that in fact this hypothesis is flawed in that new technologies actually risk extending the conventional forms of stratification even further to open a bigger gap. In some places in the South, the reinforcement of conventional forms of stratification especially between genders has recently been reported as women are beaten or threatened by spouses if they are deem to be misappropriating ICTs; particularly the cell phone (Wakunuma, 2007, Rathgeber and Adera, 2000).

In addition, Mossberger et al. (2003) and Luke (1997) argue that it is not just the issue of access to the technologies that creates such opportunities but education such as "skills training". Take for instance the subject of new technological skills being required in the work place, and take for instance the argument that new technologies create new opportunities on the social ladder. The individual who can afford new ICTs and therefore have them in their home will have a continuous access to information and be learning new skills, whilst the individual who only has access through public areas has limited access and therefore limited time to access information and learn new skills. In addition, as women in the South tended to be less educated and therefore lacking in the required literary skills necessary in order to operate and use ICTs. This has led to what Rathgeber discusses as women been stereotyped as having a fear of technology. Therefore, the system automatically favours the ones already in a socially privileged position, even though both individuals will be considered to have access.

In the case of the United States, for example, through research spurred on by the anxiety created by the National Telecommunication and Information Administration (NTIA) annual reports on the issue of unequal access, studies done by various researchers found various degrees of differentiation amongst Internet users and that in particular this division is a basis of the different social strata (Mossberger et al, 2003; Chakraborty and Bosman, 2005). For example, while it was found that high-income

households have a higher usage of the Internet, it was also found that access and usage of the Internet was divided amongst ethnic group and race; and while generally the gender gap is decreasing, there is significant disparity of other socio-demographic features including parentage and disability (Norris, 2001 pp.12; Mossberger et al., 2003 pp.33-38). In addition, households with single parents had significantly less Internet access than those with dual-parentage (Norris 2001, p. 11; Servon 2002, p.35). Commentators such as Norris (2001) have however contended that the issue is not social alone and that there is a political dimension to the divide.

The third dimension, 'the democratic divide' according to Norris (2001, pp.13-14) addresses issues of the stratification between those who use ICTs, especially the Internet, to actively engage in politics through political sources available to them online, and those who do not. It is believed that the Internet for example, will become a medium used for political activities including Internet groupings and social movements; a notion that will help people originally disengaged from political involvement from community (local) level to global levels to become actively engaged. Yet there are now concerns that this concept is fictional, as people are not actually using the political sources available to them online and are therefore permitting conventional forms of politics to filter through into digital medium as a dominant political discourse. For example, in Norris's words:

> "..during the 2000 American presidential campaign the major candidates used their Web pages essentially as glossy shop-windows, as fund-raising tools, and as campaign adds, rather than as an interactive "bottom-up" format for public comment and discussion"

In addition, recently during the presidential candidate campaign for the Republican Party, it was reported how well Senator Obama used online sources to aid his campaign. This according to Alistair Campbell (a guest on the BBC Radio 4 '*Start the week*' program, 20.2.2006) only currently extends traditional and pre-existing forms of politics to the digital space and does not provide new alternative ways of getting people to actively influence policy decisions that will affect them. Chapman (1996, p.1) and Mossberger et al. (2003, pp. 33-38) however argue that the use of new technologies such as the Internet for such activities heavily depends on the

technological know-how of how to find such information on the Internet in what they term the "technological skills divide". Therefore, although an individual might want to use the Internet in such a way, they may lack the necessary technological skills, including locating relevant resources of their interest or research.

The notion of a "democratic divide" seems thin in a theoretical context and more significantly does not so far seem to have sufficient empirical support. Although this concept has some significance in terms of addressing people's engagement in politics, it might not be a 'digital issue'. The idea that the accessibility of online facilities to people will bring heightened political engagement seems fictional and an over exaggeration of how much effort and time people are willing to invest in their accessibility to new digital facilities. Indeed, amongst Gunkel's (2003) reflections on the issue, he highlighted the issue of "digital not-wants"; a notion which addresses one of the missing debates of the digital divide and one which rejects that everyone will use the Internet as long as they have access to it.

As has been hypothesised and empirically demonstrated by Walmsley (2000) and Madge and O'Connor (2005), although new technologies bring about advances in efficiency and to some extent may aid in alternative solutions to problems, they usually reflect the existing social molds of society. Therefore, expecting mass online movements and other forms of political participation, even at a local level, is a little far-fetched and 'hyped' when one considers that currently societal engagement in politics is very minimal. Rheingold (2002 p.163) also documents that "although network-structured communications hold real potential for enabling democratic forms of decision-making and beneficial instances of collective action, that doesn't mean that the transition to networked forms of social organization will be a pleasant one with uniformly benevolent outcomes." Democratic participation in politics through digital means and consequently the matter of "democratic divide" resembles one of the many 'hypes' surrounding the use and benefits of ICTs and therefore appears less significant in relation to global and local stratifications.

Chakraborty and Bosman (2005) introduce a fourth dimension of the digital divide in their empirical research by focusing on the multiple forms of inequality at different geographical scales in the United States. Using this, Charkraborty and Bosman argue

that the 'spatial divide' which they define as "between comparatively information- and communication-rich and information- and communication-poor regions within nations" is an area which has been given too little attention and therefore focused their research on examining inequalities of PC ownerships at regional and state levels.
Although the findings of their research add spatial and temporal dimensions to the digital divide argument, Charkroborty and Bosman's fourth dimension is not dissimilar to other spatial researches on urban and rural digital inequalities (Labrianidis and Kalogeressis, 2006). In addition, it can be seen that the 'spatial divide' is not just visible within nations but also globally, as was discussed earlier with the example of East versus West Europe, and therefore is too narrow in its definition. Charkraborty and Bosman, however, do use a more spatial rather than statistical method for their findings.

2.6.3 Conclusion

Although social, political and spatial dimensions all bring different dimensions to the digital divide debate, there are no substantial arguments in the context of culture where culture may be seen as a stratifying factor either between nations or within a nation. Although Marcelle (2000) discuss the issue of policy as digital divide amongst nations of the South, this is from a political perspective. Cultural factors such as traditional norms, rules, regulations and protocols and religion, which might also be very influential in communities or even nations, are either ignored or seen as too complex to research, as it has generally been assumed that social and spatial divides by gender, income or social class are general and permanent and are significant factors that run parallel in all communities of practice, including those of the South. There needs to be at least some investigation in this area, as a social stratification in one culture could be completely different from a social stratification in another, depending on significant cultural factors.

2.7 Overall Conclusions

What has been demonstrated from current literatures on the network society is that:

Both academics and non-academics have acknowledged that we are currently in a new society; a society that is propelled by new technologies. What is however problematic is that literatures are not sufficiently differentiating between which of the technologies are propelling the new society. A majority of the debates on the new society in the context of new technologies however are on the Internet and the cell phone. However, a problem with these debates is that, they usually come from socio-economic or political economic perspectives rather than socio-spatial perspectives. Hence, in order to contribute to a holistic picture of ICTs influence in the new society, it is essential to add more socio-spatial perspectives.

Moreover, the few materials that take the socio-spatial route, tended to be deterministic and dualistic in nature; and, although some new emerging materials have taken on heterotopian perspectives, not enough of the heterotopian literatures are focused on societies and communities of practice in the contexts of the Internet and especially the cell phone.

Concepts that current literatures are focused on can be categorised under globalisation, development and the digital divide. However, whilst a majority of the socio-spatial evidence-based debates focuses on western societies, very little empirical literature is directed towards countries of the South, and therefore a majority of the debates in this context still remain theories that have not been examined in practice with the South. For example:

Globalisation of the South is seen as imperative by commentators, as international corporations and companies seek to invest in new emerging markets; which were previously economically isolated from the global market but now have virtual presence due to new information and communication technologies. However, exactly what type of globalisation is realistic, particularly in the cultural context, remains vague as commentators argue theories of universalism and hybridisation without much empirical backing. What is needed is an examination of these theories in practice as communities use both the Internet and cell phones in their daily duties in order to empirically evaluate the role of new ICTs in cultural globalisation.

In addition, it is argued that in order for nations to become part of the global network (market), governments are urged by ruling international conglomerates to deregulate their laws and reshape their policies in order to attract foreign investors; a process that would enrich the nation by enabling flows of money, goods and ideas through new ICTs, which will enhance their economy and therefore aid development processes. A problem with this concept, however, is that for such advanced 'developments' to occur, there must be successful implementation of ICT systems in the nations in order to take 'advantage of the global opportunity'. To date, reports on the implementation and adoption of such systems have resulted mostly in failures from an economic perspective. However, what is not considered is the part culture may play in successful system adoption or rejection. There needs to be detailed investigation from this perspective.

As the access to new ICTs is prioritised in some communities and locations in order to accelerate development, there are other communities which have become deprived of access and use. Although, there may be many other factors that contribute to this deprivation, one questions exactly who the concept of development is for as the people who mostly need ICTs appear to being deprived of them. There is a need to understand and solve issues of polarity and stratification between societies and communities. However, whilst technological, social, political and spatial issues are all discussed and researched, less investigation has occurred into the role of culture in dividing communities' access to, use of or 'do not want to use' of technology. This requires a rigorous empirical attention in order to contribute to the debate.

2.8 Research Overview

2.8.1 Rationale

As a result of these gaps in the literature, the research focuses on:

1. Making an investigation from an integrated social, spatial and cultural perspective as the theoretical framework;

2. Examining the different qualities of the individual technologies that have caused so much debate as propellants of the new society in their communities or locations of practice;

3. Investigating how people and the technologies co-exist. That is, the research follows the effect of ICTs on the culture of the places being studied, whilst also focusing on how the people's culture in these places influences *how* ICTs are adopted; and the implications of this co-existence on the concepts of:
    a. Cultural globalisation
    b. ICT accelerated development, and,
    c. The digital divide.

Furthermore, since these three key concepts are broad in nature and contain many aspects, it is essential that the study integrates them on a grass-root level in order to build a foundation. In addition, since these key broad concepts are usually debated and more importantly empirically backed in the socio-spatial in the context of the North, it is essential to add perspectives from the South to the debate. Hence the research focuses on The Gambia as the case study. Reasons that make The Gambia a feasible and interesting place for the research are:

Recipient of ICT initiatives: The Gambia qualifies as a low-income country located in the South (World Bank, 2006) and has as a result received donor-led ICT initiatives that are believed to help achieve development. In addition, due to opening its borders for Western charter tourism, experiences of globalisation through migration and tourism are assumed to be already in existence.

Rapid dissemination of ICTs: although The Gambia is a relative new comer to ICTs compared to Ghana and Senegal which have very established new ICT infrastructure, it has experienced one of the fastest increases in access and usage and even penetration (ITU, 2006; Budde, 2007). This makes The Gambia as a case study more interesting as one assumes the culture is more embracing to dramatic changes and what socio-cultural effects this may have.

Culture and religion: Religion has been cited as one entity the Internet has helped to disseminate. The population of The Gambia is 90% Muslim. This means it is

culturally very different from predominantly Christian nations or mixed religious nations. As a low-income country which had very poor telecommunications infrastructure before the introduction of new ICTs, it would be interesting to know if access to new ICTs has revoked any old issues or created new issues liked to culture and religion.

Manageable field area: Since The Gambia is one of the smallest countries in Sub-Sahara Africa with a relatively sizable population, research in this field enabled a more contained research which was less costly in relation to time and money.

2.8.2 Research aim and questions

Overall Aim:

This project aims to produce a socio-spatial understanding of Gambia's engagement with the Internet and cell phones, and how their construction of cyber and cellular cultures addresses the concepts of cultural globalisation, development and the digital divide.

Research questions:

It is expected that the research answers the following questions.

1. What are the current government aims and strategies in the context of ICTs?

2. How do these affect diverse people in the locations access, use, and general embeddedness of ICTs?

3. What are the particular social and cultural attitudes towards new technologies and their cultures in their diverse locations; and,

4. What are the implications of these for globalisation, development or the digital divide?

3. RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

In this chapter, I discuss how I used both content and discourse analysis of policy documents in order to answer the research question on government goals; and, how using results from the discourse analysis together with methodological analysis from existing literatures and observations made whilst on the ground informed the principal research method: semi-qualitative questionnaires. I then justify why certain data was collected, the sampling of the data collection, how the data was collected and the analytical methods employed, and also, provide an outline of challenges faced during the data collection from both the project and the researcher's standpoint.

Order of the research methodology

Although the research design and methodology consists of three different methods, the separate methods were not initially designed to validate each other as one would in triangulation. Each method was design to primarily answer separate parts of research questions although the methods were also informed by and validated some of the findings of each other. Therefore, in order to find out about government aims and goals on ICTs issues as the first research question, discourse analysis was used to analyse policy documents that were available at the time on ICT issues in The Gambia. The discourse analysis started whilst the researcher was in the UK and it consisted of using policies that were available from the UK. This was then carried forward to the initial stages of the field trip to The Gambia as updated polices were collated for further analysis.

The findings of this analysis, together with informal observations made in the communities of practice during times that the researcher was familiarising herself with the locations, were used to inform the principal methodology which is a semi-qualitative questionnaire survey. The survey did not take place until the last two weeks of the four month duration that the researcher was in The Gambia. The reason for this was to ensure that the researcher would have enough time to observe and embed herself in the communities of practice in order to be familiar with the human

processes before directly approaching each location's inhabitants for responses to questions. As a result, the discourse analysis was the first method of application, informal observations made through the process of embedding myself in the communities was second and ongoing till all data were collected including the survey questions; and the survey was intensively conducted over 14 days as the last part of the data collection process.

3.2 DISCURSIVE ANALYSIS OF ICT-RELATED POLICIES - METHODOLOGY

Policy is an integral part of how ICTs are adopted, promoted, distributed and accessed in any nation or community. Marcelle (2000) for example indicated that groups such as women were being marginalised as a result of policy in the Sub-Sahara African region. International development agencies' efforts to promote ICTs in this region has led to the creation of new policies and reworked old policies by national governments in order to incorporate the criteria set by these international agencies. In order to get a thorough understanding of ICT issues in The Gambia, it was essential to understand Gambian ICT policies as the first point of reference: such as what do the policies say about Gambian level and status of ICT adoption, what type of agenda are the policies promoting and who is endorsing this agenda. Results from the policy analysis were also used to inform the other methods in the triangulation, especially the survey.

Content analysis – A content analysis was conducted in order to make a statistical judgement on the frequency in which certain key words or topics were made reference to or occurred in the policies. The primary aim of the content analysis is to *identify key themes* in the policy documents. By doing this one can for example conclude if international policies are the principal factors influencing the patterns found in the national strategies, or whether there are other external entities that influence national ICT strategies such as that of The Gambia. Keywords such as e-governance, education (or e-learning), gender, access, culture and society were counted and coded into themes. The coding was adapted on frameworks provided by Bryman (2001, pp.181-199) and Rose (2001, pp.54-68) as demonstrated by Table 3.2.

Table 3.1: An example of the coding schedule used for the content analysis

Keyword (e.g.)	Policy A Freq of keyword	% (coverage of keyword in Policy A)	Policy B Freq of keywords	% (coverage of keyword in policy B)	Policy C Freq of keywords	% (coverage of keyword in policy C)
E-governance	5	10%				
ICT and culture	0	0%				
Access	24	49%				
Keyword	12	25%				
Keyword	2	4%				
Keyword	6	12%				
Total		100%				

Each occurrence of the keywords, including new emerging words, was noted down statistically in order to identify the most discussed themes in the policies relevant to the research. Therefore, for instance, if in one of the policies the word 'access to new ICTs' is referred to 24 times, 24 is recorded under the keyword *access*. The representative percentage of 24 in relation to other keyword frequencies (in this case 49%) is then recorded in the percentage column. Therefore, in the context of the keywords, one can deduce in this instance that *access* received 49% of content coverage in Policy A.

Discourse analysis - From the content analysis, a discourse analysis was then carried out on the themes discovered using national policies. The aim of the discourse analysis is to understand the *discourse of the keywords identified in the content analysis in the policies (i.e. in relation to each other and within the policies).* This meant identifying what the text is projecting and identifying, which ICT areas are covered in the policies, and which areas are currently isolated. The coding framework for the discourse analysis adapted from Rose's (2001, pp.136-138) and Foucault's (1972) framework was based on:

Discursive formation: the way meanings are connected together for the ICT and the socio-spatial discourse. For instance, how do the keywords show the formation of certain patterns and trends? What are the contradictions, diversities and dispersions

and yet how do they come together to define the policy agenda? (Foucault, 1972, pp.64-70).

The discursive framework therefore is summarised as:

- Analysis of the structure of discursive statements;
- Concern for the socio-spatial context of those statements; and
- Organisation of the discourse.

Using the keywords from the content analysis, I aimed to answer the following questions in the discourse analysis:

a) What are the connections between and amongst keywords and texts?
   - What are the relationships between statements?
   - How are particular words given specific meanings?
b) What is the broader non-discursive content of the policy statements? This as Rose (2001, p.151) suggests, addresses the productivity of the discourse and focuses on the production of meanings and things.
c) What is the effect of the discourse: for example,
   - Who is responsible for the discourse?
   - What is the status of the organisation producing the discourse?
d) What are the contradictions? and
e) What are the absent texts as "absences can be as productive as explicit naming" (Rose, 2001, p.161)?. For example, why were references made to 'technologies' in the plural and yet only the Internet was mentioned.

It is however critical to make clear that, whilst discursive formation is all that is required from the content of the policies, and hence the choosing of this framework as the most appropriate, this is by all means not a deep discursive analysis. In addition, there is an amount of subjectivity as in all research methodologies. An example of this is the selection of keywords from the content analysis for the discursive analysis.

3.3 PRINCIPAL METHODOLOGY: RATIONAL OF QUESTIONNAIRE:

The principal methodology was formulated on the basis of the findings of the discourse analysis, methods employed by existing empirical studies and place-based observations in The Gambia.

3.3.1 Discourse analysis

From the case study and discourse analysis (which are discussed in Chapter 4), it is apparent that, despite its vibrancy and ethnic diversity, The Gambia is a small nation with an economic hindrance as one of the least developed nations on the globe. The Gambia also has a problematic record of implementing ICTs such as television and telephones. However, in order to enhance its economic position The Gambia (with international backing) appears to have fully embraced new ICTs as the current and future tools for development.

As a result, several ICT strategies, action plans and projects have been formulated and in some cases implemented in order to: a) meet international benchmarks and indicators for development; b) create Internet resources access in order to attain knowledge dependability; and c) commence an e-government strategy in order to decentralise government and promote transparency and democracy in order to attract foreign investments.

The problem, however, is that whilst the lack of adequate basic and technological infrastructure enables only some sectors to be the recipient of this modernisation and advancement of information and communication tools, other areas which have been widely publicised as crucial capital for development but are vulnerable and marginalised, such as women, girls and other sections of civil society, appear to have been left out in the policy and action plans. This therefore enables the policies to be both problem solvers and creators. As a result, one questions whether there are other factors influencing these decisions; factors ingrained in the culture such as attitudes, and attitudes from whom?

In order to further investigate this, and also to establish if the import of new ICTs correlates with the import of new dominant cultures from the North as the main factor

associated with ICTs adoption in the South, the general Gambian population are approached for answers in a form of a semi-qualitative survey. This includes answers from people in both policy-prioritised and non-prioritised locations and occupational communities.

3.3.2 Observations and chance interviews

According to Handwerker (2001 p.4) using several methods in as methodology means using "each individual tool for collecting or analyzing cultural data achieves specific, complementary, and overlapping project goals; and that their integration yields findings with high reliability and construct validity". In addition to policy analysis, it was essential to embed oneself in the local culture for a period of time whilst making observations that would inform aspects of the research and complement other methods being used. Since the approach to observations and chance interviews were not from any methodological framework, it was seen as secondary method that was ongoing throughout the whole duration of the field trip. It was informal and usually consisted of making diary entries of observations as people go about their usual daily activities, this was achieved by such activities as sitting in class, spending time in households and watching people go about domestic duties, spending time with the petty trader in his or her corner shop, or visiting offices working during working hours.

In addition to this, chance and opportune interviews with people previously observed in the communities of use were also conducted, such as chatting to the self-employed taxi drivers in market places or office locations and petty traders located in households about the Internet and cell phones and recording their opinions. Rather than looking at essential social groups, in this method I was more interested in looking at the individuals that make up a particular environment or location and their priorities and how these differ from individuals from other locations. Handwerker (2001, p.7) refers to this as ethnology rather than ethnography which focuses on "essentialized social groups".

Whilst the inferences made from observations and the chance interviews were used to inform the principal research method, some were also used to complement or validate

findings of the questionnaires. For example, the use of a common practice labelled 'beeping' was used in the questionnaires. Without observations and interviews, this crucial use of cell phones would have been overlooked. Also, as standard forms of numerical analysis from the survey alone were not sufficient to see the interconnections between the people in these communities and their norms and practices, by adding this approach, I the researcher was able to see connections, similarities and differences in respondents in the different locations and their information and communicative structures, how these warranted or rejected cyber and cell cultures, and as a result relate these to socio-spatial processes of globalisation, development and the digital divide.

According to Handwerker (2001 p.11), texts from informal interviews give the researcher an insight into the assumptions the informants use to understand and respond to the world of experience, such as getting insights from a taxi driver. The gathered texts from informal interviews and observational notes were thematically grouped and were found to correspond with some of the statistical findings – some were particularly useful for validating some of the results from the survey and policy analysis, especially when used in conjunction with the thematic findings from the free-text responses. As a result, there was a broad understanding from the large number of respondents in the survey from the deeper information collected from observing and informally interviewing a small selection of people.

3.3.3 Existing empirical studies

As demonstrated by the literature review in Chapter 2, a varied amount of the empirical literature in geography and other related disciplines can be identified with socio-spatial perspectives of ICTs on concepts of either globalisation, development or the digital divide, although none thus far has combined the three as inter-linked in the socio-spatial context. Methods used in these empirical studies are chiefly qualitative but are considerably varied in their design for capturing in-depth knowledge. These included methods such as unstructured or semi-structured interviews, focus group discussions, ethnography, textual and discourse analysis, semiotics and actor-network theory analyses, and quantitative methods such as questionnaire surveys. Whilst some used single qualitative methods to capture narratives, others combined both

qualitative and quantities methods; and while some used conventional methods, others experimented with new contemporary methods such as using electronic research methods. What is, however, apparent is that each method or combination of methods used, were carefully chosen for appropriateness and for better understanding of the community or group being studied in their environment of practice.

Therefore, for example, whilst Valentine et al (2002) used qualitative methods such as interviews to study the Internet's usage by children in schools and the effect of globalisation on children's Internet use; Longan (2002) and Van Windin (2004) used methods such as focus groups and interviews in their research of social exclusion as a result of Internet use. In order to understand how mothers use the Internet to construct hybrid (Virtually real and Actually real) identities, Madge and O'Connor (2005) used online ethnographic methods by combining web-based questionnaires and semi-structured virtual group interviews. Similarly, Adam and Ghose (2004) used online ethnography approach to study Diasporic relationships and communities and their connection to the homeland in the Indian online community.

In addition, some of the empirical literature from the various disciplines in the context of ICTs and civil society preferred discourse or textual analysis with the use of qualitative secondary data. These were in the forms of essays (Johnson, 2006), existing case studies (Panagakos and Horst, 2006; Van Wilding, 2006; Townsend et al., 2004), and governmental and non-governmental policies (Echánove, 2005; Grant and Nijman, 2004).

Specifically in the context of the global South, research from other disciplines tended to be either deterministic towards technology or economics. For example, in the more technological disciplines, researchers such as Chivanga (2000) and Daly (1999) have conducted research specifically on the Internet and its effect on people in the South using various methods. Whilst Chivanga used a combination of survey and interviews to inform his research, Daly attempted to measure the impact of the Internet on Africa using secondary data from the telecommunications industry. In geography, socio-spatial empirical-based literatures on ICTs in the global South are scarce with the exception of researchers such as Mercer (2004, 2006). Mercer's study of ICTs and their effects on a community level, organisational level (NGO) and national level in

Tanzania, East Africa, used several integrated ethnographic methods. These included combined methods of focus groups, observation and interviews, and questionnaires. Whilst a part of her study focused on the role of NGOs in the wider political sphere as the implementers of donor strategies and goals, her second study was focused on teasing out the social and cultural implications of the Internet. .

An observation, however, is that a majority of the empirical literatures reviewed dedicated little attention to samples and sampling strategies used in their research. This could be due to the word limit requirement of publishing bodies, however, for those that mention sample sizes and strategies there was a demonstration of a varied range of samples used. This normally corresponded with the size of the research and depth of the methods used. For example, whilst Johnson (2006) analysed 10 essays from three high-income countries, the depth of the essays might be comparable to, for instance, Wilding's (2006) large qualitative data or Grant and Nijman's (2004) comparative studies of two different government policies.

Although those who used a combination of methods did not specify any particular difficulties in their methodology, the large scale studies such as Chivanga (2000) and Daly (1999) were problematic in the sampling strategies. For example, in Chivanga's study, he used a combination of postal questionnaires and interviews in which he only managed to get 25 responses to the questionnaires as he generally investigates the effect of the Internet on agricultural communities in Tanzania; whilst Daly documented the difficulties in getting the telecom companies to cooperate in several of the countries. Chivanga also did not specify the number of interviews conducted in order to reach a conclusion in his paper.

Taking into consideration all the methods used in the various studies, and using findings from the discourse analysis and observations made from The Gambia to complement it, the principal method used for data collection is the use of semi-qualitative questionnaires. For example, it was apparent that whilst interviews are more qualitative and in-depth, a large sum of interview data would have been problematic collect and analyse. Therefore, a compromise of semi-qualitative questionnaires is a much better option as Mercer (2006) demonstrated in her study. Also, as postal questionnaires are not effective from Chivanga's (1999) study, the data

collection must be conducted in person in order to maximise the data quality and number.

As a result of both policy findings and observations, interviewer-administered questionnaires were collected in the form of structured interviews with free text options using random sampling strategy in five geographic locations. Handwerker (2001) refers to the use of several methods to complement each other in social and cultural research for a shorter period of time as "quick ethnography". The questionnaire method itself, the sampling strategy employed and the approach to analysis are further discussed in detail for each method in the following sections.

3.4 QUESTIONNAIRE - METHODOLOGY

The use of and the approach to quantitative data collection have been informed by various literatures such as Bryman (2001), McLarffetty (2003) and Parfitt (2005, pp. 78-106). Interview-administered or mall-type questionnaires formed the second integral phase of the data collection. As the design of the questionnaire was informed by findings from the discourse analysis, data collected through this method were essential as they were the only data that carried the actual direct voice of the population under study both in the question and free-text forms. As it is a voice that can be interpreted as the general opinion of the Gambian population it is essential that the questionnaires are not only well-researched but also large in quantity in order to cover a wide range of diverse communities.

The aim of the survey is to draw on the views of people's perceptions of cyber and cell culture; to determine if and how it may be redefining their way of social and spatial interactions, existing information and communications networks and life in general; and to identify emerging ideas that are being associated with new ICTs and their cultures. The survey also aimed to highlight any emerging trends or patterns in globalisation, development agenda and also to determine if there are any new trends of digital stratification emerging. In addition, in order not to be technologically deterministic in assuming that new ICTs are the influential tool, the questionnaires were designed to gauge how the people surveyed are receptive towards ICT adoption

for development purposes. This latter objective was used to cross-validate some of the observations and chance interviews made during the field work.

Answers to these provided an understanding from a socio-spatial perspective on the dominant discourse of globalisation, attitudes towards ICTs' adoption, and socio-spatial divides in the context of ICTs' access, use and embeddedness. In addition, the answers to the questions helped determine issues on how ICT initiatives are sustainable in some places and not in others, especially as current commentaries are reporting more failures than success in the Sub-Saharan African region in particular. Analysis of the data was also especially useful for evaluating the diverse reactions to, and levels of engagement with, cyber and cell culture, and new ICTs. Data collected was also used to factually back up certain observations made and inferences made from chance interviews during the field work. The semi-qualitative survey method overall was the primary research method in Gambia as it involved direct interaction with a wide range of randomly selected people whilst administering the questionnaires.

The interviewer-administered questionnaire is the second best method after telephone interviews when conducting a large survey due to the fact that it is less costly in nature and is also speedy. According to McLarfferty (2003, p. 88), in 'developing' countries where government data sources are often out of date and of poor quality, questionnaire surveys are a primary means of collecting data on people and their characteristics, as Mercer (2006) demonstrated by favouring this method in her data collection in Tanzania.

3.4.1 Questionnaire design

The questionnaire was designed to consist of precise questions in order to give certain direction or prompt the respondent. This also helped and guided the respondent as to the general subject being researched when making free comments in the free-text options. The questionnaire consisted of 29 closed questions and eight open-ended (free text) options, where respondents were asked to generally comment or further add an opinion to a previous question. The questions and free texts were divided into four parts (see Appendix 1 for questionnaire):

- Part One was aimed at establishing the particulars of the respondent and also to establish their user status. Culturally, Part One of the questionnaire was very useful in that in The Gambia people prefer to go through the ritual of greeting first as a gesture of politeness before launching into full conversation. Part One was useful for this purpose as it started lightly before launching into full thoughtful questions.

- Part Two aimed at establishing Internet use and cyber culture.

- Part Three was designed to establish cell phone usage and its culture.

- Part Four was responsible for capturing emerging ideas and attitudes towards ICTs in relation to globalisation, cultural diversity and other stratification issues. Part Four also sought to include the views of those who might not be part of the cyber or cellular usage population.

Each part had two free text options. The free-text options were particularly designed to capture the free thoughts of the people generally linked to ICTs and may not be specific to any question. Since the study critically involves capturing peoples' perspectives, the unit of study was people selected randomly from the entire population of The Gambia that were represented in the Greater Banjul area. The target population therefore was all any type of person or group from any ethnic background, gender or age in the Greater Banjul area. The only discriminating factor was the spatial element where specific locations were studied based on the policy findings which showed some locations being prioritised for ICT and telecommunications modernisation whilst others were not (see detailed analysis of the policies in Chapter 4). As a result, the five locations selected for the study consisted of two specifically targeted locations (offices and educational institutions), one indirectly targeted area (public access areas) and two prioritised locations (households and markets) as briefly described in the following:

Offices – This location consisted of private, public (civil) and non-governmental organisation offices in the Greater Banjul area. Offices were chosen as a location to study as it is part of the government's strategic plan to introduce ICTs into this location in order to advance and modernise Gambia's working systems and accelerate

development. Part of this plan also involved private offices which introduce the use of the Internet and sometime cell phones in order to help advance competition, whilst NGO offices are reported to be the first offices in Southern countries to introduce computers due to their already advanced status (Jensen, 2002; Nii Quaynor, 1997).

Cyber cafés – This location consisted of cyber cafés in the Greater Banjul area. The cyber cafés targeted incorporated both public (Gamtel) and privately run cafés. The rational for choosing this location is to gain responses from people who actually seek access to the ICTs by going to the cafés. From the discourse analysis, public access emerged as another priority location as the government realises that challenges of inadequate infrastructure do not enable access to schools and some offices and the general public. Public access to the Internet has been observed by Sairosse and Mutula (2004) as the most popular form of access, mainly due to cost and infrastructure reasons. As a result there are increased strategies both from the government and private sectors to provide more access in the public domain.

Households – This consisted of households or compounds in the suburbs of the Greater Banjul area. A majority of the urban population reside in this location and do not often venture into the city. Demographically inclined towards groups in the 'non-working' category, people here are often excluded from vibrant and activity filled places, which can be immobilising. Despite this, this location is not prioritised in the national policies for access to new ICTs. Targeting this location, therefore, generates access to responses from people in this demographic group who may not necessarily be users but are nevertheless included in Gore's (2000 p.13) challenge to the telecommunications sector to be provided with access to ICTs.

Educational institutions – This location incorporates both public and private sector educational institutions such as schools, computer institutes and the University of The Gambia in the Greater Banjul area. There has been much effort made from the international level to introduce ICTs to this generation as the pioneers of the new ICTs through schemes such as government strategies and wind-up laptops. Access to this population's experiences with and opinions on new ICTs is essential to the research.

Markets – Markets are vibrant places especially in Sub-Sahara Africa. Markets in this region are the economic hubs of urban areas as they are where most of the local financial transactions take place. As a result, they attract a diverse range of people – people that are usually hard to pin down to a particular habitation. Also, as new ICTs have been predicted and reported to be helping local economies, responses from this location are deemed important to the thesis.

3.4.2 Sampling and population

Sampling Strategy: Parfitt (2005 p. 98) advises that in this type of research, two types of sampling strategies can be applied: that is, either a probability stratified sampling where the population is stratified according to certain factors such as race, gender or class; or a non-probability quota sampling which still consists of some level of stratification. In my research, since knowledge of the population based on each location is indefinite, a random sampling strategy was used. This means "sending interviewers out to find respondents of in specific locations. There was no stratification of the respondents. Interviews approached people randomly in specific locations briefly described above. In order to get equally representative responses from the public, a target of 200 questionnaires was allocated to each location over a minimum of two days, where the data collection team of five people (myself included) worked. As a result, we all participated in all the locations.

In order to maximise the diversity of the responses in each location, we would try and collect responses from the diverse categories that make up that location. For example, in offices, one day was allocated to government, civil service and NGO employees whilst the next day, we would visit private sector companies such as banks, insurance companies and other NGOs. In the case of educational institutions, one day was allocated to government owned schools, colleges and the university whilst the other was allocated to private and computer schools and colleges. Using the educational institutions location as an example, the researcher can establish that about 50% of responses were from private computer schools. However, since the responses were collected as per location, it is not known how many responses were collected from each category that make up a place as they are all coded as students.

Pilot studies: Whilst the general design of the questionnaire and some specific questions were informed by the discourse analysis of the policy documents, several pilots were conducted using the random public and also between the data collectors in order to test the robustness of the questions. In addition, due to being embedded in the Greater Banjul area for the previous three months, certain norms and protocols necessary for a successful implementation of the questionnaires were applied. For example, using the beginning of the questionnaire as a way of greeting before gently easing respondents into the questions was learnt and applied. During the initial pilot, it was discovered that some questions were yielding the same answer and were therefore revised by either deletion or re-structuring in order for it to yield better results.

3.4.3 Editing, Coding and Analysis:

There was an on-going field editing and validation of the data collected at the end of each day in order to root out any discrepancies or false respondents. Since a majority of the closed questions were already pre-coded, coding time was minimised in the analysis. The pre-coded data were coded both into Microsoft Excel and SPSS. However, the open-ended or free-text questions were firstly coded by thematic means and analysed. Both are described in the following:

Data analysis – Since the aim of the research is to find a better socio-spatial understanding of certain discourses on globalisation, development and the digital divide, the statistical analysis of the data focused on a *confirmatory* type of analysis (Fotheringham, 2005 p. 196). This for example included confirming difference in attitudes towards ICTs from gender and age perspectives. Analysis was done using the statistical tool SPSS as the main analytical software and Microsoft Excel as a secondary back-up by chiefly doing descriptive analysis such as non-parametric tests. There was a target of 200 questionnaires for each location which was met. As a result, over 1000 responses were collected.

The questionnaires were written in English although local slang words were sometimes incorporated in order to translate a better meaning. In three out of the five locations (that is, offices, cybercafés, and educational institutions), since a majority of the people here were fluent and could write English, the questionnaires were

administered in English or the respondents themselves completed them. The households and the market locations reflected the low literacy rate of The Gambia[8]. In these cases, the data collectors who were all fluent in the five main languages of the Gambia administered the questionnaire in a local language (usually Wollof) and then translated the responses into English on the questionnaire (information on the training of the data collection personnel is further discussed in the later section – under *researcher's positionality* in this chapter).

As a result, some of the questionnaires were not completed in the right manner. For example, some of respondents who indicated that they did not use Internet or cell phone completed Sections 2 and 3 of the survey which are meant for only users. Also, on some of the questionnaires, the age or the gender of the person was not indicated. Through validation and weeding out false questionnaires and the ones that did not have vital variables such as age or gender for non-parametric tests, 978 responses were collated. The 978 entries in total had 60 variables (37 questions and some expanded questions coded separately such as coding ICT importance ranking separately and usage of each ICT) for the statistical analysis.

The general aim of the statistical analysis is to make comparative interpretations of the results of the five locations under study in order to answer the research questions. Therefore, for instance, if the highest use of the Internet is *information search* in location A, the highest internet activity might be *financial transaction* in location B. This meant that the maximum number of entries (responses) to analyse at a time was 200 for each location. In order to for the statistical tests to support this format, some of the questions with large categories were collapsed into a maximum of four categories (advised by the mathematical support department, Loughborough University). Some of the descriptive tests conducted included:

- Frequency tests in order to obtain counts and percentages of frequencies (e.g. percentage of women present in a particular location);

[8] Although UNICEF does not give a more current figure on their website, adult literacy rate in 2002 was 32% for females and 46% for males. This is below Sub-Sahara African (SSA) rate of 55% females and 72% males. Source: www.earthtrends.wri.org.

- Mean and comparing means in order to analyse averages and compare averages (e.g. Ratios of and variations in how each age group in a location ranked the Internet's importance);

- Cross-tabulation in order to analyse observed frequencies, expected frequencies and variations in representations (e.g. percentages of women who have a particular attitude out of all the women respondent in a location compared to percentage of men of who have the same attitude out of all the men in that location); and

- Chi-Square and Fisher's exact tests for calculating statistical differences and significance of the differences (e.g. difference in gender and cell phone usage or attitudes). Statistical significance is calculated at 5% and therefore a statistical value is significant is less than 0.05. Chi-Square was used in tests that have 5 or more counts in a cross-tabulated cell and, Fisher's exact was used if a cell has less than 5 counts (advised by the mathematics support department, Loughborough University).

Coding of the open-ended questions was categorised firstly into codes, and then into general themes, entered into SPSS and Microsoft excel, and, analysed together with other responses from the questionnaire. In addition, the free-text responses coded in themes were also used for qualitative representation in the results as excerpts or extracts that supported some of the statistical findings. The results were then applied and used to answer the research question on trends in ICT usage in The Gambia, and interpreted in the context of globalisation, development or the digital divide.

3.4.4 Mapping the research area

Geographic detail

As stated previously, the research area was the Greater Banjul area which consists of Banjul (the official capital of The Gambia) and Kanifing (the biggest regenerated urban area in the immediate suburb of Banjul). The total size of the population in the Greater Banjul area is about 370,000 of which about 175,000 are females (see population statistics in Appendix 2 provided by the Central Statistics Dept, Gambia).

Greater Banjul area lies in the south of Gambia nearest to the Ocean and as a result is closest to the several beaches which have attracted charter tourism from Europe. Greater Banjul, however, also has urban towns and community settlements and most of these are located on the immediate fringes of Kanifing in places such as Serekunda, Latai Kunda, and Manjai Kunda. The research area generally comprised of Kanifing for cyber cafés and offices; Banjul for cyber cafés, offices and educational institutions; Serekunda and Banjul markets; Majai Kundai Latri Kunda, Serekunda, and for households; and Kanifing and Banjul for school locations, as the map in Figure 3.1 illustrates.

Map of the overall research area

Figure 3.1: Mapping the research area

(Source: Google Earth)

3.4.5 Challenges and researcher's positionality

Challenges from the data collection process: Language was the first barrier to the data collection. I worked closely with officials from Department State of Information and Communication Technologies and the Central Statistics Department (CSD). These representatives aided in recruiting experienced data collection personnel – all of whom are trained by the CSD as data collectors and have just been involved in collecting similar data for the Scan-ICT Baseline project. As mentioned previously, the researchers spoke the main languages of The Gambia where Wollof is the most widely spoken. The team was made up of five people including myself (three males and two females). As I am not a native Gambian, I could only speak English therefore whilst in locations like offices, educational institutions and cyber cafés where the majority of the people spoke English, I would just hand over the questionnaire for them to fill in and answer any queries that the respondents had; in places such as markets and households, I shadowed one of my colleagues as they approached respondents. As a result, although I was physically present, I did very little data collection in these places as I wanted the process to be as authentic for the respondents as possible.

In addition to the data collector's experience, it was vital to get them involved in the project. Therefore we had several initial meetings in which I spoke about my work and involved their input as I finalise the questionnaires and plan the pilot. In order to keep the collection team focussed and motivated, we had briefing every morning before data collection begins (where I distribute the questionnaires and re-confirm places and items on time-table), and debriefing in the evening where I collect the completed questionnaires for cross-checking and validation. As part of the motivational technique, I also used the morning briefing to announce my data collection person of the day (from previous days work) who receives extra (double) food and drink allowance. Since I had a very limited budget, it was agreed by the officials and the team that I pay the collection assistant a minimum wage of 2500 Dalasi (just under £65 at the end of the data collection) in addition to the 200 Dalasi per day for food, drink and transport.

In the early stages of questionnaire administering, it was discovered that some of the interviewers were projecting certain ideas onto the respondents by the manner in

which the questions were asked. Although feminist geography advocates against researching from a 'neutral' point as positivist which is justifiable in many cases, in this case, although the interviewer cannot adopt a totally neutral perspective, care was taken not to project the interviewer's own ideas on to the respondent as this would discredit the objectivity of the exercise.

In addition, in the early stages, it was found that some of the interviewers resorted to using specific prompts for some of the open-ended questions, which in effect disregarded it as open-ended. Again, whilst using prompts to jog the respondent's memory is not wrong, in this case, it was vital that the open-ended questions remained open as they were designed to encourage independent thinking from the respondent in order to extract unique answers that will add depth to the exercise. Interviewers were advised to be mindful when using prompts and were advised not to use specific prompts to the ICTs on which the respondent might seize.

Challenges were faced in how the researcher was viewed by potential respondents and the local population as a whole, from two critical perspectives. During the pilot stages, it appeared that when potential respondents viewed researchers (data collectors) as government spies, they were cautious in their responses. In other cases, when potential respondents thought that the researchers were representing an overseas charity organisation, respondents became less cautious, but began to looked for incentives such as payments in order to take part in the survey. Although items such as fridge and television were also demanded, a majority of the demand was in the form of appeal made to the researcher for more ICTs to be introduced in the localities. After explaining to locals this is an independent research as a student, they become more interested wanting their voices to be heard as they felt that they were often neglected in these matters. Some even used the free-text spaces to enquire about where and when the results of the research would be published for public viewing.

Challenges faced overall: In the overall field work, challenges were faced by the researcher's position in the communities of study in the following subject areas:
Gender: As a female working in a heavily dominated male environment, it was vital to project excessive determination in order to convince the male contacts whose help I needed in order to gather information about the communalities of study. Whilst a majority of the females where supportive, there were some indifference and some

negative queries from the older females wanting to establish why I have chosen career over marriage and children. As an African, I am used to these queries from both genders as it generally is part of the culture.

Language & Terrain: Although a West African, it was quite difficult to adapt to the terrain as there no commonalities in spoken languages between the West African nations. This initial difficulty to adapt could also be attributed to the researcher's residence in a non-African nation for over a decade. However, this difficulty was resolved by making friends and quickly embedding myself in the communities.

Culture and Religion: Coming from a Christian perspective, it was challenging to adapt to the Islamic way of viewing some things such as gender and gender roles in the communities of studies. Once after a hot day's work, I ordered a beer to drink. Although the bar person frowned slightly, I took no notice of this until I realised that that the religious devout in my data collection team would not sit at the same table as me as they did not encourage drinking in women. I had to replace the beer for a non-alcoholic drink in order to proceed.

Identity: As a result of migrants emigrating from other regions of West Africa such as Nigeria, Ghana, Sierra Leone and Liberia, The Gambia population contains a mixture of these migrants who are usually labelled Aku (Creole) people. As traditional Gambians are very distinctive physically (very tall and rangy), it was easy to identify the Aku population. As a Ghanaian, on several occasions I was mistaken for an Aku woman. This identity was only developed into a challenge when I sometimes became a target of local hostility towards the Akus.

It is, however, essential to stress that overall, these challenges were minor and were quickly overcome. The Gambian culture is quite secular compared to other Islamic states and is therefore welcoming to different people. Once the men realised that I was not a local woman to be chastised by local protocols, I was accepted as a researcher. In addition to being invited into classrooms in order to motivate young people, I was allowed to have lively but amiable debates with especially the local men; whilst the women tried their very best to convert me to a Muslim by inviting me to private gatherings whilst teaching about praying according to the Qu'ran.

4. THE GAMBIA AND ITS ENGAGEMENT WITH ICTS

4.1 INTRODUCTION

Taking into consideration that the study involves making ground level investigation of three broad concepts, it is essential that the research design and methodology are sufficiently detailed in order to make a thorough analysis and provide an understanding of the concepts on various levels. However, it is also essential to firstly have a sufficient understanding of the area of the study before one can fully make judgements on appropriate methodology. Therefore, in the following, I describe The Gambia as a place, and its history in ICT implementation. In order to answer the research question on the government aims, and to understand how ICTs are being implemented in The Gambia, I list the current ICT policies and projects in The Gambia. From the listed policies, I do both content and discourse analyses. Apart from using the findings to answer some of the research questions, I also use the findings of the discourse analysis - together with a review of similar empirical studies, and place-based observations from the researcher - to inform my principal research methodology, a questionnaire survey. I then present the overall findings of the questionnaires in exploring how people engage with ICTs as a result of their information and communicative structures (or information ecologies).

4.2 THE GAMBIA AS A PLACE: ITS PEOPLE, CULTURE AND SOCIETY

Various Gambian literatures (Gamble, 1988; Marcel, 1998) have intoned that the name Gambia is generally acknowledged to derive from The River Gambia. Yet it has also been documented that the word Gambia is not part of Gambian vocabulary and therefore there is no clear sign of its origin. A clue, however, to this puzzle as Gamble (1988) documents is:

> "The name Gambia itself is of uncertain origin, many versions of its origins pronounce it as Gambia or as in a discovered narrative...When the Portuguese first arrived, a man called Kambi was sent to see what

they wanted. They asked him what the name of the place was and he, thinking that they were asking for his name, replied 'Kambi'. *Kambi-yaa* means 'to Kambi's place or 'at Kambi's place".

Marcel (1998), a native Gambian, suggests that this narrative is perhaps more original in how Gambia first derived its name.

The Gambia lies on Latitude 13° 28′ North of the Equator and Longitude 16° 34′East of Greenwich (greenwichmeantime.com). The country borders the Atlantic Ocean from the west whilst the rest of it is engulfed by Senegal. Geographically, The Gambia is interesting because not only is it the smallest and most densely populated country in mainland Africa with a population of around 1.5 million (World Bank, 2007), but the whole country is a narrow strip of land formed only around the The River Gambia. The land area, which is about 11,295 sq. km, is about 24-48 km wide and runs most of the length of the river (about 500km).

Politically, The Gambia is an interesting formal colonial territory of the British which gained internal self – government in 1963 and full independence with dominion status on 18th February 1965 (Population Secretariat, 2005). There seems to be an inter-relationship between The Gambia and Senegal which was initially broken due to colonial segregation (LaViolette, 2007). As a result, most Gambians have relatives in Senegal and vice versa. This is reflected in Gambia's political strategies (Marcel, 1998). According to the national Population Policy (2005), the country became a sovereign Republic within the commonwealth in 1970. In July 1994, the country came under military rule following a coup d'etat. After a two – year transition period, presidential elections were held in September 1996 and democratic civilian rule restored. Recently, The Gambia was ranked third among African countries for Good Governance[9]. Apart from the capital and its surrounding areas (Greater Banjul area), The Gambia has five other administrative regions called Divisions. These are the North Bank Division, Central River Division, Western River Division, Upper River Division and Lower River Division (see Figure 4.1).

[9] Source: African Parliamentarians Network Against Corruption (APNAC) www.apnacafrica.org/transparencyinternat_apnacrank_e.htm

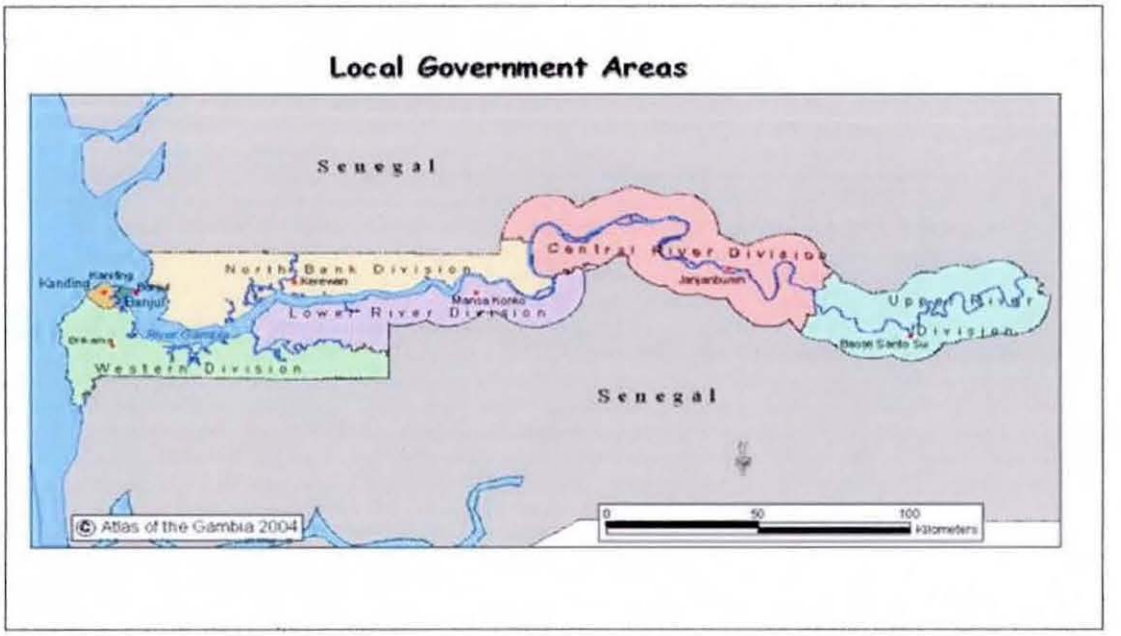

Figure 4.1: Administrative regions of The Gambia

(Source: accessgambia.com)

Socio-economically, The Gambian economy after Independence relied heavily on a single commodity – groundnuts which according to Carney (1993) unevenly distributed individual economic power between gender. At present, the country ranks among the 'least developed' with a per capita Gross Domestic Product (GDP) in 2007 of US$ 0.6 billion (Worldbank.org/data). Nearly 41 per cent of cropland is under groundnut cultivation and groundnuts account for an average of 9 per cent of total exports (Gambia Population Policy, 2005). The agricultural sector accounts for the largest proportion of economically active persons with more than half of the population engaged in subsistence farming, livestock raising and groundnut cultivation.

The manufacturing sector, according to the population policy adds only 8% to Gambia's overall GDP and provides employment for less than 3% of the population. This consists of crushing of groundnuts, baking, brewing, food processing and the production of bricks, soap and plastics. Recently, in order to boost its GDP, tourism has become a source of foreign exchange as well as employment. The tourism sector provides employment to about 2 per cent of the labour force on a seasonal basis running from October through April. However, since a majority of the tourism is

charter, income generated from this goes the charter tourism operators who are European. As a result, the industry does not have significant linkages to the domestic economy. Gambia's economy is however above the Sub-Saharan African average with a GDP growth rate of 5% reported in 2005 (Budde, 2007; worldbank.org).

Socio-culturally, The River Gambia plays a vital role in Gambia's formation as it divides the country into two halves; namely the North and South Banks. This division has contributed significantly towards forming The Gambia's diverse ethnic groups and their associated roles in the economy. The most dominant ethnic groups are the Mandinka, Wolof, Fula (Fulbe), Jola, Serahuli and Serer; whilst the minor groups consistute the Aku (creole), Manjanjo and Bambara. In addition, the influx of European immigrants also contributes to the diversity of The Gambia's population and culture as Table 4.1 illustrates. Although the various ethnic groups differ culturally and socially, their communal life share similar structures which give them a unifying bond.

Ethnic groups	**Population in Percentage**
Mandinka	39.5
Fula (Fulbe)	18.8
Wolof	14.6
Jola	10.6
Serehuli	8.9
Serer	7.8
Aku (Creole)	1.8
Manjango	0.8
Bambara	.07
Other Gambians	1.2
Non Gambians/Europeans	12.9

Table 4.1: Ethnic groups and their population representation in The Gambia
(Source: 1993 census from the Bureau of African affairs, 2006)

Languages of the largest ethnic groups are widely spoken in Gambia. These are the Wolof (the most popular and spoken by almost every one), Mandinka, Jola, Fula and Serahuli. These languages are broadcasted in the media although English is the official language of The Gambia. Some of these groups also have identical ties with similar groups in Senegal.

> "Social and cultural norms largely influence people's perceptions of and attitudes towards population issues. Despite the cultural variations among ethnic groups, male dominance is the common norm. Gender disparities are notable in that women have little decision-making power. Due to a lack of awareness and traditional gender stereotyping, it is generally accepted by a majority of both men and women that the status of women is inferior to that of men. Early marriage is common among all ethnic groups and affects female enrolment and retention in schools, particularly in the rural area" (Gambian Population Policy, 2005, pp. 8-9)

Along the same lines, the population secretariat declares that there are cultural practices affecting the female population such as female genital cutting, and various post natal rituals that aggravate the risk of maternal and child morbidity and mortality: and that frequent pregnancies, short birth intervals, and long working hours (domestic and commercial) further constraint women's schooling and self-improvement possibilities, as well undermines their health. Whilst about 50% of women were in polygamous marriages according to a 1993 census, some of these rituals are connected to religion as about 95 per cent of the population is Muslim.

4.3 Society and culture in The Gambia: gender, age and religion in the context of information

As an Islamic nation, The Gambia to a large extent adheres to the Islamic code of belief although it sees itself as a more secular nation. Freedom to acquire knowledge through unapproved channels is seriously challenged according to status in society. Religion appears to be a significant factor in contributing to how social, information and communication structures are formed. Similar to other Islamic nations, although there is not an official hierarchy in Islam, the Imam or the religious elder is usually at the top of the social and cultural hierarchy as the wise 'man', and therefore the one with the highest authority. The Imam at the top could be the 'poorest' *man* in his community, however, the fact that he is the Imam gives him a higher social and cultural influence than say a 'rich' woman who is the head of an influential organisation. This is not to say that income and other socio-economic factors are absolutely excluded as contributing factors to these inequalities, however, even in the presence of economic factors, it is religion which guides how social and cultural

norms, protocols, structures and hierarchies are formed and, subsequently the power relations within them.

Furthermore, classical interpretation of certain sections of the Qu'ran legislates the man's authority over the woman (Munir, 2002) which according to (Stowasser, 1998, p.33) "entails the man's right to discipline his women in order to ensure female obedience both towards God and also himself". Through Islam women are seen as secondary to males and it is believed that females must look up to the male for moral and social guidance, therefore meaning males are automatically put ahead in the socio-cultural ladder. This is depicted in several ways including the exclusion of women from praying with men in mosques or the exclusion of girls from being educated in *Madrassas* (Islamic religious schools). These protocols are adhered to by women who sometimes appear to be the actual enforcers of these regulations. Wheeler (2001) further illustrates this point where the whole society (not just men the rule makers) becomes the executors of the strict cultural code. Using her study in Kuwait, Wheeler observes that:

> "Gender boundaries are policed by eyes of the curious public and a strong sense of 'you never know who might be watching'...Gender separation in public life is maintained by public fears of the cost of transgressing such boundaries; a cost usually assessed to a woman's, and thus a family's reputation. The social sanctions against mixed gender interactions outside of direct relatives are so active that once while I was in an Internet café, the owner got a page on his pager. He called the number listed on his pager on his cell phone. He discovered that the page came from a woman inside the café. She had asked him to turn down the air conditioning as she was cold. She was sitting 20 feet away from the owner, yet she did not feel comfortable communicating with him face-to-face, in a public place. When I asked the owner about the curious situation, he responded emphatically, 'you know, gender issues'" (Wheeler, 2001 p.191).

Also, since the older a person, the more responsible and wiser they are deemed to be, it was observed that older males tend to have the overall say in cultural guidance. As a young person, the best and most approved place to seek knowledge is the mosque or

through the local elder, and not through a foreign website. This is not entirely religion-specific as other non-Islamic nations in Africa have a similar cultural code such as the one the researcher is from (Ghana). As a result, a young male is likely to have more power in the socio-cultural structure in their location compared to an older female. Whilst some of the literature argue old inequities will be eradicated by ICTs (Geser, 2004), so far, from the majority of the literatures, it appears that what the introduction of ICTs has done is to rather reinforce these types of boundaries and inequities, especially in places where the strong traditional and cultural norms and protocol are observed.

Although Islam has been debated to be the champion of early scientific study and the production of scholars in this field (Huff, 2003), recently, it has been debated that the Islamic code of belief may also discourage critical enquiry. In 2008, a BBC Radio 4 program debated this issue as causing the decline in scientific knowledge in Muslim spaces (Beyond Belief, *Islam and Science*, 2008). As a result, respect for "higher authority which tells you what you can and cannot do" (Musad, 2008) under the concept of religion and Allah is strictly observed especially as guidance for young people. According to Musa Adamani (2008) who was a panellist on the Islam and Science program, the code of belief observes that because Allah knows, human beings don't have to know.

Professor Prevez Hoodbhoy (2008) who was also contributing to the Radio 4 program extended this by stating that knowledge or education has to be 'Islamicised' in order not to contradict the Koran. The desire of altered knowledge to be given to young people in order to protect them from the morally corrupting materials that new ICTs present was voiced to the researcher during the field work and was also expressed throughout my analysis in all the locations (see Chapter 5-9). Anderson (2003) discusses that through online sources there is a "massification of education in the contemporary Muslim world, which has given wider access both to texts of Islam and to a wider range of interpretation developed in mosque-university (*Madrasa*) and religious lodge (*Ziwiya*)" (p.47). These varied interpretations of classical knowledge challenge the authority of religion. ICTs' introduction into society, has, generated a wide cause of concern, amongst the various groups of people who are convinced that

such materials are corrupting to religious teachings and practices and challenge classical interpretations of religious knowledge.

According to Eickelman (2003), challenging classical interpretations of Islam is quite serious as it can be construed as defying a central ideology which believes in guiding its people and the information that passes between them. For example, in the beginning of his literature, Eickelman (2003, p.33) narrates from an historic text - *Zayini Barakat* by Gamal al-Ghhitani - written in the early 1970s, where a chief spy in Mamluk Egypt dreams of a "world in which everyone is numbered and agents of authority can intervene in a conversation and move it in a particular direction". Such censorship, code of belief, and authoritarian rule is now seriously challenged by new ICTs due to the availability of education and other materials especially on the Internet. In Eickelman words, the "Internet and computer links are rapidly eroding control of what is said"... and "access to new technologies has multiplied the channels through which ideas and information can be circulated and has a large scope of what can be said and to whom"; the effect of this "has eroded the ability of authorities to censor and repress, to project an uncontested central message defining political and religious issues for large numbers of people" (Eickelman, 2003, p.33).

4.4 GAMBIA AND ICTS: THE HISTORY

Old ICTs such as the radio were introduced to The Gambia during the Second World War. According to Marcel (1998) the British colonial governor at the time set up a small radio service to cater for the information needs of the British community in the greater Banjul administrative area. The main purpose of this radio station was to inform the European community present in The Gambia on the progress of the Second World War. Since then, the launch of a successful radio station that catered for the whole of The Gambia proved a challenge until about 1962 where the national radio station Radio Gambia was formed. By 1972 Radio Gambia was successful enough to broadcast in English and the five major languages of Gambia. The radio still proves to be the main source of information for a majority of people in The Gambia, especially those located in the rural regions of the country.

Television, however, has a very different history compared to that of radio, as various sources (Marcel, 1998; Edie, 2000) suggested that there were no specific plans from the then government to make information available through visual means. This lack of enthusiasm for television was, according to Marcel (1998), because of fear of the level of *awareness* television would be likely to bring to The Gambian people [my emphasis]. The new government which came into power in 1994, however, had different ideas regarding television's role in information provision and therefore promptly set about to establish a broadcasting station. The historic lack of enthusiasm from the government meant that Gambia was one of last ECOWAS (Economic Community of West African States) sub-regional countries to acquire a television station in September 1996 (Marcel, 1998). The Gambian national television, although not quite as successful as the radio, is still being aired for a few hours a day in the evening.

The fate of the fixed line telephone in retrospect appears worse than that of both the radio and television in Gambia, although many of its problems such as lack of funds to invest in the infrastructure are common to the African landscape as a whole. The telephone network in The Gambia is currently being operated by government owned Gambia Telecommunications Company Ltd. (Gamtel) which underwent a modernisation process in 1984. According to Budde (2007), prior to this modernisation there were about 2,700 fixed lines in the whole country, however the modernisation of the industry has increased fixed-line teledensity from 1.75% in 1995 (19,200 lines) to 2.93% in 2005 (44,000 lines). Despite the effort and growth in teledensity, the fixed line telephone remains a very unsuccessful method of communication in The Gambia and Africa as a whole (Budde, 2007). A high desire to obtain an effective information and communication channel has resulted in a recent shift towards new ICTs such as the Internet and the cellular (mobile) phone.

As demonstrated in the previous paragraphs, attempts at providing effective information and communication channels in Gambia have proven to be quite a challenge. A challenge that ranged from material reasons such as lack of funds, to resistance to modernity and political control. This arouses a certain curiosity that leads one to speculate on how new information and communication technologies are being regarded, especially when one considers their lower cost and the degree of

freedom associated with them in terms of global scale interactivity. Although new technologies such as satellite and digital television are currently present in The Gambia, it is the newer technologies such as the Internet and mobile phone that have been predicted to make a greater impact on civil society and culture, as the following declaration from the former director World Trade Organisation (WTO) illustrates:

> "It will soon be possible to bring high-quality education, health and business services to every village in the world. ...The job of the negotiators in the WTO is to create the right political environment for this to happen" (Renato Ruggiero, 1995).

4.4.1 Current status of the Internet and mobile (cell) phones in The Gambia.

Due to its contemporary status, documentation on the history of the Internet in The Gambia is very scarce. However from the little available information one can deduce that the Internet was established in 1998 in The Gambia as a United Nations Development Program (UNDP) initiative, as the UNDP played a significant role in its establishment. Gambia Telecommunications (Gamtel) was the other significant stakeholder in the establishment of the Internet as it acted as the backbone of the Internet industry by providing four commercial Internet Service Providers (ISPs) with services such as the international access needed to connect to international servers. These are GamNet which is owned by Gamtel and three other private ISPs: Airtrip, Netpage and QuantumNet who are reliant on Gamtel for the provision of access to international servers and therefore are not very independent and are vulnerable to monopoly from Gamtel. Contrary to expectations and predictions, however, the Internet has not been very successful. Lack of growth in its usage and penetration has been attributed to inadequate basic infrastructure such as electricity and fixed-lines.

In addition, inadequate technological and human resources, lack of computer skills and literacy, high costs of computers, and its maintenance and Internet tariffs have all been held responsible for the under-flourishing state of the Internet. According to some critiques, however, the biggest factor of all is the major lack of awareness about even the existence of the Internet (Budde, 2007, Marcel, 1998). Similar to the fixed-line telephone, there is a user divide between rural and urban areas which means the majority of the Internet's infrastructure is located in the urban areas, specifically in

the Greater Banjul area. However, even in these urban places, since the Internet is only available to those who can access it through public spaces such as offices and business premises and cyber cafés, there are still a lot of people without access and use. This means that unlike the telephone, there is a further divide, both spatial and social, between localities or occupational communities, gender and age groups, as reported by Budde (2007).

The highest access point for Internet users by far is the cyber café where service is provided by two ISPs – Gamtel and QuantumNet. Data provided by the ITU (2007) shows an estimated number of Internet hosts[10] to be 850 in 2005 whilst the estimated number of Internet users was 61,000 (with a penetration[11] of 4.07%) in the same year. These figures are not too dissimilar to that of the fixed-line telephone in The Gambia, therefore suggesting that the growth of the fixed line is linked to the growth of the Internet. This correlation between fixed-line growth/teledensity and the Internet's growth/penetration is not too surprising as Internet connections generally rely on telephone networks and therefore an Internet connection is likely is to be established where a new fixed line is established (even if Internet access is the initial motivation for the fixed line connection). Recently, Internet connections via satellite systems have been introduced as an alternative in order to bypass problematic fixed lines however, this option is very expensive.

Cellular (mobile) networks are, however, thriving in The Gambia compared to the Internet in terms of access, usage and penetration, as the cellular phone seeks to replace its traditional counterpart the fixed-line telephone as a more effective and reliable communication instrument. Although the first cell phone started its network operation in 1996 in The Gambia, the launch of Global System of Mobile communication (GSM) networks by 2001 proved the cell phone to be the most successful yet of the new ICTs in terms of subscribers. There are currently two cell phone networks operating in The Gambia. They are Gamcel, which is government owned, and Africell, which is privately owned. Together, these two networks have seen a growth of 27% penetration in 2006 with 407,800 subscribers (Budde, 2007).

[10] Internet host is used to denote the number of fixed-line subscribers with Internet connection
[11] Internet penetration is used to describe the depth or penetration of Internet coverage over an area. This is especially important in the context of digital divide.

Ultimately, it appears that, unlike the Internet and the fixed-line telephone, the digital divide in cell phone use seems to be limited to affordability and choice rather than literacy, gender and age, and locality. In addition, relentless efforts to bridge the rural/urban gap by the network operators (especially state-owned Gamtel) means there is network coverage in most rural areas. However, although the cell phone is perceived as being very successful in The Gambia, fierce in-fighting between government and private operators to dissolve competition, monopoly and distrust appears to have hindered progress in introducing more advanced services that constitute standardised cell-culture activity. For instance, it was observed that, even though a significant amount of cell phones found in The Gambia can take pictures and record videos, a lack of Multi-Media Services (MMS) has rendered current Short Message Service (SMS) the only additional standardised cell-culture activity available.

4.4.2 Gambian current ICT policies and projects

According to a recent survey by Scan-ICT Baseline Project (an ICT brainstorming project designed to help nations in the African region formulate useful ICT policies), The Gambia has fully recognised that "*Information and Communication Technologies have emerged as tools for sustaining economic growth and delivering essential services to the populace in all spheres and sectors of the economy*" (2007 p.8); and that it is for this reason that there is now high demand for information and communication technologies and the formulation of policies in order to meet international ICT development indicators and benchmarks.

According to Scan-ICT (2007, p.10), a number of projects and policies have being designed and implemented by government and public institutions to enhance access to and use of ICT equipments and services in The Gambia as a result. Scan- ICT named some of the key projects and policies as:

- AU-E-Network – Financed by the government of India, the project aims to link referral hospitals to hospitals in India, and also link The Gambia University to Indian universities through the provision of electronic and online medical and education resources.

- Construction of Technology Park – Funded by the governments of Egypt and Taiwan, this project according to Scan-ICT is aimed to attract multinational ICT businesses into the country.

- The Biometric project – "This involves electronic processing of National ID, Passports and personal registration documents and authentication by upgrading those documents for better security and efficient service delivery. The initiative is to be contracted to Biometrics International Group (BIG)" (Scan-ICT, 2006, p.33).

- The e-government project – Supported by the Economic Commission for Africa (ECA) this is a strategy formulated to help provide an effective public service delivery system for civil servants in order to improve transparency.

- ICT for Development (ICT4D) project – This constitutes "initiatives aimed at increasing awareness and understanding of the knowledge of ICT as a tool for development focusing on the e-Government and NICI frameworks" (Scan-ICT 2006, p.34).

- NICI Policy and Plans Development – "The development and the formulation of NICI Policy and Plans was mainly aimed at recognising the areas where ICT would contribute to the attainment of the overall objectives of the Vision 2020" (pp.34-35).

- Telecommunications Bill – According to several Gambian information sources, there is a draft telecommunications bill, which it is hoped will improve quality of service and provide a competitive environment.

- Internet Resource Centre – This project is hoped to encourage businesses to start up and operate various Internet service businesses in a secure environment.

4.5 POLICY ANALYSIS AND FINDINGS

4.5.1 Introduction

In order to effectively answer the research questions on government discourse on ICTs such as aims and priorities through the formulation of ICT strategies and plans, and also determine the extent to which International Development Agencies (IDAs) are involved as stakeholders in creating the national strategies, both content and discourse analyses were conducted on selected policies. The policy documents were analysed as part of the data collection process. Analyses of the policy documents also served as useful background knowledge for the survey process of the data collection. The policy documents analysed consisted of Gambian national ICT policies relevant to new ICTs that were available at the time of the study. The policies were varied and included policies from a wider and more general perspective, such as modelling national agenda to meet international benchmarks, to divisional agenda, such as access to certain sectors. The following relevant documents were analysed by their content:

- Gambia's Vision 2020 (strategic plans including e-initiatives), 2003 (38 pages) – this is a general policy that sets out Gambia's targets for development and declares that one of the key elements essential for development is a modern telecommunications and ICT infrastructure.

- The National Information and Communication Infrastructure (NICI) policy for The Gambia, 2004 (14 pages) – this is the national ICT strategy with emphasis on e-government. The policy sets out key areas that need to be prioritised for the implementation of new ICTs in order to accelerate the development process.

- The Republic of The Gambia's Education policy 2004-2015 (including a two page designated to ICT policy), 2004 (52 pages) – the education policy is a reformulated policy as one of the key selected sectors that needs the integration of ICTs.

4.5.2 Content and discourse analyses

Analysis of the policy documents highlighted certain key ICT related topics set as priorities as depicted in Table 4.2.

Table 4.2: Content analysis - count and percentage of keyword coverage in each policy

Keywords	Vision 2020 (38 pgs):	% of content	NICI Policy (14 pgs)	% of content	Education policy's - ICT policy (2 pgs)	% of content
Global markets growth & dev	74	47%	14	11%	1	2%
Access & Digital divide	4	2%	9	7%	6	14%
IDAs	17	11%	11	8%	0	0%
Telecoms & Infrastructure	31	20%	16	12%	8	18%
e-government	13	8%	64	49%	0	%
e-education & skills training	10	6%	10	8%	18	41%
ICT & civil society	9	6%	7	5%	9	20%
ICT culture	0	0%	0	0%	2	5%
		100		100		100

The general purpose of each policy meant that there were specific keywords dominant in the content of each policy as discussed in the following.

Vision 2020 - The Vision 2020 policy is an all inclusive policy that was created in line with the Millennium Development Goals (MDGs) in order to achieve socio-economic development, and therefore was formulated to highlight priority areas that needed modernisation or capital injection for the purpose of development. As a result, the Vision 2020 policy highlighted modernised telecommunications infrastructure and ICTs as a priority. There was a strong focus on socio-economic development in this policy.

Whilst a majority of the goals were fully focused on economics and how to be part of the global market in order to achieve socio-economic development, very little of the text was dedicated to other enabling factors required to achieve this goal. In the Vision 2020 policy, reference to economic or socio-economic was made 74 times and

covered 47% of the content and there was a conviction in the text that left no doubt that ICTs are seen as tools for becoming part of global markets and development by the policy makers. For example, one of its objectives stated that "*the free flow of information is a pre-requisite for the attainment of Vision 2020,* and that this can be achieved by *integrating the country into the Global Information Infrastructure (GII) via the global information highway*" (2003, p.10).

In order to integrate the country into the global information highway, more specific plans and strategies were formulated to target certain infrastructures for modernisation. This resulted in the formulation of the National Information and Communication Infrastructure (NICI) policy which prioritises e-government as in need of infrastructure modernisation.

NICI policy – This policy contained a majority of specific action plans that were targeted at national level, as it had been specifically formulated for national ICT purposes. Therefore, whilst the Vision 2020 highlighted telecommunications and ICTs infrastructure to be modernised in order to integrate the country in the "information superhighway", the NICI policy determined the sectors whose ICT infrastructure and telecommunications needed to be modernised; which it labels as e-government plans and actions and describes as:

> "Implementing the African Information Society Initiative (AISI), African Ministers of Planning and Economic Development identified the use of ICTs in central Government and local administration as one of the priority sectors for entry of Africa into the information era and as a means to support Government's administration and decentralization process. This is also consistent with Vision 2020 in developing electronic information for development in The Gambia" (NICI, 2004 p. 3)

According to the NICI strategy, in order "*to bridge the digital divide between Africa and the rest of the world but more importantly to create effective digital opportunities to be developed by Africans and their partners, and to speed the continent's entry into*

the information and knowledge driven global economy", e-government is essential. With the highest overall emphasis relative to the other keywords in the National ICT policy document, and with a content coverage of 49% (see Table 3.3) in the content analysis, *e-government* is the highest priority of all the topics that emerged in national strategy. A similar conviction and purpose that was evident in the Vision2020 was also evident in the NICI plan pledges which to "*provide at least ONE computer with Internet connection to all concerned departments and offices (Central and Local)*" (NICI policy, 2004 p.7). Three broad concepts of e-governance gathered from the policy documents are:

- A process where a range of government information, such as decision documents, white papers, policy papers and decisions are made accessible electronically to the public.

- An integrated system of public administration offices of a central database for knowledge sharing between civil servants.

- Using ICTs to enable public services such as e-health/telemedicine, e-learning/distance learning, e-tourism, e-agriculture (heavy electronic systems to replace subsistence farming) and government transactions such as online driving tax purchasing and government to business transactions.

Whilst the purpose of an e-government is that through ICTs governments are able to demonstrate transparency of administration and produce accountability of government to the general public, it is hoped that by demonstrating transparency, private sectors would be attracted into investing in the nation; thereby helping it to become part of the global market as the following extract indicates. According to NICI's advocacy and policy dialogue (2004 p.10, 11) there is a:

> "need to provide for freedom to every citizen to secure access to information under the control of public authorities, consistent with public interest, in order to promote openness, transparency and accountability in administration..."

As a result, since e-government is seen as the starting place of transparency and democracy, and subsequent development, public sector services are set as a priority and targeted as a location in which to initiate new ICTs. According to the NICI policy, "*three major sectors of the government, namely Education, Health and Local Government*" will be the priority of the overall e-government action plan (p.6). To achieve this, however, there needs to be adequate infrastructure.

Education Policy: The Education policy also dedicated a section to ICTs in its policy. As part of the MDGs, one of Gambia's Vision 2020 policy aims has been to introduce ICTs (as documented by the NICI plan) into selected sectors in order to aid accelerated development. A sector that has been highlighted in the all three policies is education, in order to provide necessary skills training and to acquire knowledge from ICT resources. Whilst Vision 2020 (p.7) is certain that, "*mass media will be harnessed as an instrument for pluralistic information, education, entertainment and mobilisation for national socio-economic development*"; the NICI plan details that "*the successful implementation of the strategic objectives and priorities of the e-government programme in The Gambia will require the mobilisation of establishment of a premier technical university for higher ICT education and training through formal and non-formal educational (open and distance) modes*" (p.13). Meanwhile in the education policy, the aim of the policy is to "*ensure through the use of ICTs that quality education is accessible to one and all... and also invest in ICTs in a way that will achieve the greatest benefit at the lowest cost for the good of the greater majority of society*" (p.32).

Targets of ICT-oriented education and skill training that were highlighted throughout the education policy were to a) produce technically capable people who are able to adapt and use computers and the Internet; b) produce technically brilliant people who can enable Gambia to rely on its own technical know-how rather than having to rely on overseas help; and c) education for the wider (especially young) community in order to attain knowledge resources through the ICTs such as the Internet. The subject of skills training and education as a result commanded 41% of the key content in the education policy (see Table 3.3), as it is viewed as a priority sector through which ICT culture can be developed. As a result, in order to "*create and nurture an*

ICT culture, ... access to ICT resources and facilities in schools will be made available to out-of-school youth and other members of the community", and that "*communities in which schools are located will be encouraged to use ICT resources and facilities in the schools in order to communicate and also improve their numeracy and literacy skills*" (p.33).

Realistically, however, there is acknowledgement in the policy documents that there is a lack of adequate infrastructure that would provide sufficient access in order to achieve the policy goals. To resolve this problem, a new ICT-priority sector emerged as the education policy details that "*cyber café and computer resource centres will be established in every region to enhance the ODL* (Open Distance Learning) *programmes of both the University and The Gambia College*" (p.33). Despite that, cyber cafés and computer resource centres would be in the public domain, only students were referred to as accessing these resources as the rest and majority of the society are essentially ignored.

So far, whilst the Vision2020 has highlighted telecommunications and ICTs infrastructure to be modernised in order to integrate the country into global markets, the NICI policy has highlighted the sectors whose ICT infrastructure and telecommunications needed to be modernised; one of which is education. This demonstrates the hierarchy of plans and actions from the wider agenda modelled on international goals to a more specific local agenda. This also shows that whilst only the bigger agenda is modelled on international policies, this trickles down and shapes how local policies are formed.

Commonalities

Despite the contents of each policy focus on specific problems from the wider to the divisional agenda, there were instances where certain key words projected fundamental issues. The issue of ICT infrastructure on various levels was documented in the content of all three policies. There was a general acknowledgement in all the policies that infrastructure (both hard and soft) underpins the foundation of some of the ICT plans and strategies, as reference to infrastructure was the second highest in both Vision 2020 and NICI policies with 20% and 12% coverage respectively, whilst

it was the third highest in the Education policy with 18% coverage. This topic constituted a majority of the issues ranging from basic resources such as electricity to power a computer to the computer itself, including the hard peripherals such as printers and keyboards. This also includes issues of bandwidth, networking capabilities and maintenance issues. In addition, were the references to policies and strategies that would govern the use of the Internet and other computer facilities. Soft infrastructural issues such as legal framework, e-strategies to encourage more skills training, and education in order to encourage cyber culture were also emphasised.

Who is responsible for the discourse?

In view of new ICTs being considered as fast-reaching globalising[12] and subsequently, development tools, according to the World Development Indicators (WDIs), the effective deployment and implementation of ICTs can be used by low-income countries to their economic advantage and to improve their socio-economic status. Consequently, many International Development Agencies (IDAs) have seized on the ICT4D discourse and have integrated it into their policies and actions with conviction. For example, illustrating the specific advantages of the Internet to low-income regions, the ITU states that:

> "In theory, it can broaden and enhance access in developing nations because it offers a relatively cheap, versatile and technically efficient service that complements standard telephony. Furthermore, the Internet can allow businesses from developing nations to 'leapfrog' into development mainstream because Internet commerce will allow them to sell their wares and their services directly to customers. The Internet also offers considerable promise in facilitating the delivery of basic services, such as health and education, which are unevenly distributed at the present. In this utopian view, the Internet is a way of levelling the playing-field and rendering the traditional disadvantages of the developing world - distance from markets, under-invested, basic infrastructure, under-utilised capacity etc.,- least onerous" (ITU 1999, p.1).

[12] According to the ITU, while it took the telephone close to 75 years to reach 50 million users, it has taken the World Wide Web (WWW) only four years to reach the same number.

Given such views, IDAs, in the name of helping achieve development, are directly influencing how nations in the South formulate their national policies. For example, whilst the Vision 2020 was modelled on the MDG requirements, criteria and benchmarks, in the NICI policy for example, there was an involvement of the United Nations Economic Commission for Africa (UNECA), and the Government of Finland in creating the strategies and plans that are to be implemented at a local level. As a result, these two policies made reference to IDAs' current or future involvement in their policies whilst the education policy did not. As the Vision 2020 is formulated to meet international benchmarks, its content had more coverage of IDAs (11%) than the other two policies. Whilst the purpose of tailoring national and sub-national strategies to suit the wider agenda of IDA guarantees financial support, it also questions how much financial hegemony and power plays in creating policies for local people in The Gambia at which development is aimed.

Absent texts

Socio-cultural development: Scarcely did any of the policies underline the need to address socio-cultural issues as similarly important as socio-economic issues. There was, however, some acknowledgment of other socio-spatial factors as being important in enabling achievement of the policy goals. For example, reference to how people live their daily lives was identified as important in the Vision 2020 text which declared that "*development is all about people, how they live their daily lives, how they attain self-realisation and how they improve on their living standard*"; whilst the NICI strategy (p.13) stated that "*operational research will be conducted in socio-cultural and behavioural areas and other socio-economic domains*" which is deemed relevant to e-governance.

ICT and civil society: Whilst reference was made in all three documents to the importance of ICTs for human development, and that civil society groups need access to them in order to empower themselves, and that the e-government system will pay "*special attention to the gender perspective*" (NICI, 2004 p.4); there were no specific policies that targeted civil society communities such as women and youth. In the

NICI document for example, the policy (2.2.3) emphasises certain population groups such as women and youth as vulnerable and therefore needing empowerment. Similarly, the Vision 2020 document fully details women's disadvantage by declaring "*the economic role of women is still not fully recognised and valued as indispensable to an enhanced revenue generating capacity of the household: Gambian women are still largely deprived of the factors of production*".

Despite such statements, there were no current or future plans to bring access specifically to women apparent in the documents. Whilst a high number of youth who are in education have prospects of access, either through their institutions or by public access, places and occupational groups where women are mostly congregated, such as households or within small trading establishments, have not been highlighted in any of the policies as even a secondary priority. This at once highlights the creation of a digital stratification through policy formulation.

The Digital Divide: The issue of the digital divide was not seen by any of the documents as an urgent problem requiring attention, although in the NICI policy (p.10) there was a strong declaration to "*manage ICT in a manner that secures the fair, balanced and harmonious development of all the people with particular attention to the needs and aspirations of the most disadvantaged in society*". In fact, it was hardly referred to in both the Vision 2020 and NICI documents, and on occasions when it was referred to it was a reference made to global North/South divide. A pattern that emerged is that whilst The Gambia sees itself as a digital 'have-not' and therefore a victim of the North/South divide, in its attempts to close that gap it is indirectly creating smaller divides nationally.

4.5.3 Conclusions

References have been made in all three policy documents to the importance of ICTs for socio-economic development. In order to achieve socio-economic development, however, there needs to be human development; and for ICTs to be of assistance to human development, society has to associate with them in order for them to exploit

the different uses of the ICTs. From the keywords and key topics that emerged from both the content and discourse analysis, the following conclusions have been drawn:

Prioritised locations and occupational communities: It appears that certain locations and occupational groups have been selected to benefit from ICT access and use as part of The Gambia's national ICT and e-government program, which is aimed to help Gambia become competitive in the global market in order to make socio-economic advancements. The locations selected to partake in this programme are locations that are judged to be strategically placed (with adequate skills and the know-how) to enable an accelerated benefit of the programme. The selected locations and occupational communities are public services (government administrations), the education sector, and public resources such as cyber-cafés that would enable continued access to those from office and schools, in order to attain high technological dependability. Whilst this logic is understandable, other occupational communities which have been predicted to benefit from ICTs introduction to society have not been targeted, even as a secondary priority. These are occupational communities which are dominant in locations where women generally congregate, such as households and small trading areas (including markets).

This is contradictory to the acknowledgment made in the policies about empowering women, especially those in vulnerable communities, in order to benefit from ICTs. Not targeting places where the majority of gender is female also contradicts the declaration made in the Vision 2020 that women in household locations should be aided in order to benefit from their production to the economy. As these policies are modelled on international policies such as the MDGs, one wonders why the politics of women are acknowledged and yet unlike the other essential areas (education, public sector and health), there were no action plans following the declarations. One therefore speculates, that there may be deeper issues, such as factors embroiled in the culture that are serving as preventative issues, for example cultural attitudes, especially as the Vision 2020 p.16) documents that *"the average Gambian is still largely inhibited by a number of negative attitudes towards production of social life"*. The selective strategy also leads one to question the concept of development as development for whom?

Focus on only particular ICTs (The Internet) as the global and development tool: Although much attention was paid to the Internet and the effects of its culture in aiding socio-economic development in all the documents, there was hardly any mention of the effect of the cell phone and its culture. This seems to have been overlooked a great deal even though signs of the cell phone's impact are quite visible. This leads to speculation as to why the cell culture and its impact in low-income countries have failed to be noticed by academics, governments and by bilateral and multilateral institutions and international conglomerates as perhaps the most development-aiding technology due to its mobile and cost saving features. It is, however, one of the intended outcomes of this project to address this issue in more detail.

The beginnings of a digital stratification?

Statements in both the Vision 2020 policy and the NICI strategy declares that, being part of the global network society is not about technology but about how people acquire and make use of the information in their daily lives. Both analyses have also shown that although there is some documentation and reference made in the policies to the issues of stratification between The Gambia and the North, within The Gambia as a nation, there is little attention being paid to the internal divides that policies are aiding to create. Therefore, whilst in the Vision 2020 policy Gambia declares its ambition to bridge the gap to Northern nations, a contradiction of focus within the policies means that whilst efforts are being made to bridge the North–South gap, little attention is being paid to the digital stratification within the society. In fact, it appears that the policies seem to be aiding the creation of stratification within different locations as policies are targeted at some and not others, thereby enabling some locations to have access, use and direct association with ICTs (especially the Internet) whilst others are excluded. These patterns of stratification were also replicated in the questionnaires analysis. In the next section I present an overall finding of the questionnaires in the context of information ecologies.

4.6 THEMES FROM THE OVERALL ANALYSIS: HOW INFORMATION AND COMMUNICATION STRUCTURES ARE BUILT AROUND AGE, GENDER AND OCCUPATION.

In order for cyber and cellular culture cultures to emerge in a place, there has to be access, usage and the willingness to integrate the ICT into daily routines of people in that place. This I define as embeddedness. Several key themes have emerged from the analysis and findings of the questionnaires in which certain socio-cultural factors affect the even embeddedness of ICTs adoption in The Gambia. Particularly, is how the intricate play between gender, age occupation and religion all come together in influencing how new ICTs are engaged with; and the subsequent cyber and cellular cultures that emerges in the different locations. Whilst the first evidence of the different levels of engagement was visible from the policies, what further analysis from the statistical evidence shows is that policy alone is insufficient to explain these inequities; and that the information and communicative structure of the locations, which determines the information priority and behaviour of how the ICTs are engaged with is also a crucial factor. I define this as information ecology.

Nardi and O'Day describe information ecologies as: "settings in which we individuals have an active role, a unique and valuable local perspective, and a say in what happens. For most of us, this means our workplaces, schools, homes, libraries, hospitals, community centres, churches, clubs and civic organisations. For some of us, it means a wider sphere of influence. All of us have local habitations in which we reflect on appropriate uses of technology in light of our local practices, goals, and values" (1999, pp. preface). As mentioned previously, occupational groups, gender and age demographics influence policy and a cultural discourse of peoples' access to, use of and reaction to new ICTs. In the following, I discuss the overall evidence from the findings from the five locations that shows how the accumulation of all these factors influences how ICTs are engaged with. In other words, how the engagement with the Internet and the cell phone are shaped by these factors.

4.6.1 The complexities of gender and ICTs

Feminist geography has often critiqued technological spaces as gendered; that which emphasises dichotomies such as oppression/liberation; threats/opportunities where

technology is seen as a part of masculine culture. This can be translated simply as men *have* and women *lack* technological knowledge; a conventional notion which seems to have been generally accepted in certain places, in particular Africa. However, as Massey (1996) observes, high technology industry in various guises is seen across the political spectrum as the hope for the future, regional and local economies, and it is important therefore to be aware of the societal relations, including those around gender, which it supports and encourages in its current form of organisation. A well known argument is that, since technology is designed by men, it is usually created for men, especially when considering the 'look and feel' aspect of technology. Rathegeber (2000) expands on this argument by suggesting that:

> "Engineers in technology development gave no consideration to the symbolic value of technology or, perhaps more important, the symbolic value of the use of technology. As is already well documented, fewer women than men in Africa, as elsewhere, specialize in the sciences or engineering. Moreover, if women seem to be "fearful" of technology or reluctant to experiment with new technologies then this is usually interpreted as a "female problem", rather than a reflection of the inappropriate design of the technologies or the aura of male dominance surrounding their use, or both. Thus, if women have not been active participants in the development and the use of new technologies, then it is assumed this has been a result of (1) their own choice or (2) the fact that they have been slow to recognize the importance of a particular new technology." (pp. 23-24)

Grint and Gill (1995) have, however, referred to the special relationship associated with masculinity and technology as an ideological link; although they encourage maintenance of a 'healthy scepticism' as there is little practical evidence to endorse the masculinity and technology theory. Rathegeber (2000), however, crucially concludes that "whether or not some women have a "fear" of technology, they have a pressing need to attend to many diverse duties and have little time to experiment with new technologies simply out of interest" (p.23). This observation is interesting because the gender aspect of my findings positively coincides with some of the earlier debates about masculinity and technology as female users of both ICTs were lower than the males, lagged behind males in cyber culture activities, and on average ranked ICTs' importance lower than the men (see Table 4.3).

Table 4.3: A summary of differences between males and females in how ICTs are engaged with.

Gender	Internet users	Cell phone users	Avg cyber culture activities	Avg cell culture activities	Avg hours spent on Int	Internet importance	Cell phone importance
Male	75%	84%	4	1	1	3.2	4
Female	25%	67%	3	1	2	2.7	3

However, it also strongly validates Rathegeber's conclusion that mostly it is because women are often occupied elsewhere in the more complex and pragmatic spaces. For example what Figure 4.2 demonstrates is how a majority of the female respondents overtake males in the carer and self-employed categories which are jobs that are often found in spaces where technologies are less practical whilst males overtake females in the corporate and the civil service categories where technologies are more practical.

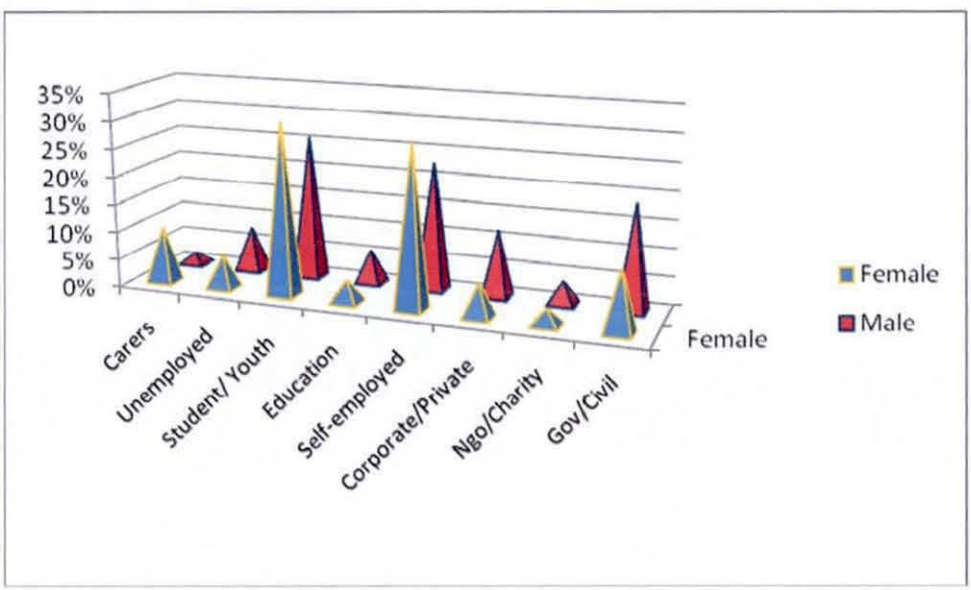

Figure 4.2: Gender and job categories

A point which my finding proves and which concurs with an aspect of feminist research is the low number of female respondents in the masculine spaces such as the office and cybercafé locations as demonstrated in Figure 4.3 (this is further discussed in Chapter 5 and 6). General consensus (CSD 2001) proves that gender variation in each location is quite representational though in some cases, men were more willing to respond than women. Socio-cultural spaces in Africa in general, as Rathegeber (2000) also suggests, are polarised into feminine and masculine spaces. This means that certain spaces are designated as male and female spaces although both are a mixture of public and private spaces. This does not necessarily mean that women are

prohibited from masculine areas and vice versa, but that in the context of certain African cultures it is highly unusual for gender mixing to occur in certain locations, especially in the case of women crossing the invisible threshold. This is primarily because gendered roles compel women to be often occupied with jobs elsewhere and therefore they have not the time or the inclination.

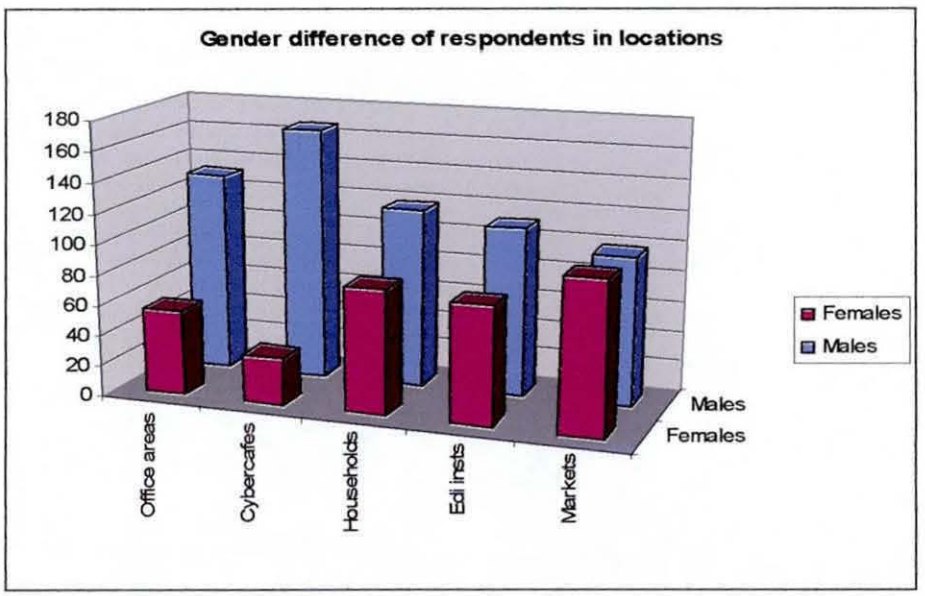

Figure 4.3 Difference in gender respondents in all five locations

Although one cannot assume homogenous social and cultural relations for the whole of Africa, there are certain commonalities (which one might argue extends globally to Southern cultures). For instance, whilst males are seen as the dominant species and given status as head of the household and the provider, females are seen as less dominant and carers; and as conventional feminist research logic hypothesizes, divided roles mean divided spaces. This is not to victimise all women as 'underdogs' as further detailed analysis showed that females in certain spaces such as offices, cybercafés and educational institutions are pushing these boundaries, and that the ones in more traditional spaces such as households and markets appear to be pushing the traditional agenda as much as the males (see Chapters 5 - 9). This line of reasoning introduces the significance of the occupational factor into the formation of information ecologies in the various spaces in addition to gender.

4.6.2 The value of occupations

Whilst the occupational category was useful in demonstrating the differences between duties and spaces, it was also very useful for highlighting the overlaps or the migrated voices in the different spaces. For example, whilst it is acknowledged that the researched viewed habitations in which the respondents were interviewed as their information ecology, there are instances where say a woman who usually works in an office but has taken the day off to take care of a relative or children would have her voice/response stereotyped into the household's information ecology. What the job category does is highlight all the different occupations within a location including those who have migrated from other spaces such as students in the households and the cyber cafés. Analysing these differences has shown that duties and space matters in how the information and communication structures are formed in that even those who have migrated into other spaces, although they are in other spaces still holds the same views as they would in their own habitation.

For example, students were found to have very similar (enthusiastic) attitudes whether they are at home or at cyber cafés. They were also found to use the Internet for a very similar type of activities despite location. As a result, student voices from the home, which appears overridden by other major groups, are in fact not overridden as the same views persist in their own habitation where they are a majority. In fact as Table 4.4 demonstrates, the views that were dominant in the location's analysis (discussed in the chapters 5-9) were replicated in the overall views of the whole population. Therefore for instance, we see that people in the carer category overall associated ICTs with negative influences as a majority of people who make up this category are women who feel protective towards their children misappropriating either the Internet or the cell phone. In the location's analysis, it was found that the household location where carers was one of the dominant groups, analysis showed that people generally associated both ICTs with negative and that women found in this location would not use new ICTs even if they had access to them (Chapter 7 has further details).

Table 4.4: General views associated with ICTs from the overall population

		FurtherCommentsOva				Total
		Overall positive %	Overall negative %	Both pos and neg %	Provide more/ better access %	
Job	Carers	3	14	5	6	5
	Unemployed	8	8	4	5	7
	Student/ Youth	24	19	20	22	23
	Education	4	5	5	6	5
	Self-employed	35	33	31	24	32
	Corporate/Private	9	8	15	15	11
	Ngo/Charity	3	1	4	5	3
	Gov/Civil	14	13	16	18	15
Total		100	100	100	100	100

Table 4.4 also shows how civil servants are concerned with access to the Internet as constant electrical shutdown (discussed in detail in chapter 5) limit access to the Internet via the work place. Similarly, from Table 4.4, we see the enthusiasm of the youth towards ICTs as was depicted in all locations as they associate new ICTs with positive influences. Whilst this shows that occupation is a socio-cultural factor that influences how people view or engage with technology, it also brings into the dimension the factor of age as essential in the formation of information ecologies. Therefore in addition to gender and occupation, the age of a dominant group that forms a space or a habitation is important in the formation of their information ecology.

4.6.3 Deductions made on Age

A number of commentators (Norris, 2001; Castells and Himanen, 2002; Millward, 2003) have debated the exclusion of certain age segments as non-users of new ICTs. New ICTs such as the Internet and mobile phones have generally been classified as tools suited to youth culture because it has by and large been accepted by society that older people suffer from new technological exclusion due to reasons such as lack of digital skills[13] and computer anxiety. This argument which comes under the rubric of the "digital divide" is termed the *age divide*. The age divide is a peculiar category in that even though there are significant proofs of a divide, there are no specific

[13]Digital skills are defined by Loges and Jung as containing three aspects: instrumental skills – the ability to operate hardware and software; informational skills – skills of searching information using digital hardware and software; and strategic skills – using information for one's own purpose and position.

conventional ideologies attributed to it, unlike the gender theories. Whilst it has been generally accepted that older people are not keen users of new ICTs, unlike gender there are no extensive explanations as to why this might be so. In fact, a number of commentators whilst emphasising that age is an important factor, such as Gardner and Oswald's (2001) concession that "age has an enormous effect", were unwilling to expand on why this might be so.

There are, however, a few commentators, such as Loges and Jung (2001) who have ventured to offer an explanation of the "age divide". Loges and Jung's theory is nevertheless embedded in notions of resistance, withdrawal and social commitment. For example, whilst Loges and Jung agree that older people may be lagging behind in usage of new ICTs, they contend that there:

> "is a presumption that seniors who do not gain Internet access are deprived of a resource of enhancing their lives, a resource to which others have access" and that "what appears to younger people to be needless isolation may in fact be a natural and normal withdrawal from social roles and activities, an increasing preoccupation with self, and decreasing involvement with others".

Similarly, Dikj and Hacker (2003) contend that older people's lack of digital skills may come down to non-interest in new technological products and therefore lack of motivation for their use. I strongly identify with this point as through observations in The Gambia, older people did not entirely dislike all ICTs but are rather selective in which they think can serve their purpose or information ecologies better. Although there was a statistical difference in all the locations between older age groups and the younger age groups (peculiarities in polarisation – under age in Chapter 5-9), in locations where a majority of the older age groups are present in the dominant occupational groups, there was a visible selectivity in which ICT is serves their purpose more. In the case of the Internet for example, whilst younger age group 14-24 appear to be eager and seems to be engaging with a wide variety of activities, the older age group of 25-44 showed more specificity in what they wanted to use the Internet for. Overall, this selectivity appears to be reflected in how the different age groups rated ICTs from the five locations as shown by Table 4.5.

Table 4.5: Internet's importance ranking among age groups

Age		Internet Importance ranking	Cell phone Importance ranking
Under 16	Mean	2.6	3.3
16-24	Mean	3.3	3.5
25-44	Mean	3.1	3.4
45-65	Mean	2.1	3.2
Over 65	Mean	1.7	2.8
Total	Mean	3.1	3.4

As a result once can hypothesise that if an age group rank a certain ICT importantly, and forms the majority of the dominant group in a location, the people in that location information seeking behaviour would be structured in order to integrate that ICT into their daily routines. The complexities within this are further explored in the following chapters according to the specific locations. One such complexity is how religion plays a role in how attitudes towards certain ICTs are formed.

4.6.4 Overall evidence from a religious perspective

Overall, whilst the usage result in all five locations demonstrate that people associate well with ICTs including old ICTs (see Table 4.6), it is new ICTs (both the Internet and the cell phone) that appear to be causing concern amongst people from the various locations.

Table 4.6 Comparing ICT usage in all five locations

	Offices %	Cyber cafés %	Households%	Edu. Institutes%	Markets%
Internet	59	90	15	77.5	5
Cell phone	97	91	62	92	50
Television	84	89	77.5	85	77
Radio	89	91	89.5	87	89
PDA	3	4	0	6	0
MP3	13	20	3	26	0
Other VCR, DVD etc)	3	12	13.5	6	8.5

A theme which strongly emerged in the analysis was how people think ICTs (especially) the Internet are corrupting traditional values. As a result, attitudes overall seem to be negative towards new ICTs although there is a general acknowledgement towards their help in communicating. For example, when people were asked what

they thought of new ICTs influencing their normal way of doing things, a majority of the response was 'I don't like it (see Table 4.7).

Table 4.7 Responses from the overall sample: people were asked what they think of ICTs influencing their normal way of doing things

Response	Percent
Don't like it	37.7
Like it	29.6
Don't mind it	17.2
Not sure	8.0
Don't know	7.6
Total	100.0

Further analysis of the themes taken from the follow-up free text option as to why people say do not like it, shoes a majority of 45% of negative responses associated with ICTs (see Figure 4.4 - this is further discussed in the following chapter in relation to the specific locations). People's responses as to why they do not like ICT's influence on their norms were usually rooted along the lines of morally corrupting, a contradiction to religious teachings and practices, or contradiction to the African identity. These thoughts were especially found in the most traditional locations: households and markets which are discussed in detail in Chapters 7 and 9 and are substantially supported by the direct voices (excerpts) of the people.

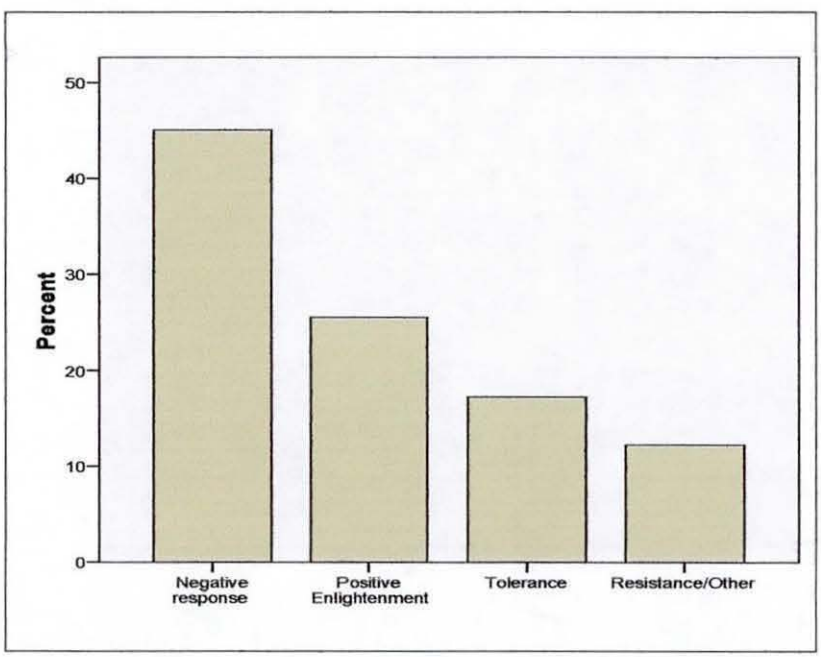

Figure 4.4 Thematic analysis of responses on attitudes towards ICTs

However, although analysis of the overall data shows that people are against ICTs, in the locations' analysis, there were people in some of the communities/locations that showed very positive attitudes towards ICTs. These were usually depicted as enlightenment, awareness and tolerance of other cultures. Therefore, unlike what the overall results shows, whilst new ICTs maybe empowering to some people, to others it was a threat to their traditions. This demonstrates Massey (1991) theory on the power geometry. As a result, in order to investigate how the power of geometry is distributed in the communities of practice in the context of how they engage with new ICTs as beneficial to their information ecology is further analysed for each location. The extent to which each a location is engaging with ICTs and its emerging cyber and cellular culture, perceptions associate with the ICTs and roles that gender and age play in these are further discussed in the context of each location in the following chapters using extracts from the open-ended responses as qualitative support.

5. ANALYSIS AND FINDINGS OF OFFICE LOCATION

5.1 INTRODUCTION

This chapter addresses offices as a 'location'. This consists of inside and within the immediate surroundings of offices such as banks, insurance companies, civil services, non-profit sectors, and small and medium enterprises in the Greater Banjul area, The Gambia. A majority of respondents from this population are employees of the above organisations, whilst a small percentage provides services for some of the employees, such as personal drivers and caterers. The Department of Central Statistics describes the typical population in office areas as the "most productive" population in The Gambia as they consist primarily of males, ranging between the ages 24-44 years (Central Statistics Dept., Gambia,).

Demographically, 73% of the sample population was men whilst the rest were women. Although, there is a general attempt to encourage women into the public work force through gender initiatives and policies from both the government and international agencies such as the United Nations Development Program (UNDP); women are still quite scarce in this location. This could partly be to do with education as girls tend to drop-out or discontinue schooling in order to marry. In the job category, civil servants made up a majority of the sample population (see Table 5.1). This seems reflective of the jobs that I witnessed in The Gambia as a majority of the office jobs seem to be government or public sector generated.

Table 5.1: Job category of the Office location sample

	Frequency	Percent
Gov/Civil	84	44.7
Ngo/Charity	15	8.0
Corporate/Private	27	14.4
Self-employed	29	15.4
Education	3	1.6
Student/ Youth	17	9.0
Unemployed	9	4.8
Other	4	2.1
Total	188	100.0

Themes which have emerged from the analysis of this location are categorised and discussed under the following headings: problems with ICT's embeddedness; cyber culture and key themes; cell-culture and key themes; peculiar trends of polarisation; and contradictions of modernity.

5.2 ICT EMBEDDEDNESS

Amongst the office sampled population, new ICTs were found to be highly promoted, and as a result highly integrated into both their work life and social lives. In fact, when compared to old ICTs such as the radio and the television, new ICTs such as the cell phone demonstrated a considerable high popularity with an average of one phone per person. When compared to the Sub-Saharan average[14], the national average[15], and some of the other locations such as markets and households, the Internet's availability in the office location is quite high with a ratio of 1.7 persons to 1 Internet usage as depicted under the overall analysis in Chapter 4 (see Table 4.6). Taking into consideration that the national and the Sub-Saharan averages are for access to computer and not usage, the office population have shown a very high usage of the Internet as access does not always mean usage. This rate, therefore, is abnormally high.

However, when considering that people from this location are encouraged to use the Internet especially in order to help accelerate development, the usage rates are not all the that surprising. In addition, as people from this population are generally viewed to be at the high-end of the economic scale and educated, and therefore have higher social status in society, adapting to new technologies may come more easily to them compared to people who are in less advantageous environment and educational background. In fact, an endorsement of this high usage is how the sampled population ranked ICTs' importance according to them. Whilst 66% of the respondents ranked the cell phone positively (as either *essential* or *very important*), the Internet was not too far behind as 57% of the sample ranked it as positively; a rank which is higher than the land line (see Table 5.3). Some of the high positive

[14] A Sub-Saharan average of 32 persons to 1 computer. (ITU, 2007)
[15] A national average of 26 persons to 1 computer. (ITU, 2007)

view of especially the Internet can be attributed to what Dunlap et al. (2003) point out as the non user's indirect use of new ICTs (such as experience through users) thereby becoming the indirect 'user'.

As a result, even though about half the people do not use the Internet in this location, they still see it as an important instrument which could be due to, a) the fact that the Internet is being promoted in this location as a positive tool for development; or, b) because indirect users may have benefited from other people's use. An emerging fact however, is that, although the Internet was ranked positively as important, over 10% of the sampled population were *Not Sure* of its importance. This figure is very high compared to how all the other ICTs were ranked (see Table 5.3). What this shows, is that the Internet could be having a polarising effect on views and opinions. The polarising effect of the Internet in this location was demonstrated as statistically significant compared to the other ICTs[16].

Table 5.2: Percentages of ICT importance rank responses

ICT	Positive %*	Medium % **	Negative %***	Not sure %
Internet	57	30	1	12
Cell phone	65.5	34	0	0.5
Radio	62	35	0	3
TV	68	28.5	0.5	3

*Positive is use to denote responses at the top (that is, essential and very important)
**medium is used to denote responses in the middle (that is, *quite important* and *important*)
***Negative is used to denote the response *not important*

Since there is a higher than average access, usage and therefore embeddededness in this location; and the overall perception of new ICTs is positive, one deduces that new technologies have therefore begun to embed themselves into the socio-cultural lives of the people in this population at least. ICTs' access and usage, its perceived high

[16] Difference between Internet usage and Internet importance ranking. Fisher's exact test - Exact 2-sided sig = **0.000**;
Difference between cell phone usage and cell phone importance ranking. Fishers' exact test - Exact 2-sided sig = 1.000;
Difference between TV usage and TV importance ranking. Fishers' exact test - Exact 2-sided sig = 0.58;
Difference between Radio usage and Radio importance ranking. Fishers' exact test - Exact 2-sided = 0.12;

importance in the daily lives of the respondents, and the varying range of activities it offers to direct users, who can then transfer or exchange knowledge in order to be reinterpreted for use, has enabled this location be categorised as a high ICT embedded location. Indeed, based on these results new ICTs seem so integrated that one ponders on the extent to which cultures associated with ICT are emerging.

5.3 CYBER CULTURE AND KEY THEMES

Lèvy (1999) and Castells (2001) describe the Internet as a social place – made possible by Internet technologies – where human beings interact and communicate. Cyber culture broadly depicts cultures of, or associated with, the Internet. There is currently an assumption that introducing the Internet into a space (society) automatically supposes a cyber culture. However, what is not discussed is that for cyber culture to emerge in a place, the Internet has to be actively engaged with as an instrument that is embedded in daily lives, and not as a novelty tool. In other words, the Internet should be used to engage in 'real' life activities just like the radio or television have become part of our daily lives. Therefore, for instance, the act of posting letters or making landline calls can be at least partially replaced by sending emails or calling through software such as Skype. It is only through this that new ICTs can be blended into society's existing cultures, and it is also through only this that any deductions about ICTs' actual role be made, be it an imperial impact or transfusion or division of cultures.

Although not quite as high as cyber cafés and educational institutions locations (which had 90% and 78% Internet usage respectively), 59% of the sampled population in the office location were Internet users, cyber culture experiences are fairly established compared to some of the low-embedded locations such as market and households (which had 5% and 15% Internet usage respectively). As a result, the respondents in this location have used the Internet to engage with varied online activities compared to some of the other locations. The most dominant cyber culture activity, which is similar to all the other locations sampled, is the use of the Internet to read, send and receive emails. However, other dominant activities have been engaged with by the respondents. Results showed that on average, users from this location use

the Internet for four varying activities when online. This would normally constitute sending emails, searching for news, searching for other information such as research via online facilities. The most dominant activity apart from email however, is the use of the Internet to read *News* of current world events and sports. 55% of the respondents use the Internet to engage with this activity.

In addition, Table 5.3 further demonstrates the level of cyber culture as users blend Internet use with their old methods of information seeking and communicating. For example, whilst 57% of the sample uses the Internet to keep in touch with friends and family that are residing abroad or overseas, 68% use the Internet to interact locally alongside older methods such as letters and landline calls. A problem however is that, although the office population shows an emerging cyber culture, the concern here is that cyber culture may have already peaked at it highest point, as overall, the people who are capable of using Internet resources or willing to do so are already doing so. A similar concern in relation to Internet growth in Africa as been expressed by commentators such as Jensen (2003), where he observes that those who are capable of affording the resources for Internet access and usage appears to have already done so, and therefore cannot result in high exponential growth as have been expected in the African region.

In addition, in the office location, access to the Internet via work is not always viable as other problems such as constant electrical shutdowns interfere with access. In fact it was observed during visits to the government offices that, although a majority of the offices were equipped with wired computers and peripherals, most of the office workers preferred their laptops as this means that they do not lose their work in the event of an electrical shutdown. This limit of access has enabled only a small minority to have considerable online time, as a majority of 80% can only afford to engage with online activities for just up to 5 hours a week. As a result, almost 47% of the respondents from offices are compelled to access the Internet via cyber cafés.

Table 5.3 : A collated result of users blending the Internet with old methods of communication

	>10%	10-25%	26-45%	46-65%	66-90%	>90%
Hours spent online/wk						
Up to 5 hrs					80	
6-10 hrs		13				
11-15 hrs	6					
>15 hrs	1					
Websites visited most						
Euro-American						78
Gambian/African		20				
Asian/Middle Eastearn	0					
South A/Caribb & other	2					
Methods of online communication						
Email						94
Inst messaging	5					
Skype or similar	0					
E-confer/forums	2					
Previous methods of communication						
Letter				50		
Land phone			44			
Fax	6					
Telegraph/Other	1					
Users who still use previous method						
Yes				61		
No			39			
Online Interactions mostly with...						
Friends/pen pals				57		
Family			26			
Business/ Edu/ other orgs		16				
Nobody	1					
Users who use the Internet to interact locally						
Yes					68	
No			30			
Other response	2					

Nevertheless, the emerging cyber culture has highlighted specific themes of people's ideas and attitudes towards the Internet and its influence. These themes, which can be classified as both positive and negative, are discussed in the context of: Globalisation; Socio-economic and cultural enhancement; e-Learning and enlightenment; and Content and localisation; and hard infrastructure.

Globalisation – The dominant use of the Internet to read news as its main cyber culture activity has generating the buzz phrase "Awareness of the World" in this location which was constantly repeated in the open-ended questions. The general view is that people here felt that the Internet has enabled them as a society to be actively

conscious of the wider world through readily available information such as news events and sports from websites and the Diaspora; and therefore meant people felt informed about current global issues as demonstrated in the following excerpts.

> *"So many people are getting more aware about the world because many use to make friendship through it"* (Respondent 9); *"It has created awareness between people and the community, and also provides effective communication"* (Respondent 46); *"Through the Internet, people find lovers and it makes people to be aware of what is happening. It is the quickest way of writing letter to someone abroad"* (Respondent 13)

In addition, the instant mode of the Internet as an information medium enables people to have the information as soon as it happens, whereas previously such information will only be widely available long after the event. This has enabled people to feel an independence and a sense of 'free-ness' especially with the acquisition and their own interpretation of information as they don't have to rely on a third party perspective from old non-interactive media such as TV and radio. As a result, people reported not only a sense of global awareness but also a sense of global inclusion as they can see a representation of The Gambia (however small) on the World Wide Web (WWW) as the following extracts demonstrates.

> *"It has broaden[ed] the knowledge of Gambians in the sense that it brings information to your doorsteps and also to get in touch"* (Respondent 14); *"It [The Internet] makes communication easier because with just on[e] click you have all the information you want"* (Respondent 118); and, *"It makes them (Gambians) to advertise their market to the world and make people to know Gambia profile"* (Respondent158). *It has made communication much easier and it is easier to build friendships with people in the outside world"* (Respondent 92).

Through cyber culture, this sampled population were experiencing global information such as news more intimately and as a result feel that they now understand the world

outside of The Gambia. Although perhaps not quite the demise of distance as commentators such as Cairncross (1997) alluded to, the process of globalisation through both the direct and indirect use of the Internet is enabling a more intimate experience of the wider world by previously 'isolated' societies. A content analysis of Part 1 (*cyber culture* section) of the open-ended questions showed that 18.6% of users who indicated that the Internet has changed their general mode of living, used the word 'awareness' in their response.

Socio-economic and cultural enhancement - 59.8 percent of Internet users viewed the Internet simply as a better, faster, cheaper and a more convenient communication and interaction tool that has simply replaced older ICTs. As respondent 151 succinctly surmises; "*Before the Internet, people used letter mail to communicate which takes lots of time, but now Internet makes it faster*" (Respondent 151). As a result, people feel that their economic situations and cultural knowledge through interaction have been enhanced, on matters such as saving on international and regional calls and the ability to stay in touch with many people, including newly acquired online friends. For example as Respondent 96 expounds "*before [the] Internet came, it takes time before you communicate with your people. Now it [has] become very easy*".

e-Learning and enlightenment – E-learning is primarily to do with exchange of ideas and information, such as the transfer of research ideas to other colleagues (including external), or downloading new ideas from the World Wide Web. People feel this has improved and enlightened their current knowledge status, as it has become a "*fast and easier access for researchers to find facts and solutions to their problems*" (Respondent103). In addition, some users have extended this by actually taking part in online courses and exams in order to improve on their academic qualifications. A problem of people's reports of being enlightened due to ICTs, however, is that this brings into the equation debates about imperial knowledge flows from the North to the South (Tomlinson 1999; McChesney, 2001, 2004).

However, if firstly one sees this knowledge as not only from the North but globally influenced, and secondly, if one acknowledges that different interpretations and re-appropriation of the same information denotes that the knowledge might be used in different ways other than the one intended, then learning and enlightenment as a result

of new ICTs cannot be condemned as imperialised, but is globally diverse. In addition, some users commented on how they use the Internet to educate their new online friends about The Gambia, in which case, knowledge flow is a two way process and therefore not imperialistic - *most people who use the Internet, communicate with different people and share their culture*" (Respondent 126)

Content and localisation – The subject of content was apparent under two headings. First is the issue of local content, where people felt that there was not enough content on locally sourced material, and therefore they had to rely on the cell phone or older forms of information dissemination in order to keep up-to-date on local issues. Second and representing the majority, is the issue of 'corrupt' content. From the results, there seems to be quite a large perception that with new ICTs comes a liberation in traditional values that poses dangers to the Gambian culture, which is predominantly shaped by the Muslim religion.

The major concern with the Internet is its provision of access to corrupting materials and friends, as this typical excerpt illustrates: "*so many people are getting more aware about the world because many use it to make friendship through it [The Internet]. The negative side of it is that it is exploiting many children through love affairs which I think is very bad*". However, there is also a deeper concern that young people who are primary users of the Internet are having access to "Westernised" materials that could be put into practice by them, thereby undervaluing traditional cultures. Figure 5.1 demonstrates the depth of such views, as this issue showed a comparable equal percentage to other themes.

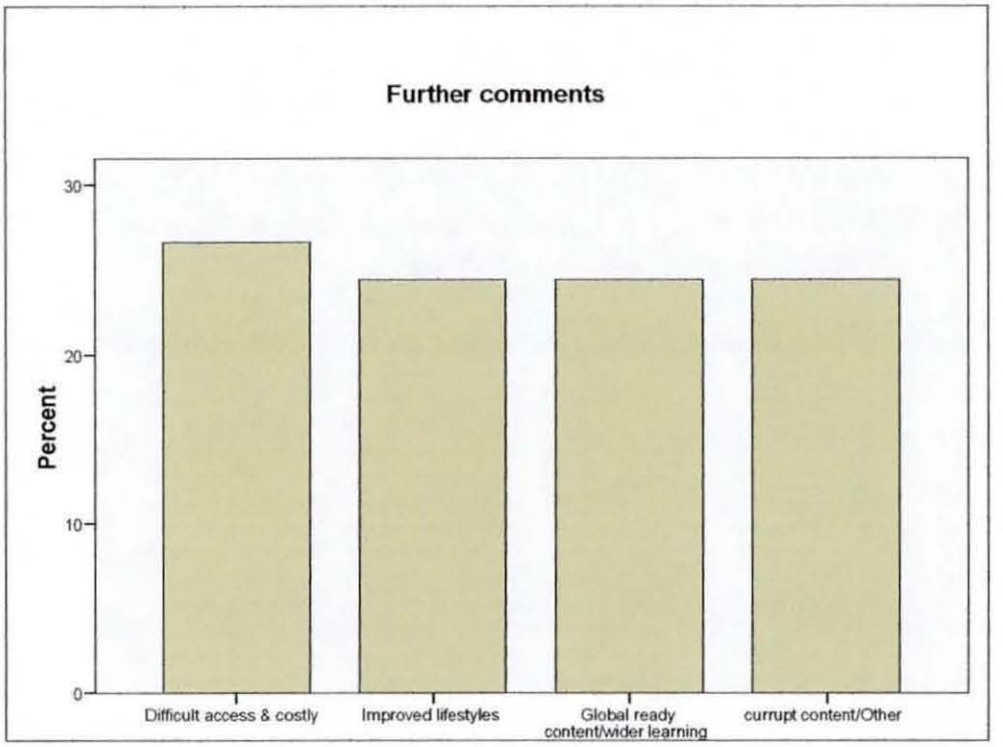

Figure 5.1: Users were generally asked to comment on the Internet's influence

Hard Infrastructure – As heavily documented, there are ongoing major issues with costs for infrastructure, such as computer equipment and its maintenance, basic infrastructure such as electricity, and bandwidth. This had led to access and cost restrictions.

5.4 CELL CULTURE AND KEY THEMES

Cell culture tends to vary in different global regions, as it is dependent on the time of the cell phone's introduction and the provision, adoption and engagement with cell culture services. For example, even though the cell phone was born in Europe, which is therefore very advanced in service provision, most people still do not use the cell phone to engage in any other activity than making calls or sending text messages (Copper, 2002); whereas in China, demand for advance online features made the i-mode the biggest feature for the cell phone and therefore China became leaders in cell culture activities. Whilst North America is still coming to terms with cell culture activities, Africa's network operators are still yet to provide such services. In spite of

such variations, cell culture activities tend to be inclusive of similar methods that involve network activities such as Short Message Service (or texting) and Multimedia Message Service (or picture messaging), and the provision and use of online connections such as Wireless Application Protocol (WAP), Packet switching, and the I-mode.

Similar to the Internet, the extent of people's engagement with cell culture activities is important in determining the role of mobile phones in globalisation and development processes in the South. Dissimilar to the Internet, however, the cell phone's dialling (calling) feature has turned it almost into an alternative to the land phone, which in Africa especially has been problematic since its introduction. For example, the need to diffuse the cell phones' to remote villages - which is commendable, meets Al Gore's millennium challenge to the telecom companies (Gore, 2000). The problem with this prioritisation of access to villages and remote places means that attention to alternative, innovative and cheaper communication functions that the cell phone offers (such as multi-media service and a connection to the Internet) have been neglected by the telecommunications operators in The Gambia. As Respondent 106 tactfully puts it, "*provide more services like MMS and to get connection to Internet services*".

Although both Gambia's mobile phone operators provide SMS or texting service, they are not very efficient as sometimes it takes several tries before the message is actually delivered. In addition, fierce competition between the two operators means that pricing is not conducive but highly inflated. For example, whilst in the Gambia I noticed that it was more expensive to call or send an SMS to a mobile phone the other Gambian network than to other countries in Africa or even overseas. Sometimes it was cheaper to send an SMS abroad than to another network operator in The Gambia as Respondent 148 complains that "*the charge rate between Gamcel and Africell should be reduced*". As a result, most people don't see the point of using the cell phone for any thing other than just making calls. For example, as Table 5.4 shows, apart from using the phone to talk to friends and family, there is hardly any other use for it although 63% use their phone to text (SMS) too.

Table 5.4: Primary and secondary uses of cell phones (apart from just 'talking')

Primary use %		Secondary use %	
Texting	63	None	35
Business	15	Other	28
Beeping[17]	13	Games	13
None	4	Listening	8
Games	3	Texting	5
Listening (music etc)	1	Business	5
Buying	0.5	Beeping	4
Other	0.5	Buying	1

As a result, cell culture is tailored around how people best use the cell phone to suit their purposes. Hence the type of cell culture emerging - in the absence of what one might consider a 'standardised' cell-culture activity such as SMS, MMS and WAP – is tailored around the stereotypical uses of this particular demography. As people in the offices are in the higher-end of the socio-economic scale and therefore demographically classified as breadwinners and are mostly made up of head of households, their particular cell culture is structured around particular themes. A dominant one is the theme of organisation. However, there is also a sense here that cell phones are only tools that help to organise lives and therefore cannot alter a person's life in any way as respondents vehemently reject the idea that cell phones could be altering their daily lives. A substantiation of the two themes which are organised into socio-spatial organisation; and social-cultural defiance categories are illustrated in the following paragraphs.

Social-spatial organisation – 97% of the sampled population in this location are users of the cell phone which shows that it must be easier to integrate into the peoples' daily lives compared to the Internet due to its functions and features. Evidence shows that mobile phones are making impacts by positively enhancing social life as 65% ranked it positively as very important or essential. As the main characteristics of the people sampled in this location usually have several work and family commitments and responsibilities, the cell phone has become an organisational

[17] Beeping is also sometimes called flashing. It means getting the person you are trying to contact call you back by letting your phone ring his/her number just once or twice. This is sometimes necessary in places such as Africa as people do not always have the funds for a phone credit.

tool which brings all the commitment and responsibilities under one sort of management. For example, as Respondent 97 states the cell phone "*makes communication cheaper and faster and errands are run faster*".

People in this location, as a result of their status have numerous decisions to make regarding family and work and therefore rely on communication or feedback from other family or work members in order to make those decisions. The cell phone has made that process easier than before. This means people here have seen vast improvement in their lifestyle organisationally which has helped improved their social, cultural and economic lives as the following excerpts and Figure 4.2 demonstrates:

> *"It (cell phone) makes communication easier with my friends, family members and even at my work place. I get in touch with them [about] anything I want. With mobile phone, I know the where about of my family members anywhere and at anytime"* (Respondent 152);
>
> *"My relatives in our village easily reach me through the mobile"* (Respondent 78); *"Where ever I am, people can get in touch with me. It is [an] easier way of communication because, in case of emergency, people can get in touch with me"* (Respondent 33);
>
> *"It makes my way of living easier. Instead of travelling to a long distance, I can just use my phone to call"* (Respondent 22); and, *"It changed my way I live because it has make my life simple especially in the area of communication. I think every Gambian should have a mobile.....as especially you never know when an emergency can arise..."* (Respondent, 14).

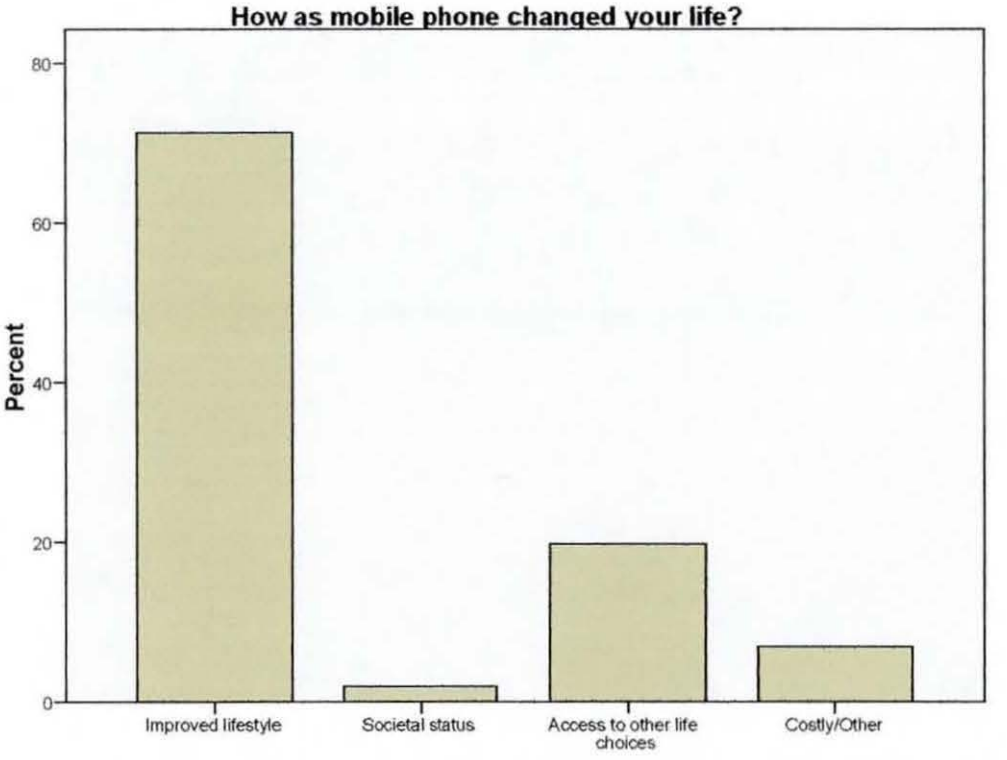

Figure 5.2: Users who indicated mobile phones had changed their lives were asked to indicate how

Social-cultural defiance – On the other hand, according to some not all social conditions have improved as in a majority of this theme, people do not feel that the cell phone has contributed to changes in their daily routines and activities. Some simply see it as a modern tool which has advanced their lifestyles only, and therefore has not altered their daily lives. There was a sense of defiance about this group of respondents who came across as if they felt that working in a 'westernised environment' such as offices has labelled them as more secular people and not truly traditional. In The Gambia, which is predominantly Muslim, being viewed as a liberal or secular person can carry critical social connotations for both genders (especially for women).

As a result, people have to be seen as adhering to strict traditions. In the government offices for example, it was observed that the educated and 'respectable' women, worked in their traditional clothing which covered the whole body and hair leaving and exposing only the face. As women in these positions are exposed to what is considered 'public' or 'exposed' conditions, respectability can only be achieved

through demonstrating traditional protocols such as Respondent 9, who declared that "*I am always original. Nothing can change me because I am a good Muslim*". The defiance from both genders is further demonstrated in the following extracts:

> "*I feel very modern because we are living in a modern world but that has nothing to do with my life. I am still and always normal*" (Respondent 10); "*Having mobile doesn't change my life until and unless I have a better job in the future*" (Respondent 5); "*I don't think it (cell phone) can change my way of living*" (Respondent 7);
>
> *People change themselves but not the mobile phone*" (Respondent 15); "*These facilities cannot change me*" (Respondent 18); "*Having a mobile doesn't change you...it just makes communication easy for you*" (Respondent 88);
>
> "*Having a mobile or not having a mobile does not mean that your life will change. It depends on you. You are a human being. Your life depends on you*" (Respondent 96); "*it does not necessarily change my life*" (Resonpent126); and, "*I still live the way I used to in society*" (Respondent 127).

5.5 PECULIARITIES IN TRENDS OF POLARISATION

The issue of ICT-enabled polarisation has been extensively debated, in both popular and academic media, in the contexts of both the global North and South (Norris, 2001; Castells and Himanen, 2002; Millward, 2003; Valentine et al, 2002). Initially, polarisation was only discussed in the context of *access* to new ICTs. It become quickly apparent, however, that access alone is not the issue and that civil society in general plays a vital role. Another challenge of the polarisation debate was that it was also discussed as a binary; using phrases such as information rich/poor and digital haves and have-nots; when in actual fact, the issue of polarisation is complex, ranging from micro to macro scales, and at numerous levels – hence many divides. In the context of the South, in particular Africa, trends of polarisation have generally been

discussed in the context of gender, and age as associated with youth or young peoples' agenda (Oyelaran; -Oyeyinka, B.A. and Adeya, 2004; Rathgeber and Adera, 2000). These factors also emerged to be the key differentiation factors in this study.

Gender - Amongst the office population, there was no evident polarisation in gender in terms of access. As computers and the Internet are generally made available to offices, even those without the Internet facility directly in their office have access to a colleague who has. In the case of mobile phones, out of the five people who were non-users, three were women whilst two were men, thereby confirming the non-polarised effect of ICTs in this location. This enables a greater access for both females and males than in other places as discussed in the previous section *ICT embeddedness*. Greater access, however, does not mean greater usage. As three-quarters of the population were made up of men, it is only natural that a similar percentage is represented in users. Therefore whilst, men made up 76% of the total user population, women made up the 24%.

However, despite the percentage difference, it was found that a majority of the women present were not too 'afraid' of using the Internet as there was only a slight percentage difference in usage which showed women were less frequent users compared to men. For example, a cross-tabulation showed that whilst out of the women sampled in this location, 53% were users, out of the men sampled, 62% were users. Further statistical tests confirmed this hypothesis that women are not likely to use the Internet less than men in this location as there was not a significant difference between gender and usage of the Internet[18]. In addition, whilst both genders spend on average an equal amount of time (1 hour per week) on the Internet, a simple box plot also showed that, on average, both women and men on average engage in the same number of cyber culture activities (Figure 5.3).

However, that appears to be the end of similarities, as men use the Internet to engage in a wider range of activities than women. In fact, men use the Internet to engage in

[18] Differences in Internet usage and gender. Chi-square test – X^2 (1) = 1.155, p = 0.283

[Please note that Chi-Square test is used if there all the cells have a count of five (5) or more in order not to violate a Chi-square rule and if computing a 2x2 table. If a cell has less than five counts or if computing more than a 2x2 table, a Fisher's exact test is used instead. They are both accurate means of measuring this type of data as advised the universities statistical experts in the Mathematics department]

three (3) more activities than women meaning that women are less adventurous in Internet usage (see Figure 5.3). Perhaps it was to do with women not having the time to explore as they have to effectively run both public and private lives and therefore are as Rathgeber observes "more pragmatic" in their approach to Internet use (2000, p.23).

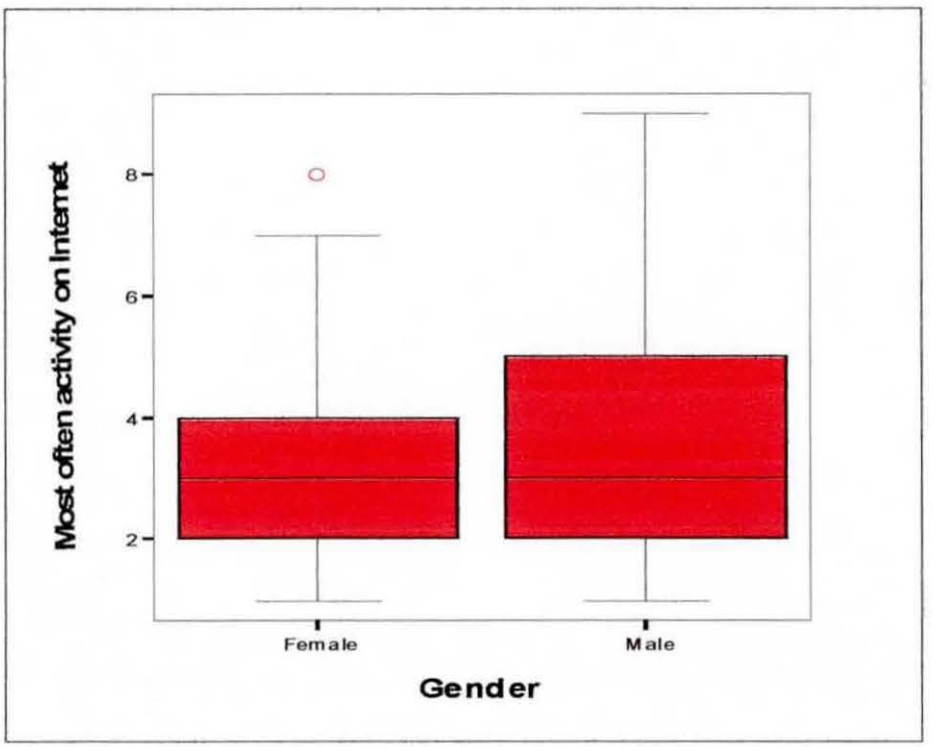

Figure 5.3: A box plot for mean and range of gender online activities[19]

Furthermore, a cross-tabulation of gender and usage for cell phone usage confirmed that women were likely to use cell phones as much as men, thereby rejecting the hypothesis that women are less likely to use cell phones than men[20]; it appears that women from this location are on level pegging terms when it comes to access and

[19] The thick black line across each box shows the **mean** or **average** number activities of each group; the shaded area of the box shows the **most frequent** number of activities (e.g. most females engage with between 1.5 to 4 activities when online); and the lines either side of the box show the **range** of activities by each group. There are four male **outliers** who engage with 10 or more activities when online -this is not unusual for cybercafé population.

[20] Differences in cell phone usage and gender. Fisher exact test - Exact 2- sided sig = 0.123.

usage at least. With this pattern in mind, one expects attitudes to follow a similar trend where both genders do not differ in their attitudes towards new ICTs.

Although, in general, the female attitude towards new ICTs was more critical than males in the cross-tabulation of both the Internet and the cell phone and the comments associated with them, there were no statistically significant differences in attitudes towards both technologies by both genders[21]. Analysis of how both genders ranked the Internet and the cell phone's importance further confirmed the non-polarised attitudes towards new ICTs as demonstrated in Table 5.5.

Table 5.5: Average ICT importance ranking among gender

Gender	Cell phone Importance ranking/ Average	Internet Importance ranking/Average
Female	**3.6**	**3.3**
N*	51	45
Male	**3.7**	**3.3**
N	137	126
Total	**3.6**	**3.3**
N	188	171

*N = Number of respondents.

However, in the cross-tabulation, within the women respondents, the highest frequency went to both global ready content and corrupt content themes (with 33% each); thereby demonstrating that women are concerned about the content of the Internet. The highest frequency within male respondents was directed at improved lifestyles (with 30%), thereby showing that men associate advancement with the Internet. It is however necessary to point out that, there was not a big frequency distinction between the themes for both genders regarding the Internet. For the cell phone, whilst most of the women present associated the cell phone with socio-cultural negativity in the cross-tabulation (with 35% of the females indicating the cell phone with a negative influence), the males opted to associate the cell phone with the theme socio-cultural positivity (with 72% of respondent indicating the cell phone with a positive influence)

[21] Difference in gender and the Internet's further comments. Fisher's exact test – Exact 2-sided = 0.403; Differences in gender and the cell phone's further comments. Fisher's exact test – Exact 2- sided sig = 0.706.

Age – Statistical tests for both the Internet and mobile phone usage resulted in significance values of less than 0.05 for each technology[22]. This a strong indication that there are differences between the age groups, with a major distinction between young users and older users. Whilst no 'under 16s' were represented among Internet users in this location, the younger age group had by far more user members compared to the older age groups. For example, 75% of respondents in age group16-24 were Internet users, compared to 53% of users from age group 25-44; and 19% of Internet users from group 45-65. Whilst in the cell phone it was 100% cell phone users in both the younger age groups (i.e. under 16 and 16-24), it was 97% and 81% cell phone users in order age groups (25-44 and 45-65).

What this demonstrates is a confirmation from the Department of Central Statistics in The Gambia that ages 16-44 are the most "productive age group" in the group. However, compared to the fact that ages 16-24 seem to be the most technological oriented in this location, the pro-technology approach, combined with a new-ICT environment and a higher economic status, makes them the most accessible group to new ICTs, compared to the same age group from other locations who are not in the same environments or may not be able to afford access to new ICTs such as the cell phone. People within this age group are more economically able because they are able to work, and therefore have a higher social hierarchy status. This also means that they are the ones more likely to afford the use of new ICTs.

Similar to gender, there were no differences in their attitudes towards either the Internet[23] or the cell phone[24]. These seem to be equally distributed. A confirmation of the non-polarised attitudes is demonstrated in Table 5.6 which shows that on average all the age groups ranked both the cell phone and the Internet similarly on importance level (apart from group 45-65 which ranked the Internet quite low).

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[22] Difference in Internet usage and age groups. Fisher's test - Exact 2- sided sig = **0.000**; Difference in cell phone usage and age. Fisher's exact test- Exact 2- sided sig = **0.006**

[23] Difference in age and the Internet's further comments. Fisher's test - Exact 2-sided sig = 0.411

[24] Difference in age and the cell phone's further comments. Fisher's exact test – Exact 2-sided sig = 0.618

Table 5.6: Average ICT importance ranking among the age groups in offices

Age	Cell phone Importance ranking/ Average	Internet Importance ranking/ Average
Under 16	**4.0**	**4.0**
N*	1	1
16-24	**3.6**	**3.3**
N	71	66
25-44	**3.7**	**3.4**
N	96	87
45-65	**3.7**	**2.6**
N	16	13
Total	**3.7**	**3.3**
N	184	167

*N = Number of respondents.

A reason for this non-polarised attitude amongst the different age groups could be attributed to culture. In a society such as The Gambia where moral guidance from older generations and religious leaders are culturally very significant, people are careful not to openly disagree with what their elders or religious leaders advise. As result, as shown in Table 5.6, even if older people disapprove of certain ICTs (the Internet in this case), those who can afford to have access do, but are careful to not to publically contradict the cultural perspective. This trend could prove to be restrictive in terms of integration into certain social groups, especially for younger people who are still considered minors and dependents.

5.6 Conclusions

From the office sample, the following was deduced:

There is a diffusion of ICTs among this group and this can be attributed to the environment benefiting from being a priority of ICT modernisation. Whilst this can be attributed to relatively high Internet usage, the high usage of the cell phone can be attributed to the higher socio-economic status of people in this location for affordability. Despite the high positivity towards ICTs in this environment, a particular ICT (the Internet) is dividing opinion as to its importance. The Internet as one of the ICTs which matters in this age is polarising opinions which may well have an effect on the whole ICT-for

development agenda. However, despite this, both ICTs are embedded in this location which is accredited to the emerging cyber and cell cultures.

Although cyber culture is evident, there is a concern from the researcher's perspective that this may have already reached its peak and begun to stagnate. This is because everyone who has access to the Internet is engaging in varied cyber culture activity, although the range of uses by women is less than that of men. Also, because there are limits to the wired infrastructure such as low connection bandwidth and constant electrical shut down, some of the people here are less encouraged to engage with cyber culture activities.

The dominant use of the Internet to search for *News* of current world events and sports has as a result, aligned cyber culture's effect in this location with the globalisation of news. Consequently, whilst previously people here may have felt isolated from up-to-date information of news and events, there is now a constant 'awareness' of what is happening around the world.

There was, however, little presence of the standardised cell culture amongst this sample, although mobile phone usage in very high. This is partly due to network operators not providing additional cell-culture services. However, what has been witnessed is the tailoring of the cell phone to suit the core issues specific to this population. That is using the cell phone as an organisation tool in order to effectively manage both domestic and work demands.

As a majority of the people in this location are at the high-end of the economic scale, and therefore have both economic and social-spatial responsibilities (which ranges from looking after relatives in the village to liaising with partners in the office), the cell phone has become a tool through which they can effectively manage these diverse responsibilities. This effect can be described as the umbrella effect.

As a result of the current cyber culture, people from this location have reported improvement in lifestyle. However, the improvement to some people

is just an organisational improvement and not a socio-cultural advancement as they view the cell phone as a modernising tool but not a cultural-changing tool as some of the respondents struggle with not being viewed as too secular in a Muslim society; especially from a gender perspective.

Despite the defensiveness, there were no differences in how both genders have access to the Internet as ICT usage is promoted universally in this environment. Whilst access does not mean usage, there were no differences in both genders usage of the Internet and cell phones either although, it was found that women used the Internet to explore less activities than men on average. Attitudes followed a similar pattern of no differences between both genders.

There were however differences between the older and younger age groups in terms of usage. Whilst the younger age groups seems more enthusiastic in exploring the Internet especially, older age groups in this location (particularly those in group 45-65) seem sceptical of the Internet as they ranked it as of very low importance. Despite the difference in usage and the importance ranking, attitudes being even across all age groups did not vary. This finding can be attributed to the traditional significance of older people or elders as their views are usually publicly and publically adhered to by everyone.

6. ANALYSIS AND FINDINGS OF CYBER CAFÉS

6.1 INTRODUCTION

The interviews conducted in this location were principally in cyber or Internet cafés in the Greater Banjul region of The Gambia. A majority of the respondents were interviewed in the cafés, but in some cases people were interviewed just outside the café (either those going into the cyber cafés or coming out of them). The literature has often described the predominant demography of this location as young, male and educated (Mutula, 2003) and affluent, as they can afford to pay for the use cyber cafés (Mercer, 2006); show of status is also relevant, as they are keen to demonstrate their technological and educational skills as up-to-date (Sairosse and Mutula, 2004; Mercer, 2006).

In The Gambia, it was found that although the demography fits the young, male and educated category[25], there were chiefly two category of such users; one which fits the affluent category because they are usually office workers who cannot access the Internet via their workplaces and therefore use the cyber café and can afford it. The other largely consisted of young men who have completed or about to complete a higher level of education (such as high school or University) and are struggling to find work, and therefore use the cyber café as a means of seeking greener pastures elsewhere. This group are either made up of unemployed or self employed, and, also students who sometimes use the Internet to widen their research (coursework) scope. Figure 6.1 shows the occupational categories found in the cyber cafés.

[25] 84 percent of respondents were males as opposed to 16 percent of females of which 77 percent of males were Internet users compared to 14 percent of females. The cumulative frequency percent of users who ages 16-44 was 84 percent.

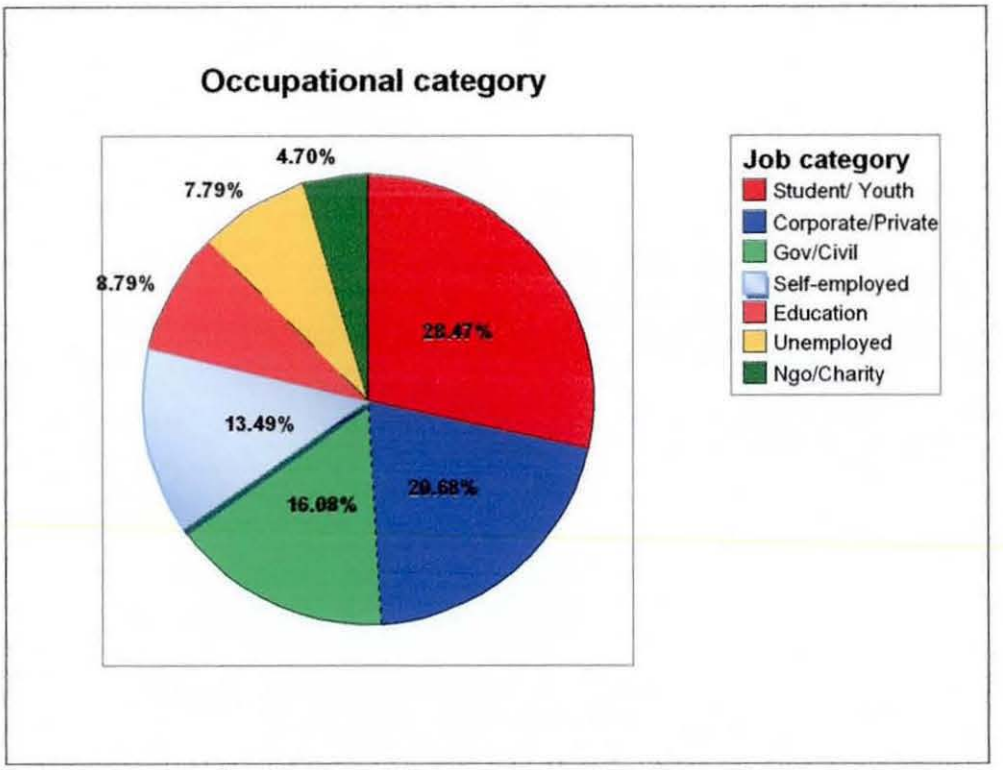

Figure 6.1: Occupational categories for demography in cyber cafés

Demographically, this was a male dominated environment as only 16 % of the sampled population were females. It was the location where women were least represented. In the context of age, due to the type of demographic, the most represented ages were in groups 16-24 which made 45% and 25-44 which made the 46% ; thereby totalling 91% of the total sample.

6.2 ICT EMBEDDEDNESS

Analysis shows that this location is another high ICT diffused area as the majority of the respondents are on average, users of four ICTs per person. This is usually the Internet and the World Wide Web, mobile phones, television and radio. The respondents here were high users of any ICTs as a high percentage used both old and new ICTs without discrimination (refer back to Table 4.1).

Similar to offices and educational institutions (a high embedded location), the sample here are also users of other advanced new ICTs, such as MP3 players, and game

consoles compared to market where old ICTs such as VCR are still very popular. This location, in comparison to the office location, showed an even higher usage of ICTs where there is a ratio of 1:1 for both the cell phone and the Internet. As people purposefully go into cyber cafés in order to use the Internet, such high level of access and usage is unsurprising. However, the high level of cell phone usage suggests that, this group may have an exploitative approach toward ICTs. For example, 84% of the sample on average spends up to 10 hours on the Internet per week compared to respondents from offices where 80% spend only up to 5 hours per week.

Similar to offices, the cyber café population ranked both the Internet and the cell phone highly. However, as the population here are practiced Internet users, a near equal percentage of respondents ranked both the Internet and mobile phone similarly unlike offices. That is, whilst 74% of respondents ranked the Internet positively (as *very important* or *essential*), 75% of respondents ranked cell phones equally. This is quite different from offices where the Internet was ranked positively by only 57%. An explanation for this could be linked to the cyber café location as an environment in which Internet use is encouraged hence the positive attitude from a high number of people from it population. In addition, since this group can be viewed as the 'real' end-users (that is, spending more hours to explore online, rather than using the Internet for a particular purpose such as News), they have become wiser in ways to use the Internet to achieve certain purposes, or to their advantage and as a result, the high evidence of positivity.

From Table 6.1, it is also evident that unlike the offices, there was not a noticeable portion of respondents who were *Not Sure* of the Internet's importance compared to the other the cell phone and other ICTs. Despite this evidence and the highly positivity view of the Internet by respondents in this location, statistical evidence shows that similar to Offices, opinions on the Internet is polarised as there is significant difference between user and non-user respondent views on the Internet[26].

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[26] Difference between Internet usage and Internet importance ranking. Fisher's exact test - Exact 2-sided sig = **0.000;**
Difference between cell phone usage and cell phone importance ranking. Fisher's exact test - Exact 2-sided sig = **0.000;**
Difference between TV usage and TV importance ranking. Fisher's exact test - Exact 2-sided sig = **0.000;**

Whilst in this case, tests showed a significant difference between respondents opinions on all the ICTs, so far only the polarisation of opinions on the Internet is consistent with the office location.

Table 6.1: ICT importance ranking in location

ICT	Positive %	Medium %	Negative %	Not sure %
Internet	74	20	1	5
Cell phone	75	31	3	1
Radio	63	35	0	2
TV	69	20	0	1

Overall however, due to purposefully seeking access for a high level of usage, there is a high ICT embeddedness in this location similar to the office location. As a result there are an emerging cyber and cell cultures in this location too. However, because there is a different demographic to that of offices location, there are differences in the type of cyber and cell cultures that are emerging this location. In the following sections, I draw out the subtleties in the differences.

6.3 CYBER CULTURE AND KEY THEMES

Although the cell phone was ranked highly, users have found that the Internet is meeting their needs in areas that mobile phones cannot quite meet, hence the equal rating of their importance. Furthermore, as mobile phones are costly (handset plus tariffs) compared to the Internet (payment in instalments according to time use), the combination of this cheaper alternative and the primary demography in cyber cafés means that the Internet is seen as a more economically beneficial tool than the cell phone. In fact, there were some respondents who were frequent Internet users' but did not have a cell phone and did not see the necessity of acquiring one.

Whilst the office population on average engaged with up to 3 online activities, with the highest range of activities recorded for one person being 8; cyber café users on average engage with up to 4 activities online, with the highest range of activity

Difference between Radio usage and Radio importance ranking. Fisher's exact test - Exact 2-sided sig = **0.000**

recorded for a person being 9. This is not wholly unexpected as the primary reason for visiting a cyber café is to use the Internet. Users spend more hours on the Internet in this location because they are in an environment which is conducive to Internet use (although it is not free to use as in offices). However, automatic electrical generator back-up in high-end cyber cafés means that users here do not have to worry about losing their work in case of an electrical shut down, unlike offices.

Given that a high engagement with varied online activities partly, but significantly, depicts an experimentation with more Internet experiences, cyber culture in this location is rife. What Table 6.2 especially demonstrates is the hours spent on the Internet by users in this location. For example, 11% spend over 15 hours online per week. This may be normal in 'Western' places, but is excessive in The Gambia as costs are relatively high. Table 6.2 also shows the varied cyber activities and how end-users are blending Internet cultures with local and older forms of information and communication technologies.

Table 6.2: Collated responses of users blending the Internet with old methods of communication.

	>10%	10-25%	26-45%	46-65%	66-90%	>90%
Hours spent online/wk						
Up to 5 hrs				56		
6-10 hrs			28			
11-15 hrs	5					
>15 hrs		11				
Websites visited most						
Euro-American					82	
Gambian/African		16				
Asian/Middle eastern	1					
South A/Carib & other	1					
Methods of online communication						
Email					89	
Inst messaging		10				
Skype or similar	1					
E-conference/ forums	1					
Previous methods of communication						
Letter					74	
Land phone		22				
Fax	2					
Telegraph/Other	2					
Users who still use previous method						

Yes				62		
No			38			
Online Interactions mostly with...						
Friends/pen pals				61		
Family		21				
Business/ Edu/ other orgs		16				
Nobody	2					
Users who use the internet to interact locally						
Yes				60		
No			39			
Other response	1					

In addition to differences in hours spent on the Internet, and the average number of activities engaged with, there were also differences between the activities engaged with between offices and by cyber café users. Whilst people in offices use the Internet to engage in particular activities, such as reading the news, such activities it was found, were not as high on the agenda as exploring new territories through information search to cyber café users (see Table 6.3). What is also notable here is the large percentage of users who engage in varied online activities compared to the office location. Therefore, although activities such as accessing the news is not high on the Internet users list in cyber cafés, the percentage of people who still engage in such activity is almost equal to those in offices. This demonstrates cyber cafés as becoming more established in the emerging cyber culture than offices.

Table 6.3: Differences in priorities of the top five Internet activities in cyber cafés and offices

Activity	Cyber cafes %	Activity	Offices %
Email	96.0	Email	96.4
Info. Search	65.0	News	55.4
e-learning	55.9	Info search	50.9
News	54.8	E-learning	43.8
Chat	48	Chat	31.3

Since most users here are educated, but are also desperately seeking a better socio-economic circumstance, the Internet is seen more as a tool to explore and find alternative means to boost economic life. These consist of engaging with activities such as looking for scholarships or work with external institutions and corporations; seeking ways in which to make philanthropist friends over the Internet who might be

able to help with migration or with finance; or learning through the Internet in order to obtain a better qualification. This, as will be seen later, denotes that the priorities of the people in this location are essentially different to those in the offices and that through these different priorities, a different kind of global culture is experienced.
As a result of the different priority and therefore different cyber culture, in cyber cafés, socio-economic advancement was the biggest motivational factor as opposed to awareness in the offices, whilst other experiences such as enlightenment and learning, misappropriation of content, bandwidth and network access issues were also evident. These are further discussed in the following paragraphs.

Socio-economic advancement – For 51% of the sampled population, the Internet has become a better and a more advanced tool that has replaced older forms of communication and information seeking, and as a result has enabled improvement in lifestyles. A betterment of socio-economic/cultural status is especially appreciated in this location as the demography is primarily made up of people with very little or no income as they are either students, school leavers, self employed looking, or in jobs that they are over qualified for. Before the Internet and mobile phones were introduced, a large majority of this population only had older ICTs to pave the way for them, such as tele-centres (usually made up of international dialling phones, fax and typewriters). These older ICTs are less interactive and more costly to use – and may not necessarily be productive – which meant people in this category were faced with few options for boosting income.

However, the relatively low cost, the interactivity, and the relative accessibility of different information and communicative facilities via the Internet appear to have given a lifeline to this group. As Respondent 272 illustrates; *"The cost of transportation of visiting friends and relatives is very minimal because most people are getting knowledge and using it as a means of communication. To gain something positive in it is easy; like making friends, knowledge and also to have fun especially in your leisure time"*. With the Internet, respondents can send emails to numerous recipients, apply for jobs, take online courses and tutorials, and search for information that may be beneficial to them. For example, a young man who I opportunely interviewed in one of the cyber cafés was a part time labourer who had to drop out of

university because his father had died and left him in charge of two households[27]. Whilst working part time, he uses his free time to do free online courses on an American website in order to obtain a certified qualification which he believes will get him a better job (or even an overseas opportunity) thereby improving his economic situation. This is just one example of many as the following excerpts demonstrate:

> *"It makes easy accessibility [in order] to get in touch with someone or with institutions"* (Respondent 347); *"It is making our communication simple, I like how are planning to travel to abroad for further education...[but] there are other websites that are destroying our Gambia women especially girls involve themselves in prostitution"* (Respondent 364); *"It brings people closer and sometimes I do have some little cash from friends"* (Respondent 374); *"It helps people to earn living from friends or pen-pals abroad. It can also lead [people] to practice bad tricks"* (Respondent 294);

As a result of such access to the Internet, 41% of respondents who would otherwise be at loose ends whilst looking for opportunities to come their way, have found alternatives ways to improve their situations through the use of the Internet.

Enlightenment and Learning – With the vast opportunity to explore the Internet and the WWW comes new forms of information. Whilst the office population felt more enlightened as a result of getting up–to-date news and the exchange or the download of new research ideas, users in this location feel that they have become more enlightened through e-learning and information seeking that highlights alternative life choices for them. For example, as the following respondents claim:

[27] Since The Gambia is an Islamic state, men are allowed to have up to four wives at any one time as long as they are all treated equally. As a result, men usually have what is called a compound with a variety of households for each wife and her family. When the man is no longer able (or dies), the responsibility of looking after the households falls to the eldest son who manages all the households equally. He also has the option to legally marry any or all of the wives.

> *"It makes my corresponding easier. The Internet is very interesting because I am learning a lot from it"* (Respondent 338); *"The Internet helps Gambians to know without asking anyone; just go to the Internet and search for themselves"* (Respondent 220); *"It creates an opportunity for people to learn through the Internet. It also is the quickest and cheapest source of information"* (Respondent 293); *"I know many things because of the Internet, and I think it has done the same thing to many others. Gaining knowledge in the Internet is very fast and easy, so I think it is important"* (Respondent 328)

In addition, there is a genuine curiosity to learn and know more about things in general. Considering the demography, this is not altogether unexpected. As Mercer (2006) observed in Tanzania, there is to an extent an issue of modernity here as young men have the desire to know more and show off to their peers. Young men also want to be seen as being educated and having the technological skills to get familiar with the Internet as the following excerpts demonstrates.

> *"I use the Internet to enjoy games and movies and information and news"* (Respondent 206); *"People can interact with each other from different countries"* (Respondent 210); *d, "It makes communication cheaper and easier.... it also eradicates ignorance. It helps most students create their own notes and store it on disks and bring learning facilities easier"* (Respondent, 225) *and," Nowadays people organise things, I mean programmes. People use the Net to print out invitation papers and others [rather] than do it in handwriting"* (Respondent, 219).

Content and misappropriation – Similar to offices, the problem of content was also very evident amongst the cyber café population. Whilst some declared that there wasn't enough local content, some claimed that the Internet was allowing inappropriate access to pornography. However, a different anxiety with content and access to certain websites, which wasn't previously evident in office areas, is the use

of websites to further fuel the tourist trade in The Gambia. Although, people who had indicated that the Internet had changed their mode of living did not initially highlight content as an issue, the concern over it was only evident when people were asked to generally comment on the influence of the Internet. Figure 6.2 shows the concern over content as the second biggest issue in this location.

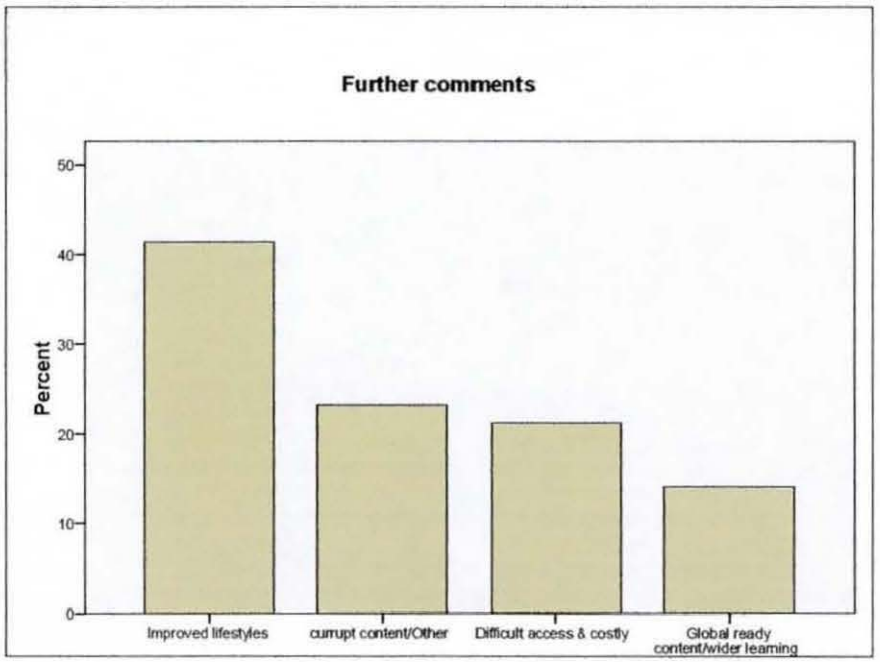

Figure 6.2: Users in cyber cafés where asked give their views on the Internet's Influence in The Gambia

The difficulty in The Gambia - as in everywhere where the Internet is used - especially sex tourist regions - is that new online information has also become a knowledge transfer process in what is perceived as negative ways of making use of information, such as young people using online sources in order to attract the sex tourists. In stricter regimes, in particular some Asian and Middle Eastern regions, attempts have been made to police content and in some cases ban access to certain sites (Dan Stoenescu-Romania, 2007; Oppermann, 1998). This is yet to be proven successful generally everywhere. As the characteristics of the sampled population here are people looking to boost their socio-economic income, using this route to achieve that purpose has become rather appealing.

In The Gambia, a significant number of young people (usually men) who are looking for ways to migrate to European destinations tend to think that the easiest way to

achieve this is to become escorts to mature lady tourists. This sex tourist process is already in existence and as a result The Gambia has become a well known destination for such tourist activity. Now with the availability of the Internet, these young men now have the opportunity to attract sex tourists from certain websites so that even before the tourist lands in The Gambia to be met by their escort, the would-be escort has had the opportunity to exchange information and requirements with the future tourist, and has also assessed the likelihood of the tourist's willingness to help. As a young man sedately puts it, *"now we can make new friends and expose Gambians to other people in the world"* (Respondent 211). Others are however, less sedate as the following excerpts suggest:

> *"Now even to get information [from] overseas is easy and if you want a white friend, you can now get it through the net"* (Respondent 384); *"It enables people to get in touch with their pen-pals quickly"* (Respondent 395); *"For me, I get some friends through it, so it is very important"* (Respondent 333); *"It is nice because it educates people and makes new friendship"* (Respondent 389);

> *"The Internet is quite interesting: that is friendship-wise and education-wise. I think we need it"* (Respondent 334); *"Most of the people are getting used to the computer which is the most vital thing: Makes communication cheap and reliable. People are making good friends out of Interneting and like wise , some people are using it for business establishment [in order] to earn their living out of it"* (Respondent 377);

This is a problem as it stigmatises, and may even discourage, those who genuinely use the Internet for learning about other life choices. This and other religion-focused issues have led to the call for an active policing of the Internet, or an outright ban and the discouragement of young people from using the Internet as demonstrated by the following:

"People always get vital information in it and it also makes work easy. The Internet makes life easy for people but in another way round, it corrupt many people in many ways like stealing, prostitution and even gambling" (Respondent 341); *"It changes the way people live in two ways: one, people learn and gain something from it. The other one is that some people browse at some of the websites which are not good for them"* (Respondent 292); *"It makes people to be aware of the world. It also has bad impacts in a sense that youths sometimes expose themselves to western lives and cultures through the Internet"* (Respondent 281)

This is, however, just a general voice from the people on the ground as there are no links to a published or expert documentation with reference to this matter.

Infrastructure – As with offices, end-users have greatly complained about certain infrastructure, which they feel is holding back the development of Internet use and cyber culture. 21% complained about issues to do with bandwidth (speed) of the Internet that are linked to varied cost issues, such as the user spending more in order to stay online as it sometimes takes a full five minutes to download a single webpage. Further, 66% indicated access and network problems as the something which needed to improve when asked to mention one thing that would improve the Internet.

6.4 CELL CULTURE AND KEY THEMES

As seen and discussed in the office analysis, there cannot be a standardized cell culture in different places, as people demand different functions from the cell phone. This has meant that cell culture is tailored around a culture of a place ranging from regional and national to local. What was evident from analysing office areas was that its cell culture is formed around the needs of the economically dependable person (who earns the income and is usually a man) to control all that he is responsible for. I called this the umbrella effect, which consists of the income earner using his cell phone as an instrument to, for instance, keep tabs on his/her children's whereabouts, give instructions to the domestic servant to run errands, keep wife/husband informed,

and generally keep in touch with relatives in the village and the community's demands.

This indicates that cell culture in office location was just based around the dialling features of the cell phone a majority of the time, as its other features are not required. I argued that this constricted use of the cell phone makes it redundant when it comes to its standard but other vital features that will enable active cell culture activities, such as SMS-ing and MMS-ing, but more essentially provide a much cheaper way of innovative communication. This caused my concern that the cell phone, in the context of Gambia and Africa, is in danger of becoming just a replacement of the land phone when some of this other cell culture functions (e.g. SMS) are a more cost effective way of communication and therefore should be encouraged.

The population in cyber cafés showed a similar pattern of cell culture which is primarily based around the calling features of the cell phone. A majority also used the cell phone for sending and receiving text messages which showed willingness to use standardised services. However, there was little enthusiasm for cell phone features such as games, listening to radio etc (see Table 6.4). This could be that, a majority of cell phone amongst the sampled population did not have radio or games facilities on their cell phones, as they could only purchase less expensive cell phones with only basic features; or, it could be that this demographic prefer to play games, listen to music, etc using the Internet facility instead. This could explain why the percentage of people who use the cell phone for other activities such as music, radio and games are less in this location than in the office location.

Table 6.4: Primary and secondary uses of cell phones (apart from just 'talking') in cyber cafés

Primary use %		Secondary use %	
Texting	70	None	30
Business	13	Other	27.5
Beeping	10	Beeping	13.5
Listening (Radio, Music)	2	Games	9
Games	2	Texting	8
None	2	Business	6
Other	1	Listening	6

Taking the characteristics of the people in this location into consideration, one can deduce that, since cyber café users are able to perform various functions using the computer, the Internet and the World Wide Web, there is very little significance of the cell phone's interactive multi-media functions in this community. When one takes into account that the primary need for this population is to boost their economic status and/or look for alternative life choices elsewhere, the Internet, one must agree, is the most suitable instrument for fulfilling their needs; hence, there is little enthusiasm for the cell phone and its multiple functions.

In spite of this, the most evident attitudes associated with the cell phone's influence in personal lives and the sampled population as a whole was mostly positive. The largest positive indication is that for 63% of cell phone users, life and lifestyle has generally improved as the cell phone has become a source of income. This is usually in the form of using the cell phone to run errands, or use expertise to generate income, or to obtain funds from friends and relatives overseas. The cell phone has in addition helped 26% of the cyber café population to make alternative life choices for the better as indicated by the following respondents:

> *"My mobile I can say has given me the chance to get a chance of getting a job because they called and told me to come for interview"* (Respondent, 325); *"With mobile phone, you are accessible not only nationally but also internationally"* (Respondent 354); *and, "It [cell phone] makes me to get in touch with new things and [more] people than before"* (Respondent 384).

In addition, when users were asked to generally comment on the influence of mobile phones in the Gambian society, 58% thought that it had socio-culturally enhanced lives, as most people are now in constant communication with their relatives who may not necessarily be residing in The Gambia; while some use it to make new friends both locally and externally such as respondent 306 who recalls: *"It (the cell phone) makes my communication very easy. Mobile phones make me to have friends. For example, there are some people that I don't know but if I mistakenly text their numbers, from there we become chat friends"*. These results shows that whilst cell phone had a particular purpose for the office group, in this location it is rather the

Internet which has a specific purpose; whiles the cell phone acts as an aid for that specific purpose. Whether calling a potential client or relative abroad for financial assistance, or making an income by running an errand, the cell phone's role appears to be secondary to that of the Internet as it is seen as an accessory.

Another accessory that cell phones offer these users in this location is the advancement of personal status. As people here are not all credited with status that comes with socio-economically stability, showing of a cell phone can obtain key socio-cultural credits as one is seen as wealthy. Parallels can be drawn between the significance of acquiring a cell phone in this location to obtaining a fast 'flashy car' in some 'Western' places. The following excerpts demonstrate the association of status and modernity with cell phones in this location.

> *"You can communicate with the important peoples in the world"*; (Respondent 360); and, *"It makes me have so many friends as opposed to before when I used to be so reserved. It's good that way"* (Respondent 363).

There was, however, some pessimism in the form of resistance to the idea that mobile phones could contribute to changing lifestyles. For example, 13% of users had views that mobile phones were breaking down The Gambian society and called for an outright ban, such as respondent 323 who declares that: *"To me mobile is not important because it causes more damages in the world. All the destructions and prostitutions happening everyday is caused by it. [The] Government should step in and condemn it totally"*.

There were also others (14%) who the rejected the cell phone as a change-enabling instrument, as the following excerpts demonstrates:

> *"It is important but I don't think it has nothing to do with my life. I am still normal. A typical African as well"* (Respondent 263); *"I am a poor boy. Maybe when I have money, my life would be changed but right now [it] is normal. This mobile and other materials are normal*

to me" (Respondent 267); *and, "I am proud to be African so I don't think nothing can change me"* (Respondent 279).

The little enthusiasm for cell culture by cyber café users has diluted the strong views (both positive and negative) that office locations associated with the cell phone. One also wonders if the lack of females in this location has contributed to the dilution of attitudes, since evidence from the offices showed that female's voices were a major contribution to some of the strong views in the offices.

6.5 PECULIARITIES IN TRENDS OF POLARISATION

Gender – There was evidently an access problem for females amongst cyber café users, as females only formed 16% of the total population. There are a number of reasons as to why females are scarce in cyber cafés, the primary use of which is literacy. Although a considerable amount of effort has been made towards girls' education by both international and local organisations (e.g. UNESCO), and governments alike, girls still lag behind in education in places such as Africa, of which Gambia is no exception - as was evident in The Gambia's education policy. This means that young women or girls do not feel confident enough to experiment with new ideas and technologies, as much as boys or young men.

Furthermore, particular to The Gambia, due to its strict religious and cultural practices is the discouragement of women and girls in public spaces (Central Statistics Dept, The Gambia, 2001). Girls must usually be seen only in the right places, which do not include cyber cafés if their good reputation is to be preserved in order to receive an offer of a good marriage. Yet this does not mean that girls will not use new technologies if they have access. In the offices for example (where women have more access than in cyber cafés), we saw that there were no great difference between men and women, with the exception of the range of activities users engaged with while online. This shows that obstructions and cultural influences [28]may be making

[28] Difference in Internet usage and gender. Fisher's exact test - Exact 2-sided sig = 0.205; Difference in cell phone usage and gender. Fisher's exact test – 2 sided sig p= 1.000

contributions to access of ICTs to women which influences usage levels. Women, in my view, are capable of using new ICTs if they have the cultural reassurances they need in order to do so.

Although there is an evident difference in access amongst this group, there was no difference in usage of new ICTs between genders. Whilst 84% of the women sampled here were Internet users compared to 92% of the male respondents, for the cell phone, 91% of the female sampled were users compared to 92% of the males. This means that almost all the women present in cyber cafés were as much users as men. Similar to offices, both men and women ranked both new ICTs as equally important with average scores of 3.6 for the Internet and 3.7 for the cell phone out of a maximum 5 (see Table 6.5). This means both genders from this location view both ICTs as *very important*. Whereas in the offices, the average rank for the cell phone was 3.6, it was 3.3 for the Internet. This shows that whilst the Internet is especially important in this location, it is the cell phone that is ranked highest in the office location by both genders.

Table 6.5: Average ICT importance ranking among gender (out of a maximum 5)

Gender	Cell phone Importance ranking/ Average	Internet Importance ranking/Average
Female	**3.7**	**3.5**
N*	32	32
Male	**3.7**	**3.6**
N	163	164
Total	**3.7**	**3.6**
N	195	196

There was also very little difference in the average time spent on the Internet between women and men[29]. Whilst there was no difference in cell use activities by both groups (as both groups use them for just talking or beeping), when it comes to cyber activities, it appears that unlike offices and despite being in an Internet- conducive environment, women are shy of exploring, as they engage with much less online activity than males. Females on average engage with 2.8 activities, whilst men engage with 4.1 (see Figure 6.3). This was not found to be the case in offices, as both men and women had an average of 3 activities. There was also a clear difference in

[29] Hours spent on the internet on average per week. Males = 1.7 and Females = 1.6 hours.

the range of activities both groups engage in. Men showed dynamism by engaging with a vast and varied range of activities (as much as 10) compared to females who had a maximum range of 6 activities. Perhaps the open atmosphere of the cyber cafés is discouraging for girls who want to explore the Internet, or perhaps they are just less adventurous.

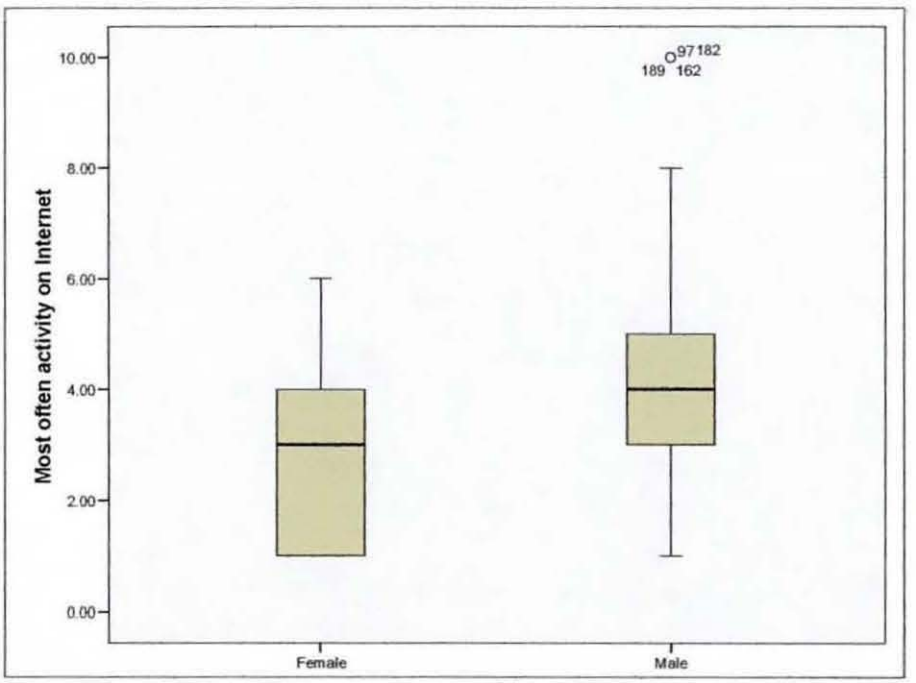

Figure 6.3: Difference in mean and range of activities by females and males when online

Similar to offices, there were no statistical differences in attitudes towards both the cell phone and the Internet[30]. However, a cross-tabulation shows that within the female respondents, the key theme that had the highest frequency for the Internet, was the issue of content misappropriation (with 31%); whilst the key theme with the highest frequency within the males, is improved lifestyle. From this, it is apparent that whilst women associate the Internet negativity (which could be construed as protectiveness), males associated it with positivity and advancement. For the cell phone, a cross-tabulation showed that 60% of the female and 58% of the male associated the cell phone with positivity. This further demonstrates how opinions on the Internet are divided.

[30] Difference in the Internet's further comments and gender. Fisher's exact test - Exact 2-sided sig = 0.317; Difference in cell phone's further comments usage and gender. Fisher's exact test – 2 sided sig p= 0.729

Age – Similar to offices, there is evidence of difference between the age groups and their use of ICT. The combined age groups of 16-44 are very dominant in cyber cafés making 91% of the whole population. There was a clear distinction between the most "productive" age group and other age groups for both the Internet and the cell phone in terms of usage[31]. However, even between this dominant group who appear to be ICT enthusiasts, there were some differences. For example, whilst on average, ages 25-44 spend more hours online than any other group with an average of about 2 hours a day, group 16-24 showed an engagement with more varied range of cyber activities than any other group. Also, whilst on average all the age groups engage with about 4 difference cyber activities, when it comes to the range of activities that users engage with, ages 16-24 had the highest range of activities with up to 10 activities as Figure 6.4 shows.

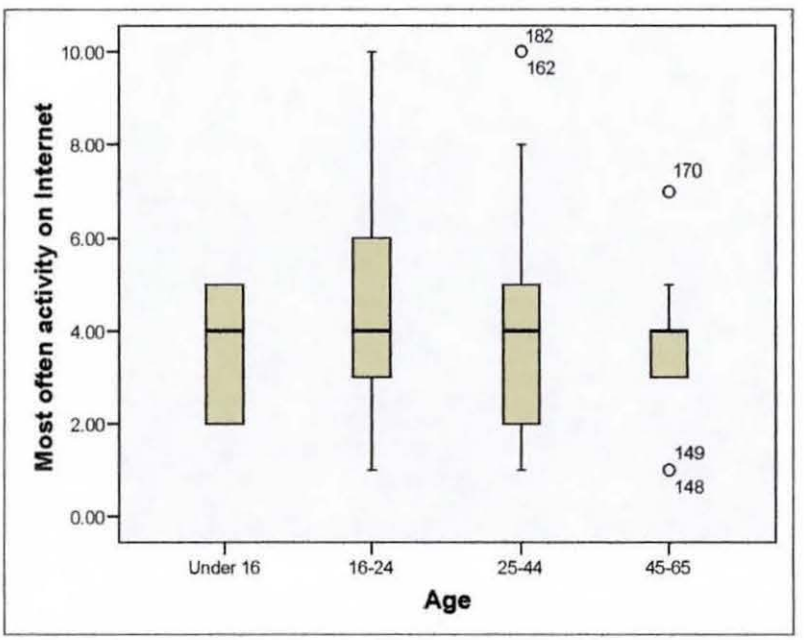

Figure 6.4: A box plot showing the mean and range of online activities between age groups

Age group 25-44 may be spending more hours online because they are likely to have more income and therefore, can afford a longer online time than the younger age group; especially as some of the people from this age group may be part of the office location. Whereas, as some of the age group 16-24 may be part of the student group

[31] Difference in Internet usage and age. Fisher's exact test - Exact 2-sided sig = **0.019**; Differences in cell phone usage and age – $\mathbf{X^2 = 9.205}$, **p = 0.017**.

from the educational institutions, this may also explain why this age group engages with less online activities because they are less likely to have stable incomes. In addition, ages 24-44 may be engaging with a lesser range of activities because they usually know what they are looking for, compared to the younger age group who are virtual explorers and so do not have specific destination in mind, and therefore engage with a varied range of activities. This makes age group 16-24 the 'real' cyber café demography as described by Mercer (2006) in the context of Tanzania, as they take time to explore and engage with varied range of cyber activities. Adapting Mercer's description, I describe the 'real' cyber café users as young and curious, largely male, mostly do not have a stable income but, are educated and looking for opportunities in order to explore alternative life choices that would boost their economic selves and expand their knowledge in various aspects.

The cell phone however did not show a difference in activities between the age groups as they all either use the cell phone for either talking or texting a majority of the time. Similarly, there were not great differences between how the age groups ranked the Internet and the cell phone's importance as both ICTs were ranked as *very important* on average – similar to gender. Unlike offices however, the cell phone's importance did not take precedence over the Internet's importance in this location (see Table 6.6).

Table 6.6: A comparison of mean ICT importance ranking among the age groups in cyber café and office locations

Age	Cell phone ranking: cyber cafés	Cell phone ranking: offices	Internet ranking: cyber cafés	Internet ranking: offices
Under 16	**3.3**	**4.0**	**3.8**	**4.0**
N*	6	1	6	1
16-24	**3.6**	**3.6**	**3.6**	**3.3**
N	87	71	86	66
25-44	**3.8**	**3.7**	**3.6**	**3.4**
N	90	96	90	87
45-65	**3.8**	**3.7**	**3.6**	**2.6**
N	12	16	12	13
Total	**3.7**	**3.7**	**3.6**	**3.3**
N	195	184	194	167

*N = number of respondents

The only difference however is that, the older age group 45-65 did not snub the Internet as witnessed in the office location. Here, it seems that the older age group views the Internet' importance similarly to all the other age groups. The significance of this result is not clear, as it is distinctively different from how older people ranked

ICTs in offices. However, one speculates whether it means older people in this location, having used and familiarised themselves with ICTs (especially the Internet) can therefore see the benefits more than their office counterparts.

Overall, attitudes towards new ICTs did not vary greatly between the age groups in the case of the Internet[32]. This was also evident in the cross-tabulation results; in that, whilst under-16 age group associated the Internet mostly with improved life styles (indicated by 60% in this age group), 44% of group 16-24 also indicated improved life style as their strongest association with the Internet with a majority of 39%. However, it is important to note that within this group, there was not a great deal of difference between the themes in order to indicate which theme this group strongly identified. The only age group in which the majority indicated a different theme was group 45-65, which strongly associated the Internet with two themes: which are difficulty of access and costs, and corrupt content (with 50% of respondents within this group for each theme).

For variation in attitudes and the cell phone however, there was a confirmation of a difference between the age groups[33]. What a further investigation with the cell phone showed was that, the older the age group, the less the cell phone is associated with positive experiences. For example, in the cross-tabulation, whilst 100% of the under 16 age group associated the cell phone with socio-cultural positive experiences, 78% of group 16-24 had a similar association. This positive association with the cell phone sharply declined to 48% in group 25-44 (although it was still a majority); whilst group 45-65 did not indicate this at all and instead showed a majority of 50% associating negative socio-cultural experiences with the cell phone. Negative associations usually consist of issues such as break down of family, friendships or communication due individuals' misappropriation of the cell phone. This negative association contradicts how this age group ranked cell phone on average.

[32] Difference in age and the Internet's further comments. Fisher's exact test – Exact 2-sided = 0.448
[33] Difference in age and cell phone's further comments. Fisher's exact test – Exact 2-sided = **0.011**

6.6 CONCLUSIONS

From the cyber café sample, the following was deduced:

Cyber café users have a high diffusion of ICTs because they require the facilities, functions and the interactivity that new ICTs offer in order to get access to work, further education and other life opportunities. As a result, cyber culture is even more evident in cyber cafés than in offices although users have to pay for the use of the Internet. This is because users go to cafés specifically to use the Internet, and hence it is an Internet-conducive environment for the group found here. Evidence of cell culture is less in cyber cafés than in offices. This is primarily because a majority of cell phone users in this location are also Internet users, who prefer the higher interactivity and cheaper costs that the Internet offers.

The cyber culture experienced by this group is more to do with the acquisition of knowledge and enlightenment that is used to enhance one's economic situation whether through applying for jobs overseas or attracting sex tourists. The reasons for this is that cyber café users might be educated but are also economically immobilized and therefore use the Internet to find alternative ways of boosting their economic situation through knowledge search and e-learning. In contrast, office users are more likely to use the Internet to find out more about world news and events. Therefore, whilst in the office, globalisation is experienced through News information, in this location globalisation is experienced through the search for information that would enable economic advancement.

In the case of cell culture, it was found that cyber café users use the cell phone not only to improve their economic status but also their social status, as opposed to office users who found that the cell phone for organising their domestic and work lives privately.

In terms of gender, the cyber café is a male dominated place. This could be attributed to several reasons and which are: 1) women are generally less educated than men and therefore lack the technological know-how to engage with ICTs, especially the Internet; 2) girls who fit into the similar demography as the males in this location are

mostly confined to private spaces such as households in order to preserve their reputation for good marriage offers; and 3) the females who brave the use of cyber cafés find the public environment too intimidating for practicing their skills and therefore do not engage in as much variety and range of online activities as males. However, despite the scarcity of women, there was no difference in access between male and female users of both the Internet and the cell phone. This could be interpreted to mean that, similar to women in the offices, women who found in the cybercafés are viewed as 'equal' status to the men (at least in access and usage). This can be attributed to why there were not differences in attitudes towards new ICTs from a gender perspective.

As in offices, there was a polarisation between younger cyber café users and older users, especially as ages 16-44 formed 91% of the whole population. Older users, however, ranked ICTs, in particular the Internet any other age group unlike offices where the Internet's importance was snubbed by the age group 45-65. This could mean that being in the cyber café environment has enabled the older age group to observe how really important new ICTs' are to any society. However, in a contrast, there was a computed difference between this age group and the younger age groups in the context of attitudes towards cell phones, as this age group strongly associated the cell phone with negative effects unlike the other age groups.

7. ANALYSIS AND FINDINGS OF HOUSEHOLDS

7.1 INTRODUCTION

This location consists of respondents being interviewed within compounds usually made up of several households in the greater Banjul area. Four diverse communities were interviewed, namely; Sere Kunda, Manjai Kunda, Latri Kunda and general Kanifing area.

The demography in this location is fractured into four principal occupational categories as the majorities (see Figure 7.1). These are:

- Youths (usually college dropouts)
- Unemployed migrants;
- Housewives, carers and domestic servants;
- Self-employed petty traders.

One third of the respondents fall within the youth/student category, and were usually in the under 16 and16-24 age groups. This group forms the largest section as it comprises of 33% of the household population and consists primarily of those who have dropped out of school and college due to financial constraints. Amongst this group, 48% were female and 52% were males. The second and third groups each formed 16% of the household population. Whilst the second group consisted of unemployed peoples who have primarily migrated from the villages in order to seek work from their urban relatives, the third group is made up of housewives, carers and domestic servants. The bulk of the respondents from both these categories fall within the 25-44 age group and are mostly unskilled and uneducated. That is, 47% of unemployed respondents and 39% of those who fall under housewives and carers job category are ages 25-44. Within the housewives and carers category, 91% were females. The fourth category is primarily made up of self-employed 'petty' traders who usually have a small table of diminutive goods such as emergency domestic items such as toilet rolls, canned foods, candles and match sticks, which they sell in the immediate vicinity of the household in which they occupy. This group makes up 15% of the household population.

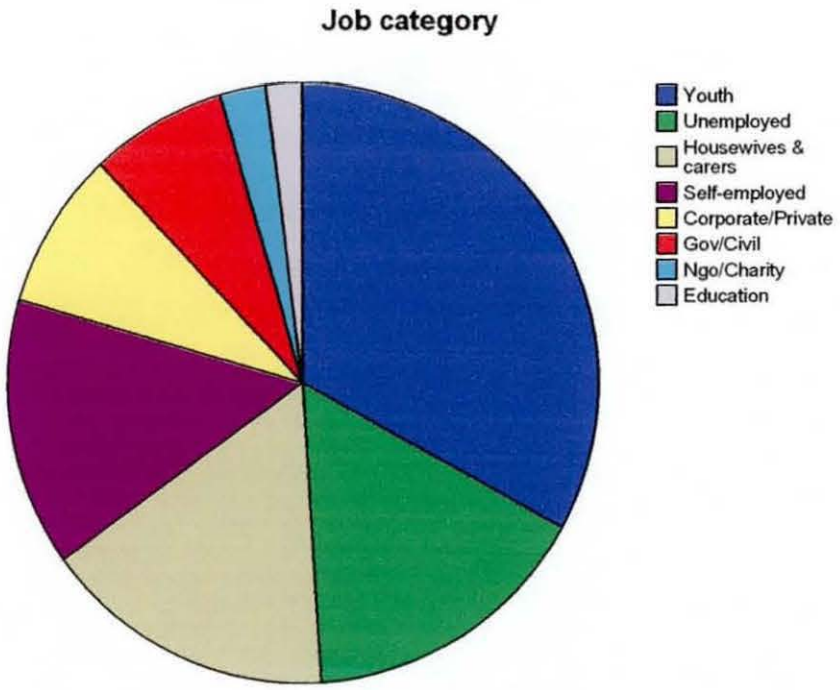

Figure 7.1: Demography of households demonstrated by job categories

Whilst the household location is made up different categories of people, the common denominator is that a majority of people found here fall under the non-income job categories and are therefore heavily dependent on the most economically viable person(s) within the household. This suggests a restriction in personal economic power and therefore a restriction in the freedom of acquiring the use of new technologies and their subsequent impacts. In short, people here have to rely on the goodwill of others in other to get access to new ICTs. That is why, for example, nearly half (49%) of mobile phone users in this location acquired them as gifts (Question 20, part 4 of questionnaire).

Taking this view into consideration, in the following I shall discuss ICTs embdeddedness in this location. I shall also try to establish if there are cyber and cell cultures emerging and what attitudes are being associated with the Internet and cell phone's introduction into this location; and finally I shall seek to decipher whether there are differences between genders and ages in forming these attitudes.

7.2 ICT EMBEDDEDNESS

Low access of new ICTs in this location has meant that there is a low diffusion. Two reasons associated with this are: firstly, a high proportion of public access points to the Internet are located in economically vibrant areas such as the city centre, which makes access difficult for those in the suburbs; and secondly, this population are generally dependents who can scarcely afford to pay for access to new ICTs. For instance, whilst a husband may refuse to allow his dependents access to mobile phones in case they use them inappropriately, those who want access to the Internet do not only have to trek in to the city centre areas, but in addition have to be able to afford it and be quite confident in accessing it in open urban spaces. As a result, there is not as high a penetration of ICTs compared to office or cyber café locations as was discussed in the overall analysis in Chapter 4. The Internet especially is not very popular in the household location, were only 15% of the whole population are users.

The lack of access, and especially lack of usage, of the Internet has led to uncertainty, and one may even argue, the emergence of negative propaganda associated with it amongst this sample. This is the only location analysed so far where there is not a strong indication of what people really thought about the Internet when they were asked to indicate how important they thought the various ICTs were (see Table 7.1). Whilst only 31% ranked the Internet positively, those who were *Not sure* of the Internet's importance were twice the number from the offices in the same category. The cell phone, on the other hand, is viewed very positively in this location with the highest number of people (64%) ranking positively compared to all ICTs.

Table 7.1: ICTs' importance rank from households

	Not sure %	Negative response %	Neutral response %	Positive response %
Internet	24	15	29	31.5
Cell phone	1.5	4.5	29.5	64.5
Radio	1	10.5	40.5	58
Television	1	3.5	34	61.5

So far, a pattern which is beginning to develop with regards to the locations is that, peoples' perception tends to be either generally positive or negative based on location; and therefore making it a matter of geography or the wider social environment: that is,

the high embedded locations appear to have positive views towards ICTs in general, whilst low-embedded location seems to be at least uncertain which ICTs are important. However, a closer investigation is showing that, perception may be less linked with geography and more with access and usage. For example, opinion on the Internet is significantly polarised in the three locations despite the variation in their ICT embededdness.

However, in the case of access and usage, even in high-embedded locations, there are differences in opinions between those who have access and are users and those who are not. Therefore, in a high-embedded location such as cyber café, there is still a significant difference between ICT users and non-users. As a result, based on importance ranking alone, it is also evident that in the offices where the cell phone is used by 97% of the sample, on average, it was ranked as *very important* to the Internet, which was ranked only as *important* (3.3 out of 5) compared to the cell phone. In the cyber cafés where users of both ICTs were over 90% of the sampled population, both ICTs were ranked as *very important* on average (4 out of 5 maximum). In the households where the cell phone is used by 62% of the sampled population, the cell phone is ranked similarly as offices, whereas with only 15% of Internet users here, it was ranked 2 .8 out of 5. Whilst, this can be translated to mean that, if people are not using an ICT, they would not deem it important in their lives and therefore may not rank it as important; it also shows that, the more people are embedded with access, the more positive their attitudes. Using this interpretation one can hypothesise that the less access to ICTs there is in a location, the less it is valued amongst its population. In this case, access is directly linked to positive perception of ICTs.

A crucial point is that if access is linked to perception of new ICTs as these results are depicting, a vicious circle is created which explains the high level of ICT project failures in strong socially and culturally cohesive environments. For example, if people who are not in access areas perceive its importance in society negatively, the more the people who do not have access, the stronger the negative perception and the louder the uncertainty or even negative propaganda, which may even discourage those who have access from using it and therefore resulting overall in a population's (socio-cultural) rejection of a particular ICT. Whilst the literature has been keen to link

different forms of *access* to the 'digital divide' and embeddedness as contended by Warf, (2001), Norris, (2001 pp. 3-4), Servon, (2002) and Mossberger et al, 2003), it has failed to link it to cohesive socio-cultural rejection, which may even occur on a national scale and not just in isolated pockets of communities.

Therefore, even where projects are implemented in selected areas, these will have little impact for so long as the majority do not have access. This would partially explain why there are many failed ICT projects in communities of practice where tradition or culture take precedence; and could be a contributing factor to the rapidly inconsistent ICT-for-development agenda set by international agencies such as the UN's millennium development goals and ITU's ICT4D program. To fully confirm that less access is linked to negative perception, however, further investigation for all five locations is needed to re-affirm this trend.

In this location, however, ICT embeddedness is quite low, not only because of the low access and usage but more importantly because of the uncertain perceptions of ICTs' importance. As only 15 percent are Internet users, and, based on the importance ranking, one can deduce that the cell phone is viewed more favourably by the sample here than the Internet. This could be due to a variety of factors such as access, education, technical-skills etc. however, it appears that cell culture is emerging more than cyber culture. Exactly what types of ICT cultures are being experienced is described in following sections.

7.3 CYBER CULTURE AND KEY THEMES

Low access, low usage, low diffusion and low embeddededness mean the culture of the Internet is minimal amongst the whole population compared to offices and cyber cafés. A summary of how users are blending cyber culture with conventional methods of information and communication activities is shown in Table 7.2. Comparing similar tables (5.3 and 6.2) from offices and cyber cafés confirms this location to be the least cyber culture oriented. Amongst users, however, activities did not differ too greatly when compared with high embedded locations such as offices and cyber cafés. In fact, the general user pattern is similar to cyber cafés as the user

demography is similar. For the 15% of Internet users, access is either through work/school or cyber cafés (30% and 70% respectively). 73% spend up to 5 hours a week on the Internet, whilst averaging 3.8 online activities per person. These are mostly emailing, information search, e-learning and accessing news. 43% of Internet users fall into the student/youth category, hence the similarity to the cyber café location.

Table 7.2: Users blend the Internet with old methods of communication collated from cyber culture section of questionnaires from households

	>10%	10-25%	26-45%	46-65%	66-90%	< 90%
Hours spent online/wk						
Up to 5 hrs					73	
6-10 hrs		20				
11-15 hrs	3					
<15 hrs	3					
Websites visited most						
Euro-American					83	
Gambian/African		17				
Asian/Middle eastern	0					
South A/Carib/other	0					
Methods of online communication						
Email						97
Inst messaging	0					
Skype or similar	3					
E-conference/forum	0					
Previous methods of communication						
Letter					83	
Land phone		17				
Fax	0					
Telegraph/Other	0					
Users who still use previous method of communication						
Yes					72	
No			28			
Online Interactions mostly with...						
Friends/pen pals				59		
Family		14				
Business/Edu/other		24				
Nobody	3					
Users who use the internet to interact locally						
Yes			43			
No				55		
Other response	0					

A snowball reaction from low level cyber culture means that very little distinctive socio-cultural experiences can be associated with cyber culture in this location. Whist

respondents from offices distinctively associated the Internet with 'world awareness' or globalisation of New, events and sports; and whilst respondents from cyber cafés reported using the Internet for socio-economic enhancement as their cyber culture experience, there was no distinctive theme emerging from this location. For example, only 21% of users reported the experience of a more Diaspora/world awareness, whilst 71% saw the Internet as a faster and cheaper communication tool than conventional ICTs such as the land telephone. Since all three locations analysed so far have also indicated strongly that the Internet is a cheaper, most reliable and faster form of communication, it is hardly a distinctive theme for this location.

However, although 21% is statistically not a high percentage, the emergence of Diaspora/world awareness is very justifiable considering the demography. This is quite different from the world awareness experienced in offices, which is linked primarily with search of news and world events, as in the households location this is specifically to do with economic factors. Since people from here are likely to be dependents, being in touch with relatives or friends residing externally has two advantages. Firstly, they are capable of helping economically, and secondly, having a friend or relative improves social status in a community which is considered to be at the lower end of economical scale. In return, the Diaspora has constant and more current news from 'home'.

Hence 59% of users in this location use the Internet to interact with friends abroad (see Table 7.2 under "online interactions mostly with") such as respondent 440 who declares that, "*getting friends in the net is very easy and to make communication, it is also very easy*". In addition, respondents – especially young people who have dropped out of school and are Internet users – may be looking for opportunities abroad, which explains the 24% who use the internet to interact with business or educational organisations, as the following excerpt illustrates:

> *"[I use the Internet] to chat with friends and family and schools abroad"* (respondent 466).

Using the above instances, the Internet then, has put people in touch with one another for economic and other various reasons in this location as Carincross (1999)

predicted, and as Adam and Ghose (2004) also observed in their study, the Internet has became a place for cultures of a place to be revived and extended between the Diaspora and local people. Again this pattern is similar to one of the patterns in cyber cafés due to the similarity of Internet user demography found in households. The cyber café pattern also continued when users where asked to comment generally on the Internet's influence (Further comments). Here, themes such as improved lifestyles and wider learning were depicted as positives whilst access and costs were depicted as negatives, as Figure 6.1 and the following extracts show:

> "*Internet has changed a lot in people's way of doing things: It makes them to easily get in touch without spending more. It also teaches and gives information by browsing. One can teach himself/herself without help from anyone*" (respondent 505); "*It has promoted fast delivery of messages and confidentiality is also guaranteed*"(respondent 555); "*Communication is very easy to those who are using it [but] sometimes the network is poor and I will be very happy if that problem is solved*" (respondent 422)

7.4 CELL CULTURE AND KEY THEMES

Cell culture in this location (similarly to other locations) has very little emphasis on defined standardised cell culture features such as SMS and MMS and WAP. However, also similar to other locations, cell culture in the household location is customised around the household culture. Whilst respondents in cyber cafés' cell culture is centred on societal status and modernity, and whilst respondents from offices cell culture is centred on effective coordination of people under their 'umbrella', the cell culture from households is centred on the other spectrum of the 'umbrella'. This means that from this location wives, children, domestic servants and the elderly (retired parents) are provided with mobile phones in order to feedback to the person who is in charge of the household. As a majority of people from this location are dependents who can usually not afford access to new ICTs, it explains why 49% of cell phone users in this location obtained their mobile phones as gifts (see Figure 7.2).

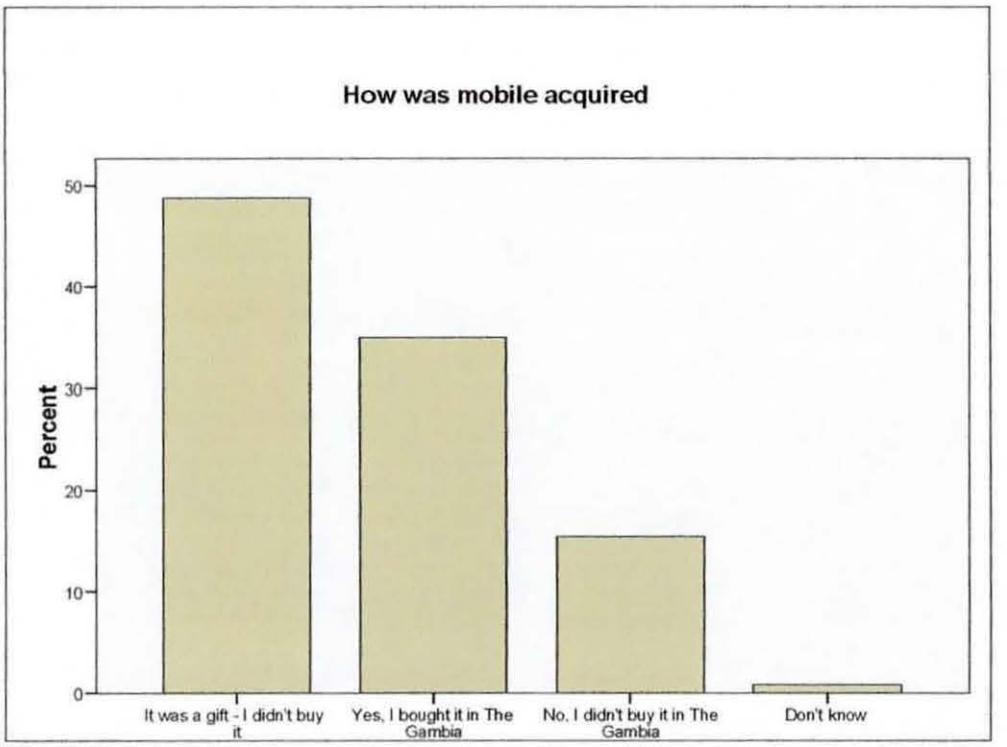

Figure 7.2: Cell phone users were asked where they acquired their phones

This also means cell culture is centred around talking and 'beeping', especially as respondents depend on the goodwill of the economically viable person in order to run and maintain their mobile phone (e.g. credit top ups). Giving mobility to people who are otherwise very restricted in their movements has promoted a more positive outlook and association with cell phones than the Internet. These are discussed under lifestyle improvement, and positive outlook in the following paragraphs.

Lifestyle improvement – Whilst previously, communication could not be coordinated between families and friends, which meant that obtaining simple information was harder and took longer to achieve, access to cell phones in this location has became the tool that keeps households well organised. For example, I chanced an interview with a taxi driver who explained to me why, after much deliberation, he decided to provide his wife with a cell phone so she can call and advise him on which food produce to get towards the end of his working day. Now whilst this might sound insignificant in high-income places, it is both economically and socially crucial within this community. This is because food can only be afforded by the household at the end of each working day when the taxi driver has earned his

wages, and the amount and type of food to purchase for his household is solely dependent on his daily wages which can vary. He, therefore, needs his wife's input as to what is appropriate to purchase (that is to feed his household and reserve some for breakfast etc.). Without a cell phone, this sort of mobility cannot be achieved as the taxi driver would have had to go back home at the end of the day for this discussion, which could sometimes mean finishing earlier at work before the market closes and thereby making less wages.

The cell phone then has become an organisation tool for economically restricted communities, hence why 91% of users in this location indicated an improvement in lifestyle. As a result, there was a general positive social and cultural outlook overall.

Socio-cultural positive outlook – There is a general positive outlook in this location as there seems to be a lifestyle improvement tailored to everyone's needs in this demographically fractured community. This means that those who do not have cars, cannot afford to take public transport, have restricted movement where their whereabouts are strictly monitored, or cannot leave their designated location in the case of 'petty' stalls in case items are stolen, all have a tool which makes those problems easier; hence 67% of users associated cell phones with positive socio-cultural and economic experiences.

For the self employed 'petty' trader, life has improved because they can now organise buying marketing and sales of goods around their cell phones as demonstrated by the following extracts:

> "*It [cell phone] brings prosperity to my business*" (respondent 488); "*makes me very current and promote my business transactions*" (respondent 555); and, "*it makes communication easier for me between my business partners*" (Respondent, 572).

Regarding housewives, carers and domestic servants whose movements are restricted, access to a mobile phone has improved their lives because they can now access information and provide instant feedback, which was previously difficult as the following extracts show:

> *"It [cell phone] brings my family and other relatives very close to me because I can talk to them any time I want"* (respondent 516); and *"it makes me to have easy communication with my friends and family. Having a mobile phone, I can call and say what I want to tell the person instead of paying [(transport] fare to go and met the person"*(respondent 596).

While recent immigrants from villages who are still unemployed rely on goodwill of others by running errands, looking for jobs or other life enhancing opportunities, access to mobile phones enables them to keep in touch with members from the villages they have left, and, family and friends residing abroad who might be able to help enhance their economic situations. This group is heavily reliant on the Diaspora as the following excerpts shows:

> "I *get calls from my people away from me and I also use [it] to call them sometimes too. The only thing I can say is that mobile is good because I am always in touch with my people"* (respondent 412*). I can communicate with my friends abroad" (respondent 561) "I use it to call abroad without going to the telecentres"* (respondent 562)

Student/youth who also have restricted movements (especially girls) see improvement in their lifestyles as access to a cell phone has enabled them to make and keep in touch with friends, and keep parents informed of their whereabouts, as respondent 420 declares: *"My mother sometimes calls me when I am not at home through my mobile and also some of my friends, so it is a very important thing"*

7.5 Attitudes and emerging views of ICTs: chiefly from non- user perspectives

In locations where less than 40% are either Internet or mobile phone users, part four of the questionnaire is designed to capture emerging views or ideas that non-users have about the Internet in general. This is so that majority views on socio-cultural influences on ICTs are captured, whether from users or non-users. As 85% of respondents from this location are non-users of the Internet and 38% are non-users of

mobile phone, analysis was also done from non-user perspectives in order to capture the emerging views and ideas. This part of the questionnaire is undertaken by all respondents but in this instance is dominated by non-user outlook, since a large majority of the population are non-users of new ICTs and therefore could not contribute to the user sections.

What was evident from analysing this section is that views did not differ greatly from users. For example, whilst 70% indicated that the most positive thing about new ICTs is their ability to provide instant, more reliable and cheaper communication facility such as Respondent 564's "*It eases the communication problem worldwide*", many were not keen to associate new ICTs with other social and cultural experiences such as cultural diversity, world awareness or learning as was found with the user analysis. In fact, similarly to all the other locations but evidently more here (and markets) than other locations, there was defiance in attitudes towards new ICTs (especially the cell phone) as some people refuse to acknowledge their capabilities to influence change; as shown by the following extracts:

> *"My parents do not like it because of their own reasons. I know western culture cannot make me do bad thinks or not respect my religion"* (Respondent, 463); *"Technology doesn't belong to only white people"* (Respondent, 504); *"I don't think mobile can change someone's character. To me it all depends on how we behave"* (Respondent, 437); *"Tourism made our people have negative minds about the culture our ancestor's left"* (Respondent, 453); *"I don't think the materials can change people to practise western cultures"* (Respondent, 445; *"Mobile is everybody's culture"* (Respondent, 537); *" We should not mind that; because having mobile phone doesn't mean that you should adopt other people's culture"* (Respondent, 524); and, *"I am very proud of being an African and being black too. Nothing can change me"* (Respondent, 403).

Generally, emerging attitudes towards new ICTs are positive. For example, 59% indicated that new ICTs have improved the way people do things in The Gambia,

whilst 57% had an overall positive outlook when asked to generally comment on new ICT's influence in society as demonstrated by the following:

> *"We are in a modern world so every body should live the way he/she feels. That is not a big deal"* (Respondent, 433); *"I don't mind it because I believe that people has the right to behave anyway they feel like, with no regards to race, religion origin etc."* (Respondent, 451); and, *"Because of its respect for the woman"* (Respondent, 469); *"Everyone has a right to his/her own living"* (Respondent, 521); and, *"Because, every body should do things the way he/she likes"* (Respondent, 487).

However, overall, there was a strong negativity - compared with offices and cyber café locations - associated with new ICTs influencing Gambians' culture in a western fashion as illustrated in Table 7.3.

Table 7.3: A comparison of respondents' attitudes towards new ICTs in The Gambia

	Offices %	Cyber cafés %	Households %
Negative response	10	44	58
Positive enlightenment	41	21	23
Tolerance	29	18	15
Resistance	20	17	4

This negativity is chiefly rooted in religion as clashing with all things 'Western' and therefore morally corrupting as it is beginning to change traditional protocols. The following extracts demonstrate such views:

> *"Is very very sad the way things are going because no respect is given to elder nowadays and also, people are turning their backs on their origin"* (Respondent 429); *"Yes, it makes some of our sisters in bad life, meeting different men and married women playing games with their men ...please help!!"* (Respondent 549); *"We should talk to our own children not to adapt western culture, because is not good for our religion"* (Respondent, 481); *"It is very bad to adopt western culture; Islam did not take some of its ideas"* (Respondent, 479); *"It is not good for our religion"* (Respondent, 472); *"Apart*

from Islam, anything you do in this world is not good" (Respondent, 447);

"It is very wrong for us to follow the way of the Tubabs [a local term for white people]. It is not going to be possible for us to be like them so it is better we stick to our way of life" (Respondent, 430); *"It is not Islamic to leave your own culture and follow others culture. I don't support it at all"* (Respondent, 428); *"The system is already corrupted so it is better for me to concentrate on my Five daily prayers because I'm old and very soon I will die and leave your world with you"* (Respondent, 426); *"Religiously, Western culture is not something that mix with our culture"* (Respondent, 489)

7.6 PECULIARITIES IN TRENDS OF POLARISATION

Gender – Although females formed 41% of respondents within this sample- more than offices and cyber cafés – only 6% of the female population were Internet users; which is about 17% of all Internet users in this location. Unlike cyber cafés, where there was lack of usage for females due to restricted access, in households it does not seem to be access that is the problem (even though it has less access) but rather, there seems to be reluctance to engage with usage even for those who have access. Therefore, whereas in office and cyber café locations, there was no gender difference in usage of the Internet, in households there were statistically significant differences between males and females when it comes to usage[34]. This result links directly to an earlier discussion about negative propaganda where there is less access to ICTs under *ICT embeddedness in households.* This situation as depicted by the results goes further to isolate females (particularly in this location) from using ICTs, because it appears that society at large is against it whilst taking into account that females from this location may not necessarily have the language and technical skills in order to engage with especially the Internet

[34] Differences in Internet usage and gender. Chi-square test X^2 (1) = 8.639, **p =0.003**

Female respondents found in households were largely housewives, carers and domestic servants - unlike those found in offices or cyber cafés - and therefore are less educated in the scholarly sense. As a result, this group tended to be more conventional in adhering to designated traditional roles of females in the community. In this sense, and coupled with traditional roles and negative information about ICTs, women and girls enjoy less freedom and have become persuaded to relate uncertainties, immoralities or even negativity with new ICTs; especially the Internet as Table 7.4 demonstrates. Hence 53% of women in offices, and 91% of females in cyber cafés (although only 15% of the whole population) were Internet users, whilst only 6% were Internet users in households.

Table 7.4: Average ICT importance ranking among gender (out of a maximum 5)

Gender	Cell phone Importance ranking/ Average	Internet Importance ranking/Average
Female	**3.5**	**2.4**
Male	**3.7**	**2.8**
Total	**3.6**	**2.7**

In fact, the reluctance to use ICTs is even more graphically pronounced when users of the Internet were further dissected by gender and online activities (see Figure 7.3). What Figure 7.3 shows is the mean (average) and range of activities users engage with when they are online. Whilst females engage on average with three activities, males engage with four; and whilst females' activity ranges between 2-3 activities per person, for male users it ranges from 1-9 with an average range from 2-5 activities per person. This difference in *range* of activities is similar to both offices and cyber cafés however; the difference in households is more extreme. Whilst it could be argued that females in households are prevented from showing willingness for Internet use because they feel lack that they necessary operational skills, it does not explain why this pattern of behaviour is repeated with the cell phone usage.

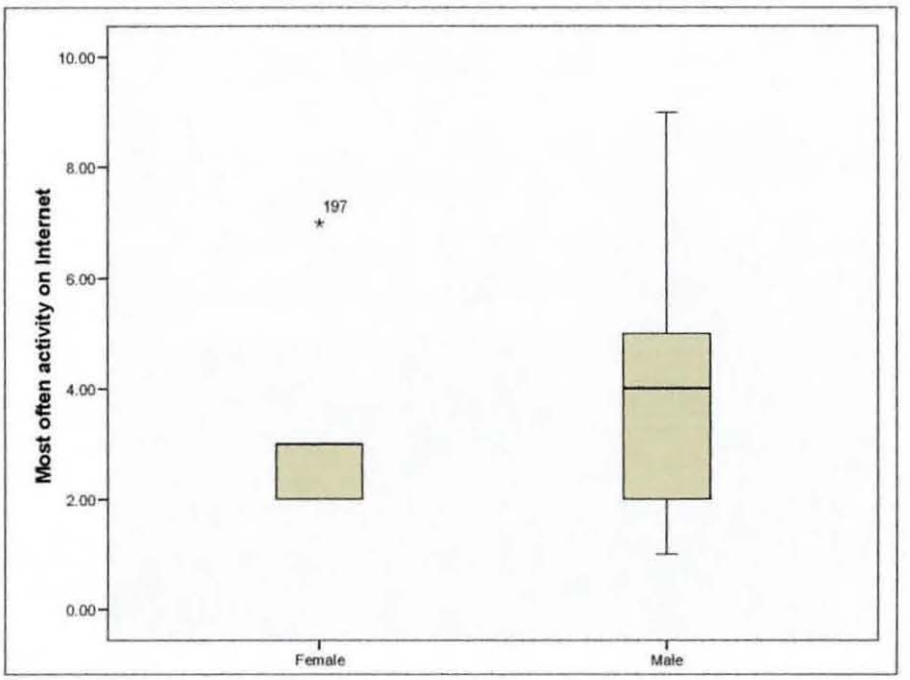

Figure 7.3: A box plot showing mean and rage of gender online activities

In fact, statistical test confirms the difference between gender and cell phone users, although 29% of users are females whilst 44% of the female population are users[35]. The lack of lack of access, usage and willing female user attitudes has proven to be an added factor of social and cultural rejection of new ICTs. This type of resistance can very easily spread if it has not been already to females in other small pockets of communities.

Contrary to what is expected, there are no statistical differences between male and female attitudes towards ICTs from Internet users[36], cell phone users[37], or from the whole sampled population[38]. This suggests that as women as much as men are pushing traditional agendas in restricting and or persuading females into reluctance about using new ICTs.

Age – As in offices and cyber cafés, differences between age groups is also evident in households. Internet usage seems to be exclusive to ages 16-44 who together make up 100% of users (see Figure 7.4). A subtle difference, however, between these two

[35] Difference in cell phone usage and gender. Chi-Square test – X2 (1) = 19.321, **p= 0.000.**
[36] Differences in Internet user's attitudes and gender. Fisher's exact text - Exact 2 -sided sig = 1.000.
[37] Differences in cell phone user' attitudes and gender. Fisher's exact text - Exact 2-sided sig = 0.264
[38] Differences in general attitudes of all respondents and gender. Fisher's exact text - Exact 2-sided sig = 0.099.

dominant age groups is that whilst the 16-24 age group spend on average 1 hour per week online, ages 25-44 spend about 2 hours on average, thereby confirming their superior economic status over the younger age group. A significant difference is how ICTs were ranked by the different age groups in comparison to the other locations and to cyber cafés especially. Whilst in cyber cafés, the age group 44-65 ranked ICTs' importance higher similarly to all the other age groups, in this location the same age group ranked it almost least (see Table 7.5). This further demonstrates that being exposed to ICTs changes one's perceptions.

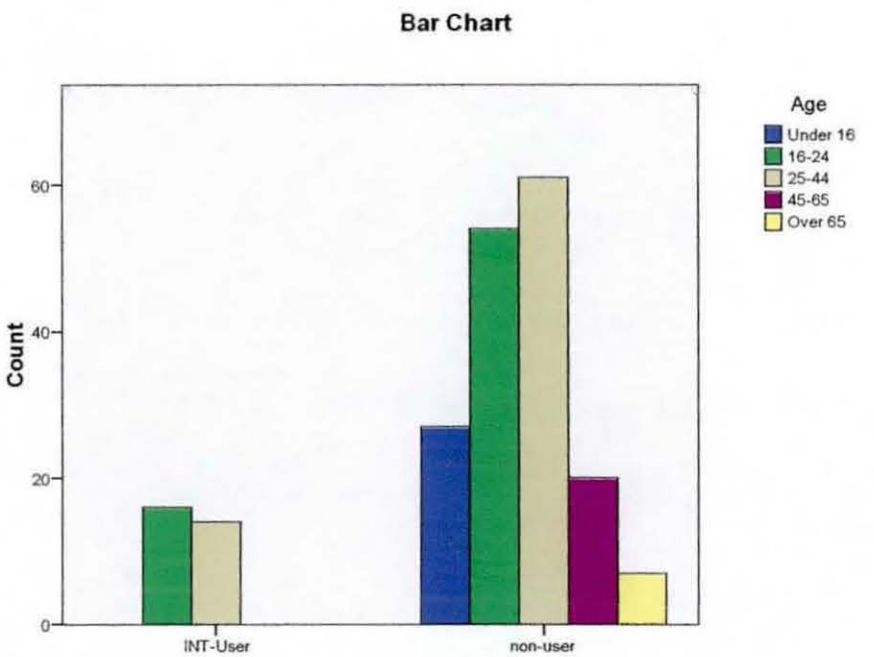

Figure 7.4: Frequency count of Internet users and non users of the different age groups in households.

While there were no statistical differences in Internet users' attitudes by age groups[39] or cell phone users' attitudes and age groups[40], there was a significant difference in that of general attitudes of all respondents by age groups[41]. This result depicts the fact that a significant percentage (60% or more) of all age groups who responded generally comment on ICTs influence overall from a non-user perspective and therefore may associate new ICTs with negatives influences such as family break downs or misguidance of youth. The only exception was age group 16-24 who had

[39] Difference in Internet user attitudes and age. Fisher's exact text - Exact sig 2-sided sig 0.359.
[40] Difference in cell phone user attitudes and age. Fisher's exact text - Exact 2-sided sig = 0.286.
[41] Difference in general attitudes of all respondents and age. Fisher's exact text – Exact 2-sided sig = **0.0004**.

only 30% of their segment associating new ICTs with negative agenda, whilst a higher percentage of 39% would rather associate new ICTs with positive enlightenment.

Table 7.5: ICT importance rank Overall between age groups

Age	Cell phone ranking: households	Internet ranking: households
Under 16	**3.4**	**2.0**
16-24	**3.7**	**3.0**
25-44	**3.7**	**3.0**
45-65	**2.6**	**1.7**
Total	**2.7**	**2.7**

With this result it has become very clear that almost all age groups with the exception of young people (at least in this location) are taking part in this negative agenda towards new ICTs. It was observed that, when the older age group are present, respondents under 16 years old tended to repeat what has been instilled in them or copy the views of the older generation.

7.7 CONCLUSIONS

ICT embeddedness is very low in households as a result of very low access, usage and therefore diffusion. This has led to a certain amount of uncertainty and some negativity against using it, especially in the case of the Internet. In this case, access is directly linked to a socio-cultural rejection of ICTs.

For users in this location, the Internet is viewed only as a replacement tool that is faster, cheaper and more effective than writing letters or using land phones. There was, however, evidence of a connection to the Diaspora which while perhaps not unique to this location emerged as a local to global socio-cultural experience.

There was, however, a more positive outlook regarding cell phones than the Internet as there is firstly, higher access, and secondly, it has become a tool that solves mobility issues. This is especially important in households where movement is restricted as a result of various factors. Overall, people have seen their daily lives

improved with the help of mobile phones and therefore this justifies a more positive outlook.

Whilst there was a clear polarisation in gender in terms of access and usage, and in navigating the technologies for males and females, the lack of difference in gender attitudes has confirmed that women as much as men are pushing the traditional agenda that is restricting for especially women's use of new ICTs.

Women and girls from this location are largely uneducated, with restricted movement and sometimes an outright ban from access to ICTs coupled with adhering to traditional values and roles, means that females from this location are persuaded into observing spatial and moral rules that further isolates them from ICT use. In addition, avoidance of punishment (such as lashing, beating and in extreme circumstances stoning to death) if the rules are broken, has led to their reluctance in using ICTs even if there is access.

Finally, it has become clearer in this location that the general association of new ICTs with negative influences runs across all age groups, with the exception of the younger ages of 16-24 who have reported positive and enlightening experiences. This is not too unexpected as this group fits the user demography in this location, are more educated and therefore more open to other cultural experiences.

8. ANALYSIS AND FINDINGS OF EDUCATIONAL INSTITUTIONS

8.1 INTRODUCTION

Respondents in this location were interviewed inside several educational institutions and these consisted of mixed gender middle and high schools, the University of The Gambia, and private 'computer' schools in the Greater Banjul area. A majority of the respondents were students, however, some of their tutors also elected to take part. As a result, the demography is primarily made of age group 16-24 who make up 73% of the total population (see Figure 8.1). This makes the job category one-dimensional as it consists of either the student/youth category or the educational category, which together make about 80% of the total population. Gender constitutes 58% males and 42% females. The percentage of females is quite high, especially as Gambia's own report together with UNICEF's report documented the low rate of girls in secondary education (Gambia Education Policy, 2004 pp10-11; UNICEF, 2004).

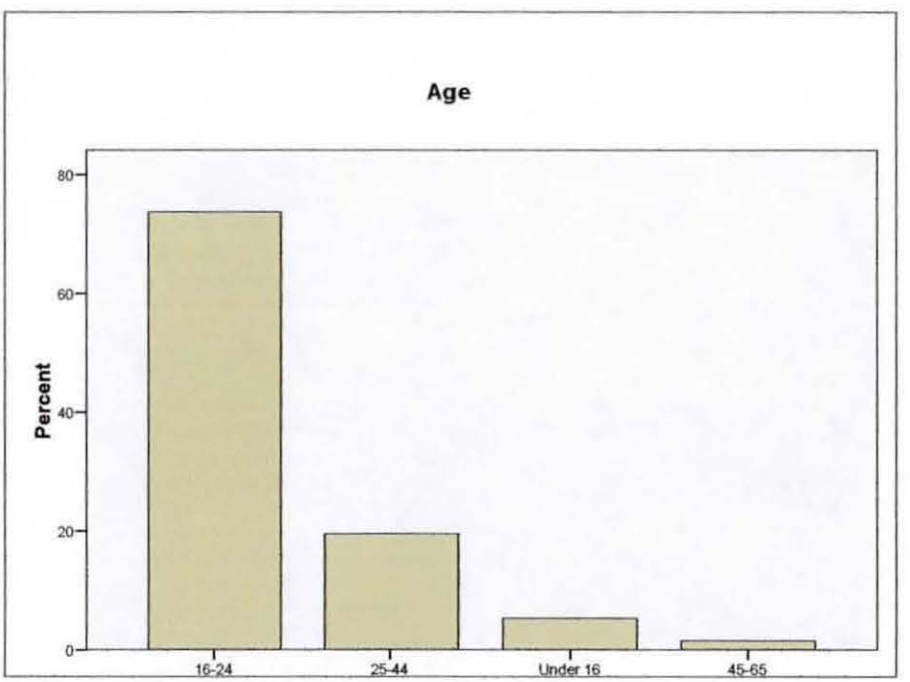

Figure 8.1: Age demography in educational institutions

What makes this location interesting is the association of youths with new ICTs as the digital generation or the most adept end-users (Thulin and Vilhelmson, 2007; Wilska, 2003; Valentine et al, 2002). It is, therefore, expected that the analysis of this location will demonstrate high ICT embeddedness; established cyber and cell cultures; a more tolerant attitude towards ICTs; and, evidence of unique clusters of experiences associated with the impact of new ICTs. Analyses of these prospects are discussed in the following sections.

8.2 ICT EMBEDDEDNESS

Deductions from analysing the previous locations so far suggests that there are several factors obstructing young people in The Gambia from accessing new ICTs:

Socially, young people have to contend with the negative 'misinformation' that has begun to be associated with new ICTs especially access to the Internet, as was evident in all the other locations. This is chiefly due to the notion that young people are becoming socially more confident, independent, and morally corrupted as a result of access to new ICTs, and are therefore losing their good morals in civil society. Accordingly, phrases such as censorship of contents, banning access to young people, corruption of the young mind etc. have been reflected in attitudes in all locations analysed (see Chapters 5, 6 and 7).

Culturally, religion plays a significant part in the Gambian culture. Therefore, as culture and religion is declaring that young peoples' access to new ICTs is very 'corrupting', young people have to take heed in order to demonstrate cultural respect to those who are against it, such as parents and guardians, and especially religious leaders or Imams. This means that politically, people are calling for policies and regulations that would police or even ban young people's access to ICT's as has been evident throughout the locations analysed so far.

Economically, although some young people are required to work in order to contribute to the household, under the general culture of The Gambia, young people are viewed as dependants until they are married. Therefore, unless a male or female

marries, they are required to live with parents or risk being associated with a bad reputation. As a result, young people then have to rely on the permission or goodwill of their guardians in order to obtain access to ICTs. Consequently, the guardian needs to be convinced of the ICTs' benefit to the young person before allowing access to it.

However, despite having all these obstructions, there is a determination amongst this group that seem eager to incorporate technologies into their lives, as both new and older ICTs are highly embedded in this location. For example, educational institution(s) is the second highest location for Internet use – apart from cyber cafés - where 78% of the population are users. As Table 8.1 shows, even new multimedia ICTs such as Personal Digital Assistants (or electronic organisers) and MP3 players are evidently more in use here than in other high embedded locations such as offices and cyber cafés.

Table 8.1: A comparison of other new multimedia ICT usage in all five locations

Location	**Users %**	
	MP3 (digital audio player)	**PDA** (Personal Digital Assistant or electronic organiser)
Offices	13	3
Cyber cafés	20	4
Households	3	0
Educational Institutions	26	6
Markets	1.5	0

In addition, from the *ICT importance* ranking, one can deduce that all ICTs give the impression as being popular with this group. Even older and less-effective ICTs, such as the landline, are ranked higher than in any other location. However, even in the other locations, it was found that it was age group 16-24 who were the explorers of new ICTs as they use new ICTs to engage with a wide range of activities. As there are more young people here than any other location, the eagerness is more intensely evident here than the other locations analysed so far. One, therefore, wonders if young people are just accepting of any technology; or, if they are totally unselective as a result of ignorance of which ICTs are effective to integrate into their daily lives. According to Wilska (2003), young people tend to be less discriminating towards technology use because new technology is promoted to the younger generation as fashionable items.

Although all ICTs are popular in this location, amongst newer technologies, the Internet appears to be more popular than the cell phone, as an additional 10% of the respondents ranked it more positively than cell phones (see Table 8.2). However, despite the Internet being very popular within this sample, only 28% have access via their institutions whilst 63% have to make do with the Internet café. Interestingly, 9% have access to the Internet from home or have their own Personal Computer (PC). This percentage forms part of the elite, as so far, only 1% of the population from offices have access at home. Incidentally none of the respondents from the household location had Internet at home. Rigid domestic security in the case of thieves and unwanted guests meant that affluent homes could not be accessed by interviewers and were in the minority of the locations sampled.

Table 8.2: ICT importance ranking in educational institutions

ICT	Positive %	Medium %	Negative %	Not sure %
Internet	73	22	5	2
Cell phone	63	34	2	1
Television	74	19	6	1
Radio	62	31	6	1

Furthermore, despite the fact that a majority of the sampled population are seen by the culture as dependants; a high proportion of 28% bought their own cell phones which means that either they have generous guardians or have independent income. In addition, out of those who bought their phones, 38% did not acquire them locally (see Figure 8.2). This is an interesting outcome. A plausible explanation for this is that the phones were either acquired in neighbouring countries such as Senegal, were bought from tourists, or indeed were bought in western places through the Diaspora or overseas friends. This perhaps explains why alternative mobiles such as Vodafone Panasonic, T-mobile, Sendo and LG were in evidence in this location.

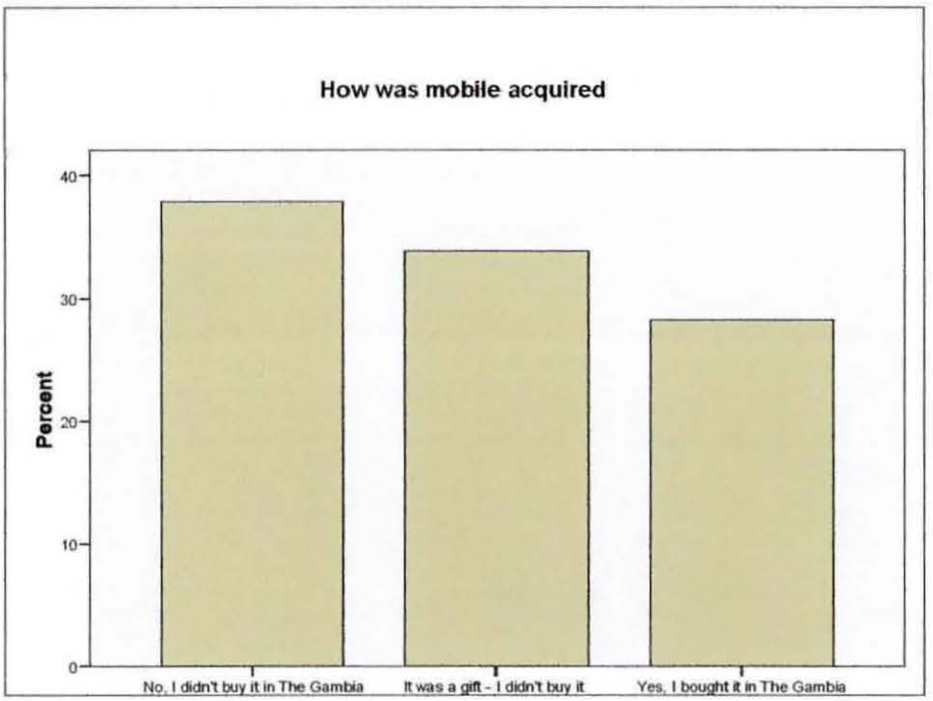

Figure 8.2: Respondents were asked how they acquired their cell phones

Statistical analysis of how users and non-users ranked ICTs supported the trend that opinions on the Internet is polarising as users and non-users ranked the Internet differently just like all the other locations. It also supports the trend that users and non-users rank ICTs differently even in pro-ICT environments. Therefore, even as this location is high embedded, there were differences in how users and non-users ranked the ICTs[42], apart from the cell phone. Whilst this result confirms the divisive trend of the Internet (as it is the only ICT to show significant difference in all locations between users and non users, no matter how high the access), it also reaffirms the theory that if one does not use a particular ICT, one is disinclined to see its importance even if that importance is being promoted by governing bodies. Therefore, more access and usage is necessary if governing bodies want to promote positive perceptions widely. For example, as was found in the cyber café, whilst the people in the age group 45-65 in all the other locations ranked the Internet as less important, it was only in the cyber café where this age group ranked the Internet's

[42] Differences in Internet user and Internet importance ranking. Fisher's exact test - Exact 2-sided sig = **0.003**; Differences in cell phone user and cell phone importance ranking. Fisher's exact test - Exact 2-sided sig = 0.064; Differences in TV user and TV importance ranking. Fisher's exact test - Exact 2-sided sig = **0.046**; Differences in radio user and radio importance ranking. Fisher's exact test - Exact 2-sided sig = **0.001**

importance similarly to all the other age groups (as *very important* on average). One can attribute this result to the group direct exposure to the Internet in the cyber cafés

Finally, as this location has now been established as a highly embedded location, evidence of cyber and cell cultures are expected. However, the unique uses of new ICTs tailored around the culture of this location imply different intensities of cyber and cell culture themes.

8.3 CYBER CULTURE AND KEY THEMES

High access to the Internet in this location is not as direct as that of offices and cyber cafés as only 28% have access via their institutions. Although some office respondents used the cyber café as their main access points due to infrastructure restrictions, in this location cyber cafés are even more important as they are the only channel for a majority (62%) of access. This shows that cyber cafés play a crucial role in access for people in low-income regions who are considered to have inadequate telecommunications infrastructure (Sairosse and Mutula, 2004). However, since access here is actually being sought by the respondents (because they have to go to another location in order to gain access), usage is high as everyone who seeks access has the intention of using the Internet. Consequently, the concern over the stagnation of growth in Internet usage does not really apply in this location as long as this group do not have restricted social pressures and still have the desire to seek access. Although students contribute to the results of cyber café users, unlike the dominant cyber café users (the majority of whom spend up to 10 hours per week online), 86% of this student sampled population can only spend up to five hours per week on the Internet (see Table 8.3).

Table 8.3: Users blend the Internet with old methods of communication collated from cyber culture section of questionnaires from households

	>10%	10-25%	26-45%	46-65%	66-90%	< 90%
Hours spent online/wk						
Up to 5 hrs					86	
6-10 hrs	6					
11-15 hrs	7					

<15 hrs	1					
Websites visited most						
Euro-American					73	
Gambian/African		25				
Asian/Middle eastern	1					
South A/Carib & other	1					
Methods of online communication						
Email					88	
Inst messaging		12				
Skype or similar	0					
E-conference/ forums	0					
Previous methods of communication						
Letter			54			
Land phone		44				
Fax	1					
Telegraph/Other	1					
Users who still use previous method of communication						
Yes				65		
No			35			
Online Interactions mostly with...						
Friends/pen pals				49		
Family			30			
Business/ Edu/ other orgs		12				
Nobody	9					
Users who use the internet to interact locally						
Yes			65			
No		34				
Other response	1					

Another interesting aspect of Table 8.3 is the percentage of people that use the Internet to seek information on Gambian/African websites and more notably, the amount of users who engage with instant messaging. In fact, this group do not only use the Internet to engage externally but also internally. As Table 8.3 shows, 65% use the Internet to interact locally. This is quite different from the population in cyber cafés whose interest seems to be solely in external communications with friends, employers and further educational institutions, and the Diaspora – in order to help boost their socio-economic situations.

As a result of the loaded enthusiasm for the Internet, high usage, a greater embeddeddness of the Internet into their daily lives, and the diverse range of

engagement with online activities, cyber culture is well and truly established in this location. For example, the average range of activity a person engages with while online is four (3.9 to be exact): This is the highest so far, although it is very similar to that of cyber cafés (see Table 8.4).

Table 8.4: Comparing the usage numbers, demography and mean range of activity per person in all 5 locations.

Location	Internet user % of total sample	User demography	Mean range of online activity per Int user
Offices	59%	Mostly office workers between ages 24-44	3.27
Cyber cafés	91%	Mostly civil servants, unemployed, self-employed and students/young people between ages 16-44	3.88
Households	15%	Mostly 16-24 students/college dropouts	3.87
Education Institutes	78%	Mostly students between ages 16-24	3.90
Markets	5%	Mostly a hierarchy of traders in age group 25-44	3.10

What Table 8.4 shows from the average range of user online activities is a confirmation that young users engage with more activity than older users. Although there is not much difference in the average range of online activities, especially in cyber cafés, households and educational institutions as they represent a similar demography, the order of hierarchy of the average shows that the population in education uses the Internet for more varied activities than in other locations.

There is an all embracing attitude here - despite the authoritative restrictions - to explore new spaces, which respondent 616 candidly surmises as "*it [Internet] makes things easier in all aspects of life like News, ways of correspondence and information regarding education. I believe [that] with the advancement of technology like the Internet, everything is getting easier and I'm very sure things will be made [a lot] easier in the future*". The significance of the exploring attitude is that, respondents from this location are experiencing a wide variety of impacts with no particular dominance as they are using the Internet to explore various topics equally. This contrasts with the offices' appetite for News or the cyber café user's desire for external economically boosting opportunities. Therefore, apart from the Internet being viewed as a fast, reliable and more efficient ICT (repetitive of all locations

analysed so far), all of the experiences are present on almost equal terms, as Figure 8.3 demonstrates. This location has instead emerged as that which incorporates all the experiences associated with other locations and more.

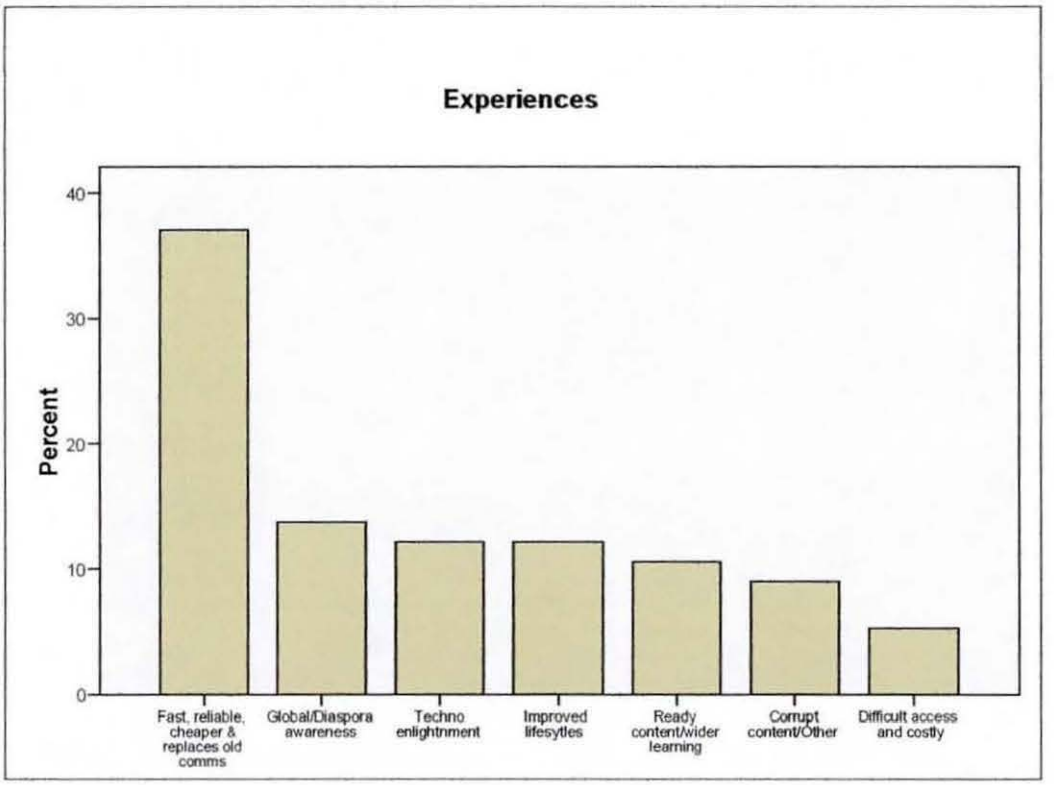

Figure 8.3: Combined views of Internet users' cyber culture experience

What is, however, interesting is the unparalleled levels of experiences within the same theme (e.g. globalisation) when compared with other locations, particularly in terms of how different the experiences are described or termed by the respondents. For example whilst respondents from offices described their globalisation experiences in the context of 'world awareness', in this location it is described as 'being part of the global village or the electronic age'. This point is further discussed under the broad themes of:

- Content (wider learning, acquisition of contemporary knowledge and challenging boundaries of belief);
- Globalisation;
- Technological (not information) enlightenment; and,
- Access and costs.

Content –Among the education institution group, however, the restrictions have so far shown little effect, as they find the Internet gateway to new information and knowledge far too exciting to adhere to traditions and authority. The Internet for this group has expanded new ways of enquiring about different perspectives of information which they can use to inform or challenge what is already known. Be it using it to research assignments, gather current information such as news or events, engage in online social societies (e.g. My-space, Yahoo messenger), or as just a general source of enquiry. The ready content of the Internet has provided a wider radius of knowledge resources for this group as the following extracts demonstrate.

> *"It has helped people widen[ed] their way of thinking"* (repondent709); *It has changed the people because it sometimes educates the illiterate. Many of our friends have used the Internet to converse with pen pals and since it is through the Internet you have to force yourself to read and write if you cannot"*(respondent 674); *"It was expensive to communicate with friends and family members abroad, but with [the] Internet, it has become cheaper.*
>
> *It also helps students in searching answers to their assignments"* (respondent, 671); *"People are well enlightened and make friends over the net"* (respondent 743); *"Learning materials are rampantly available on computer even when one does not attend lectures*" (respondent 779); and *"people usually know a lot of information from the net for example, the information on football and other news"* (respondent 771).

As a result of these achievements, the Internet is now seen by some as the place to all solutions. Some have developed a sense of dependency on it; especially those whose economic circumstances mean that they cannot afford extra tuition to boost their performance in education. For example, as respondent 691 states "*the Internet has made learning easier in The Gambia and has also made communication easier and faster... I just want to let you know that without the Internet, [a] poor student like me will find education difficult*"; or respondent 688, who observes that the greatest impact of the Internet on his life, is "*doing an online course, and, chatting with someone by*

using a webcam". For some however, they simply cannot imagine themselves without the Internet such as respondent 670 who observes that the Internet *"does not make me lose my contacts. I get my contact from everywhere I go and I can't go without it.*

Also evident from this location in the context of content is the heightened awareness of inappropriate content. In fact, about 15% mentioned the issue of corrupting content and that it is influencing their peers (but not themselves). This suggests acute awareness of the displeasure they are courting from higher authorities by accessing information through the Internet. However, the difference in this location is that rather than call for an outright ban, as was suggested in offices and households, those who were concerned with this issue offered advice and suggestions to their peers to stay away from such sites instead. Others however, elected to mention it together with emphasis on the advantages of the Internet.

> *"It has made educational materials easy to get when you go online. It has also changed the culture because people use it for bad reasons such as Internet theft, pornography etc"* (respondent, 632); *"people have access to relevant educational information and communicate easily but it also has negative impact. People sometimes use it to watch pornograph[ic] films*" (respondent, 774); and, *"It makes communication easier but people should stop using the Internet to watch blue films"* (respondent, 647)

Globalisation – So far what has been depicted by the results from the other locations is that the experience of globalisation is customized to the type of cyber activity being engaged with online. Therefore, whilst respondents from office locations use the Internet for activities such as searching for news and events, their experience of globalisation has been described in the context of 'world awareness"; in terms of being more aware of external events around the world. By using the Internet chiefly to search for opportunities abroad (whether through websites that advertise further education or employment vacancies), cyber cafés users' global experience is more adjusted to being made aware of alternative life choices (through information search

and e-learning). Users from the home location, however, although mostly similar to cyber cafés in terms of demography, experienced their increased global knowledge as a result of frequent contact with the Diaspora.

These globalisation experiences are, of course, not totally exclusive to each location, as some overlap. However, the interesting finding amongst the education population, is that their global experience cannot be expressed as a singular factor. The reason for this is that the wide range of almost equal online activities has resulted in many experiences, with no outstanding experience. The pursuit of knowledge, however, through the various sources such as news, online courses, social network sites and mega search engines is the commonality to the many equal experiences. What is, however, apparent is the use of certain keywords to describe their experiences (e.g. global village) that appear to be the echoes of other peoples' (e.g. teachers) thoughts as illustrated in the following

> *"It [Internet] brought the world together into [a] global village"* (respondent 656); *"Many businessmen used [the] the Internet to develop their business and it makes their life easy. Internet makes the world like one village"* (respondent 654"); *and "It brings the world together into a global village* (respondent 643).

This is unusual as respondents from this location actually completed each of their survey forms by themselves. Perhaps it is because a majority of the respondents were describing the Internet's influence in a third person rather than their actual own experiences in the first person. In this location however, the experience of globalisation seem to be rooted in the acquisition of knowledge. It is all about *knowing* more of the 'outside world', as the following extracts demonstrate:

> *"It has enabled us to see the wider world in seconds. It has even facilitated educational institutions easy access world wide. Internet system should be broadened worldwide/countrywide for even rural areas to access e.g. Kuntaur [a Gambian village]"* (respondent 783). *"It has created a room for many people to access information world wide"* (respondent 635); *and "It makes people to know and be aware*

of the outside world... now technology in The Gambia has improve[d]" (respondent 764).

Technology Enlightenment - Reports of technological enlightenment are unique to this location as hardly any respondent from the other locations mentioned being technologically more capable as a result of using the Internet. Whilst the content of the Internet has enabled wider learning in the global context, people in this location also feel that they now have competence in the actual operation of technology which they would not otherwise have. This may be due to the fact that half the respondents were interviewed in private computer institutions, however, this theme also proves to be the continuation of learning and knowledge acquisition which is strongly represented in this location, as the following extracts demonstrate:

> "*It has enhanced the IT skills of people and made communication easier. The use of the Internet is indispensable in this technological era so it must be encouraged*" (respondent 781); "*It [has] made most people learn [how to use a] computer just to be able to use the Internet*" (respondent 756); "*people are becoming more aware about information technology*" (respondent 697); and "*It has help[ed[many people to know a lot about the outside world and also help The Gambians to know more about technology"* (respondent 701).

Access and costs – Taking into account the desire to explore and exploit the knowledge domain of the Internet, it is quite typical that the issue of costs and access is raised as respondents demand more access and lesser costs. As respondent 662 surmises, the Internet is especially crucial for this sample as "*It has helped the kids in building the capacity (Intelligence) as a result of [information] on the net which gives them peace of mind and gets them enthusiastic about going to school and learning*".

In summary, in this location, the most important influence of the Internet and its culture is the acquisition of knowledge. Taking into consideration the location's

demography, this is not unexpected. What, however, was unexpected was the evident desire to break away from traditional codes, beliefs, and restrictions in order to achieve different heights of knowledge. When one takes into consideration that a majority of respondents from this location are viewed as dependants (although they may be earning income) and are therefore required to adhere to authority, the evidence of a resistance to authority is controversial, and may yet cause older Gambians to ignite the rejection of new ICTs - especially the Internet - among certain demographic groups.

8.4 CELL CULTURE AND KEY THEMES

An obvious distinction between cell phone use in this location and the others is the engagement with the standardised cell activities, such as listening to music radio and playing games. In fact, even though this can only be partially classified as a standardised cell culture due to the absence of services such as picture messaging and WAP, the potential of a fully fledged cell culture is very evident. Similar to the Internet, the diverse use of the cell phone unlike other locations has also resulted in many cell culture experiences unlike the vernacular-type cell cultures in the other locations

Therefore, whilst in households where cell culture is tailored around providing mobility for the immobile, one way of which is to give feedback to the head of the household; it is vice versa for respondents in offices, as they use their cell phone to keep tabs on those they are responsible for. Whereas in cyber cafés, users did not see the necessity in using the facilities of mobiles, as they can acquire more from the Internet, they were happy to acquire cell phones so they can be seen talking on it for a higher status in society. This denotes that in all these locations, the cell phone was depicted as just a portable replacement of the landline as its chief use was for 'talking'. In educational institutions, however, the cell phone is seen and used as many things moulded into one, as briefly described in the following:

Status among peers – This is especially crucial for those students who come from 'poorer' backgrounds and are therefore subjected to being unpopular, such as

respondent 701 who feels that "*mobile phone has made me a little bit popular because I've made a lot of friends through my phone*". By acquiring a cell phone "*people feel that you are a wealthy person to know*" (respondent 714), and therefore it raises one's status amongst peers. Of course, the disadvantage of this is that students will therefore go to extraordinary lengths in order to acquire one, as respondent 676 surmises: "*they believe that having [a cell phone] costs money and somebody who does not have money cannot buy mobile so that makes them (unclear word) about it. Because of that, some people struggle to get it [cell phone], and may even lead them to steal it which is bad*".

A multi-media device – Using the cell phone as a multimedia device such as listening to the radio, playing music, taking pictures or playing games, has extended the cell phone to a recreational tool, as in respondent 646's case who declares that "*before I had a mobile phone, I used to get very bored sometimes, but nowadays it provides me with company when I get lonely*". The cell phone then, is a tool to "*pass the time with*" (respondent 637) amongst this group. The use of the cell phone as a recreational tool is part of cell culture, as phones were manufactured with these facilities for such purposes (which are even more evident in Western places). Games and other recreational activities made for cell phone is a high profitable industry especially in Europe (Wiener, 2003).

An instrument for personal security and personalisation – As respondents 707 observes, "*To have a mobile phone is very important. For instance, if you are in an accident and there are no telecentres where you are, how can you let your parents know that you have [had] an accident.* Or respondent's 713 declaring that "*my parents know where I always am so they don't worry too much about me*". This again, is a reiteration of one of cell phone's universal effects, as such practices exist where cell phones exist, especially in 'Western places' (Thompson and Cupples, 2008; Srivastavas, 2004).

A social tool – Respondents feel that with their cell phones as aids, they are now able to make new friends easily in places and in ways that were not previously accessible to them. Therefore, for instance, as a social tool, the cell phone "*connects me to people that I have never met in my life*" (respondent 654); "*you get to know different*

people in different situations" (respondent 694); *it keeps me in touch with friends and family and takes me closer to them*" (respondent 368); and "*I keep in touch with many important people and also communicated with some of my Muslim brothers abroad* (respondent 622). Again, parallels can be drawn between this culture and the western culture, where cell phones have been dubbed as one of the most effective technologies for social networking (Rheingold, 2007; Srivastavas, 2004; Geser, 2004).

An organisational tool – with facilities such as alarm clock, calculator, torch light (usually refer to as back light) memo pads, and calendar; the cell phone has also become a useful tool that does not only act as a "*fast way to contact people but, in addition you can also record any event*" (respondent, 626). These organisational facilities are especially economically helpful to this demography, as they do not have to find funds for extras materials such as watch-clocks for time keeping. Hence 25% indicated the built-in organisational facilities in their cell phones as their third most frequent cell use activity apart from calling and sending SMS messages.

An instrument of knowledge sharing - Indeed, similar to the Internet, cell phones are also seen as instruments in which knowledge can be acquired and shared. Whilst the other locations emphasised information acquisition through mobiles as having enriched their lives, in this location, the key word 'knowledge' was actually mentioned in some cases, as respondents make the distinction between information and knowledge as demonstrated by the following respondents.

> "*Mobile phones have changed the way people live since acquiring knowledge through it had obviously led to attitudinal changes. Knowledge is the engine for development...* " (respondent 778); and, "*mobile phones have changed my way of living because I can text and contribute to BBC's [world service I assume] programs and making my opinions known to other various programs*" (respondent 785).

This distinction could be a result of academic learning, or could be a result of Internet learning, as students look for more ways to learn, share and establish knowledge.

A portable form of Internet – Respondents feel mobile phones should make the Internet portable in order for them to access content regardless of location. Even though some cell phones are capable of these cell culture features, such services are not yet in operation in The Gambia. This has enabled a certain recurring frustration about making advance networks available as respondent 688 exemplifies: "*I think technology should also be improved so that we can have access to the Internet via the cell phone*".

In this location, what is demonstrated is the homogeneity of cell culture (with western places). Cell phones are being used as was intended by the manufacturers and the promoters. As demonstrated by both cyber and cell cultures, there is a persistent enthusiasm to explore the full potential of new technologies (both the Internet and the cell phone and other such as PDAs and MP3 players). Therefore, cyber and cell culture experiences are not tailored to any particular use as was seen in other locations and consequently, no singular theme emerged as dominant. Instead, the almost equally varied use of both the Internet and cell phone's facilities for relentless knowledge searching has demonstrated a plurality of experiences. As a result this group can be significantly described as the ultimate consumers of new ICTs whist their experiences can be expressed as extensive pedagogy.

8.5 PECULIARITIES IN TRENDS OF POLARISATION

Gender – Statistical analysis shows that there are no differences between male and females' usage of cell phones[43]. However, with Internet usage, although from the 77.5% of the Internet users in this location 38% were females, and although out of the 42% of females present in this location 70% were Internet users, analysis showed a statistical difference between male and female users[44]. This is quite unexpected if one takes into consideration the similarities to other highly embedded locations such as offices and cyber cafés. As out of all the male respondents, only 17% were Internet non-users, perhaps the differences could be attributed to the very high number of males who are users. Indeed, further tests demonstrate that both females and males are

[43] Difference in cell phone usage and gender: Chi-square test – X^2 (1) = 0.024, p = 1.000.
[44] Difference in Internet usage and gender: Chi-square test – X^2 (1) = 4.4423, **p = 0.035**

on a level par. For example, both genders are equal in the range and number of activities they engage with online, as illustrated by the box plot in Figure 8.4. In fact, on average, females were shown to engage with slightly more activities than males, as the ratio is strictly 4 to 3.8 respectively. Comparing means of how males and females rank ICTs overall and the Internet specifically further showed no glaring difference in opinions on the importance of ICTs (see Table 8.5).

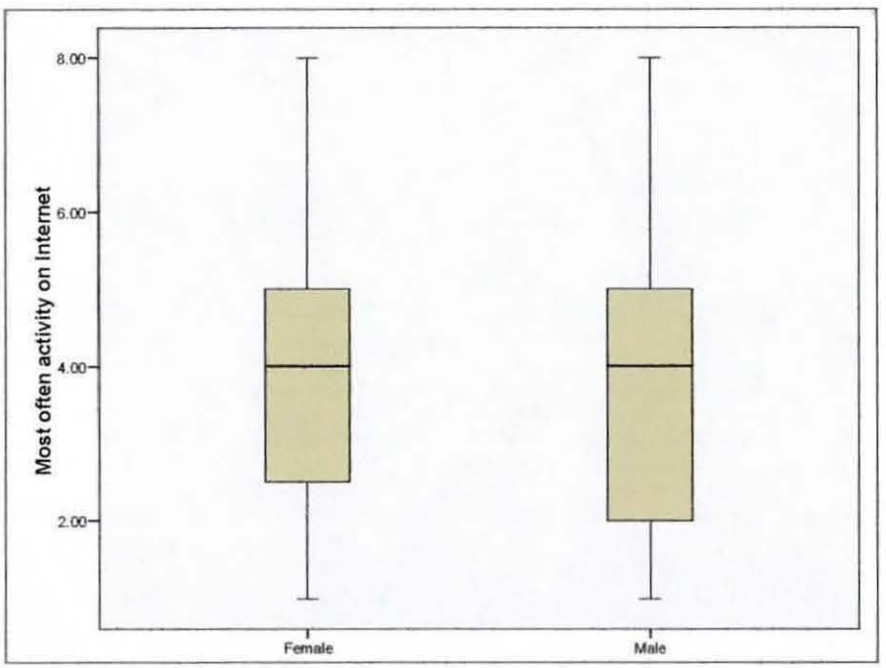

Figure 8.4: A box plot showing the mean and range of online activities within gender.

Table 8.5: Average ICT importance ranking among gender (out of a maximum 5)

Gender	Cell phone Importance ranking/ Average	Internet Importance ranking/Average
Female	**3.6**	**3.6**
Male	**3.7**	**3.7**
Total	**3.6**	**3.7**

In the case of attitudes, there were differences between the genders in relation to both ICTs[45]. In the cross-tabulation, whilst males did not strongly identify with any theme, females associated the Internet mostly with improved lifestyles (44%) and wider learning from a global content (36%). In the case of the cell phone however, 47% and

[45] Difference in Internet user's attitudes and gender. Fisher's exact text - Exact 2 -sided sig = 0.258; Difference in cell phone user' attitudes and gender. Fisher's exact text - Exact 2-sided sig = 0.508

48% of the sample strongly identified it with positive social and cultural effects; thereby again showing no differences in opinions.

Ages - Over 70 percent of the population in this location were within the ages 16-24. Consequently, much of the views and opinions of ICTs are un-stratified in the context of age. Analysis of usage of the Internet and cell phone confirmed no differences within the age groups[46]. However, in comparing how the different age groups ranked ICTs overall, it was quite apparent that despite being consumers of ICTs, younger people do not view ICTs in terms of importance as Table 8.6 shows that similar to the cyber café where, despite that the majority of users were younger people, it was the older age group who ranked ICTs highest overall.

Table 8.6: ICT importance rank Overall between age groups

Age	Cell phone ranking: Edu Institutions	Internet ranking: Edu institutions
Under 16	**3.4**	**3.9**
16-24	**3.6**	**3.6**
25-44	**3.8**	**4.0**
45-65	**4.0**	**3.7**
Total	**3.6**	**3.8**

8.6 CONCLUSIONS

Educational institution(s) are another high ICT embedded location despite only 28% of its population having directly access the institutes. The desire to know more about everything, including the new technologies themselves, has however propelled this group into seeking information in other locations (e.g. cyber cafés). The desire to know also means there are a high number of activities that users here engage with in order to explore the full potential of new ICTs.

As a consequence, cyber and cell cultures are fully in existence. However, due to the varied online activities, in the Internet's case, there was not a dominant single activity but rather many equally different cyber culture experiences.

[46] Differences in Internet user attitudes and age: Fisher's exact test - Exact 2-sided sig = 0.164; Differences in cell phone user attitudes and age: Fisher's exact test - Exact 2-sided sig = 0.186

Similarly, for the cell phone, there was no evidence of the vernacular-style cell culture that has emerged in the other locations; but rather, a cell culture that is similar to those of western places who have a fully established standardised cell culture.

As a result of the extensive exploration of new ICTs without the selectiveness shown in the other locations, this group's cyber and cell cultural experiences can be described as exploration of new and wider forms of knowledge through new channels through which they re-interpreted to inform traditional knowledge. The extensive nature of engagement with new ICTs has subsequently enabled people here to demonstrate characteristics that depict them as the ultimate consumers of new ICTs in the Gambia.

9. ANALYSIS AND FINDINGS OF MARKETS

9.1 INTRODUCTION

Market(s) were interesting to survey as they were not only places of bustling activity but also give an impression of a free atmosphere where some of the most inaccessible people can be accessed. However, the market is a very challenging place to a survey as people can be hostile and suspicious if one's object is not buying or selling (for example my colleague and I were chased out from a stall in one instance when our objective was made clear). Timing was crucial as respondents generally wanted to get back to their trading as soon as possible or in the case of several stall holders, interviewing was interrupted by prayer times as the prayer crier's voice persistently reminded the crowds of the next prayer schedule through very loud speakers in nearby mosques.

The survey was done in the two biggest markets in Greater Banjul, namely: Banjul market which covers about 3km radius; and Serekunda market which is about twice as big as Banjul market. These markets are self-contained places that cater for every need, which means traders do not have to get out for anything else untill the close of the day. In fact, some people use the market as their primary habitation. Places which were approached for interview incorporated supermarkets (usually stores with imported groceries); small and medium stalls trading everything from kitchen utensils to clothing materials; tailors; fish mongers and butcheries; and 'ground' traders who usually find a space on the ground to spread a cloth on and trade their materials from there. At first glance these 'ground traders' seem unregulated but on closer inspection one finds that these traders have been trading from the same place for years and are very territorial about their designated spaces.

Demographically, 51% of the sampled population were women whilst the rest were men. This is the only location where women have marginally overtaken men in the sample. In the context of job category, 79.5% were self-employed (traders) and within this women made up 55% while men made up the rest (45%). This result is very surprising as visibly there were more male traders than females. It could be

attributed to the different ranks within the traders and how many agreed to be surveyed. The ranks, in order of perceived importance, consisted of:

Store/cash & carry and mini super market holders – these are usually men who are also usually migrants from the North of Africa such as Mauritania. They are labelled as 'Mauritanees' and are usually identifiable by their blue uniformed robes and fair skin complexion. These men are characteristically traders and usually tend to trade in large quantities of food and spices.

Small and medium stall holders – usually a mixture of both Gambian and Senegalese male traders who trade in clothing items, kitchen utensils, and small electrical goods. It is also made up of tailors who have stalls near the clothing materials. .

Ground traders – a majority of these are known as Aku or Creole women, and are migrants from places such as Nigeria, Ghana, Sierra Leone and Liberia. They usually sell their items from sheets laid on the ground or cooked food/ snacks on trays or small tables. They were the most approachable in this location.

Helpers – These are young apprentices whose job is to help the first two of the above categories who made up an extra 5.5%, thereby combining with the self employed to make the group a total majority of 85% of the market population (see Table 9.1).

Table 9.1: Job category of markets sample

	Frequency	Percent
Self-employed	159	79.5
Other (Helpers)	11	5.5
Student/ Youth	10	5.0
Gov/Civil	7	3.5
Corporate/Private	7	3.5
Ngo/Charity	3	1.5
Unemployed	3	1.5
Total	200	100.0

In the context of age, the dominant age group, which took 51% of the population was the age group 25-44. The age group 45-65, who were inaccessible in most of the locations, made up 14% in this location. This is quite significant as this group was in danger of being the invisible voice within the research.

Taking into consideration the demography of the sampled population, the level of ICT embeddedness (if any), ICT cultures and their effects; and the emerging attitudes towards new ICTs were very much anticipated.

9.2 ICT EMBEDDEDNESS

Unlike households, general mobility is not restricted in this location as traders migrate from households and other locations to markets in order to trade. There is, however, a restriction of movement within the dominant job category as traders cannot leave their trading space unsupervised once they are opened. As a result, access to ICTs whilst in or within this location is restricted. For instance, although the busiest cyber cafés are located just outside these market places, access is restricted as traders can only access them on their way to and back from work. This partially explains why the Internet is by far the least favourite in this location (see Table 8.2). However, as both academic and popular literature postulates (Aminuzzaman, 2003; Dholakia, N. & Kshetri,(2003); Economist, 2005; Day, 2005); and, as found by this research in other locations, acquiring a cell phone seems to make a significant economic difference to traders. It is therefore surprising that only 50% of this sample had access to and used cell phones in their daily activities (see Table 9.2.). Perhaps traders who trade from fixed positions do not see the necessity of acquiring phones as they have a loyal customer base.

Table 9.2: Comparing ICT usage in all five locations

	Offices%	Cyber cafés %	Households %	Edu. Institutes %	Markets%
Internet	59	90	15	77.5	5
Cell phone	97	91	62	92	50
Television	84	89	77.5	85	77
Radio	89	91	89.5	87	89
PDA	3	4	0	6	0
MP3	13	20	3	26	0
Other VCR, DVD etc)	3	12	13.5	6	8.5

Respondents from the market also did not seem to value ICT's importance very highly as a majority of the responses were neutral (middle of the scale). In the context of the Internet, however, whilst nearly 43% were uncertain about its importance, both negative (*not important*) and positive (*very important* and *essential*) opinions were equally divided (see Table 8.3). Since throughout analyses of all five locations, statistical evidence did not show only poorly-embedded locations to be where users and non-users ranked ICTs differently[47]; what the analyses confirmed, as alluded to previously, is that perception of ICTs – especially the new ones -, is not related to geography, but rather, to access and usage (Appendix 3).

Therefore, even in highly-embedded locations, those who did not have access and usage ranked ICTs differently to those who did. This means that for an ICT like the Internet, where access is not just based on availability of the infrastructure, but a whole host of other issues such as literacy, technological skills, personal willingness/capacity, and cultural acceptance, the Internet shall always be a polarising instrument socio-culturally, unless all of these other issues are resolved. This is proven in the consistency of statistically significant differences in user and non-user ranking of the Internet in both poorly and highly embedded locations. (See Appendix 3 for the categorised importance ranking for all locations).

Table 9.3: ICT importance ranking in the market place

	Not sure %	Negative response %	Neutral response %	Positive response %
Internet	42.5	24	10.5	23
Cell phone	7	23.5	52.5	20.5
Radio	1	20	54.5	24.5
Television	3.5	27	48.5	21
Landline	5	34.5	17	43.5

Using this argument one can conclude that the many inequalities under the rubric of the digital divide, especially in the context of the Internet, are here to stay. This point

[47] Difference between Internet usage and Internet importance ranking. Fisher's exact test - Exact 2-sided sig = **0.000**;
Difference between cell phone usage and cell phone importance ranking. Fisher's exact test - Exact 2-sided sig = 0.114;
Difference between Radio usage and Radio importance ranking. Fisher's exact test - Exact 2-sided sig = 0.928;
Difference between TV usage and TV importance ranking. Fisher's exact test - Exact 2-sided sig = **0.003.**

agrees with Wasseman's (2002) concern which "*contends that new technologies will neither close nor open new gaps but may instead be a continuity - or an extension - of current the structure of societies*". One therefore wonders about the effectiveness the endless ICT agenda targeted at developing low-income regions when grassroots problems of inequalities (be it education social/cultural status or infrastructure) affect a large section of the society. One questions whether the application of the Internet in particular as a tool for development is based on hopeless optimism.

Another interesting outcome of the importance ranking is the landline being ranked positively by more respondents than any other ICT in this location. This is exactly the reverse of all the other locations where the landline was ranked the least favourite. A light interpretation of why the landline was ranked importantly here is that a majority of the active telecentres are found in market places. In these telecentres every service is provided including the typing of letters, faxing and calling (including international calls). What distinguishes the telecentres from the cell phone and the Internet as modes of communication is that in the telecentre everything is done for the customer. For example, all one needs to do is hand over a number and instructions and the service is performed for you (including language interpretation).

In a market place, where the assumption is that a majority of the people are uneducated and therefore cannot read or write, absolutely no skills are required in order to communicate via telecentres, unlike the Internet and the cell phone. While in households someone who cannot read or write can easily find help (for example to punch the right numbers into the cell phone), it is quite different in market places as the (non)education level in the demography is levelled. This is unlike households which had a significant proportion of college drop-outs who can read and write. This may also partially explain the little enthusiasm for new ICTs including the cell phone (as an economically enhancing tool for the low-income trader). Consequently, market places are the least ICT embedded location of those studied in this research.

9.3 CYBER CULTURE AND KEY THEMES

Since only 5% of the population use the Internet, cyber culture and experiences associated with it are far from established, in contrast to highly embedded areas. Table 8.4 shows that amongst the 5% who do use the Internet, the Internet is only used to engage with a very specific and a very narrow set of online activities. The mean range of activities per person is three, typically email (100%), chat (50%) and, e-learning (50%). There is no such thing as using the Internet for news or information search in this location; and apart from email (which is the most popular activity in all the locations), the percentages engaged in chat and e-learning here are not especially high compared to other locations. The narrow range of activities explains the large percentages in the right hand columns of Table 9.4, as the Internet is only used for specific activities. This means that the use of the Internet to blend into old ways of life is particularly ineffective; and a proof to this point is that 70% of the users still choose traditional ways of communication such as letters and land phones.

Table 9.4: Users blend the Internet with old methods of communication collated

	>10%	10-25%	26-45%	46-65%	66-90%	< 90%
Hours spent online/wk						
Up to 5 hrs					80	
6-10 hrs		20				
11-15 hrs	0					
<15 hrs	0					
Websites visited most						
Euro-American					90	
Gambian/African		10				
Asian/Middle eastern	0					
South A/Carib & other	0					
Methods of online communication						
Email					90	
Inst messaging		10				
Skype or similar	0					
E-conference/ forums	0					
Previous methods of communication						
Letter					70	
Land phone			30			
Fax	0					
Telegraph/Other	0					
Users who still use previous method of communication						

Yes					70	
No			30			
Online Interactions mostly with...						
Friends/pen pals				60		
Family			40			
Business/ Edu/ other orgs	0					
Nobody	0					
Users who use the internet to interact locally						
Yes			40			
No				60		
Other response	0					

Since there is little cyber culture there was not any dominant experience that was evident from analysis, except that 87% of the users who indicated that the Internet had changed their lives attributed it to facilitating speedy communication such as:

> *"It is one of the fastest communicators* (respondent 807); *and, It makes communication easy and fast"* (respondent 923);

However, this experience is not exclusive, as all the other locations made this attribution as their highest impact. In addition, out of the eight user respondents who commented generally on the Internet's impact, three (37.5%) indicated difficulty in access as an issue, whilst the same percentage indicated the global ready content of the Internet as beneficial. The remaining two cited inappropriate web content and the Internet's source for forming friendships as key issues, as the related comments and Figure 9.1 demonstrate.

> "*It makes transactions easy for people. My main concern is the network service. Gamtel should try and work on that (to make it faster) like in Europe. The tariffs are also costly*" (respondent 978); "*the system is very fast, so people solve their problems easily Gamtel should block bad websites in the net*" (respondent 981); *It makes communications easy in The Gambia. It creates an opportunity for Gambians to have friends*" (respondent 971); and "*It helps people to send messages all over the world. The Internet is very important because communication is very easy and fast*" (respondent 870).

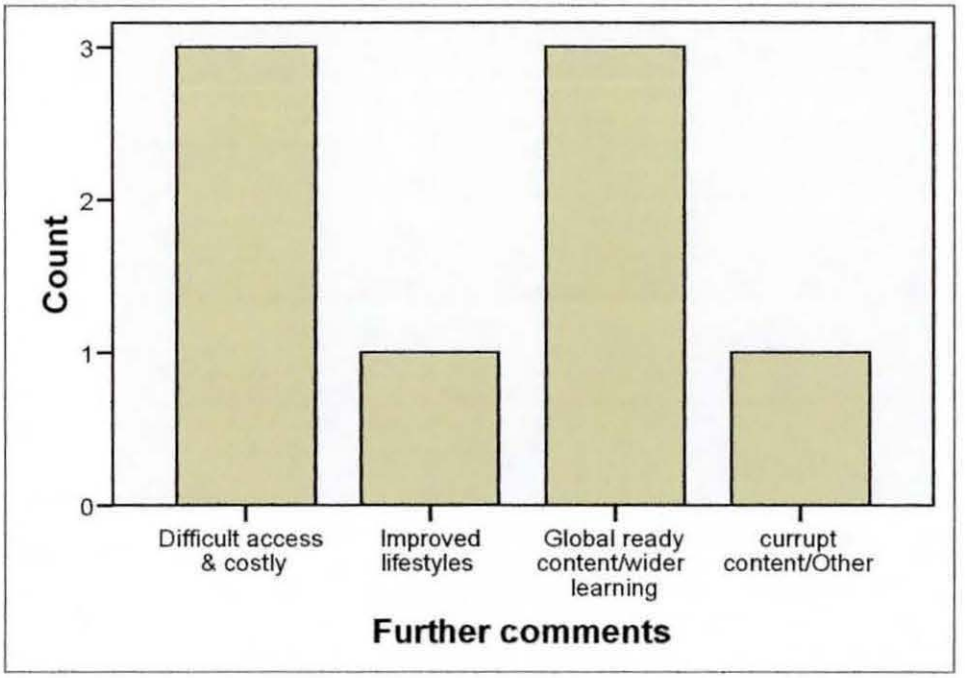

Figure 9.1: Internet users further comments on the influence of the Internet

9.4 CELL CULTURE AND EMERGED THEMES

Nokia is the most popular phone in this location as 51% of the users preferred it to other alternatives. The chief reason for this, as cited by 43% of users, is the strength or the robustness of the Nokia phone so that even when it hits the rocky grounds of the market it will not break. Although a noteworthy 40% of users acquired their phones as gifts, cell phones in this location were mostly acquired through owners purchasing them themselves, as opposed to the households where the majority of the cell phones there were acquired as gifts (see Figure 9.2)

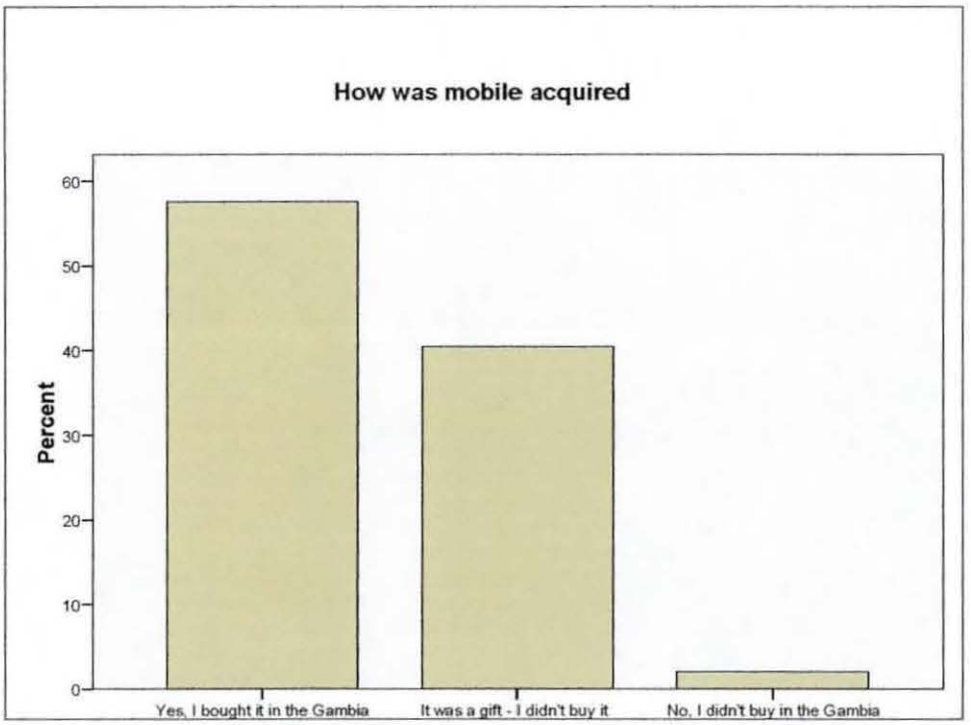

Figure 9.2: Cell phone users were asked how they acquired their phones

Analysis of primary and secondary uses of the cell phones, however, firmly establishes that apart from cell phone's principal use in this location for 'business transactions', very little else of the cell phone's other features (in built facilities) are used. Therefore, even after asking the respondent to indicate other uses for the cell phones apart from 'talking' (which may well be for business purposes), a majority of 35% of users still indicated 'business' as their primary use, whilst 52% use it for nothing else after their primary use (see Table 9.5).

Table 9.5: Primary and secondary uses of mobiles after "talking"

Primary use apart from 'talking' %		Secondary use – apart from 'talking' and primary use %	
Business	35	None	52
Texting	30	Other (calculator, torchlight etc)	23
Beeping	18	Business	8
Music	7	Texting	6
None	7	Beeping	5
Games	1	Music	4
Other (calculator, torchlight etc)	1	Buying	2

Consequently, cell culture in this location on one level is parallel to those in households, offices, and cyber cafés, as it is centred on just using the 'talking' feature of the phone. The difference, however, is that unlike these other locations who also have their own different vernacular-style cell cultures suited to them, in market places

the cell culture is principally socio-economically oriented; and since experiences and their consequences are tailored around a cell culture, themes of the cell phone's influence in this location are dominated by economics. These can be located under two headings: socio-economic improvements; and costs.

Socio-economic improvement – traders now have the flexibility in marketing their goods to customers who cannot come to the market as they offer delivery. More importantly, however, traders can have their whole goods delivered to them rather than chasing them up as they had to do previously. In short, users have seen increased economic advancement as instant communication has improved the logistics (which is a significant aspect) of their jobs:

> "*It is easy to contact my suppliers*" (respondent 935); "*I am easily in touch with my clients*" (respondent 910); "*It makes my business successful because my customers can call at anytime and I can do the same anytime I want*" (respondent 842); "*It reduces my travelling because I'm a business man and I use to travel a lot to update my business activities but now with my mobile, I only [have to] call*" (respondent 956); "*It makes communication easy for me especially at the 'start' [unidentifiable word] of my business*" (respondent 919); "*It makes my business very easy*" (respondent 928); and "*It is secretive. My fish business has become very good too*".

Costs – Naturally, those who have the cell phones are concerned about the economics of their cell phones, such as respondent 978 , although acknowledges that "*it makes communication easy for me*", complains that "*tariffs should be reduced*". This type of response, where users acknowledge the boost to their businesses or lives whilst complaining about maintenance costs, resonated through with just over 10% of respondents such as the following respondents:

> "*It is good but very expensive to handle*" (respondent 930); and "*It always brings me closer to people. Gambia's system of telecommunication is very expensive compared to other countries in the world*" (respondent 1000).

There is also, however, a socio-cultural boost as respondents have found that the cell phone is also a useful tool for balancing work and home life. This is especially crucial not only for the local trader but also for migrant traders who are in a sense a Diaspora. For them, the cell phone is not only a useful business tool but has also become a major communication resource for keeping in touch with their families, as the following demonstrates:

> "*Since I had a mobile phone, my way of living has changed perfectly because my means of communication is very easy for me. I keep in touch with my family in provinces at anytime I wish to*" (respondent 959); *I cannot go without it [cell phone] because it helps me to communicate with my customers and family members all the time. Mobile is very advantageous to me because I make some of my sales through it*" (respondent 867); and "*It is useful to have a mobile because I sell in the market and sometimes things happen in my house while I am in the market. They can contact me through my mobile*" (respondent, 830).

Nevertheless, not all were willing to accept that the introduction of the cell phone in their lives had any sort of influence as nearly 20% were almost affronted by the idea that changes in their mode of living had been enabled by the cell phone; as the following extracts demonstrate:

> *"I should not be moved or do other things that I should not do because of the mobile"* (respondent 882); *"I enjoy having it because of my contacts... but I'm still normal"* (respondent 872); *and "I am gentle before I had a mobile and I'm still a gentleman"* (respondent 865).

This reaffirms a similar line of discourse in the other locations (especially offices and households) where the cell phone is defiantly resisted as life changing tool due to negative socio-cultural consequences associated with it – such as adultery and divorces. Despite this level of resistance, there is however, no doubt that the cell

phone and its associated influences are on the whole viewed positively by its users, as 91% of users reported an improvement in their lifestyles as a result.

9.5 ATTITUDES AND EMERGING VIEWS: CHIEFLY FROM NON-USER PERSPECTIVES

Although only 50% of the sampled population have cell phones, 86% of the respondents have either friends or relatives who have the use of a cell phone. Therefore, the cell phone is indirectly embedded compared to the Internet which only 1% of the population indicated as used by either friends or relatives (see Figure 9.3). This suggests that even the non-user population would have a more familiar association with the cell phone than the Internet.

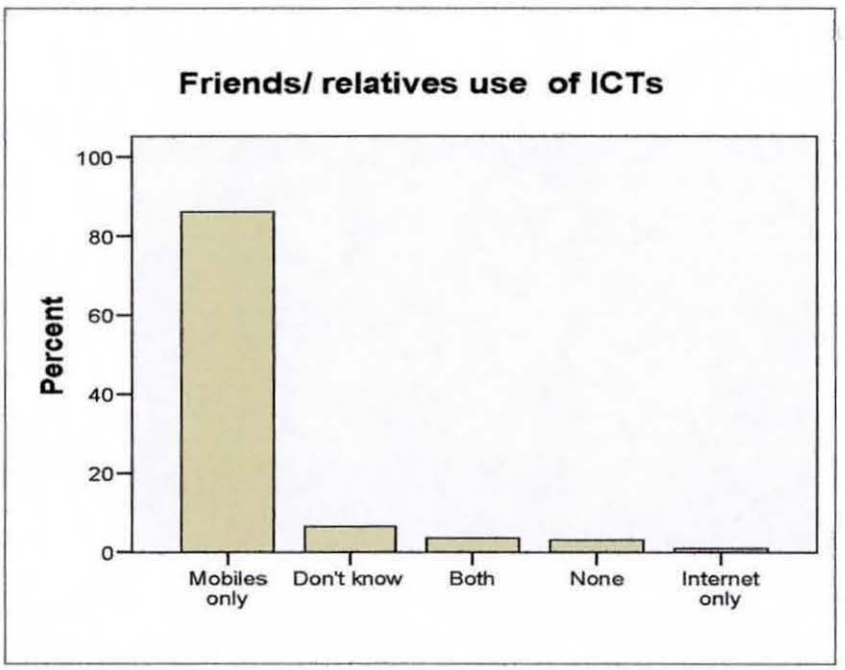

Figure 9.3: Respondents were asked to indicate if their friends or relatives used ICTs.

In the context of attitudes towards new ICT's influence, it appears that both users and non-users similarly view the Internet and cell phone as just instruments that enable instant communication, as was indicated by 54.5% of the sampled population. A significant 41%, however, thought that the most positive influence of the new ICTs is

their linkage (networking) capacity in society. The majority of respondents, however, reacted negatively when asked about their opinion of both the Internet and the cell phone's influence of perhaps promoting western style cultures (see Figure 9.4).

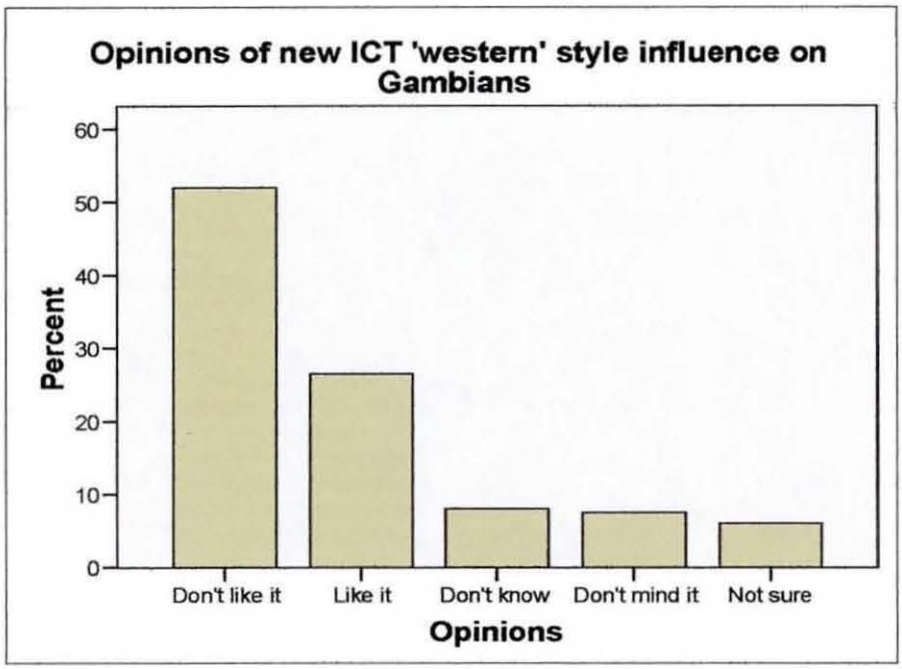

Figure 9.4: Opinion of respondents on Gambians or Africans adopting practising 'western' cultures as a result of ICTs.

This rejection is chiefly rooted in religion and patriotism, as further analysis shows; 59% of those who commented in this section thought firstly that ideas of westernisation and Islam are incompatible and therefore will impact society negatively if both ideologies are attempted to be practised along side each other. This is demonstrated by the following extracts:

> *"...Because our religious leaders don't like it. The religion itself does not match with western culture"* (Respondent 881); *"My religion does not support [a] western culture"* (Respondent 900); *"It is not correct for a Muslim to take [a] western culture"* (Respondent 894); *"It is not good for Islam" (938); "It is not good for my religion"* (respondent 951); *Islam don't want that culture because Islam do not want [a] female to act like male or other wise"* (Respondent 895); *and "All Muslims should adopt the Islamic culture"* (Respondent 897).

Secondly, the thought of mixing cultures (particularly with that of the 'west') was too provoking for the African patriots, even though urban cultures in Africa have large elements of western influences in them due to colonisation (Hardt & Negri, 2000). Perhaps it is the potential of this new form of colonisation - as Hall (1999) predicted - that has provoked some of the respondents to declare that:

> *"They are trying to put off African cultures [which] is the saddest thing of all. Even simple weddings have become European style. It is sad for us. Africans should come together ..."* (respondent 934); *"These materials are leading many people to throw and forget their pride which is a big concern for me because that is not human"* (respondent 850); *Africans should adopt what they found their ancestors doing"* (respondents 845); *and "Adopting western cultures by our people is another bad factor which mobiles cause. That is why I hate it"* (respondent 852).

Despite these views, a decisive 73.5% of respondents associated ICTs with positive influences in The Gambia, whilst 66% of the overall outlook on ICTs endorses this positive association. Indeed, some did not mind the mixture of cultures, and rather welcomed the diversity, such as respondent 887: *"It is all the same because Europeans are adopting our culture and we are also adopting theirs...no problems for that*" or respondent 854: "We *are living in a global world so it is not bad for others to follow Western cultures"*. There were also those who rather liked and defended the idea of 'Western' style cultures being introduced by ICTs. Indeed, they seemed to revel in the 'enlightenment' and modernity that 'Western' cultures bring into their society, as the following extracts demonstrate:

> *"Western people are more experienced when it comes to technology so it won't be a problem to practice that*" (respondent 839) *"Before mobiles, my children use to write letters and I am not educated. During that time I used to ask others to read it for me"* (respondent 965) *"Africans need to have improvement in all activities"* (respondent 971); *"It brings development in our country"*

(respondent 887); *...because since we like western education, we should like western culture"* (respondent 875); *and "This way of adopting western European culture is not bad because it is for our own benefit"* (respondent 832).

9.6 PECULIARITIES IN TRENDS OF POLARISATION

Gender - Amongst the 10 Internet users in this location there were three females and seven males. Despite the difference in gender numbers, analysis showed that there is no difference between male and females' usage of the Internet[48]. There was, however, a visible difference between how females and males ranked ICTs, as on average females ranked the Internet's importance 1.7 out of 5 whilst males ranked it at 2.4. A comparison with all the locations showed that both genders from this location ranked the Internet less than any other location (Table 9.6), thereby further confirming that the concept of the Internet is almost non-existent in market places.

Table 9.6: Internet importance ranking across the 5 locations on average (out of a maximum 5).

	Offices	Cyber cafés	Households	Edu Institutes	Markets
Females	3.3	3.5	2.4	3.6	1.7
Males	3.3	3.6	2.9	3.7	2.4

Furthermore, although analysis of online activity showed no differences in the average number of online activity between genders, males tended to engage with a lot more activities than females, as the box plot in Figure 8.5 demonstrates. Therefore, whilst both males and females use the Internet to engage with three online activities on average, men tended to experiment or explore more by varying their activity, whereas women tended to stay within a certain range. However, a minimum and maximum number of activities by Figure 9.5 shows that whilst more men engage with a maximum of one online activity, the minimum range of women's online activity started at two; thereby showing that more women engages with 2 or more activities than men. Also, although females here may not have ranked the Internet highly, they

[48] Difference in Internet usage and gender: Chi-square test – $X^2(1) = 1.858$, $p = 0.173$.

showed more boldness as they engaged with more activities compared to households (as the other low-embedded location). Unsurprisingly, due to the very little number of users and the almost non-existent cyber culture, attitudes did not differ between genders in connection with the Internet's influence, as both genders saw the Internet as just a faster and a more effective communicative instrument[49].

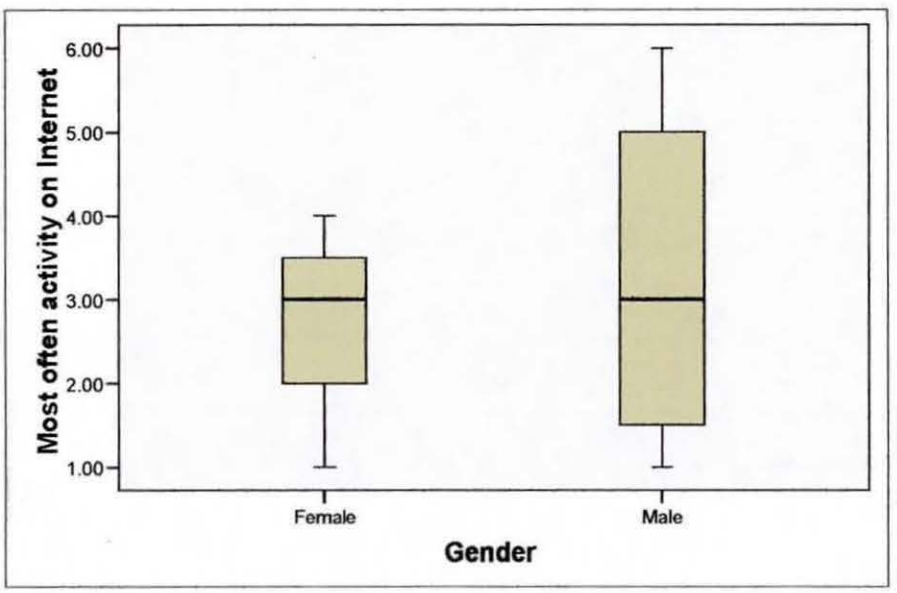

Figure 9.5: A boxplot showing the mean and range of gender online activities

Cell phone analysis, however, showed that although there was a large number of female users (40%) compared to the Internet, there was a statistically significant difference between gender usages[50]. When one takes into consideration that 60% of the male respondents were cell phone users, compared to the 40% of all females respondents, perhaps this result is not unexpected. An interesting outcome, however, is that, apart from households, this is the only other location to show difference between gender and cell phone usage. Between genders, the cell phone was ranked slightly higher by men than women. However, compared to other locations, markets are demonstrated as the place that finds cell phones the least significant (see Table 9.7). Perhaps the links between cell phones and socio-economic traders are tenuous and not as strong as suggested by popular literature; or as argued earlier under *ICT embeddedness*, cell phones perhaps are not as necessary an item for traders who trade

[49] Difference in Internet further comments and gender: Fisher's exact test - Exact 2-sided sig = 0.679
[50] Difference in cell phone usage and gender: Chi-square test – $X^2(1) = 8.003$, **p = 0.005**.

from fixed positions because they have an established customer base. Difference in usage could also be attributed to the fact that a majority of the women sampled here are classified as 'ground' traders, and therefore may not perhaps be economically positioned to afford a cell phone.

Table 9.7: Cell phone's importance ranking on average across the five locations (out of 5)

	Offices	Cyber cafés	Households	Edu Institutes	Markets
Females	3.6	3.7	3.5	3.5	2.8
Males	3.7	3.8	3.7	3.7	3.1

Despite the difference in usage and ranking, there were no significant differences in attitudes towards the cell phone and its influence between men and women[51].

Age – Whilst there was no difference in Internet usage between the age groups[52] which was, similar to other locations, there was a difference in cell phone usage and age[53]. Further investigation showed that this time it is the younger age groups of under 16s and 16-24 who are being marginalised, as they occupy the position of a either helper or similar in the market place; and therefore they do not have the financial capability to acquire the use of cell phones. In fact, the under-16 age group had none (0 counts). However, ages 25-44, who are the trader group, had more frequency counts than expected, thereby confirming them as the more likely users to correspond with their higher hierarchical economic status. Average scores of the Internet and the cell phone's ranking shows that unlike highly embedded locations but parallel to households, older people have less enthusiasm for ICT's importance as they ranked them less than younger age groups (see Table 9.8)

Table 9.8: ICT importance rank Overall between age groups

Age	Cell phone ranking: Edu Institutions	Internet ranking: Edu institutions
Under 16	**1.9**	**3.1**
16-24	**2.5**	**3.0**
25-44	**2.0**	**2.9**
45-65	**1.3**	**2.8**
Total	**2.0**	**2.9**

[51] Difference in cell phone's further comments and gender: Fisher's exact test - Exact 2-sided sig = 0.339.
[52] Difference in Internet usage and age: Fisher's exact test - Exact 2-sided sig = 1.000
[53] Difference in cell phone and age: Fisher's exact test - Exact 2-sided sig = **0.027**

Whilst age group 25-44 dominated cell phone usage, it was found that although both ages are Internet users, ages 16-24 engage with a more varied range of online activities compared to the older age group. This is similar to the other locations and confirms that the 16-24 age group is really the 'digital generation' who are likely to explore and exploit the full use of an ICT's potential regardless of its actual usefulness to their particular needs (see Figure 9.6) or regard of location.

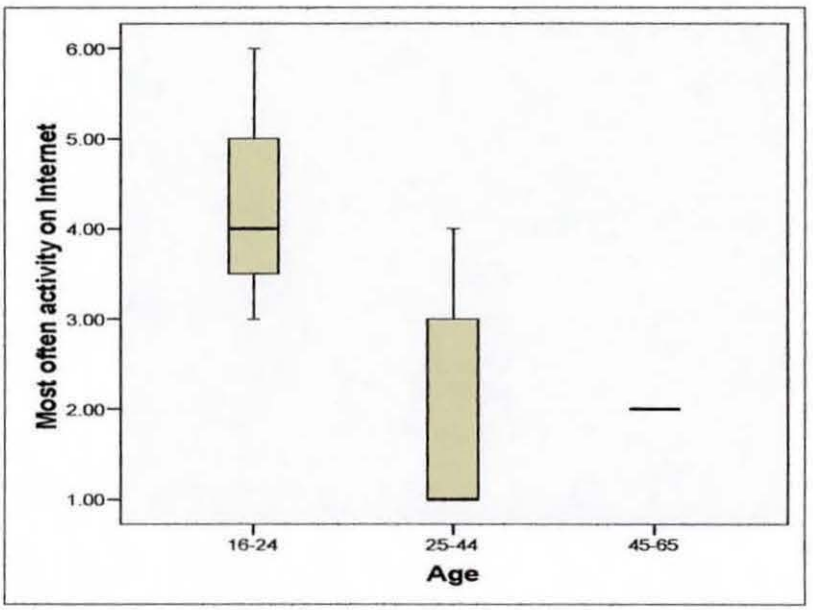

Figure 9.6: A box plot showing the mean and range of online activities between age groups

This point is further confirmed in the case of the cell phone where a cross-tabulation analysis showed that ages 16-24 (despite not being the dominant users of cell phones in this location) were likely to use the cell phone's other functions instead of just the dialling-talking function. Fisher's exact test showed a statistically significant difference between cell phone activity and age[54]. Despite these differences, attitudes towards the cell phone and its influence did not differ between groups[55].

[54] Difference in cell phone activity and age: Fisher's exact test – Exact 2-sided sig = **0.001**

[55] Difference in cell phone's further comments and age: Fisher's exact test – Exact 2-sided sig = 0.645

9.7 Conclusions

The market location is the least embedded location due to restricted access, usage, and a very low penetration in relation to offices, cyber cafés, educational institutions and even households.

Since Internet users in this location only view it as more efficient tool that replaces older technologies, cyber culture is very minimal to say the least. Associated experiences with cyber culture are, as a result, non-existent.

However, more access to cell phones has depicted a more convincing vernacular-style cell culture which is tailored around economics such as solving logistical issues of trading. This type of cell-culture is typical of the location and demography.

Moreover, whilst there was no difference between gender and Internet usage, this is the only other location (with the exception of household) to show difference between gender and cell phone usage.

In relation to age groups, although 25-44's have the financial capability and therefore the highest usage of the cell phone, the 16-24's firmly confirmed their group to be the more probing users, as they were more explorative with both ICTs.

10. A CONTEMPORARY DISCUSSION: KEY FINDINGS AND CONCLUSIONS

10.1 INTRODUCTION

In the analyses of the five separate locations, what has been demonstrated is how a complex socio-cultural structure of people creates intricate information and communicative networks based on power relations between the people within them. This does not suggest that people's attitudes exclusively shape how technologies are engaged with, however what the findings have made evident is the significance of how certain factors such as gender, age, occupation, and religion shapes norms, practices and protocols of people in particular locations in The Gambia. In addition to other factors such as the socio-economic, it is clear that these complex socio-cultural factors are crucial in determining different degrees of access to and use of new ICTs; the different levels of acceptance and resistance to ICTs (which contribute to success or failures of ICTs' adoption), and as a result, different degrees of experiences of new ICTs.

In the following, I shall discuss how the various dynamics of new ICTs have influenced The Gambia firstly by drawing out *patterns and trends of key findings* under the following headings:

- Re-shaping policy as an accessory to the digital divide – that is, how reshaping policy in order to promote access to new ICTs appears to have created a division between the locations surveyed into *high-embedded* and *low-embedded* diffusion of ICTs.

- Occupational groups – how the high-embedded and low-embedded locations seem to be made up of distinctive occupational groups and the part that *gender* and *age* plays in forming these groups, and the *different degrees of access* these groups have.

- Religion as a cultural discourse – how the different degrees of access and usage by the various occupational groups appear to be guided by a *cultural code*, which is in turn informed by the moral *symbols of religion.*

- Locations and their information ecologies – how cultural codes have enabled a hierarchy of power relations that determines the type of *information and communicative structure* of each location, and the subsequent *different priorities and information needs* of people in the different locations.

I shall then discuss how these key findings answer the research questions in the context of:

- Globalisation – how different priorities based on the information needs and networks of people in particular locations have enabled prioritisation of *diverse cyber and cellular culture* activities, and therefore *different experiences of globalisation*; and how this impacts on cultural globalisation theories.

- Development – how different levels of attitudes towards the ICTs (in different information ecologies) have resulted in *diverse levels of acceptance of ICTs* and their integration into the ecologies; and how this applies to ICT-for-development initiatives.

- Digital divide - how policy together with other socio-spatial factors are re-enforcing existing social inequities as well as creating *smaller divides* that have become a vicious cycle of exclusion.

10.2 KEY FINDINGS: PATTERNS AND TRENDS OF CYBER AND CELLULAR CULTURES IN A SOCIO-SPATIAL CONTEXT

10.2.1 Re-shaping policy as an accessory to the digital divide

The emergence of new ICTs as economic advancement tools has resulted in the radical re-shaping of policies (both national and international) to promote ICT-led development strategies. Accordingly, national policies have been altered in order to promote agenda such as e-government, education (e-learning) and public points of

access in order to fit into the wider international agenda, as was discussed under the *policy analysis* chapter (Chapter 4.2) . What the detailed textual analysis of the public policies collected from The Gambia demonstrates is that some areas have been prioritised by the national strategies (e.g. e-government strategy mainly targeting the civil service), and therefore a conscious effort has been made to introduce access in these areas.

Whereas, for other areas there are no strategies of such a kind and therefore very little effort has been made to integrate new ICTs, especially the Internet, into these areas. This could be due to a number of reasons such as economic, educational and cultural issues. However, what has resulted from this is division into different levels of diffusion of new ICTs according to location. In the statistical analysis further evidence shows that the existence of strategies promoting ICTs in selected areas has influenced the level of embeddedness (access, use and perceived importance) of the locations surveyed. In the following, I shall discuss the locations in the context of high-embeddeddness and low-embeddeddness categories.

Highly-embedded locations – these comprise offices, cyber cafés and educational institutions. Since the general cultures in these locations are more secular in terms of religion, they lend themselves to cultural changes better than other religiously stricter areas. As a result, ICT policies have been shepherded towards these locations in order to maximise access. Examples of such policies are the e-government strategies for The Gambian National Information Communication Infrastructure (NICI), which was set out in collaboration with the Economic Commission for Africa (ECA) and the Government of Finland (2003), and the National Education policy (2004-2015) which specifically mentions "*creating and nurturing an ICT culture*" (Section 10, item 3, page 33) among students as a key element of the strategy. Meanwhile Gambia Telecom (Gamtel), as part of the national strategies in collaboration with private sector ICT agencies, plans to set up more cyber cafés in public areas in order to maximise access. As a result, people in areas such as offices, educational institutions and public access points such as telecentres and cyber cafés have received the full benefit of such policies.

Low-embedded locations – On the other hand, no such policies exist for household areas (which sometimes have inactive telecentres with no services) or market areas (which have telecentres and cyber cafés on the outskirts but which are not integrated within the market system). As different forms of mobility are a restraint on daily lives in these locations, it would make sense to embed ICTs within these locations. Whilst low technological skills may be part of what prevents individuals from using complex technologies such as the computer and the Internet in these locations, it does not explain why these two locations were the least embedded, not only for the Internet but also for the cell phone as the cell phone has a higher usability (i.e. it needs less technical skills to operate it). Again one could argue that perhaps ICTs are least embedded due to economic reasons, as people here may be too 'poor' to afford them. This may be the case for people in households as they are generally dependants, however, it does not adequately explain the situation for those in markets, as over 70% were self-employed and had more means to afford cell phones than young people in educational institutions, yet only 50% had access compared to 92% in educational institutions.

From these arguments, it could be concluded that policy is what determines the level of emeddedness of a specific place. However, in the statistical analysis it was seen that people from these locations had more negative attitudes towards ICTs as being detrimental to culture compared to people from high-embedded locations. People from the low-embedded locations, much more so than their high-embedded counterparts, attributed negative impacts to ICTs such as promoting adultery, and to containing inappropriate content leading to a misappropriation of culture, especially by young people, destroying religion and fuelling the already existing sex tourism trade. As a result, ICTs were ranked least important by people in these locations and were generally 'badmouthed' to certain groups that could be particularly facilitated by using them – such as women and younger people. This has created a cycle of division, whereby cultures in these places to some extent shape ICTs' policy in restricting access, and people's negative perception increases as they are not in direct contact with the technology itself and therefore can only make judgements on what other people say. This leads to more negative perceptions and more resistance, and therefore increases the divide between these locations and more secular locations.

However, whether or not policy determines attitudes or attitudes determine policy and therefore marginalisation, one would argue that the desire to retain indigenous culture is not necessarily bad. The only problem with this line of argument is that it is the spaces where the cultures are being retained that matter. For example, one notices that low-embedded locations were the only locations where women were represented the most in the dominant occupational groups that constitute the location. In the next section, I attempt to illustrate how access and usage is varied according to the type of gender and age that makes up the main occupational groups that constitute the locations.

10.2.2 The significance of gender and age in occupational groups

Throughout the analysis it has been evident how access to and use of ICTs varies amongst the different job categories that make up the various locations. Categories such as housewives, carers, self-employed, office workers, students, unemployed etc. have all shown different levels of access and usage of ICTs. For example, the housewives category from the households and the traders from the markets were the lowest users of ICTs (see Table 10.1), while on the other hand students and office workers showed a high usage rate. A large part of this can be credited to the type and quantity of gender and age that makes up the occupational category. For example, whilst the highest numbers of users in all locations were in age groups 16-24 and 25-44, in contrast, women lagged behind the men in usage in all the locations and were also less explorative with online activities than men.

Table 10.1 Analysis of gender and age in dominant occupational groups in the locations

Location	Biggest group (s)	% of biggest group(s)	% of users in biggest group (s)		% of women in biggest group (s)	% of age in biggest group (s)
			Internet	Cell phone		
Offices	Gov/civil servants	45	71	93	31	25-44 (54%)
Cybercafés	Student/Youth	29	98	89	13	16-24 (75%)
	Self & unemployed	28	87	90	21	25-44 (64%)
	Gov/civil servants	16	90	93	23	55-44 (53%)
Households	Youth	33	20	40	42	16-24 (55%)
	Housewives/carers	16	0	34	91	25-44 (39%)
	Unemployed	16	9	72	41	25-44 (47%0
	Petty traders	15	3	89	21	25-44 (62%)

Educational Institutions	Students	95	78	82	45	16-24 (86%)
Markets	Traders	80	5	50	55	25-44 (57%)

Therefore, the amount of people in the high user age groups and/or the amount of women within an occupational group affects first the level of access and subsequently the usage of that occupational group. For instance, in cyber cafés as a highly embedded area, both high user age groups make up 90% of the total population and because it is a public domain, access to women is restricted in the moral, educational and logistical context; as a result only a small amount of women were present in the occupational groups. The high presence of men in the cyber cafés means people here a different level of access and usage to people in markets who are mostly made up of women in age group 24-45, are restricted logistically and perhaps to do have the educational skills to operate new technologies.

Whilst this means that the role of gender and age is crucial to an occupational group's access and use of ICTs, it also denotes that different levels of access and usage are created since occupational groups are not homogenous. What is, however, important is that from the findings it appears that levels of access and use of ICTs in a location are primarily based on the type of gender and/or age that is most represented in the *dominant* occupational group that constitutes the location. Therefore, for example, as 91% of one main group that constituted households (housewives and carers) were females, the level of access and use is different from locations where the dominant occupational group is made up primarily of men for all the all the groups that constituted households with the main groups highlighted (see Table 10.1)

Drawing on the findings of my analysis, the overall, pattern which has emerged demonstrates that gender is very significant in this culture. This is because what has been demonstrated is that where there are women present, there are differences in usage between genders, and that the larger the number of women, the stricter the means of access and usage. Therefore, the difference in usage depends on the quantity of women relative to that of men in the dominant occupational group, and also the occupational structure of the dominant group(s) that constitutes the location. For example, as Table 10.2 shows:

- Where there were no or very few women, there was no significant difference in gender in relation to both ICTs and therefore the few women present almost had no restrictions as they could behave as the men;
- Where there was a fair degree of representation of women in the dominant group in a more equal occupational structure, the was a greater degree of freedom but also with some level of restriction; and
- Where women were highly represented in the dominant occupational groups, which are hierarchical, the degree of freedom of access was stricter.

An interesting meaning of this is that although the cultural moral code polices women's access to and use of ICTs in order to protect them from 'harm', women who are in male domains challenge these boundaries as they use ICTs more. As a result, the more masculine the domain the more the women present are likely to use ICTs.

Table 10.2: Patterns of differences in usage of the Internet and the cell phone

Location	Statistical significance of Internet usage between genders	Statistical significance of cell phone usage between genders
Offices (27% females)	Not significant – 0.283	Not significant – 0.123
Cyber cafés (16% females)	Not significant – 0.205	Not significant – 1.000
Households (48% females)	Significant – 0.003	Significant – 0.000
Educational Institutions (50%)	Significant – 0.035	Not significant – 1.000
Markets (52% females)	Not significant (weak*) - 0.173	Significant – 0.005

* Denotes a weak statistical inference as only 5% of the market sample were users.

Similar to gender, age is also a significant factor in the degree of freedom that is available to an occupational group's access and usage of new technologies. In a culture where age is highly rated, it might seem logical to suppose that the older a person is the more responsible they are deemed, and therefore the more freedom of access to new technologies they have. However, the contradiction is that it is the younger age group throughout the analysis who had both the skills and the enthusiasm for a higher consumption of new ICTs. Hence, this is why we saw in many locations that although age group 24-44 had more means of access, it was actually age group

16-24 who engaged with more ICT activities. Therefore, if an occupational group is old enough be considered responsible but young enough to be very enthusiastic, the degree of freedom of access and usage is even higher.

As can be deduced from these findings, if a person in this culture is male with reasonable economic means and falls into the socially responsible category, but is still young enough to be enthusiastic about ICTs, social and cultural factors dictate that such an individual will be at the highest level of the hierarchy of access and usage (as Figure 10.1 demonstrates and as). These patterns seem to be reinforced by dynamics of the cultural code within The Gambia, which is informed by religion as the next section discusses.

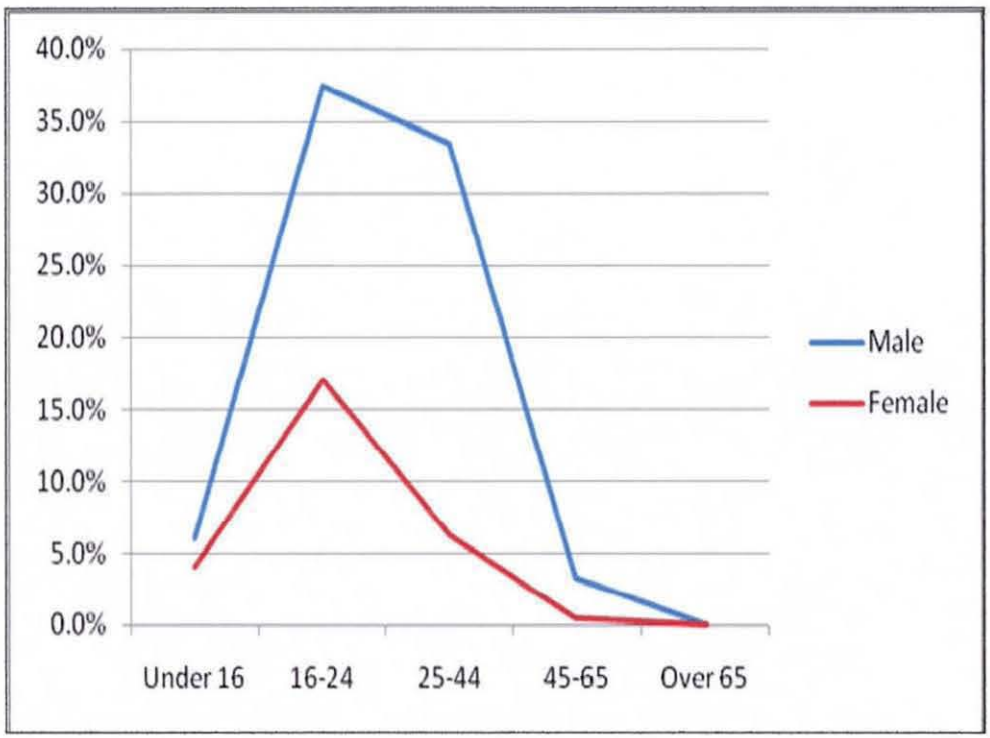

Figure 10.1: Trends in Internet usage overall according to gender and age

10.2.3 Religion as a cultural discourse

So far, I have discussed how the findings show that policy can be an aid to creating a division between the locations, and how the gender and age of a dominant occupational group influences varied access and usage. What I'd like to discuss next is a factor that is notably underpinning gender and age inequities, which might be construed as causing the different levels of access and usage, and consequently the different levels of embeddedness. As has been discussed previously, the cultural

'code' of The Gambia contributes to the creation of inequalities in the gender and age context.

As have been shown both in the overall analysis (Chapter 4) and in the analyses of the specific locations, religion appears to be a significant factor in the formation of, information and communication structures in The Gambia. Although evidence from offices, cyber cafés and educational institutions shows that boundaries created by religion may be blurring, traditional inequities are still very much a firm part of the socio-cultural structure. In fact, it appears that what the introduction of ICTs has done is to rather reinforce these types of boundaries and inequities, especially in places where the cultural codes are observed more strictly, such as households and markets.

ICTs' introduction into The Gambian culture has produced varied reactions based on what type of gender and age mostly constitutes the dominant occupational group in locations and the cultural power (shaped by Islam's interpretations) that is available. As a result, whilst some groups have seen ICTs as a way through which to compare their level of modernity to other Islamic societies around the world as was found in offices and educational institutions, others have decided to use ICTs as channels through which to form new cotemporary interpretations of Islam; which they can use to negotiate cultural power and secularity in their favour such as young men found in cyber cafés. For others however, the very idea of religion and ICT influencing their cultures in parallel is a contradiction and therefore unfavourable to the cultural concept, and if one of the two has to be discarded then it has to be the ICT. In the following, I shall discuss the influence of religion together with ICTs in the context of:

- Networking within the Muslim world;
- Reshaping belief and authority; and
- Resistance to ICTs as a contradiction to Islam.

Networking within the Muslim world – Evidence in the results and findings has demonstrated that 'educated' Muslims have more authority than their 'uneducated' counterparts. Whilst educated males may have more status than educated females, and as males were more represented than females in locations such as offices and educational institution and cyber cafés, due to their more secular (or liberal)

environments, there is a less exacting cultural code observed in these locations which benefits the exploration of new ideas on the basis that they have necessary technical skills to engage more efficiently with the Internet. For example, out of all the five locations, Internet users were most dominant in the offices, cyber cafés and educational institutions; and out of all the Internet users in all the five locations, 79% use it to access European/American websites. Whilst Figure 10.2 shows friends/pen-pals is the biggest category of contacts, 20% (a second majority) indicated that being able to be aware of the world or Diaspora now as a result of the Internet has changed the way they view things in the Gambia.

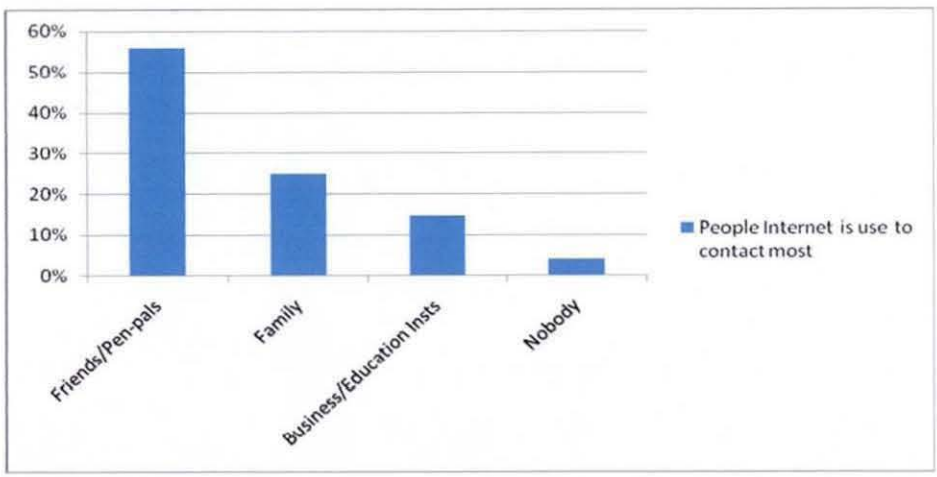

Figure 10.2 People were asked who they use the Internet to contact most

The characteristic of the people who engage with this type of activity are educated and therefore desire a platform that can offer alternative advice beyond their locality, and also in which they can air their ideas. From these people's perspectives, linking with other Muslims around the world does not only provide a source of strength for the Muslim faith but it also provides a new arena in which to acquire help regarding various matters beyond their locality.

This desire to link to other Muslims around the world, however, is quite common in the Muslim faith and not exclusive to The Gambia alone as according to Anderson (2003, p.48) "Islam is represented online in a mélange of wire service news copy, transcribed sermons, scanned texts of the Qu'ran and *Hadith* collections, advice and self help information ... and Islamic education materials". However, the ultimate goal of this type of networking is not lost as it seeks to maintain a strong Islamic

agenda with its members. So that, using the help information and the creation of "oneness" or "brotherhood" as a backdrop, the real agenda is to keep the issue of faith at the forefront of their mind.

Reshaping belief and authority – educational institutions showed evidence of how contemporary interpretations of religion are being used to alter culture more than any other location. This could be attributed to the demography being 'young' and therefore more contemporary. However, it could also be attributed to the process of learning using online sources; students have been exposed to materials in the form of debates, forums, literary materials and general views that have began to reshape their knowledge acquired from traditional sources. As a result, although there was a feeling of enlightenment from people in all the high-embedded locations, it was more evident in the educational institutions.

As shown in the analysis, young people in The Gambia nowadays do not have to only learn from traditional sources such mosques or schools, and therefore are open to a new form of a social and cultural guide that does not centre on tradition. Indeed as the "Internet and computer links are rapidly eroding control of what is said"... and "access to new technologies has multiplied the channels through which ideas and information can be circulated and has a large scope of what can be said and to whom", the effect of this "has eroded the ability of authorities to censor and repress, to project an uncontested central message defining political and religious issues for large numbers of people" (Eickelman, 2003, p.33). The overall effect of such enlightenment and empowerment is that amongst young people at least, new ideas have begun to reshape their beliefs and general everyday ideologies; and have enabled them to form new interpretations on how "discourse is read and heard" (Eickelman, 2003) as was demonstrated especially in the educational institutions.

Resistance to ICTs as a contradiction to Islam – Thoughts of ICTs usually found in the older age group and groups within which tradition is paramount in the market and household locations were along hard lines. There is no doubt that new ICTs are viewed by these groups as instruments of destruction to Islam and its teachings, as was especially evident from the non-user perspectives in the survey. This is largely due to points discussed in previous paragraphs as religious belief has begun to be

reshaped by diverse interpretations made available by online and other contemporary sources. However, another view is that of new ICTs being problematised as a representation of the West. In this sense, the import and the adoption of new ICTs are in effect adoption of 'Western' cultures and standards which will bring an end to the "civilisation of Islamic cultures" (Anderson, 1997).

New ICTs are therefore seen as the modern Trojan horse through which western powers aim to finally destroy Islam. In fact, the Guardian reporter, Robert Tait, reported in an article how the Iranian government in 2006 banned high speed Internet access in order to "stifle domestic political dissent and combat the influence of western culture" (Tait, 2006). This action was aimed at discouraging young people especially from accessing materials from 'foreign' cultures such as music, films and other material downloads. Although The Gambia does not widely have high speed Internet access, views such as completely condemning and banning Internet and cell phone access have been evident in the analysis. The view of new ICTs as negative tools and the call for them to be banned were especially evident amongst the household and market population as women there are concerned about the effect of the Internet on their kids; older people feel young people are loosing their cultural morals as a result of the Internet; and some men feel ICTs are encouraging women's promiscuity. This last point can have fatal results as accusation of adultery (which could be a simple text message to a man) can incur severe punishment including stoning to death. As a result, engagement with ICTs from some females' perspectives especially is just too problematic to be worth the trouble.

These different reactions to new ICTs further illustrate a pattern which has emerged between the locations. This is that where the environment is liberal and/or male, ICTs are used as empowerment tools and where the environment is less liberal and have a large amount of women present, ICTs are seen as negatively influential tools to the culture. Religion's contribution to ICTs' adoption is both empowering and marginalizing according to gender and age, although there was some evidence of boundaries being pushed by both women and young people. In addition, the varied reactions to ICTs' acceptance into the culture locations have impacted on people's attitudes towards ICTs and how they are viewed. Typically, whilst both ICTs are embraced in some locations, in other locations there is a cynicism about their real

value or selectivity on which ICT is less troublesome to the cultural values (in addition to economic and educational reasons) of their community. This has affected how people in the different locations use new technologies to serve their common goals whether for trading or as organisational tools; and therefore has created different information ecologies.

10.3 Locations and their Information Ecologies

From the findings, it has been made evident that whilst people in some of the locations' see ICTs as important to the general and the collective development of their environment, others see it is critical to their personal development; whilst still, some see new ICTs as just tools that solve some communications problems. This has led to the identification of several information ecologies that are discussed under the following headings:

ICT-partial ecologies;
ICT-centric ecologies; and
ICT-sceptic ecologies.

ICT-partial ecologies: by ICT-partial ecologies I mean the locations in which both new ICTs are viewed as not only important to their development but also to the development of the whole nation. The purpose of ICTs in these locations is seen as collective and the patterns of the information and communicative structure create 'equal' access and use in order to achieve the common goal – development. Out of the five locations surveyed, offices and educational institutions were the locations more partial to ICTs. This can be attributed to several reasons, which are:

a) the socio-economic development agenda underpinning these ecologies view new ICTs as the right instruments to serve the purpose of their agenda. For example, within public sector offices, implementation of an e-government agenda in order to fit into the global ICT4D program instigated a supply of computers and Internet facilities in order to aid such an agenda. Similarly, international policy agenda to encourage young people to use new ICTs as part of the ICT4D program, with the aim of producing a technologically skilled

generation that would aid future growth, has pushed forward teaching and access in school and college programs.

b) Policy and practices in these spaces determines that both men and women have equal access to ICTs. Although males are more represented in the overall population in both offices and educational institutions, women were fairly represented in the dominant occupational groups. This balances the location in terms of access for the different genders. However, that is not to say that the promotion of equal access translates into equal use. For example, evidence from the analysis showed that whilst females in both these locations are high users of the Internet compared to females from other ecologies, there was still a significant difference in gender usage in favour of men.

c) The secular nature of these locations in terms of religion's influence in the culture encourages a contemporary interpretation and optimism about new ICTs.

However, there is concern that the international agenda to promote universal access to ICTs could become counter-productive and may even be an accessory to further divides. In the context of the provision of universal access to the Internet in schools, for example, Bingham et al (1999, p.39) warn that this kind of agenda could be a potential future social exclusions as "some children have better access to computers and the Internet than others". This is true in the context of The Gambia as only 28% of students from educational institutions had Internet access through their educational institutions. In fact, according to Bingham, Holloway and Valentine, "this disparity is evident in terms of the differential level of hardware institutions possess, the diverse ways that ICT is employed in the curriculum, and the quantity and quality of access time that children are allowed outside the structure of formal lessons (p.39). Therefore, whilst positive agenda enables public sector organisations, elite schools and the further education schools to have access to new ICTs, there is a further divide between these and organisations or schools which are not yet connected.

ICT-centric ecologies: In ICT-centric ecologies new ICTs are the focus of the people as they are purposely sought for specific purposes. The information and communicative structure of the people here does not only see ICT as important but necessary to their individual social, cultural and especially economic development. The extreme focus on ICTs makes it a technologically-centric environment which is not very conducive to females as they either have a 'fear of technology', or are too pragmatic or are morally restricted. Typically, cyber cafés was the only location which fitted these characteristics. Access is very gendered in cyber cafés in favour of males due to several political factors within these locations and how they view ICT's role in serving their information and communication structures. These are:

a) Firstly, although almost all the females in the cyber cafés location had similar access compared with to males, and, therefore were users of the Internet, cyber cafés are very masculine places where young men show their technological abilities to their peers. Apart from it being culturally restrictive as a public space, access to this space is very intimidating as it was observed that girls are usually laughed at or teased for their incompetence, and therefore are forced to accept the inferior role. Hence, as Rathgeber (2000) suggests, women are accused of having a "fear of technology" (p.23). In this case, the fear is not only to do with the fear of lack of educational skills to operate the technology itself, but also a fear that is created by the politics of gendered information and communicative structures within the environment.

b) Secondly, even for those who do not have a "fear" of technology, Rathgeber argues that women take less interest in "new technologies out of a sense of pragmatism" (p.23). Women do not generally have the time to focus on technology as they have other things to focus on such as caring for the family, which forces them to deal with a multitude of tasks, meet a variety of demands and play diverse roles with limited time. Women simply would not have the time to trek to cyber cafés even if the structure of the environment was inviting to women. According to Rathgeber, "whether or not some women have a "fear" of technologies they have a pressing need to attend to many diverse duties and have little time to experiment with new technologies simply out of a sense of interest" (p.23). This line of argument also explains why

women in most of the locations (even in high ICT embedded areas) engaged with less online activity compared to men on average.

The concern however, is that the intimidating environment produced by cyber cafés together with cheap access policies that enable only public access and not private access, have further alienated women's engagement with ICTs and therefore contributes to the gender divide.

ICT-sceptic ecologies: These are locations where traditional patterns of information structures replicate themselves in the attitudes towards new ICTs. Politics within these locations and their information patterns enable ICTs to be viewed only as objects that serve a purpose – a means to an end if you like – and, therefore, should not be allowed to interfere with the cultural aspects of the community. Households and markets are examples of such information ecologies. In these locations, ICTs were used only to serve an agenda which consisted of solving mobility issues or to enhance trading in households and markets respectively. People in these locations did not view ICTs as anything other than a tool that only serves a specific purpose. Therefore, as a result, information and communicative structures have very little dependence on new ICTs; and hence are least embedded in these locations. Several reasons to which this can be attributed are:

a) The non-existence of ICT-policy for these areas means that no special effort has been made to encourage access in these locations.

b) There is a general cynicism about the ICTs' importance in these locations, and in particular that of the Internet. Although the findings showed some negativity towards the cell phone as responsible for breaking up families due to 'infidelity', the cell phone was a far more favourable tool compared to the Internet, against which there was general prejudice as a corrupting tool for young people and a 'Western' tool that distorts religious values. As proven in the data analysis, attitudes are linked to access. Therefore, as both these locations have the least access, they ranked ICT's importance the least.

c) Interestingly, these traditional attitudes were also replicated in terms of gender where the societal status of women as lower than men was evident. In fact, these were the only two locations (households and markets) that showed statistical difference between gender and usage of cell phones (the only embedded ICT).

Again, this demonstrates a further divide between gender and location. However, in this instance, men alone cannot be blamed as the source of the hierarchical information patterns, as similar attitudes among both genders showed that many women in these locations have accepted their traditional status as lower in the informational hierarchy than males and therefore adhere to, if not approve of, these patterns. In fact, in the case of the household it appeared that women as much as men were pushing this agenda, thereby reinforcing traditional gender roles and divides. Table 10.3 shows a summary of ICT trends of the locations and their information ecologies.

Table 10.3: A summary of the locations and their information ecologies

Location	**ICT embeddedness (cell phone + Internet usage % (out of 200)**	**ICT importance overall ranking (including older ICTs)/out of 25**	**ICT's perceived importance**
Offices	Proficiently embedded 126/200	17	Partial
Cyber cafés	Highly embedded 181/200	18	-centric
Households	Less embedded 77/200	16	Sceptic
Edu. institutions	Proficiently embedded 169.5/200	17	Partial
Markets	Least embedded 55/200	15	Sceptic

The result of these different information ecologies is the consequent different ICT activities in the different locations. This accounts for the diverse cyber and cell cultures that were depicted in the findings. However, as each location's information and communication structure sets a different priority according to their common goals and needs, it means different (but not exclusive) cyber or cell culture activities are being prioritised. The overall consequence of this is that locations are experiencing various forms of the global culture as an overall impact of new ICTs as demonstrated by Figure 10.3.

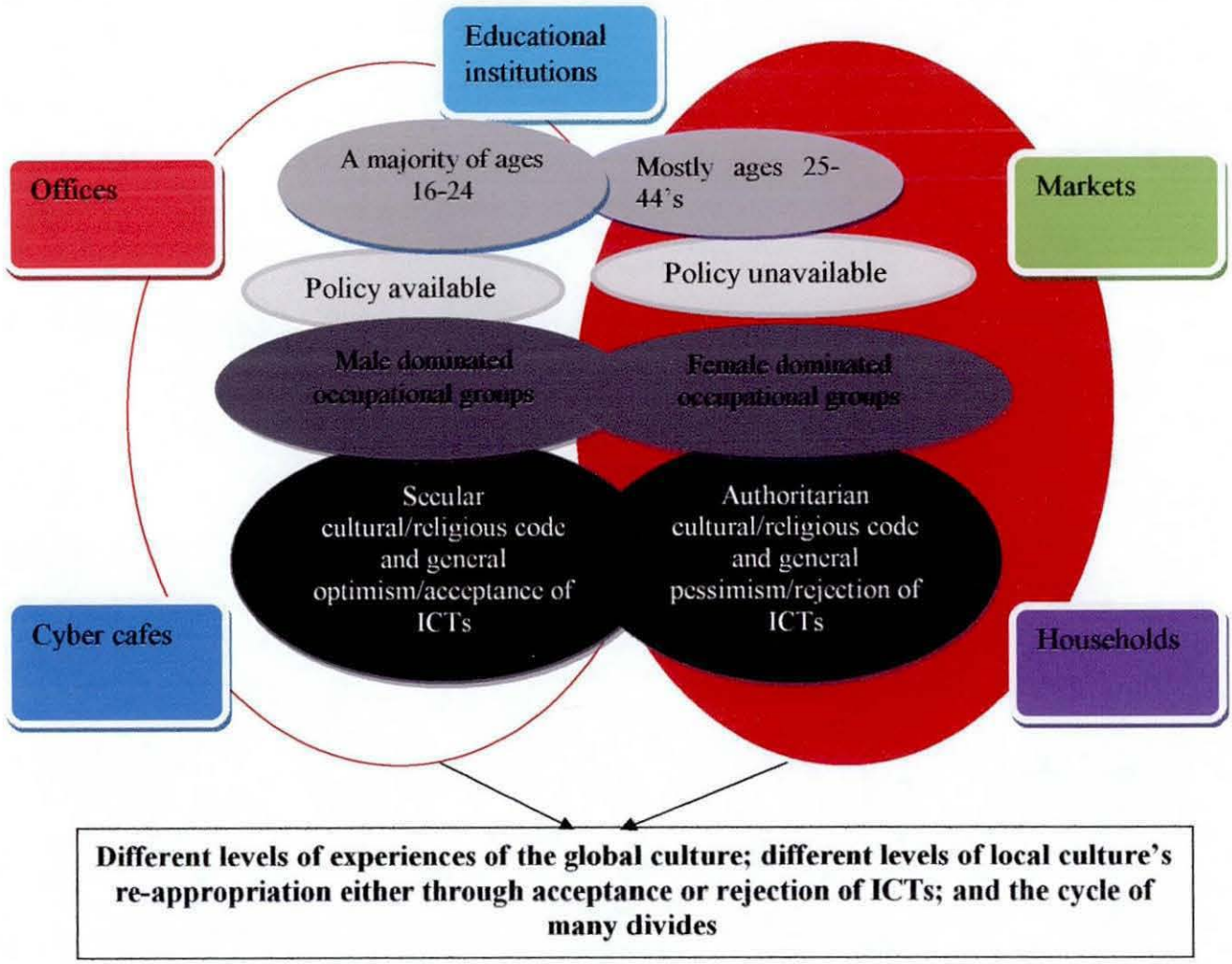

Figure 10.3: A summary of information appropriation through ICTs in the five locations

10.4 KEY CONCLUSIONS IN RELATION TO GLOBALISATION, DEVELOPMENT AND THE DIGITAL DIVIDE

10.4.1 Which ICT is most influential in The Gambia?

As was discussed in the early part of the thesis in the literature review (under '*broad socio-spatial perspectives of new era*' in Chapter 2.3), new ICTs have been documented as making influences in the new era in the contexts of globalisation, development and the digital divide. These documentations and predictions have led to the prioritisation of the ICT agenda in policies especially for countries in the South. However, in the debates, there is little distinction between the ICTs and their associated impacts due to common use of terminologies; and, especially the commonalities in their predicted 'impacts', which usually are deterministic.

Therefore, in this thesis, it was critical to determine which of the new ICTs are making which influences in order to better understand them in the context of their socio-spatial predictions of globalisation, development and the digital divide.

The findings of this thesis as depicted by the key findings is that, both the Internet and the cell phone are enabling different experiences underpinned by the information priority of people in different locations in The Gambia. The information and communicative structure of the group of people (information ecologies) which underlines the information priorities, is influenced by complex sets of norms, protocols and structures; these are in turn influenced by factors such as gender and age in occupational groups. Based on these diverse social, cultural, political and demographical factors, both the Internet and the cell phone are significant in The Gambia. However, their different characteristics, strengths and weaknesses mean that they are each significant diversely to different people and their places. For example:

Politically, whilst the Internet is popular in places where policy targets, people from places where Internet was not targeted preferred the cell phone.

Spatially, whilst both ICTs were popular in certain locations, other locations preferred use of the cell phone.

Demographically, whilst the Internet is popular among the 16-24 age group, ages 25-44 were more cell phone oriented.

Culturally, both ICTs have been associated with negative impacts differently. Whilst there was evident concern over young people's access to the Internet as morally corrupting, and consequently the requests for bans or at least strict policing of the Internet, there was negativity also directed towards the cell phone in terms of misappropriation by especially women and girls.

Overall, due to the cell phone's easily adaptable features, and its less demanding technical interface, it had more acceptance than the Internet which significantly polarised opinions between users and non-users in all the locations studied. On the

other hand, in places where the Internet was more popular, the depth of experiences associated with it was more diverse due to the variety of information available from it.

Whilst experiences of the Internet were expressed in terms of the distant places, 'virtuality' and the global - such as 'world awareness', e-learning, and virtual hunting; cell culture experiences were more attuned to creating local networks, and were expressed as 'real' experiences such as listening to a relatives voice in the locality or in the Diaspora.

The different trends in access, usage and perceived importance have all highlighted certain perspectives that answer the research questions and, the overall aim on globalisation; development and the digital divide in The Gambia. These are summarised in the following sections.

10.4.2 A wealth of information and the pluralism of globalisation

Despite reservations about new ICTs from some localities, over 50% of the overall population in all locations generally endorsed ICTs as instruments that have helped enrich their lives. As a result, there are subtle changes in the culture as ICTs have begun to be viewed as tools that would gradually aid individuals and their communities' information ecologies to achieve what was previously difficult or impossible. Although much of the information is acquired and re-appropriated to inform local knowledge, especially in the case of the cell phone, a significant amount of the information also comes from the global sphere. This is, however, dependent on the type of information and communication activity a location uses to serve its information ecology. As a result, different characteristics of the global network have been manifested in various forms, typical (but not exclusive) to people's information and communication patterns and priorities (information ecology) in different locations. These experiences can be described as:

- A consciousness of the present;
- Virtual 'hunting';
- E-learning (pedagogy beyond the local); and
- Modernity.

A Consciousness of the present – an immediate observation of the effects of ICTs (especially the Internet) as observed by Cairncross (1997) is its role in bringing previously isolated places into a currency of information acquisition and dissemination. This immediacy of information acquisition resonated throughout all locations but made a stronger impression in the office location than any other location. The key repeated phrase among the office population was the feeling of "world awareness". People felt they were more aware – or more conscious – of the current happenings in the world compared to previously. The offices' globalisation experience identified more strongly with "world awareness" because their cyber culture is built around certain online activities, such as popularly using the Internet to search for News and current happenings and events around the world, and the immediacy of this information makes them feel not only part of a bigger place but also "in-the-know".

Virtual 'hunting' – These are ICT cultures that take advantage of the open and boundary-less virtual system of ICTs (in particular the Internet) in order to look for life enhancing opportunities. It has been suggested by some commentators that the Internet might be aiding the 'brain drain' syndrome from the South to the North (Zachary, 2002); however, Teferra (2005) comments on Zachary's conclusions that:

> "It should be however noted that ICT can also serve as instrument of migration if not necessarily brain drain. There is no insinuation that ICT directly cause serious "hard" brain drain problems – at least not yet. There are however some signs toward that. According to Mark Davies, the founder of Ghana's largest Internet café, BusyInterent, four out of five [online customers] are trying to find ways to get out of Ghana"

The population in which this behaviour was more evident was young males who had education but were mostly unemployed or partly employed in jobs for which they are usually over qualified. This group was usually found in cyber cafés browsing through websites looking for opportunities that would take them overseas and into a 'better' life. As a result, information search was the cyber culture activity that this group most identified with apart from emails. Within this group, however, there were two types of approaches which were: a) those who use the Internet to get in touch with further educational institutions and/or potential employers, through activities such as taking

online exams for overseas accredited qualifications, applying for entries in overseas universities and posting CVs on employers' websites; and b) those who have decided to take advantage of Gambia's already existing sex tourism industry by looking for potential clients overseas who they believe will come to The Gambia and help them migrate in order to reside overseas. I classify both these groups as 'virtual hunters' as they use the Internet, and to some extent the cell phone, as sources that could secure them global connections and an eventual life enhancing opportunity that would give them an alternative life choice.

e-Learning (pedagogy beyond the local) – Learning or knowledge acquirement through ICTs was at the top of both cyber and cell culture activities in educational institutions, as individuals make evident their desire to pursue knowledge sources beyond the local. Whilst there were some parallels in cyber culture activity of cyber café users with educational institutions, as they both had *information search* and *e-learning* as their most popular activities, this was not surprising as 63% from educational institutions use the cyber café as their access point to the Internet. The difference, however, was more evident in the analysis of the open-ended questions, as they demonstrated that whilst the dominant purpose of the cyber café's information ecology was based on virtual 'hunting', there were other less dominant agenda usually by those from the educational institutions, such as e-learning, that were not very visible.

This comprised of taking exams online for personal improvement, searching diverse views for an answer to a research assignment, online and cell phone educational games (e.g. spelling games) and so on. The reason for this unleashed desire to acquire all the possible knowledge in the world by the population from education institutions can be attributed to two key reasons: a) traditional restriction of knowledge that did not support the religious discourse; and b) the extent of educational resources in most of Africa is very limited due to economic reasons. The open network of unlimited learning resources, especially on the Internet, has re-encouraged the learning agenda as people from this location now have access to worldwide resources that can serve their information ecology well.

Modernity – this was more evident through cell culture and in places where the majority of the population were dependents and had very little socio-cultural status. In these spaces, cell phones were used to contact the Diaspora, potential friends and pen-pals made from the Internet, and the acquisition of a cell phone that is 'Western' branded, such as Vodafone Panasonic or T-mobile, acted as an important symbol of status. As a result, this form of global experience was more evident in people from:

- households, who use the cell phone to keep in touch with relatives abroad, thereby showing status of an extended family importance and wealth;
- the unemployed cyber café users who used the cell phone as a *show* of connecting with someone abroad purely to overstate their socio-economic status;
- young people from educational institutions who want to be seen with a 'Westernised' branded phone in order to acquire a respectful status among their peers; and
- traders from markets who information filters through to via existing local social and cultural communication networks.

Conclusion

A critical finding of this thesis is the different uses of the cell phone and the Internet by people in the different locations based on their information priorities; and the subsequent result of different cyber and cell cultures. This finding challenges the process of universalism of local cultures as have been debated by some commentators. In order for The Gambian culture to become standardised into a 'Western' type global culture, people in the different locations and their cultures (based on their information ecologies) have to acquire and re-appropriate information similarly.

However what was found was that, for example, whilst people from the educational institutions were more interested in learning from the global content in order to challenge traditional forms of knowledge, people from offices were more interested in News in order to update themselves about global events. Although, these are all the different types of information from the same global content and therefore can be

argued to depict different types of the same 'Westernised' culture, it is how the information acquired is re-appropriated and disseminated that is important to the process of uniformity or standardisation. As some locations such as markets and households practice stricter cultural code that rejects new ICTs as morally corrupting, and therefore, discourage access and usage, information largely continues to be acquired and disseminated through traditional norms, protocols and structures; whereas information acquisition and re-appropriation is less liberal in other locations.

As a result of the different levels of information acquisition, and the different levels of re-interpretation and dissemination, cultures cannot be a unified, as existing inequities in society fractures that uniformity. Even in the more secular locations such as offices, loyalty to traditional culture was strongly evident. As a result, globalisation through new ICTs in The Gambia, has re-defined unique cultures and their information ecologies and networks. Consequently, what is instead formed is many types of cultures (some which are more secular and more merged with 'Western' practices, and some which are still chiefly unique and impenetrable). In addition, globalisation theories whose contextual basis argue that globalisation of South will instead be a process of forming a 'hybrid' culture of the local and global, are also challenged as the hybrid refers to a singular hybrid, not a plural of hybrids as have been found by this research.

Therefore, rather than local cultures being replaced by dominant ones from the 'West', or become merged (into 'glocal') cultures, globalisation through new ICTs in this thesis is depicted as a fusion of many different channels of information, which is interpreted into many different forms of knowledge, that is communicated and disseminated in many different ways. This cannot be described as heterogeneity either (as have been debated by some) as the concept places more emphasis on cultures as always different and incapable of merging with others. Instead, I describe globalisation a type of a 'compound'; that is a dense mixture of both unique and influenced cultures of diverse peoples and places. Therefore, while some are more influenced, some are less. They are all however held together by global processes.

10.4.3 Sustainable ICT initiatives for development

From the key findings it is evident how a socio-spatial perspective has highlighted different attitudes associated with ICTs in the information ecologies. This is crucial to the sustainability of ICT initiatives as it gives an indication as to whether ICTs are accepted or rejected as part of norms, protocols and practices of the locations.

In the ICT-centric ecology the instrumental attitude towards both the Internet and the cell phone suggests that ICT initiatives would be sustained in locations with this type of ecology in the long-term. Since the cyber café location was the only ICT-centric ecology, it explains why the cyber café system is so far the only long-term successful access point for the Internet in the African region (Sairosse and Mutula, 2004).

In the ICT-partial ecologies, although there is a generally positive attitude towards ICTs as beneficial to their location, attitudes in these ecologies were demonstrated as the result of government promotion through policy formulated schemes and agenda; as was found in offices and educational institutions. Key findings of this research, therefore, suggest that, in order to sustain ICT initiatives in ICT-partial ecologies there should be a constant reminder and promotion of ICT's benefits to the people through programmes (such as work courses or educational curriculum). This is most likely to encourage prolonged use and positive attitudes.

In the ICT-sceptic ecologies, however, evidence showed that ICTs were only viewed as tools to aid certain communication facilities. People here did not view ICTs as tools that should be integrated into their daily lives. In fact, they viewed the ICTs as morally corrupting as they interfere with the norms, practices and protocols of their communities. They do not, therefore, generally have positive attitudes towards them, and do not generally want to engage with them. As a result, some groups here would not use ICTs even if they have access to them, as was found in households and markets. ICT initiatives, projects or systems implemented are not likely to be sustainable in the long term. However, one cannot use this as a basis not to implement ICTs in these locations as it would result in further exclusion as has been depicted by the findings of the thesis.

Using this conclusion to compare to the farming analogy, where ICT initiatives are seeds and the locations are different types of soils, just as some seeds grow in some soils without help, a different type of soil may help the seed grow only if boosted with fertilizers, whilst in a hard soil, the seed may only sprout or may not grow at all.

Conclusion

A key issue which was confirmed as a result of the policy analysis is the involvement of international agencies in the formulation of policies. However, more importantly, what was also evident was the use of policy to target some priority areas. Whilst the targeted areas were chosen based on competences in these locations, such as technical and education skills, further investigation showed that how communities of practice perceive ICTs also plays a key part in the acceptance of rejection of ICT initiatives.

Complex structures in each of the communities studied showed that whilst some communities' information and communicative structures lend themselves to the adaptation of new ICTs, others do not. Socio-cultural factors such as gender and age are underpinned by religion which influences levels of authority, education and technical skills amongst the various occupational groups that make up each location. This was found to directly influence the secularity of a location, and shapes how new ICTs are perceived and therefore influence the acceptation or rejection of an ICT. As a result, whilst some locations are able to adapt to ICT use, others such as women in households and markets, do not only rank its importance lowly, they also statistically showed reluctance in using new ICTs.

This evidence of general acceptance or rejection of ICTs depending of the secularity of the community of practice contributes to the debate on why a majority of ICT initiatives are unsustainable (Research ICT Africa, 2007); especially, those implemented in suburban communities and villages. An explanation could be that the information ecologies in these places are incompatible with sustainable ICT projects. This evidence shows that the role of culture should be seriously considered in ICT4D debates and literature.

10.4.4 The perpetual cycle of the digital divide

Documentations on the digital divide have attributed it to various themes, among them are access to technology, policy, and social problems that stem from factors such as age, gender, class and ethnicity. In this study, it was found that whilst policy may be playing a part in the digital stratification, it was also found that gender and age plays a significant part of polarisation of ICT access, use and perceived importance. However, whilst gender and age based on class and ethnicity may be influencing polarisation elsewhere, it was found that in The Gambia, norms and practices underpinned by religion are also a significant contributing factor in the digital stratification problem.

As culture in The Gambia is shaped by religion, and as religious interpretation deems females and young people weaker in authority than males and the 'old', women and girls especially are systematically isolated from having equal access to new ICTs. From the policy analysis, it was evident that in places where female occupational groups dominate, no policies were available for these locations. Further investigation, however, showed that policy alone was not responsible, as these places were less secular, perceive ICTs negatively and therefore were less likely to use new ICTs. The effect of this is snowballed into a cycle of many small divides as the diagram in Figure 10.3 (p.216) demonstrated.

Conclusion

From the discussion of the key findings of the research, it is evident how socio-spatial processes contribute to the digital divide among nations. An example is the targeting of some locations through policy formulation. However, a key finding of the research, one that surprised the researcher – is the role of religion in furthering the digital exclusion issue.

In The Gambia, religion appears to shape how authority is distributed among its people. Therefore, groups which are deemed less authoritative and socially vulnerable 'are protected' according to the norms and practices. This protection can sometimes lead to the exclusion of these groups from impact making factors such as education, skills training and in this case, access and use of ICTs.

Therefore, as people in the less authoritative locations such as households and markets were less educated (because a majority are women and girls who religion interprets as inferior), ICT policies appeared to have excluded them from access and use (perhaps because they do not have the skills and education); and because they are discouraged from engaging with ICTs, their attitudes are normally negative as they rationalise why they do not need ICTs in their daily lives. This has as a result created a vicious cycle of socio-spatial divides. This evidence strongly suggests that norms and practices of people are also critical factors in the digital divide discourse, and should be seriously taken into account in the wider literature, especially in terms of how policy translates into practice.

11. CONCLUSIONS AND FUTURE DIRECTIONS

This research has shown that even within a nation, space is a critical factor in the new era in that, a location (no matter how small) plays a significant factor in how the new era is experienced by its inhabitants. Through this research, the following practical and theoretical contributions have been made to the wider literature on ICTs in the context of globalisation, development and the digital divide as shown in the following:

- ICTs and their impacts (in the socio-spatial contexts) should be carefully addressed since there are distinctive differences in how the Internet and the cell phone influenced their communities of practice; therefore, one generic impact should not be attached to new ICTs.

- Cultural globalisation theories of universalism (or homogeneity), hybridity and even heterogeneity are challenged and disputed as evidence from the five locations showed none of these theories in existence in from the locations studied in The Gambia; but rather, the spatial differences in norms and practices has enabled people in different locations to acquire and appropriate information differently.

- Successful implementation of ICTs is dependent on a cohesion of complex links between socio-economic and socio-spatial factors that defines an information ecology. This ranges from policy to the secularism of the culture in the spaces in which they are being introduced, and the adaptability of the ICTs to the people's culture and vice versa. These points are crucial to how ICT initiatives are implemented in communities of practice for sustainability.

- Traditional norms, protocols and practices are highly significant in creating structures that re-enforce the existing inequities of the digital divide. As a result, culture as a factor should be considered when defining or describing contributing factors to the digital divide.

Overall, it has been demonstrated by this research that concepts associated with ICTs are usually linked and therefore should be researched as linked or interdependent concepts.

Based on the findings of the thesis, I suggest the following theoretical and practical recommendations:

- There should be debates that focus on the ICTs that underpin the network society.

- Theories of cultural globalisation such as universalism, hybridity and heterogeneity should be re-debated and revised.

- The ICT-for-development agenda should adopt a holistic approach to its implementation by seeking the expertise of a diverse range of informatics experts (political, economic, cultural and development) in order to solve cultural assumptions built into these initiatives and systems.

- Efforts should be made by governments and administering bodies to firstly resolve the base-root problems that re-enforce digital stratification, such as existing social and cultural inequalities. In addition, culture should be recognised as an additional stratifying factor in the digital divide debate.

It is fully acknowledged that whilst the socio-spatial definition in this thesis has been more in the context of culture, other socio-spatial definitions may be more politically or economically oriented. As a result, the term socio-spatial is uniquely and theoretically used to denote norms, practices and protocols of people in their communities of practice.

In addition, as inferences on findings and conclusions on three large theoretical concepts were based on evidence from one nation of the global South (The Gambia), it is also fully acknowledged that the findings are just snapshots based on one case study, and that more evidence from different case studies is required in order for more concrete conclusions to be made.

As has already been documented under *policy analysis methodology* (Chapter 3.4), although methods used were adapted from established authors such as Bryman (2001), Rose (2001) and Foucault (1972), and are well-known methods, the criteria for choosing keywords for the content analysis that were used in the discourse analysis was subjective. Similarly, to some extent, the formulation of questions for the survey was also influenced by subjective factors.

It is, however, important to note that feminist geography advocates against researching from a 'neutral' point as positivist, as the researcher cannot fully adopt a neutral standpoint. As was stated earlier in the thesis (under researcher's positionality), care was taken to be as unbiased as possible in the data collection.

Overall, this thesis has journeyed and slightly evolved in terms of disciplinary focus. In order to gain up-to-date knowledge of current researchers, several disciplines were used for searches. These included geography and technology, information science, social science, computer science, consumer science, and development and cultural studies. The results may not be deep from one disciplinary perspective. However, it is by combining all these approaches that it has been possible to obtain a holistic understanding of alternative socio-spatial dimensions as was the overall aim of the research.

Agenda for future research

Further research to investigate evidence of the key findings of this thesis in the socio-spatial context of globalisation, development and the digital divide could include:

- Investigations into other advanced technologies rather than the Internet and the cell phone, such as the role of today's digital satellite televisions in nations whose economies are described as transitional or emerging such as India, the Middle East and China.

- Investigation from a Christian perspective where the case study is predominantly Christian would provide an interesting contrary perspective. Results from such an investigation would make a useful comparison to my research.

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APPENDICES

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APPENDIX 1

Questionnaire (Cyber and cell cultures in The Gambia)

PART 1 (PARTICULARS)

1. **Gender** (*circle one*)

Male.....1
Female.....2

2. **Which of these age groups do you fall into?** (*circle one*)

Under 16.....1
16-24..... 2
25-44.....3
45-65.....4
Over 65.....5

3. **Please rank the following in order to importance to you as an individual** (*tick one box per line*)

	Not important	Quite important	Important	Very important	Essential	Not sure
Internet						
Cell phone						
Landline						
Radio						
Television						

4. **Which of these do you use?** (*tick all that apply*)

Internet	
Mobile phone	
TV	
Radio	

Electronic Organiser	
MP3 player	
None	
Other	

Specify if other.....

f **Internet** only or **both Internet and mobile phone** continue; If **mobile phone** only, go to part 3; otherwise got to Part 4

PART 2 (CYBERCULTURE)

5. **Where do you use the Internet *most*** (*circle one*)

Own PC/home.....1
Work/School.....2
Internet café.....3
Other .....4 Specify .....

6. **How many hours do you spend on the Internet a week?** (*circle one*)

Under 1 hour.....1
1-5 hours.....2
5-10 hours.....3
11-15 hours.....4
Over 15 hours.....5

7. **What do you *most often* use the Internet for?** (*circle all that apply*)

Email.....1 Chat (MSN, Yahoo).....2
Music.....3 Searching for information.....4
News.....5 Shopping.....6
Learning and Education.....7 Financial transactions/e-commerce.....8
Films.....9 Games.....10
Other.....11 Specify.....

8. **What type of websites do you visit *most*? (*circle one*)**

Gambian 1
Other African websites.....2
European/American 3
Asian.....4
Middle Eastern.....5
Caribbean/South American.....6
Other.....7 Specify.....

9. **Do you use the Internet to keep in touch with people abroad?**

Yes.....1
No.....2
Don't Know.....3

10. **If *yes*, which of these do you use *most*? (*circle one*)**

Email.....1
Instant messaging.....2
E-forums.....3
E-conference.....4
Skype and similar.....5
Other.....6 Specify.....

11. **Before the Internet and mobile phones came along which method did you use *most* to keep in touch with people abroad? (*circle one*)**

Landline.....1
Letter.....2
Telegraph.....3
Fax.....4
Other.....5 Specify.....

12. **Do you still use this method(s)? (*circle one*)**

Yes.....1
No.....2
Don't Know.....3

13. **What type of persons do you *most often* use the internet to keep in touch with overseas (*circle one*)**

Friends.....1
Family.....2
Pen pals.....3
Business/education personnel....4
Other organisations.....5
Nobody.....6
Other.....7 Specify.....

14. **Do you use the Internet to keep in touch with people here too?**

Yes.....1
No.....2
Don't Know.....3

15. **Do you think the Internet has changed the way people do things in Gambia? (*circle one*)**

Yes.....1
No.....2
Don't Know.....3

16. **If so, in what way?**

.....
.....

17. **Do you have any further comments?**

.....
.....

PART 3 (CELL/MOBILE CULTURE)

18. **What type of mobile phone do you have?** *E.g. Motorola*.....

19. **Why do you have this particular mobile** (*circle one*)

Because it's the latest.....1
Because of its size.....2
Because it has a longer battery life.....3
Because I like the way it looks.....4
Because it is robust/strong.....5
I don't know.....6
Other.....7 Specify.....

20. **Did you buy your mobile phone here in Gambia?** (*circle one*)

Yes.....1 If **yes**, how much did you pay for it? ..... (D)
No.....2
Gift.....3
Don't Know.....4

21. **Apart from '*talking*', what do you use the mobile for *most*?** (*circle one*) N.B. Beeping means to missed call someone to get them to call back.

Beeping.....1
Texting.....2
Business.....3
Buying.....4
Listening.....5
Playing games.....6
None.....7
Other.....8 Specify.....

22. **What other purpose do you use your for mobile for?**

Specify purpose.....

23. **Does having a mobile phone makes you feel like a modern person? Meaning you are more in touch with the world at large?** (*circle one*)

Yes.....1
No.....2
Don't Know.....3

24. **Does having a mobile phone makes you feel important?**

Yes.....1
No.....2
Don't Know.....3

25. **Does having a mobile phone change the way you live?** (*circle one*)

Yes.....1
No.....2
Don't Know.....3

26. **If *yes*, how?**

.....

.....

27. **Do you have any further comments?**

.....

.....

PART 4 (EMERGING IDEAS)

28. **Which of these categories of work do you fall into?** (*circle one*)

Gov/civil service 1
Ngo/Charity.....2
Corporate/private.....3
Self employed.....4
Education.....5
Student/ Youth.....6
Unemployed.....7
Other.....8 Specify.....

29. **Do your friends or relatives use .....**

Internet mostly..... 1
Mobile phones mostly.....2
Both mostly..... ...3
I don't know..... 4

30. **If mobile phones were made in Africa, would you use the African made one instead of the one made elsewhere even if it were more expensive?** (*circle one*)

African.....1
Elsewhere.....2
None.....3

31. **What would you say is the *most* positive thing about mobile phones and the Internet?** (*circle one*)

Create links within society 1
Provide more awareness of the world.....2
Provide instant communication 3
Promote cultural diversity.....4
No positive 5
I don't know.....6
Other..... .....7 Specify.....

32. **What is your opinion of Gambians or Africans adopting or practising 'Western' cultures because of mobile phones and the Internet?** *Circle one*

Like it 1
Don't like it.....2
Not sure.....3
Don't mind it.....4
Don't know.....5

33. **Do you have any further comments?**

.....

.....

34. **Name one thing that you think would improve the Internet?** .....

35. **Name one thing that you think would improve mobile phones?** .....

36. **Do you think mobile phones or the Internet have changed the way people do things in Gambia...**

For better 1
For worse.....2
Both 3
No change.....4

37. **Do you have any further comments?**

.....

.....

APPENDIX 2

Directory of settlements

Area Name	BOTH SEXES										FEMALES									
Country/LGA/District/Village	Total	< 1	1-2	3-4	5-6	7-14	15-49	50-59	60+	NS	Total	< 1	1-2	3-4	5-6	7-14	15-49	50-59	60+	NS
THE GAMBIA	1,360,681	30,260	74,269	89,392	84,490	292,830	654,861	53,560	68,719	12,300	689,840	14,824	36,633	44,884	41,665	146,292	341,250	24,716	34,097	5,479
BANJUL	35,061	725	1,409	1,551	1,433	5,346	20,772	1,635	1,831	359	16,265	365	684	767	710	2,767	9,136	726	978	132
Banjul South	8,453	160	301	341	340	1,208	5,003	447	510	143	3,865	79	140	161	171	628	2,157	197	277	55
BANJUL SOUTH	8,453	160	301	341	340	1,208	5,003	447	510	143	3,865	79	140	161	171	628	2,157	197	277	55
Banjul Central	9,094	228	379	393	376	1,431	5,258	439	521	69	4,316	123	183	193	195	748	2,381	199	275	19
BANJUL CENTRAL	9,094	228	379	393	376	1,431	5,258	439	521	69	4,316	123	183	193	195	748	2,381	199	275	19
Banjul North	17,514	337	729	817	717	2,707	10,511	749	800	147	8,084	163	361	413	344	1,391	4,598	330	426	58
BANJUL NORTH	17,514	337	729	817	717	2,707	10,511	749	800	147	8,084	163	361	413	344	1,391	4,598	330	426	58
KANIFING	322,735	7,071	15,564	17,530	15,887	58,437	180,684	12,036	11,315	4,211	158,756	3,455	7,634	8,824	7,912	30,564	87,571	5,146	5,759	1,891
K.U.D.C	322,735	7,071	15,564	17,530	15,887	58,437	180,684	12,036	11,315	4,211	158,756	3,455	7,634	8,824	7,912	30,564	87,571	5,146	5,759	1,891
ABUKO	8,958	183	527	560	487	1,762	4,808	316	277	38	4,407	80	251	259	241	923	2,376	112	150	15
BAKAU WASULUNG	1,312	26	45	60	54	150	681	59	59	178	651	10	20	30	33	86	342	23	23	84
BAKAU NEW TOWN	31,600	551	1,234	1,430	1,377	5,518	18,055	1,462	1,460	513	15,673	262	627	749	654	2,832	8,956	680	727	186
BAKOTEH	17,161	380	874	949	891	3,238	9,640	605	525	59	8,331	195	411	458	457	1,683	4,553	256	297	21
BUNDUNNKA KUNDA	51,869	1,281	2,570	2,954	2,538	9,593	28,975	1,738	1,726	494	25,387	652	1,264	1,481	1,243	5,005	13,919	760	847	216
DIPPA KUNDA	14,965	385	639	810	690	2,680	8,520	554	583	104	7,279	185	296	385	330	1,422	4,020	295	301	45
EBOE TOWN	18,363	420	877	1,125	1,078	3,631	9,900	602	598	132	8,968	192	413	539	527	1,927	4,797	225	276	72
FAJI KUNDA	23,969	571	1,250	1,407	1,272	4,475	13,243	813	756	182	11,787	286	626	700	629	2,340	6,407	341	380	78
KOLOLI	5,498	102	231	257	214	739	3,065	199	187	504	2,610	45	119	133	114	377	1,391	71	106	254
KOTU	11,844	244	516	557	505	1,839	6,704	503	354	622	5,949	114	255	288	261	1,016	3,364	189	159	303
LATRI KUNDA GERMAN	24,045	419	1,060	1,136	1,101	4,392	13,560	1,069	997	311	12,177	211	537	594	569	2,274	6,856	482	522	132
LATRI KUNDA SABIJI	14,939	370	737	815	761	2,598	8,466	550	493	149	7,382	190	362	441	380	1,374	4,086	240	235	74
MANJAI KUNDA	14,372	352	820	884	758	2,661	7,948	452	431	66	7,099	156	408	429	398	1,405	3,878	182	215	28
NEW JESHWANG	17,023	378	837	895	872	3,137	9,614	625	594	71	8,321	176	431	457	439	1,604	4,607	263	314	30
OLD JESHWANG	13,319	246	562	638	593	2,519	7,520	657	484	100	6,794	129	268	349	303	1,340	3,812	286	270	37
SERE KUNDA	19,292	339	918	995	887	3,337	11,113	741	772	190	9,361	153	435	503	449	1,769	5,219	338	417	78
TALINDING KUNJANG	34,206	824	1,867	2,058	1,809	6,168	18,872	1,091	1,019	498	16,580	419	911	1,029	885	3,187	8,988	403	520	238

APPENDIX 3

ICTs' ranking in all five locations, and, related statistical results for differences between user and non-user ranking.

Offices

	Not sure %	Negative response %	Neutral response %	Positive response %
Internet	12	1	30	57
Cell phone	1	0	34	65
Land line	2	1	48	50
Radio	3	0	35	62
Television	3	0	29	68

Statistics:-Difference between Internet usage and Internet importance ranking. Fishers' exact test (Exact sig- 2 sided) **p = 0.000;**
Difference between cell phone usage and cell phone importance ranking. Fishers' exact test (Exact sig- 2 sided) p = 1.000;
Difference between TV usage and TV importance ranking. Fishers' exact test (Exact sig- 2 sided) p = 0.58.
Difference between Radio usage and Radio importance ranking. Fishers' exact test (Exact sig- 2 sided) p = 0.12

Cyber cafés

	Not sure %	Negative response %	Neutral response %	Positive response %
Internet	5	1	20	74
Cell phone	3	1	21	75
Land line	6	1	44	49
Radio	2	0	35	63
Television	1	0	30	69

Statistics:-Difference between Internet usage and Internet importance ranking. Fisher's exact test (Exact sig- 2 sided) **p = 0.000;**
Difference between cell phone usage and cell phone importance ranking. Fisher's exact test (Exact sig- 2 sided) **p = 0.000;**
Difference between TV usage and TV importance ranking. Fisher's exact test (Exact sig- 2 sided) **p = 0.000;**
Difference between Radio usage and Radio importance ranking. Fisher's exact test (Exact sig- 2 sided) **p = 0.000;**

Households

	Not sure %	Negative response %	Neutral response %	Positive response %
Internet	24	15	29	31.5
Cell phone	1.5	4.5	29.5	64.5
Land line	1.5	4	50	44

Radio	1	10.5	40.5	58
Television	1	3.5	34	61.5

Statistics:-Difference between Internet usage and Internet importance ranking.
Fisher's exact test (Exact sig- 2 sided) **p = 0.000;**
Difference between cell phone usage and cell phone importance ranking.
Fisher's exact test (Exact sig- 2 sided) **p = 0.001;**
Difference between TV usage and TV importance ranking. Fishers' exact test (Exact sig- 2 sided) **p = 0.001.**
Difference between Radio usage and Radio importance ranking. Fisher's exact test (Exact sig- 2 sided) p = 0.78;

Educational institutions

	Not sure %	**Negative response %**	**Neutral response %**	**Positive response %**
Internet	3	2	22	73
Cell phone	2	1	34	63
Land line	8	2	43	47
Radio	5	2	31	62
Television	6	1	19	74

Statistics:-Difference between Internet usage and Internet importance ranking.
Fisher's exact test (Exact sig- 2 sided) **p = 0.005;**
Difference between cell phone usage and cell phone importance ranking.
Fisher's exact test (Exact sig- 2 sided) **p = 0.043;**
Difference between TV usage and TV importance ranking. Fisher's exact test (Exact sig- 2 sided) p = 0.061.
Difference between Radio usage and Radio importance ranking. Fisher's exact test (Exact sig- 2 sided) **p = 0.001;**

Markets

	Not sure %	**Negative response %**	**Neutral response %**	**Positive response %**
Internet	42.5	24	23	10.5
Cell phone	3.5	23.5	52.5	20.5
Land line	5	34.5	17	43.5
Radio	1	20	54.5	24.5
Television	3.5	27	48.5	21

Statistics:-Difference between Internet usage and Internet importance ranking.
Fisher's exact test (Exact sig- 2 sided) **p = 0.000;**
Difference between cell phone usage and cell phone importance ranking.
Fisher's exact test (Exact sig- 2 sided) p = 0.114;
Difference between TV usage and TV importance ranking. Fisher's exact test (Exact sig- 2 sided) **p = 0.003;**
Difference between Radio usage and Radio importance ranking. Fisher's exact test (Exact sig- 2 sided) p = 0.928

APPENDIX 4
DEFINITIONS OF TERMS

Information and Communications Technologies (ICTs) - In defining the information society, Webster (2002, p.9) described its technological aspect as including, new technologies such as cable and satellite television, computer to computer communications, personal computers (PCs), new office technologies, notably online information services, word processors and CD-ROM facilities. Though the phrase and the abbreviation ICT is used in most modern literature, its actual meaning is taken for granted and therefore not frequently defined. Gester and Zimmermann (2003) define ICTs in their learning study as: "that which facilitates the creation, storage, management and dissemination of information by electronic means". Such an understanding includes radio, television, fix-net and mobile telephony, fax, computer and the Internet. Hardy (2000 p.8) however, referred to ICTs as a range of tools and techniques related to computer-based hardware and software; communications including both directed and broad-cast; information sources such as CD-ROM and the Internet, and associated sources such as robots, video conferencing and digital television.

Contrasting this definition is Habib Sy's (2004, p.64) who completely rules out technology and defines ICT as the mechanics of "the way people relate to each other individually or in a group rather than to technology". This definition projects a people-focused ICT rather than technology-focused ICT however, using this definition would disregard technology's role as Habid Sy does by providing an explanation for terms 'information' and 'communication', only and not 'technology'. In all, despite the slightly varying definitions, it can be concluded that the different meanings of ICTs have at least three characteristics in common which comprise:

1. Interactivity - ICTs are effective two-way communication technologies;
2. Permanent availability - the new ICTs are available 24 hours a day;
3. Global reach - geographic distances hardly matter any more.

Out of all the ICTs, the ones which have these three characteristics are the Internet and the cell phone. These are the new ICTs referred to in the thesis.

Cyber culture - Some theorists (Escobar, 1994; Castells, 2001; Lèvy, 2001a) have described the Internet as a social place in which human beings interact and communicate. A place "made possible by Internet technologies" (Lèvy, 2001a). The culture associated with the Internet is what I simply refer to as cyber culture in the context of this thesis. Cyber culture therefore is any activity that involves sending and receiving information, and communicating through the Internet. This constitutes Internet activities such as sending and receiving emails, financial transactions, buying and selling, playing online games, participation in online forums, conferences, chat rooms etc.

Cellular culture - This is the culture associated with cellular or mobile phones. Mobiles or cell phones are portable devices that use global satellite mobile system for communications through associated networks. The evolving nature of mobile phones means that there have been different generations of mobile phones ranging from first generation (1G) to now fourth generation (4G). However, it is 3G phones that are mostly in circulation today around the world. Features incorporated in a mobile phone enable it to perform various functions depending on the manufacturer, generation of the phone and most importantly the network provider. A typical 3G phone would have built in functions such as text editors, phone book, address book, alarm clock, stop watch, voice and picture recording, download facility, FM radio (Nokia), and camera which enables the phone to perform cell culture tasks (depending on the network operator) such as:

i. SMS – Short message service or text messaging,
ii. MMS - Multimedia Message Service (such as embedding images and videos in messages),
iii. Email – using Wireless Application Protocol (WAP) or the I-mode (DoCoMo, Japan),
iv. Internet access – using packet switching, WAP or I-mode, and,
v. MP3 - Downloading and listening to music

In addition to the above, 4G phones have: Video calling facility; Global Positioning Satellite (GPS) navigation; and, removable memory (memory cards).

The functions or the activities that the mobile phone is used to performed is what constitutes cellular or mobile phone culture. Due to the cell phones easy adaptability to different functions, there are different types of cultures associated with it depending in the culture in which it is being used. For example, whilst in Europe the biggest activity is SMS and MMS, in Japan the biggest cell culture activity is the 'i-mode' function which enables advance use of the Internet. In the context of this thesis, 'standardised cell culture' is used to describe activities such as SMS, MMS, email, Internet access, GPS navigation and video calling; whilst 'vernacular cell culture' described particular local use of the cell phone.

Modernity - The theory of modernity is deep and complex and is perceived to be rooted in "power, knowledge and social practices" (Johnston et al, 1994). A critique of modernity is its goal in the concept of development which originates from colonialism. Based on this theory, modernity is represented as a concept aiming to enlighten and measure progress of knowledge transfer from the West (as superior) to the rest. This is applied through processes of modernisation - a process of growth, progress, expansion or development - and westernization of non-Western places. Used in the context of this report, modernity describes evidence of a new social order due to ICTs; reports of enlightenment or knowledge transfer through new ICTs; the idea of power and status that is associated with acquiring new ICTs as in social hierarchy; and, the transformation of certain traditional practices – seen as progress - as a result of new ICTs.

ICT policy for Development: Marcelle (2000, p.39) defines national ICT policy as an integrated set of decisions, guidelines, laws, regulations, and other mechanisms geared to directing and shaping the production, acquisition and use of ICTs. In the context of development, policy is defined by Chowdhury and Kirkpatrick (1994, p.2) as "a conscious effort of a central organisation to influence, direct, and in some cases even control, changes in the principal economic variables (GDP, consumption, investment, saving etc.) of a certain country and region over the course of time in accordance with a predetermined set of objectives". ICT policy in the context of development (for low-income economies) is therefore any set of documents that meets both of the above definitions where ICT is the principal discourse. In this research the ICT policies referred to are national.

International Development Agency: These are also referred to as multilateral agencies or international organisations. In the context of this research, an international development agency is an organisation dedicated to global development discourse and which operates its projects in a majority of low-income countries. IDAs are grouped into:

1 *Governmental & Political:* government institutions such as the Department of International Development (DFID) UK, Danish International Development Agency (DANIDA) or organisations such as the G8 Digital Opportunity Task Force (G8 DOT Force);
2) *Financial:* Global Financial institutions such as the World Bank, International Monetary Fund (IMF) and the World Trade Organisation (WTO); and
3) *International democratic*: branches of the United Nations such as the United Nations Development Program (UNDP) and United Nations Information and Telecommunications Task Force (UNICT).

In addition, some global Non-Governmental Organisations (NGOs) such Oxfam International, International Federation of the Red Cross (IFRC) and Care International could be classified as IDAs as they are in other literatures.

Global North/South: Labels manufactured to described the worlds materially haves from the 'have nots' have been constructed in problematic binaries ranging from first/third worlds to underdeveloped/developed countries. All these terminologies have been critiqued as designed to emphasis the disparity between the materially 'rich and 'poor' with disregard for other factors; and not constructive in its division into halves. Although this critique can be applied to the label global North and South, there is a geographical connection. Whilst the world is distributed geographically and labelled as north and south (east and west), these labels have come to signify other meanings. Connotations attached to north and south apart from geographical distribution, for example, include the distribution of wealth and global inequities. There is no doubt that a large amount of wealth is concentrated in a small area of space for whilst "*populations of North America and Western Europe eat, well, consume the most of the world's fuel, ...by contrast populations of Africa, Asia and Latin America are less fortunate*" (Gilbert, 1985). Therefore whilst the North is rich in socio-economic wealth, by contrast the South has a lack it.

Bearing in mind that the global North has been labelled in order to emphasis its economic status in contrast to the group of countries from the global South define the status of their economics, I elect to use this label due to it's geographic illustration in the thesis. Therefore, for the purposes of this projects the terms 'global North' or the 'North', 'High-income' and 'Minority' countries are used for the economically wealthy nations whilst the terms 'global South', 'low-income' and 'Majority' countries are used interchangeably throughout the text for the countries with low-income. However, if quoting directly from an author who uses other terms such as 'developing' or 'Least Developed', these terms are used.

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