The Impact of Information and Communications Technologies on The Local Muslim Community in Leicester

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While considerable research is in progress in Europe and the USA on the impact of Information and Communications Technologies (ICT) on society, the impact on the Muslim world has not received sufficient attention. This research was conducted within a densely Muslim populated area of Leicester through two case studies using mostly an approach of semi-structured interviews and observation. Research methods had to be adapted to conform to the sensitivities of the Muslim faith and culture. The important issues to be investigated were identified through interviews with Muslim Imams and scholars both locally, nationally and internationally.

One case study was a state comprehensive school which also provided adult community education facilities in the evenings. This case study revealed information on how ICT education was provided within a state school and how it was being received where the majority of students were Muslim. The administrative impact of Islamic festivals both on the day school and community education was an important finding. Similarly assessing the attitudes, response and success rate of the local Muslim community in taking up the training facilities through the community education service was valuable. The influence of some foreign countries on a small area of Leicester was quite notable.

A local Muslim family had been treated as a second case study which provided information on how attitudes, the methods of propagation of Islamic faith and combating anti-Islamic projections have been influenced by the advent of the ICT revolution. Some of the new dangers like presence of paedophiles in chat rooms, violent computer games, influence of television and mobile phones was understood. An equally important discovery was how the collectivist nature of Muslims was turning towards individualism and how Al-Qur’an is used by Muslims to seek guidance on any aspect of life including the impact of ICT.

The literature review provided insight on Islam and how Muslim communities operate in different parts of the world. Some research by ICT professionals, sociologists and Islamic scholars revealed interesting different attitudes and approaches in dealing with the new challenges to the global society. Issues relating to privacy, accuracy, property and access were appreciated through the work of various scholars. The new concept of a ‘global village’ was examined from Muslim and non-Muslim perspectives. Some of the reasons for less women and even less Muslim women in the computing market were understood.

Other aspects of this research include issues of cross cultural transfer of technology, contribution to academic body of knowledge, broader implications and the need for further research in this field.
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ABBREVIATIONS AND GLOSSARY

ALLAH (Arabic name for God)
ALAM (Arabic word for World)
AL-QUR’AN (Muslim holy book revealed to Prophet Muhammad (sws) through Arc Angel Gabriel).
CLAIT (Computer Literacy and Information Technology).
DMU (De Montfort University).
HADITH (Sayings and practices of Prophet Muhammad, (sws)).
HALAL (Permitted/allowed)
HARAM (Not permitted/disallowed)
HIJAB (Head cover for Muslim women).
HAFIZ (A person who has memorised the Qur’an by heart).
ICT (Information and Communications Technologies).
IDAT (A period of four months seclusion/semi-seclusion observed by Muslim women after loss of a husband).
IJTIHAD (Arabic - Consensus of opinion of Islamic scholars).
MADRESSA (Supplementary Islamic teaching school).
MAULANA/ MULLAH/IMAM (Honorary title for Muslim priests).
SWS. – SalAllaho Wa-ale-wa Saallam, (Peace and Blessings of Allah be Upon him), Arabic Salutations on Prophet Muhammad (customary with Muslims when the Prophet's name is mentioned).
SWT –Subhana Wa TaAllah, (Most Praise Worthy) - Abbreviation for praise words for God (Allah in Arabic).
SHEIKH (Hon. Arabic Title for a very learned person).
SOHBET (Learning through association).
SUNNAH (Traditions, Sayings and Practices of Prophet Muhammad, (sws)).
ULEMA (Plural of Alim meaning a person with a recognized degree of Islamic knowledge).
UMMA (Wider Muslim population/family).
My sincere thanks are first conveyed to my supervisors Professor Simon Rogerson, Dr. Ben Fairweather at De Montfort University and Professor Paul Luker (now Vice-Chancellor at Bournemouth University), whose support and guidance has been invaluable to me. Indeed it is their support which has brought me to this stage and enabled me to meet and link up with many academics from all over the world through seminars, attending and presenting papers at conferences in the UK, the USA, Italy, Poland and Emirates in the Middle East. Additionally an opportunity provided through my supervisors to teach in Kuala Lumpur, Malaysia and an exchange visit to Charles Sturt University in Wagga Wagga and Australian National University in Canberra, Australia, during the summer of 2002, proved invaluable towards my research development.

After my supervisors, the role of one of my local friends, an Islamic scholar and an educational professional, deserves special thanks as his support and appreciation of my research has been a key factor in my having the opportunity to treat his family as a case study. His name is being withheld to maintain requested confidentiality. My thanks go to Liaqat Ali (a former student at De Montfort University), Imam Shahid Raza of The Islamic Centre, Leicester and Dr. Syed Aziz Pasha, General Secretary, Union of Muslim Organisations in UK & Eire for their help in some of religious angles of the study that I have undertaken.

I must acknowledge the fact that some of the research carried out by Professor Dilnawaz Siddiqui, Professor of Communications at Clarion University of Pennsylvania, USA and Professor Akbar Ahmed, Selwyn College, Cambridge (now Professor in Islamic Studies and International Relations at American University, Washington DC, USA) provided me with considerable inspiration and direction towards the study that I have undertaken.

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CHAPTER 1

1.1 Introduction

There is a sizeable Muslim community settled in the UK and Europe at present - over 1.6 million in UK (census, 2001) and about 13.5 million in Western European countries (Union of Muslim Organisations in UK & Eire, Pasha, 2003a). This Muslim community is diverse. Muslims have come from various countries, the vast majority in the United Kingdom being from Pakistan, India and Bangladesh although others have come from Middle Eastern Arab countries and some African countries. The make-up in mainland Europe is, however, mainly Turks and Arabs from North Africa.

The majority of the Muslim community has been settled in the UK and Europe for the last 35 years or has been born into this community. The community has faced many complexities in settling in what is essentially a Western culture. Looking at the current picture one can say that the Muslim community has done well in settling and adjusting to life in the West whilst maintaining many of its religious and cultural values (Pasha, 2002).

The last census of the UK population was carried out in 2001 (29th April, 2001). For the first time the census form included a voluntary question on religion. The Muslim community was in a celebratory mood that "at last we can stand up and be counted" (Sardar, 2000, p.24). It is expected that when the full results of the census are published during 2003, it may be possible to get a more accurate picture of the Muslim population in UK and consequently the Leicester Muslim population. Part of this information is now available and is quoted below.

To focus on the theme of this research, it may be said that while the Muslim community has made good progress in many fields, many problems still exist particularly in relation to housing conditions, educational facilities, unemployment and the complex issue of finding
suitable marriage partners for adult Muslims (Begg, 1999d). To add to these complexities we now have the ICT revolution affecting every aspect of our lives (Rogerson, 1998). The impact of the ICT revolution is global and since Muslims make up almost a quarter of the world's population and a substantial portion of the Leicester population, they cannot remain unaffected. Leicester is one of most well known multicultural cities of the UK with 29.9% of the population being ethnic minorities of various religions and origins (Census, 2001). This makes Leicester an appropriate city in which to study the impact of ICT on the Muslim community. While confirmation of details of Leicester Muslim population is expected in 2003 from the results of Census, 2001, at least 10% of the population is Muslim, the majority comprising Indians, Pakistanis, Bangladeshis and Arabs from the Middle East countries (Leicester City Council, 2003). More recently (2000 onwards), there has been an influx of Somali Muslims in Leicester via Belgium and the Netherlands as asylum seekers.

The ICT revolution is offering new opportunities and challenges to Muslims all over the world. On one hand the government in the United Arab Emirates has turned Dubai into an E-commerce hub of the world and its e-government is now getting recognition (Arabic News, 2002), whereas across the border Saudi Arabia only reluctantly agreed to allow a limited Internet access to the general public as late as August, 1999 (Whittaker, 2000, p.17). The main opposition to unfiltered access to the Internet came from religious scholars and Imams worried about the arrival of pornography on home computer screens. How long access will be restricted remains to be seen. The two most holy places for Muslims are situated in Saudi Arabia (Makkah and Madina), which millions of Muslim pilgrims from across the world visit every year to perform the Hajj or the lesser Hajj called Umra. Events in Saudi Arabia therefore have a bearing on the rest of the Muslim world (and even the Western world) including the Leicester Muslim community and are relevant to this study.

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1 The grand mosque (Masjid Al-Haram is situated in Makkah and the burial place of Prophet Muhammad (sws) is situated in the city of Madina about 350 kilometers from Makkah.
The impact of information and communications technologies (ICT) revolution is the main focus of this investigation within the Leicester Muslim community. In this thesis the researcher has additionally made some reference to other technological advancements, for example in mobile phones, interactive digital satellite television and e-commerce since the technologies are converging and being used in increasingly integrated ways. The number of Internet users in UK in September, 2002 was estimated at 34.3 million and is still growing (NUA Internet Surveys, 2002). The number of Muslim users is also increasing although no statistics are available. This is discussed in case studies within this thesis.

The e-government group (previously the Central IT Unit) was set up in November 1995 by UK government and became part of the Office of the e-Envoy in 2000. The UK e-government group leads the work on the government’s commitment that by 2004, all dealings with the government should be available electronically (E-Envoy, 2000). There are moves to introduce e-voting facilities for the general election after the next election. All these are major changes for the whole UK population. However, how well they will be used and how beneficial they will prove will be determined with time. One thing is certain that the section of the UK population which is not computer literate by that time will not be able to avail itself of the full benefits of these facilities. In the absence of factors to drive computer literacy in the Muslim community in Leicester and the UK generally, the community may find itself a step behind other sections of the population unless some radical changes in attitude have taken place.

In the following paragraphs firstly the research question is discussed. The aims and objectives of this research are then presented in view of the developments in ICT.

1.2 The Research Question
In any form of research it is important for the researcher to first of all determine the research question to which an answer is sought. Usually the main research question is reflected or embedded in the very title of a research project or thesis as is the case in this
thesis – "The Impact of Information and Communications Technologies on the Local Muslim Community in Leicester". Therefore, reading the title of this thesis, one realises that there must be several questions that need to be answered to justify and address the title of this thesis. The outstanding questions, which themselves have sub-questions, are quoted below:

- Firstly, to look at the impact of ICT on the local Muslim community and to consider if it is positive or negative or is it a mixture of both. If it is a mixture of both, then do the benefits outweigh the harms or do the harms outweigh the benefits from the Islamic point of view and what is the attitude of the local Muslim community towards this ‘Western technological revolution’?

- Secondly, Do the Islamic scriptures make any reference to computing? How does the Islamic faith provide guidance in dealing with some of the negative impacts of ICT on Muslims and if any re-thinking is required by Muslim scholars to address the new issues raised by the computing revolution.

- Thirdly, What are the specific threats posed by the ICT revolution to Muslims or the Islamic faith and whether in fact it is proving a powerful tool for better understanding of the Islamic faith/values. What does globalisation mean for Muslims? What is the role of satellite television in the Muslim world?

- Fourthly, How are the cross-cultural transfer of technology issues affecting Muslims (adult or children) in coping with a technology essentially developed in the West and whether there are any special cultural or religious reasons behind the apparent slow take-up of technology by Muslims. What does e-government and e-commerce mean within an Islamic environment and can it succeed? What is the response of Muslim women to computing?

- The fifth important question is, How is ICT revolution affecting the fundamental nature of Muslim communities which are normally collectivist in nature!

Another very important aspect of any research is to consider why such a research has been attempted in the first place. Is there any previous research on such a topic? If so, is it a
research that has been carried out in only one part of the world or has there been any international contribution made to it? Having been part of the Centre for Computing and Social Responsibility at De Montfort University in Leicester, this researcher discovered that while there had been considerable research carried out in the USA, the UK and Europe, there was little or no proper research carried out on the impact of ICT in relation to Muslim communities either locally, nationally or internationally. Only some papers from the USA (Siddiqui, 1998, Mazrui, 1998 and Alwani, 1998) were found. A more recent contribution was made by Yousif (2002) in Brunei. It was therefore decided to carry out this particular research by combining both the Western scholarship and the Islamic scholarship (including studying Islamic scriptures – Al-Qur’an and Hadith) in order redress some of the vacuum that was discovered. This also raised the prospect that an academic contribution to knowledge could be made to both Western and Islamic scholarship.

1.3 Aims and Objectives

1.3.1 Aims

The aims of this research are:

- To gain understanding of the impact of computing revolution on people and cultures particularly within the Muslims community.
- To consider some of the reasons for the lack of research combining Islamic and Western academic scholarship.
- To investigate the nature of Muslim response to the current technological revolution.
- To look at issues of cross-cultural transfer of technology specifically in relation to Muslims and why knowledge of cultures, faiths and sensitivities is important to all academics.

1.3.2 Objectives

The overall objectives of this research are:

- To conduct a comprehensive literature review of research areas related to this thesis.
- To study the impact of ICT on a local Muslim community (collectivist community), the propagation of the Islamic faith and its wider implications.
• To study the appropriate research methods available and develop them further within the context of thesis.
• To identify potential areas of research that have not received sufficient attention.
• To conduct two case studies focusing on the impact of ICT on the local Muslim community in Leicester.

In the process of meeting the above objectives other issues arose. For example whether some individual Muslims were using ICT for wrong purposes as crime through the Net is a well-known problem generally in the world whether it is financial, pornography, or even terrorist networks. The ICT revolution is offering opportunities to the good and the bad alike. Another issue that arose is whether any Muslim scholars have provided or attempted to provide a definition of Computer Ethics from the Islamic point of view. Additionally, it was necessary to consider and understand the complexities of carrying out research within Muslim communities.

Finally, an indirect objective of this research is to raise awareness of Western scholars to contributions made and being made by Muslim scholars to various academic fields and now even computer ethics. This is demonstrated in the literature review chapter 2 where some quotes from religious scriptures can be seen and some contributions from Islamic academics. Sharing knowledge is very important if a new cohesive world society is to emerge. For example, there is a sizeable body of knowledge with the Chinese world, with the Arab and Muslim world and the Western world. Open minded academics have to consider and accept appropriate knowledge whichever source it may come from and reference it appropriately. Knowledge from religious scriptures (Torah, Bible or Al-Qur'an) and research carried out by religious scholars whether Jewish, Christian or Muslim, should not be under-rated. Western readers, scholars and administrators need serious awareness of the sensitive issues relating to Muslim communities when dealing with them or carrying out any research or action in those communities. The criticisms faced by American and British soldiers in Iraq is a visible example of lack of awareness of Muslim
sensitivities on the international scene. Combining research from Western and Islamic academics can therefore prove beneficial for society at large.

1.4 Conclusion and Structure of Thesis

In this chapter a background to the Muslim community in Leicester has been presented, the research questions have been stated in order to focus on the research and the aims and objectives of this research have been discussed.

Chapter 2 is the literature review and highlights the various types of literature that have been encountered both from Islamic and non-Islamic sources and their bearing on this research. Chapter 3 on research methodology explains some of the research methods available, and some aspects of Islamic research methodology are explained which have a strong bearing on any research carried out within a Muslim community. The reasons for the choice of case study methodology and the two case studies chosen are also explained. Chapter 4 provides a detailed account of the results of the case study research in respect of a local educational institution in a densely Muslim populated area of Leicester. This is followed by a detailed account of the second case study (chapter 5) which was a Muslim family within the same densely populated Muslim area of Leicester. Chapter 6 is a synthesis chapter where the results of the two case studies have been brought together and evaluated to examine how effective and suitable the two case studies have been in investigating the research issues. Chapter 7 is a conclusion of this thesis.

There is an urgent need for Muslim and Western academics to join hands to bring cooperation and understanding between the Muslim and the Western world. This thesis is an attempt in that direction and is expected to be very useful groundwork for further research in ascertaining how technology can be harnessed for the benefit of human society taking into account views from the global society, Muslim and non-Muslim, male and female and finally the end-users who actually put the available technology in use and action.
CHAPTER 2

Literature Review

2.1 Introduction
Before embarking on the literature review, it is important to reiterate the purpose and focus of this research. As indicated in some detail in the aims and objectives (chapter 1), the central purpose of this study is to try and understand how the computing revolution is affecting society with a focus on the local Muslim community. How is the local Muslim community coping with everyday life under the growing influence of what is essentially a technology developed in the West which clashes in its ideology with Islam and what are its possible wider implications for the rest of Muslims and consequently the global community. The literature review has therefore been approached from three main perspectives. Firstly, that of philosophers and ICT professionals who have taken a philosophical or professional approach and written extensively on computer ethics. Secondly, that of sociologists or academics engaged in sociological work who have written about methods of studying communities and the sociological implications of the computing revolution. Thirdly, that of Muslim scholars or Muslim academics or Muslim professionals who have approached the subject from the Islamic perspective. There is additionally a consideration of issues of cross-cultural transfer of technology, globalisation, women in computing and e-commerce. The section on Islamic approaches is clearly the longest in view of the focus of this research. The three approaches are not mutually exclusive.

2.2 Computer Ethics – Philosophical/ICT Professional Approaches
Computer ethics or information and communications technology ethics (ICT ethics), which has lately become a commonly used concept, is a relatively new branch of applied ethics. It has already resulted in series of conferences, eg. the ETHICOMP and CEPE and some new journals like Ethics and Information Technology, Australian Journal of Professional and
Examining the whole field of the study of computer ethics, it appears that over the past few years wider contribution to this field has been made by scholars from China (Wu, 2002), Japan, India and several European countries, but the input by Islamic scholars to this important field is still very scanty. Some notable contributions made by way of research papers appear to be mostly from the USA, for example Siddidqui (1998) and Khan (1998) who are members of the Association of Muslim Social Scientists in America. References to their work is made later in this chapter. More recently a research paper from Brunei (Yousif, 2002) was found to be a good contribution to this field.

Some debates are now beginning to emerge on Arab satellite television broadcasts for example ‘Islam and the Internet’, IQRA channel, (2002) and ‘Jeel Al-Internet’ (The Internet generation), Al-Jazeera channel (2002), which would suggest that interest in this area of study is growing. Regretfully, no such debate has been noticed so far on Indian or Pakistani satellite channels, possibly due to the type of audience they serve. As a result of encouragement by this researcher, however, one conference and two seminars have taken place at the Islamic Centre, Leicester where the majority of the devotees are of Indian or Pakistani descent (Begg, 1998b).

2.3 Computer Ethics – Some Definitions and Discussion

It is important to understand the meaning of the word Ethics before going on to discuss computer ethics. One dictionary definition of the word Ethics (New English Dictionary, Collins), is the “science of morals, moral principles, rules of conduct.” There are various definitions of computer ethics provided by different authors, which are discussed in this section.

The term “computer ethics” was not commonly used until the mid 1970s when Walter Maner began to use it. He defined this field of study as one that examines “ethical problems aggravated, transformed or created by computer technology”. His explanation
and views were that some old ethical problems were made worse by computers while other problems were actually created through the use of computer technology (Maner, 1996, pp. 137-154). He suggested that we should use traditional ethical theories of philosophers, such as the utilitarian ethics of the English philosophers Jeremy Bentham and John Stuart Mill where the overall strategy is to bring about the greatest benefit and least harm for the greatest number of people or the rationalist ethics of the German philosopher Emmanuel Kant who regarded respect for a person the central concept of his theory (Bynum and Rogerson, 2004, p.13). However, a question arises, since technology is now being used around the globe by people of different cultures and religions who may not have been influenced at all by Western philosophers, of whose moral philosophy they should follow.

Deborah Johnson (1995, pp.1-7) writes that computer ethics studies the way in which computers pose new versions of standard moral problems and moral dilemmas, exacerbating the old problems, and forcing us to apply ordinary moral norms in uncharted realms. In a way similar to Maner, Johnson adopted the “applied ethics” approach of using procedures and concepts from utilitarianism and Kantianism. However, unlike Maner she did not believe that computers create wholly new moral problems. She believed that computers gave a “new twist” to ethical questions which were already well known. As in the case of Maner, she too does not mention whose philosophy people in China for example should apply to computer ethics. A notable contribution in this direction has been made by Wu (2002) through his PhD thesis at De Montfort University, Leicester.

Since 1985, however, James Moor’s definition has been the most influential one. He defined computer ethics as a field concerned with “policy vacuums” and “conceptual muddles” regarding the social and ethical use of information technology. Moor said that computer technology is genuinely revolutionary because it is “logically malleable”. The computer is the nearest thing we have to a universal tool. The limits of computers are largely the limits of our own creativity (Moor, 1985, pp.266-279). Moor’s explanations
acknowledges that there is a universal twist to the use of computers and hence the need to appreciate computer ethics globally, although he does not directly go in this direction.

In 1989, Terrell Ward Bynum developed another broad definition of computer ethics and, according to his view, computer ethics "identifies and analyses the impacts of information technology on social and human values like health, wealth, work, opportunity, freedom, democracy, knowledge, privacy, security, self fulfilment, etc". Bynum (1999, p.17), as quoted in Bynum and Rogerson (2004, p.14), acknowledges that "even though the computer revolution is often described as 'technological', in reality it is fundamentally social and ethical. We are entering a generation of globalisation and ubiquitous computing. We are, therefore, in an era of 'global information ethics'." This is a view also expressed by Gorniak-Kocikowska (1996. p.179) where she writes that:

"The very nature of computer revolution indicates that the ethics of the future will have a global character. It will be global in a spatial sense, since it will encompass the entire globe. It will also be global in the sense that it will address the totality of human actions and relations."

We thus see the direction towards global computer ethics which clearly necessitates involvement of scholars from around the globe and from a wide variety of cultures to make a contribution to this field. This view is fully shared by this researcher, hence the work presented in this research thesis.

Donald Gotterbarn has been a strong advocate for computer ethics since the 1980s to be viewed as a branch of professional ethics, concerned primarily with standards of good practice and codes of conduct for computing professionals. Gotterbarn (1991, pp. 26-31) as quoted in Bynum and Rogerson (2004, p.14) writes:

"There is little attention paid to the domain of professional ethics – the values that guide the day-to-day activities of computing professionals in their role as professionals. By computing professional I mean anyone involved in the design and development of computer artefacts. The ethical decisions made during the development of these artefacts have a direct relationship to many of the issues discussed under the broader concept of computer ethics".
The need for professional ethics is a shared concern within the global society. The new IMIS Code of Ethics was published in the December, 2000 issue of ETHIcol. This code implies that the computing professional has a wide range of demanding obligations to fulfil in the course of his or her working life. According to Rogerson (2001, pp.25-6), “it is simply not good enough to comply with your contract of employment or commission. Being a professional is much more than this”. The code’s first principle calls on professionals to “uphold the health, safety and welfare of wider society, future generations and the environment”. According to this researcher, however, professional ethics is not the only important dimension of computer ethics. Other international dimensions of computer ethics need to be considered and are further discussed later in this chapter.

Looking to the future, according to Weckert (2001, p.42),

“Nano-technology and quantum computing have the potential to radically change information technology. If these technologies are successful, and there are signs that they will be, computers will become very, very small, very, very fast, and have an enormous amount of memory relative to computers of today. This is creating excitement in some quarters, but anxiety in others”.

As the developments in nano-technology and quantum computing will have further enormous implications on society (nano-technology is used considerably in the medical field), the definition of computer ethics may change and have whole new dimensions to it. For example, computer ethics within the medical field could become a specialised branch of computer ethics. “On the continuing evolution of computing technologies we are not supposed to see or sense, technical advances have been swift, but the surface is barely scuffed” (Crawford, 2002, p.5). “Ubiquitous computing technologies not only enable new ways of acting and interacting, but also stimulate fundamental reassessments of the meaning of human action and interaction. In some cases, social actions will occur in entirely new ways, and in other cases completely new social actions will appear” (Jessup and Robey, 2002, p.88). There is, therefore, a possibility that future definitions of computer ethics will require some re-thinking and revision.
2.4 An Islamic Definition of Computer Ethics

In view of the discussion above, and as no previous definition could be traced from the Muslim world, the questions that arises is: What is the Islamic definition of computer ethics, or has any Islamic scholar provided any Islamic definition of computer ethics? This question was put to Imam Shahid Raza, a leading Islamic scholar in UK (on 22nd September, 2002) and an appropriate definition was jointly agreed as:

"Moral principles or rules of conduct which at least for Muslims should be tied to the Sharia Law (Islamic law) in the use of computers or production of software that are run on the computers" (Begg and Raza, 2002).

An explanation to this effect is that while Muslims are expected to comply with the law of the land they living in, as Muslims they are expected to respect and observe Sharia laws for their wellbeing. According to the Islamic faith, Al-Quran and Hadith (Traditions of Prophet Muhammad, sws) “are for Muslims the ultimate source of guidance to man which have ‘in-built’ mechanism to deal with any period of time and any new developments in sociological or scientific revolution” (Okinola, 1999). As such it implies that computer ethics for Muslims will be guided by the injunctions from these sources rather than a wholly new morality of the sort Maner (1996, pp137-154) hypothesises, namely that “the global point of view considers computer ethics a set of comprehensive and innovative values or principles that need to be and should be constructed or observed by all those who are living or would live in the ever expanding cyber space”. According to Raza (2002b), as far as non-Muslims are concerned, they have to be guided by the law of the land they are residing in and follow the moral principals of their own individual faiths or teachings of moral philosophers in their own countries in their personal lives. It has to be understood that Muslims are expected to observe the law of the land (whether the state is Muslim or non-Muslim) and respect and observe Sharia law. Non-Muslims on the other hand if living in a Muslim state are expected not only to observe the law of the land but also Sharia law whereas if they live in a non-Muslim land, Sharia law has no bearing on them whatsoever.
2.5 Global Computer Ethics

The importance of global computer ethics as indicated in the earlier section was highlighted by Gorniak-Kocikowska (1996). For the first time in history, she noted, efforts to develop mutually agreed standards of conduct, as well as efforts to advance and defend human values, are being made in a truly global context. “For the first time in the history of the earth, ethics and values will be debated and transformed in a context that is not limited to a particular geographical region, nor constrained by a specific religion or culture” (Gorniak-Kocikowska 1996, p.179). This view is shared by Bynum (1999) and by this researcher. Gorniak’s predictions appear to be coming true as there is increasing interest in this subject around the globe. Scholars from different countries and belonging to different cultural backgrounds (including some Muslims) now take part in international conferences such as the ETHICOMP and IADIS (International Association for Development of the Information Society).

Muslim have expressed the enormous benefits of the Internet when properly used but also the need to have some rules and regulations governing the use of this medium (Al-Saggaf and Begg (2003) and Begg (1998b)). Imam Raza (2001a) highlighted these concerns during a BBC programme when he expressed the view that there is a “strong need for consultation with various communities now settled in the UK before the government imposes the use of computers for everyone living within these Islands”. These debates are ongoing.

Ethical issues raised by ICT in relation to people belonging to other faiths and cultures is, therefore, an important area to be considered in terms of global computer ethics and to understand what bearing that may have on ICT industry in the Western world where ICT has been developed and is being further improved. The most serious concern from the point of view of this researcher is that today computer technology is equally available to the academic, the peace-maker, the terrorist and the paedophile. How can it be controlled or channelled for the good of the global community rather than its destruction? Since trust
plays a very important part in the positive development of any society, whether technology is directly in use or not, the issue of trust is discussed in some detail in the next section.

2.6 Trust

"From an Aristotelian point of view, an important component of leading a good life and human flourishing, is friendship. Trust is central in friendship and human flourishing" (Weckert, 2002, p.1). For a family or community or organization or indeed a country to flourish, trust must play a central role in relationships, functions and activities. Without trust even some of the basic roles can suffer, for example husband and wife or parents and children. "Given that an increasing percentage of our lives is being spent on-line, trust in this environment is also becoming of more concern" (Weckert, 2002, p.1). Islamic philosophy too places a very heavy emphasis on trust. This can be understood by the very fact that one of the complimentary names of Prophet Muhammad (sws) was Al-Ameen – The Trustworthy. People used to leave their valuables with him when they went away on a journey with complete confidence that they would get them back intact on their return. This in turn proved to be a very important component of the personal standing of Prophet Muhammad (sws) at the later stage when he declared that he was the last prophet of God (Allah). It had become easier for some people at least to accept him with full trust that he indeed was the last prophet of God. People’s full trust in him and his own full trust in God proved the central force of his success in spreading the message of Islam (Al-Haqqani, 1993).

In today’s world on-line trust presents a confusing picture. Often there is thought to be too little trust in this environment, and this has produced a variety of methods and suggestions aimed at creating trust, particularly in e-commerce, for example eBay’s “Feedback Forum” – on prices realized in online auctions. Basically, an abundance of positive comments can increase a buyer’s willingness to pay premium prices (Ba and Pavlou, 2002, p.243). While the trust premium decreases as the transaction value increases, it is still a significant amount of money that consumers are willing to pay to a trusted seller which indicates the sellers
have an incentive to be trustworthy, and trusted sellers may receive higher profit margins, which may be the difference between success and failure in highly competitive on-line markets (Strader and Ramaswami, 2002, p.45). In contrast and interestingly in some traditional Arab communities, the word of mouth given to another person is, even today, much more reliable than any written contract in any business transaction or any e-commerce transaction or indeed any feedback forum. This is because in business conduct Al-Qur’an provides a fundamental instruction to business participants, “Cursed are those that deal in fraud”, and further “Give just measure and cause no loss to others by fraud, and weigh with scales true and upright” (Al-Qur’an 26:181-183). There are further explanations in Al-Qur’an in various chapters that those who deviate from honesty towards dishonesty and untrustworthiness would face serious problems in this world and certainly severe punishment in the hereafter. According to Islamic philosophy, therefore, trust is inculcated through fear of God, respect for others and eventual accountability. Kant’s philosophy of respect for persons appears to be close to Islam as according to him one must always respect the worth and dignity of a person, and never merely use him or her. Lies and cheating, for example, would be unethical because they involve merely using other people to achieve your own goals. Failure to uphold the rights of someone would be unethical because it would not show proper respect for that person, and it would not allow the person to be a responsible agent taking responsibility for his or her own life (Bynum and Rogerson, 2004 p.58).

In today’s global community not everyone conforms to religious values. Even in the Muslim world where the Internet is now being widely used both for religious propagation and e-commerce, comprehensive security systems have to be put in place to create trust. Sometimes, however, there seems to be too much trust in technology and many people are deceived, hurt and even harmed (Weckert, 2002). On-line fraud cases appear almost daily in the press and media for example (BBC, 2002).

O’Neill (2002), has expressed a different view of trust in another context,
"revolution in accountability has not reduced attitudes of mistrust, but rather reinforced a culture of suspicion. Instead of working towards intelligent accountability based on good governance, independent inspection and careful reporting, we are galloping towards central planning by performance indicators, reinforced by obsessions with blame and compensation. This is pretty miserable both for those who feel suspicious and for those who are suspected of untrustworthy action – sometimes with little evidence".

On the opposite side of trust lies surveillance in the work place with the use of technology which is becoming more and more common (Fairweather, 2000). Trust discussed here is referring more towards administrative matters. The comment that ‘accountability’ has not reduced attitudes of mistrust is, however, noteworthy. Hence the Islamic philosophy of ‘ultimate’ accountability on the day of Judgement would appear to be the ‘ultimate’ answer against being untrustworthy whether in person or on-line. Regretfully, however, even within Islamic environments, mistrust is rife despite the knowledge of this ‘ultimate’ accountability or perhaps because of a lack of belief in it. For example, using credit cards for payments through the Internet is still unpopular for instance in Pakistan as indicated by a bank manager in Lahore (Khan, 2003). It is possible that some Muslims fear that credit cards are a path towards usury. Some Muslims who are concerned about the security aspect of their card details and usury much prefer cash transactions. Credit cards are used much more in the UK, for example, even though credit card fraud is on the increase. Fraud through UK credit and debit cards costs over £1m a day (BBC, 2003). So how can trust flourish in society? Good education coupled with moral and religious education are the nearest solution to achieving a reasonable degree of trust according to this researcher’s opinion. In Malaysia for example, children who do not want to go through religious education have to take Moral Studies as compulsory part of their secondary education (Ward, 2002).

2.6.1 Privacy, Accuracy, Property and Access (PAPA)
The definition of computer ethics from various sources was provided earlier in this chapter together with some of the views on why a certain stance was taken. In an interesting and well quoted article Mason (1986, p.1-13), discusses, “Four Ethical Issues of the
Information Age", Privacy, Accuracy, Property and Access, where Mason (1986, p.5), represents these with the acronym “PAPA”. These four ethical issues are clearly critical in the new millennium as reliance on technology continues to grow. Firstly, privacy is considered.

Electronic information networks offer extraordinary opportunities and advantages to government, business and individual citizens in terms of power, capacity, speed, accessibility and affordability. These capabilities, however, present substantial privacy issues as an unprecedented amount of data is now available in digital format which is easier to access, manipulate and store, with the result that others may know more about you than ever before. Governments have responded to these new challenges to personal privacy in a variety of ways. At one extreme, the European Union in 1995 enacted sweeping regulation to protect personal information but, at the other extreme, privacy law in the United States and many other countries is fragmented (Cate, 2002). In the UK the Data Protection Act, (1998) has gone some way in ensuring privacy and protection of personal data but is by no means an absolute protection.

According to Mason (1986, p.5),

“If privacy becomes a joke in cyberspace, then the medium will be shunned by both providers and consumers as being too risky to entrust with personal or proprietary data. In the same vein, if accuracy cannot be trusted on-line, the only solution would be, regrettably, to reject this mode of communication as being too risky. Universally free information, while superficially attractive, would grind to a halt most sharing of new and old knowledge. This is obviously not an option. The most dangerous if ignored, is the assurance that all people have access to information. For this is increasingly becoming the most valuable commodity in our society. And as we seem to be becoming more divided by education, economics, and understanding every year, an inequitable division of this treasure is a formula for disaster”.

The events of 11th September, 2001 and the aftermath can perhaps be viewed in the above context as many commentators and media reports have highlighted inequity and injustice in
world politics and inequitable wealth distribution as the main reason for the emergence of terrorist networks.

The four issues (PAPA) highlighted by Mason (1986), are not the only four issues of concern. Since computing is the central technology at the disposal of the good and the bad, debates in the West on computer ethics which are varied and even conflicting with one another in terms of their perspectives are likely to continue. It is encouraging to note that such debates have now begun to appear in Muslim countries as highlighted earlier. PAPA is now examined in more detail from the point of view of Muslim communities.

2.6.2. PAPA and Muslim Communities

PAPA is now examined from the point of view of Muslim communities to determine what the relevant issues are.

2.6.2.1. Privacy

The use of the Internet within Muslim communities is growing (Whitaker, 2000, p.17 and Yousif, 2002, p.126), and has some additional dimensions, for example usage for research of Islamic information in addition to all other normal usage. Case Studies 1 and 2 within this thesis discuss the impact of ICT on the local Muslim community wherein the Internet has been discussed in some detail. Privacy is a very highly sensitive issue in the Muslim world particularly in relation to the personal data of females.

Global data flows raise security and privacy issues. The following quote is pertinent.

"Global data flows may sound mundane or melodramatic depending on whether you are a stockbroker or a moviegoer. But the idea that data referring to our personal lives might circulate beyond our own country or that our ordinary email or phone messages might be intercepted is not something that occurs to us routinely. Yet to buy an airline ticket is to trigger a global data flow of personal details. And personal messages of many kinds are subject to interception by a massive electronic intelligence network that spans the globe. Even birthday greetings are subject to scrutiny" (Lyon, 2001, p.80).
Muslims do travel considerably (travel to Makkah for Hajj being a fundamental pillar of the faith) and, with at least two main festivals every year (Eid-Ul-Fitre and Eid-Ul-Adha), greetings are exchanged several times during a year and can be a matter of concern in view of the above quote.

The UK now has considerable powers within Western governments to scrutinize actions on the world wide web. This is due to the Regulation of Investigative Powers Act (RIPA) which became law in October, 2000, allowing officials to track and read emails used by individuals. Although the RIPA gives new spying powers for combating cyber crime it lacks any safety measures for protecting the individual's privacy. This is because it is very difficult to observe the actions of one e-user without observing the behaviour of many other users. Therefore, the RIPA is conflicting with the Human Rights Act 1998 which incorporates the European Union Convention of Human Rights into the UK domestic law and provides enforceable civil and political rights through our domestic courts. According to this act everyone has the right for privacy concerning their private life, family life, their home and correspondence.

For the Muslims who are spread globally and who find themselves in a precarious position after the September 11th, 2001 events in the USA, privacy has become a major area of concern. For example, 'Zakat' (charity) is one of the fundamental pillars of Islam, and Muslims are expected to pay 2.5% of their annual income towards charity, and that is usually done privately. Many rich Muslims contribute towards charities in an anonymous manner but any large flow of money from point A to point B involving Muslim donors and recipients can now raise doubts that it could be for the use of terrorist organizations. Protecting personal privacy, particularly for a large donor to legitimate charities, has become very difficult. The result is that many legitimate charities within Muslim communities are now suffering from starvation of funds because of concerns of donors that they could come under scrutiny (Raza, 2002b).
Furthermore, there are new public surveillance techniques being applied particularly in the USA after 11th September. Filming of spectators and public in public places by digital cameras and automated comparison to a database of known criminals using this advanced imaging technology appears to be the latest method in tracing and arresting such criminals. Civil libertarians claim the use of such cameras presents a serious intrusion on the right of the individual to privacy and anonymity. They insist that any acceptance of such methods be preceded by a vigorous public debate on the subject, in which society considers the delicate balance between maintaining law and order, and preserving the individual's right to privacy (Gelbord and Roelofsen, 2002, pp.23-24). These authors end their article writing:

"In the myriad of technological changes currently facing society and the host of accompanying ethical questions, such a debate has yet to seriously take place. Furthermore, the public's current willingness to sacrifice many aspects of privacy in order to combat terrorism may mean the debate on video surveillance will be put on the back burner. The danger is that by waiting too long there may be a de facto acceptance of the loss of privacy that will later be difficult to change".

For the ordinary peace-loving Muslim man perhaps with a long beard and turban (many Muslim men do have apparent similarity in appearance to Bin Laden) extensive public surveillance could well be a serious development creating dangers of unwarranted suspicion or questioning, an issue often discussed among Muslims living in the West (Pasha, 2002). Wider public debates regarding root causes of international terrorism and international unrest are clearly necessary for peace and good international relations as clearly voiced at an Interfaith Conference at the Islamic Centre, Leicester (Jillani, 2002).

2.6.2.2 Accuracy

"Misinformation has a way of fouling up people's lives, especially when the party with the inaccurate information has an advantage in power and authority" (Mason, 1986, p.5). Accuracy of computer records regarding individuals is extremely important. Accuracy of information on Muslims has become even more sensitive after the 11th September events in the United States. A Muslim lecturer from Leicester University on a conference visit to the
United States was questioned in a separate room for a long time before being allowed entry simply because he had a Muslim name which perhaps the immigration officer did not particularly like (Hussein, 2002). According to this lecturer if by coincidence his date of birth matched with someone of a similar name on the list of FBI suspects, it was quite likely that he would have been subjected to further investigation instead of participating in the conference he went for. It is important to note at this point that the method of giving names to new-born children in the Muslim world does not conform to the Western way of naming a new-born. Muslim names have no clear distinction between a first name, a surname or a family name. A common name like Mohamed can be a first name or last name depending on the way the family has named the child. For example, the first person who walks into your office could be Mohamed Ali but the very next person could be Ali Mohamed (Raza, 2002a). This can raise serious problems for people in the West who maintain accurate records of names by surname; hence the dangers of an innocent Muslim person being arrested as a possible criminal. Accuracy of computer records is clearly a very important issue in today’s world and will remain so in future.

2.6.2.3. Property

The intellectual property laws in the Muslim world have some similarities with the Western world in relation to Sharia law (Islamic law) though the application of this law is rather loose. The two sources of knowledge within the Muslim world (Al-Quran and Hadith) are not subject to any copyright laws but any other books published by Muslim authors, even though they may be explanations of Al-Quran and Hadith, can be a subject of copyright law within the Sharia law (Raza, 2000b). Similarly any software produced by Muslim software engineers can carry copyright clauses but the application of this law is not easy in the Eastern countries generally due to economic and cultural reasons.

2.6.2.4. Access.

The main normal avenue to information is through literacy. Literacy today does not mean simply the ability to read and write but also computer literacy. According to Mason (1986,
p.9-10), one must have the intellectual skills to deal with information, access to information technologies which store, convey and process information and one must have access to information itself. This requirement returns to the issue of property and is a problem in social economics. All Muslim countries are not rich apart from the Gulf States. Poverty and illiteracy are widespread within the Islamic world (Yousif, 2002, p.129). The first language is not English. All these are obstacles to access. While some Gulf States like Emirates have gone ahead and introduced e-government in Dubai already, the vast majority of the Muslim world is lagging far behind this goal (Gulf News, 1999, p.1). Very expensive software makes access to technology difficult for many people. Hence high levels of software piracy in the Eastern countries can be understood, though culture also plays a part (Ward, 2002).

While the level of access within the Muslim community in Leicester is improving, the local Muslim community is still lagging behind other communities. The Muslim community in Leicester, however, has a comparative advantage both economically and from the point of view of English literacy due to life in this country. This cannot apply, for example, to a Muslim community in a small town in Africa or Bangladesh. This section is concluded with a quote from Bynum and Rogerson (1996, p.135) as quoted in Bynum (1999, p.17).

"Even though the computer revolution is often described as 'technological', in reality it is fundamentally social and ethical. We are entering a generation marked by globalisation and ubiquitous computing and hence into an era of 'global information ethics'. The stakes are much higher, and consequently considerations and applications of information ethics must be broader, more profound and above all effective in helping to realize a democratic and empowering technology rather than an enslaving and debilitating one”.

This researcher is in agreement with the comments of the above authors and has undertaken this research with the expectation that it will go some way towards highlighting the position of Muslim communities.
2.7. Sociological Approaches

Western sociologists and academics engaged in sociological research have written on the impact of the computing revolution on society and have thus made direct and indirect contributions to computer ethics. Kling (1991, preface, p.xiv), states that "Computer systems are not only a powerful technology, but also a powerful factor in social change."

Various groups advance visions of computerization in many settings, from workplaces to the networking of nationwide financial operations. The Muslim presence on the Internet is becoming more and more prominent - one only needs to search under 'Islam' and that can lead one to endless information on Islam and Muslim groups operating on the net (Begg, 1998b). Even traditional Islamic environments are now being transformed through technology. For example, live pictures of Friday prayers from Makkah and the annual pilgrimage (Hajj) in Saudi Arabia are beamed across the world by satellite and through the Internet. This does not, however, necessarily mean that all Muslims themselves are using the Internet so extensively. Indeed there appears to be quite a gap between information about Islam on the Internet, and the active participation by adherents to the faith, though the pattern is changing. According to Kling (1991, preface, p.xiv):

"Visions of groups on the net are designed to serve particular interests and sometimes to restructure parts of society (perhaps not always in ways that are anticipated). Since computerization usually requires that social practices be altered (and may even facilitate altering them), it is a subtle but important catalyst for social transformation".

The above quote holds good when it is considered that the Internet carries vast volumes on Islam including from minority Islamic groups pushing forward their own school of thought often much to the annoyance of the majority groups, for example the presence of Ahmadiya minority group on the net and Sky television channel 817.²

² (Raza, (2003) describes Ahmadiya as a minority group who are not recognized by the rest of the Islamic world as 'acceptable Muslims' as they deviate from the fundamental belief in Islam that Prophet Muhammad (sws) is the last prophet of God (Allah). They claim that there can be another prophet like their own spiritual leader Mirza Ghulam Ahmed (deceased).)
Another impact of ICT is that email and chat room facilities through the net have increased social interaction between male and female sections of even a traditional Islamic society environment as in Saudi Arabia (Al-Saggaf and Begg, 2003).

According to Appadurai (1998, pp. 195-196),

"These new forms of electronically mediated communications are beginning to create virtual neighborhoods, no longer bounded by territory, passports, taxes, elections, and other conventional political diacritics, but by access to both the software and hardware that are required to connect to these large computer networks. Thus, in the context of the destruction of the Babri Mosque in Ayodhya (India), by Hindu extremists on 6th December, 1992, there was an intense mobilization of computer, fax, and related electronic networks, which created very rapid loops of debate and information exchange between interested persons in the United States, Canada, England, and various parts of India."

This is even more evident today due to the conflicts in the Middle East since the use of the Internet and satellite television has now grown considerably around the globe. The implications are both positive and negative. Any atrocities can now be highlighted immediately through these media but at the same time can bring immediate violent response to events, for example an attack on an Imam’s house and a mosque in Sydney in response to the Bali bombing (ITV News, 16th October, 2002, 7.00pm). Another important development noted by this researcher is in the growth and response to electronic petitions. This researcher received several electronic petitions against the war on Iraq during the month of February and March, 2003. Organisers of electronic petitions claim a huge success (moveOn.org, 2003).

The use of the Internet is dependent on the education level of the users. Children who are growing up with computers both at home and at school are more likely to be computer literate compared to their parents, who may not have had any contact with computers. The level of computer literacy therefore determines the usage of the Internet by an individual.

"More educated people use the Internet more actively and their use is more information oriented, whereas the less educated seem to be interested

Responsible Muslim groups on the Internet and most Islamic organisations are trying hard to portray a more real image of Islam considering that the Western media has often been hostile towards Muslims - an issue often raised by Muslim scholars in Islamic conferences, for example Pasha (2002 and 2003b). This can be in response to commentators who express concern that some extreme Islamic groups are using computer networks to plan their terrorist activities (Clinton, 2001). However, one cannot ignore the fact that paedophiles too are using computer networks to pursue their criminal activities within Western nations, a well recognized crime within the UK and the USA (ICF, 2001).

One of the difficulties faced by society is perhaps the speed at which technology is moving. "Self-accelerating technologies like computers that make faster computers, for example - may have a destabilizing effect on society. Constant technological revolution makes planning difficult, and a society that stops planning for the future is likely to become a brittle society. It could experience violent economic swings. It could trip into wars fought with vicious new weapons. Its pervasive new technologies could fail in massive or horrible ways. Or persistent, nagging small failures could sap the whole enterprise" (Brand, 2000, p.69).

To add to the concerns expressed above, there is the threat of a new syndrome which needs to be examined.

“Drugs, alcohol, sex and violence have haunted humanity for centuries. But with this new age has come a new kind of addiction. It can make people to abandon their work, their spouses, their children while they sit alone for hours on end talking to strangers via the computer. This is a new syndrome which is called ‘Internet addiction’. Internet addiction is real. Like alcoholism, drug addiction, or compulsive gambling, it has devastating effects on the lives of the addicts and their families: divorce, job loss, falling productivity at work, failure in school, and in extreme cases, criminal behaviour. The problem has already reached epidemic proportions in the United States, and the number of ‘netaholics’ continues to grow rapidly as more households and businesses go on-line” (Reed, 2002, p.131-132).
According to Young (1998, p.13), “The Internet just might be emerging as the addiction of the millennium surpassing even television with its pervasive grip on our minds and souls”. An article by Neumann (1998, p.148) entitled, “Are Computers Addictive”, provides a useful insight into this ‘Emergence of a New Clinical Disorder’, as quoted in the above article.

Internet addiction is becoming a serious social problem as discussed above. A question therefore arises whether Internet addiction is entering the Muslim world or has it already entered the Muslim world. No formal research appears to have taken place so far on Internet addiction within Muslim communities although some short articles are beginning to appear (for example, Bayat, 2002). In his article, ‘The Internet and Shaytaan (Satan)’ Bayat (2002), writes:

“Is it sheer coincidence that the Internet and WWW (WorldWideWeb) contain the words ‘NET’ and ‘WEB’? Now picture a person trapped in a net, battling to get out. Also try and imagine a fly caught in a web, struggling to escape. Since the crisis is visible and tangible in the above cases, sympathy is felt and help may be rendered if required. But there is another NET, a WEB, much stronger and highly invisible, which traps its hapless ‘victim’, far from wanting to escape, actually begins to enjoy and relish this ‘captivity’. Yes, this sticky Web, this unseen NET is none other than what is called the INTERNET, its WWW and its ‘chat rooms’.”

Bayat (2002) provides an Islamic principle of conduct for this addiction and according to him, “A Muslim must be concerned that being ‘connected’ to the ‘Net, must not ‘disconnect’ him from Allah (God) and being ‘on-line’ should not take him ‘off track’ from the ‘Straight Path’.”

This researcher largely agrees with this view. It must, however, be pointed out that such advice can only be heeded by those Muslims with a sound knowledge of Islam and observance of its practices. There is a vast population of young Muslims now growing up in the West and many are rather lukewarm in their beliefs and practices and it is unlikely that such advice would ‘correct’ them straight away, as firstly they would need to
understand the proper teachings of Islam; only then they will be able to appreciate the depth of this philosophy. Indeed overuse of computers and lack of understanding of the real teachings of Islam may well produce new brands of what is today an often branded term 'Islamic terrorists', much to the annoyance of the vast majority of Muslims around the globe who believe in peace, justice and tolerance as the real face of Islam.

Radical new technologies are often seen as moral threats by conservative religious groups. For example gambling, which is prohibited in Islam, has been further facilitated for citizens of the world through Internet gambling. Internet gambling has increased steadily, with many new online casinos operating from countries having little or no gambling regulations (Neumann, 1998, p. 112). While gambling is prohibited in Islam, some rich Gulf Arab Sheikhs have been well known for their extravagant gambling sprees at American casinos, which can raise the possibility of Internet gambling easily entering the homes of Arabs and other rich Muslims. No formal research is available on this issue so far from the Muslim world but this researcher does believe that this danger is real. It is perhaps understandable why Saudis have been reluctant to introduce open access to the net in Saudi Arabia, though mostly the dangers of pornography are highlighted.

A filtered version of the Internet was made available to the public in Saudi Arabia as late as the middle of 1999 after many deliberations within the Saudi authorities (Al-Saggaf and Begg, 2003). A sharp difference in attitude is highlighted in a recent study of the attitudes of young people using on-line chat rooms in Saudi Arabia (Al-Saggaf et al, 2002). One of the main aspects mentioned was that on-line forums facilitate communication across gender lines, something that should not be underestimated, given that such communication in off-line life is not encouraged. A serious problem with this, in the view of Saudi Arabian society, is that communication across gender lines on-line facilitates the development of love relationships, not encouraged before marriage. As a result of a few cases, some Internet cafes were closed (Whitaker, 2000, p. 17).
Living too much in the virtual world and particularly as a means of escapism is not recommended in Islam. The Islamic teachings and indeed Christian teachings recommend being part of a community and propagating "community spirit" (Cybernauts Awake, 1999). Living too much in cyberspace can affect one's personality considering the following quote from Turkle (1997, p.184).

"(In cyberspace) You can be whoever you want to be. You can completely redefine yourself if you want. You can be the opposite sex. You can be more talkative. You can be less talkative. Whatever. You can just be whoever you want, really, whoever you have the capacity to be. You don't have to worry about the slots other people put you in as much. It's easier to change the way people perceive you, because all they've got is what you show them. They don't look at your body and make assumptions. They don't hear your accent and make assumptions. All they see is your words".

Another view by Rheingold (2000, p.19) is that:

"In cyberspace, there is no need to move about in a body like the one you possess in physical reality. You may feel more comfortable, at first, with a body like your 'own' but as you conduct more of your life and affairs in cyberspace your conditioned notion of 'body' is something quite disposable and, generally, limiting".

Yet another view of community in the age of computer networks is developed through a reliance on depicting geographic or compositional community.

"Computerization thereby reduces the 'place centred' function of cities by limiting accidental contact among strangers. As it becomes possible to conduct economic and other affairs without entering into the company of strangers, we lose both cross-cutting ties and one of the bases of democratic public life – the possibility of mutual assembly" (Holmes, 1997, p.28).

According to the Islamic faith and indeed the Christian faith actually belonging to a community is regarded as the best position. Sheilds (1996, pp.6-7), however, presents a slightly different angle to this:

"Keeping a division between online and life outside of the Net requires that one maintains a distinction between social interaction in Net groups and face-to-face social interaction. These divisions are clear, but to label one activity anti-social, as some journalists have done, is an over-hasty and stereotyped conclusion. Both forms of communications are types of social interaction."
The above view, however, may be negated when considered in the light of ‘Internet addiction’ which is in any case a recognized social problem that can lead to anti-social behaviour and withdrawn personalities (Neumann, 1998, p.128). The Sufi saints (Islamic spiritual preachers who spread the message of Islam through love, peace and tolerance) say that there is no substitute for “association” for acquiring real wisdom, and marriage is regarded as “half the faith” (Hadith 3) according to the Hadith of Prophet Muhammad (sws) and early marriage is recommended as a means to protect oneself from social ills both for men and women (Al-Haqqani, 1993). Since the impact of ICT is becoming universal, it is quite possible that some of the personal identity issues raised may well filter into the Muslim world and this is why it is necessary that Muslim scholars should consider the impact of ICT on the Muslim world and what steps should be taken if the Muslim world is negatively affected by the developments in ICT. The problem of anti-Islamic websites set up under false Muslim names is another very serious issue which has been considered later in this research.

Another crude side of the Internet discovered during literature review was the media culture and Internet disaster jokes, for example graphics showing the statue of Liberty covered in Burka (Muslim woman’s veil) and President George Bush looking like a typical Afghan with a long white beard and Taliban hat (Kuipers, 2002, p. 456). Some even worse graphics and captions which this researcher did not consider fit to quote can be seen in this article by Kuipers (2002, pp.450-470). The Internet then helps the spread of such jokes across the globe almost instantaneously.

“The completely amoral tone of many of these jokes does not seem very soothing, healing or comforting. Some of the jokes are even openly hostile – not the best way of coping with any kind of trauma. Internet disaster jokes are a reflection of modern media culture. Both the form and contents of these jokes mirror today’s highly visual, fragmented, commercial, popular computerized culture” (Kuipers, 2002, pp.466-467).

Finally, under this section views of Rheingold (2000, p.14) are worth considering from sociological and economic angles when he writes:
"The technology that makes virtual communities possible has the potential to bring enormous leverage to ordinary citizens at relatively little cost – intellectual leverage, social leverage, commercial leverage, and most important, political leverage. But the technology will not in itself fulfil that potential: this latent technical power, must be used intelligently and deliberately by an informed population. More people must learn about that leverage and learn to use it, while we still have the freedom to do so, if it is to live up to its potential. The odds are always good that big power and big money always found ways to control new communications media when they emerged in the past. The Net is still out of control in fundamental ways, but it may not stay that way for long. What we know and do now is important because it is still possible for people around the world to make sure this new sphere of vital human discourse remain open to the citizens of the planet before the political and economic big boys seize it, censor it, meter it, and sell it back to us".

The above views can be substantiated by considering how many satellite television channels now operate only on a pay and view basis or annual subscription. Viewing satellite channels has become a very expensive means of getting live information or entertainment particularly if one has to subscribe to several channels. This researcher’s own view is that it is quite likely that the Internet will take this route when considered that there are many sites which require subscription before one can access them, for example matrimonial websites. Inability to afford the wider use of the Internet by the economic poor could once again turn the clock in favour of the ‘haves’ and marginalize the ‘have nots’, who may not be able to voice their views as freely. However, if media tycoons were to be asked why we have to pay so much for satellite viewing, the answer would likely be that they have to make huge investments to provide such a service and choice and therefore must make profit to sustain the service and to improve it.

2.7.1 Cross-Cultural Transfer of ICT
This is becoming a very important area of discussion and research in the ICT revolution and is an important aspect of this research. Dechant (2000) and Rose and Straub (1998, pp39-46) argue for a modified version of the Technology Acceptance Model (TAM) based on the assumption that any implementation of technology requires attention to a critical human issue - that of national culture before an organisation can reap the full benefits offered by
ICT (2.7.2). While programs used in the United Kingdom cannot be expected to conform to the cultural sensitivities of the minority local Muslim community in Leicester or indeed the Muslim community in the UK, certainly there is a great need to appreciate the basic fact that software programs produced must be user-friendly and they should be made even more user-friendly when considering that they will be used by people of various cultural backgrounds. This is a message which has already been communicated to this researcher by many Muslim scholars and even students and is therefore a very relevant consideration in this research. “Taking the lead in Licensing Software Engineers”, Bagert (1999, pp.27-29), could well be a step in the right direction particularly where software is being produced for Arab/Muslim countries. Specialised software engineers well-versed in a particular culture would be more suitable to produce software programs for the people belonging to that culture.

System developers have identified a number of factors, such as participation in design, to ensure that users will adopt the system they build (Mathieson, 1991). Research has revealed other considerations that need to be addressed along with the introduction of ICT including changes in workforce skills, work procedures, organizational structure, and strategy (Baba, Falkenburg and Hill, 1996, pp.44-46). Culture is frequently mentioned as important, but research on its impact is sparse and disparate (Hill, Loch, Straub, and El-Sheshai, 1998, pp.29-38). In fact, of all the factors to be considered in ICT adoption, culture is the one that has proven most difficult to isolate, describe and measure (Hasan and Ditsa, 1998).

“Technology enabled information sharing and knowledge creation will be influenced if not governed by cultural norms. Moreover, technology acceptance may even require that some people act in ways counter to their national cultures. If management and organisations fail to pay attention to the influence of cultural factors when planning to introduce technology, they may find that newly created repositories of information do not become the critical business tools expected but simply information graveyards. Or, that data mining may not produce the much desired innovation and insights but only meaningless facts. Collaborative tools, such GroupWare, which can be very instrumental in the exchange and
creation of new knowledge in organisations, may degenerate into nothing more than electronic reporting systems” (Dechant, 2000).

According to Straub, Loch and Hill (2001, pp.7-8),

“it must be recognised that transferring technology developed in one culture to another culture involves more than merely providing instruction about technical aspects using the equipment. Given that cultural beliefs and values are a ‘collective programming of the mind which distinguishes one human group from another’ (Hofstede, 1980, p.25), the intricate relationship between people and machines in ITT (Information Technology Transfer) means that culture impacts both how systems are designed and how they are received. Obstacles arise because people bring to the workplace what can be regarded as cultural baggage; that is, they come to their jobs with specific cultural biases about how the world functions, how their job works, and how employees and employers are supposed to conduct themselves. The computer systems they interact with can be built, and are often built, under a different set of cultural assumptions. Therefore, successful technology transfer involves communication and cooperation with the receiving country and understanding about the forms that resists transference”.

This researcher is in agreement with the above comments. Human Computer Interaction (HCI) is another important area of consideration within the study of cross-cultural transfer of technology and is discussed under Web Design for Muslim countries (Section 2.7.2).

According to Walsham (2002, p.378),

“Globalisation, facilitated by ICTs, is not leading to simple homogeneity of culture and approach. While it has been argued that culture is not static, the relatively enduring nature of cultural norms and values results from processes of reproduction of structure in mind. Thus, there is a need for practitioners to be highly sensitive to cultural difference when working in a cross-cultural context. Sensitivity to other cultures does not imply the need for practitioners to change their own attitudes and values to those of the other culture. What is needed is some understanding and ideally empathy, for the attitudes, norms, and values of others. This offers the possibility of mutual respect between cross-cultural partners and the opportunity for a move towards a more negotiated culture of cooperation”.

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Turning to the concerns of the Muslim world, Saudi Arabia nervously allowed the first public access to the Internet in 1999 and claims to have discovered the key to blocking cyber porn, gambling sites and other “undesirable material”. Computer industry sources say the Saudis' system works in two ways. First, it catches all the approved web pages in a 500 gigabyte storage system. Users get these sites from the computer in Riyadh rather than the original source on the web. This means that frequently used pages can be accessed quickly without the system having to check their suitability each time. Requests for pages that are not stored in the cache are passed to the second stage of the system, supplied by a US-based company, Websense, which lists and can filter out 30 categories of potentially unsuitable sites. Experts concede that these filters are imperfect. Nevertheless, the Saudis regard it as a major success (Whitaker, 2000, p.17).

While some complain that the main purpose of the filtering system is to block politically sensitive material, the authorities argue that it is designed to give assurance to Saudis that when they log on to the Internet their social or religious traditions will not be offended. This suggests to some observers that the Saudis' approach to the Internet may be more subtle than it appears (Whitaker, 2000, p.17).

The Internet is a borderless global technology, it is almost impossible for any country to enforce the laws or restrictions it seeks to impose on this sprawling region of cyberspace (Spinello, 2000, p.37). For a time it was unclear what attitude strict Muslims, not only in Saudi Arabia but throughout the Islamic world, would adopt towards the Internet mainly due to the fears of the clergy and community leaders based on pornography arriving on the home screens of an apparently strict Muslim society. Surprisingly, many have taken to it with great enthusiasm, deciding that it can be a 'useful vehicle for spreading their message' (Whitaker, 2000) and thereby present a more realistic image of Islam contrary to the popular image associating Islam with terrorism, presented by most of the non-Islamic media (Al-Kabbani, 1998 and Pasha, 2003b). However, Saudi Arabia's slow start may prove costly. Unlike some of its smaller neighbours it has neither Internet banking nor a legal
framework for e-commerce (Whitaker, 2000, p17 and Yousif, 2002, p.128). The current position is that an e-commerce conference was held in Riyadh from 22\textsuperscript{nd} -24\textsuperscript{th} April, 2002 (REC world-wide representation) to discuss various aspects of e-commerce. Its recommendations on what is to be implemented are not yet available.

All types of developments in Saudi Arabia whether social, economic, religious or political have a strong influence on the rest of the Muslim world which makes it necessary to consider Saudi developments for the purpose of research concerning Muslims whether in Leicester or the Muslim world as a whole. The following section explains some of the reasons why software engineers and web designers need to have some knowledge of various cultural differences in the world, particularly the Muslim world. The next section provides some evidence in this respect.

### 2.7.2 Web Design for the Muslim World

The following quote is worth considering regarding web design.

"In cultural research, culture is always viewed as a collective phenomenon. People learn patterns of thinking, feeling, and potential acting from living within a defined social environment, normally typified by country. As such culture represents ‘mental programming’ which partially predetermines a person’s behaviour. Individual consumer tastes and purchasing patterns are thus partly determined by the collective values of their local community. Negative and positive consumer reactions become more understandable and predictable when a person’s cultural context is taken into account. If we take this notion to the Web, we may then expect that people with different cultural backgrounds would respond differently to a globally generic website. Different cultural responses would have important implications for the corresponding web interface design” (Chau, Massey, Montya-Weiss and O’Keefe, 2002, p.139).

Designing any website is a demanding task when you consider the contents, links and the aesthetics. Yet the cultural aspect of a website cannot be ignored if it is to be a successful website particularly if it has been designed for e-commerce.
Barber and Badre (1998), argue that “the success of a global interface may only be achievable when the interface design reflects the cultural nuances of the target audience. They argue that culture and usability intertwine into a single entity – *culturability* – where cultural preferences and biases affect the degree of user friendliness of an interface such as background colour, graphics, and spatial orientation”. According to other authors “the colour white represents purity in the U.S. but the Japanese associate white colour with death. On the other hand the Chinese may be more receptive to a web page with red background because that colour represents happiness to them, but the US users may associate that colour with danger” (Chau, Massey, Montya-Weiss and O’Keefe, 2002, p.139).

Designing a website for a traditional Islamic country poses its own unique challenges. First of all the most popular colour in the Islamic world is green and gold – associated with the green dome on top of the burial place of Prophet Muhammad (sws) within the Prophet’s mosque in Madina, Saudi Arabia. Almost all the Quranic inscriptions within this mosque are in gold on a green background. Blue is the next most popular colour, often associated with the magnificence and serenity of the Blue Mosque in Istanbul, Turkey designed by a famous Turkish architect by the name of Sinan. On the other hand yellow and particularly orange are unpopular with the Islamic world but popular with the Indian Hindu culture as their religious colours. Most Islamic websites begin with a quotation from Al-Qur’an to win the confidence of the reader, for example (Islamicity, 2003). If the web site is connected with ladies’ fashion wear, the most popular graphic would perhaps be a fully dressed up bride in bright colours and sophisticated jewellery (a link to the above quoted site). This is in total contrast to Western ladies’ fashion website which often use graphics of scantily dressed women though it must be acknowledged that the trend, particularly in fashion websites is moving towards Western graphics even in some Islamic countries. Another important feature of particularly an Islamic e-commerce web site is likely to be “Interest-free Transactions”, as payment of interest is forbidden in Islam though today’s financial system almost forces everyone to use it and even to get into debt.
The above are just a few important features of an Islamic website from the point of view of Human Computer Interaction (HCI – a very wide area of study). They highlight the need to understand the diversity of colours and cultures in the world and why cross-cultural transfer of technology is a very important subject which hitherto has not had sufficient attention within computer technology developments despite the fact that computers are now a common sight throughout the Arab and Muslim world apart from some remote areas. The importance of understanding and application of HCI is further explained by Shneiderman (2000, pp.85-91) in his article “Universal Usability” which argues for “A universal Usability Research Agenda” on page 87.

2.7.3 Globalisation
According to Walsham (2001, p.18),

“The term globalization has achieved the unusual status, in a relatively short time, of becoming fashionable in academic debates in the social sciences, in the business world, and to some extent in the popular media. However, even a cursory examination of these sources would demonstrate that the term is highly ambiguous, and that it masks a wide variety of opinions on what is happening in the world”.

The term ‘Globalisation’ therefore, attracts various definitions and explanations. Some of these are now considered before moving further. One view, from economists, is that "Globalisation refers to growing economic interdependence among countries as reflected in increasing cross-border flows of three types of commodities: goods and services, capital, and know how" (Govindarajan and Gupta, 2000 p.275).

According to Robertson (1992, p.8), “Globalization as a concept refers both to the compression of the world and the intensification of consciousness of the world as a whole”. Walsham (2001, p.18) explains that,

“the first of these two points relates directly to the time-space compression, largely mediated by IT. The second point is, however, somewhat wider than
the earlier material, since it refers to the world as a whole rather than Western society. The wide spread of accessibility of communications media such as television, even in remote rural villages in the Third World or underprivileged urban communities anywhere, means that news of happenings in the world as a whole is available to the great majority of the world’s population”.

Beck (2000, p.10), uses the word ‘globality’, and defines it as follows: “Globality means that we have been living for a long time in a world society, in the sense that the notion of closed spaces has become illusory. No country or group can shut itself off from others”.

Sociologists can view the human diaspora as another form of globalisation with very large numbers of people living and working outside their country of origin. “Despite efforts to keep them out, an influx of immigrants is recasting Europe’s identity. European economies need more of them” (Ratenesar, 2000, p.24). These immigrants are of course not all Muslims.

Globalisation from the point of view of ICT engineers (though it may be wrong to restrict them to these dimensions) means connecting the world through technological means whether it is telephone, mobile phone, Internet or satellite television. It is in fact these technological developments that have enabled the concept of globalisation to develop.

Considering globalisation from the Islamic point of view, first of all the Arabic word for this geographical world is ‘alam’; hence the Qur’anic usage describing the Creator as ‘Rabb al Alamin’ (The Lord of the Worlds), and one of the phrases used to describe the status of the Prophet Muhammad (sws) in the Qur’an is ‘Rahmatullil-alamin’ meaning a ‘mercy to all the worlds’ (regardless of whether everyone accepts him as the last prophet or not). Describing Prophet Muhammad (sws) in such a manner clearly indicates that he had not only a global mission but a universal mission. The global nature of Islam is in fact quite visible to all of us, as Muslims can be found in virtually all parts of the inhabited world. ‘Globalisation’ is therefore not a new concept from the Islamic point of view. It is the
means through which the current process of globalisation is taking place that is different, namely the ICT revolution.

“The globalisation of Christianity started with the conversion of Emperor Constantine I of Rome in 313. The religious conversion of an emperor started the process under which Christianity became the dominant religion not only of Europe but also of many other societies thousands of miles distant from where the religion started” (Mazrui, 1998, p.1).

“The globalisation of Islam began not with converting a ready-made empire, but with building an empire almost from scratch by Prophet Muhammad (sws) over 1420 years ago” (Mazrui, 1998, p.1).

“Globalisation purely from the point of view of Muslim preachers means informing the world what Islam stands for with the aid of new technologies like the Internet and satellite television, and if possible inviting the non-Muslims into Islam” (Madani, 2000). It must be borne in mind, however, that there are still many Islamic preachers and Imams who do not subscribe too much to technology. “The movement of globalism must ride on the convergence of ideas and values, not through economic interests alone. We believe such a globalism can emerge from Islam” (Alwani, 1998, p.6). According to Mazrui (1998, p.2), “the impact of Americanisation probably has been harmful to religious values worldwide, whether intended or not. Americanised Hindu youth, Americanised Buddhist teenagers, or Americanised Muslim youngsters are far less likely to be devout adherents of their faiths than their non-Americanised counterparts”. There would appear to be some truth in these two statements as all the Muslim preachers and Imams seem to echo the same concern that youth growing up under the Western influence are not easily convinced when asked to lead a fully Islamic way of life. This researcher himself has had to deal with several young people in the past who had a clear identity crisis in their teenage period.

While many Muslims express concern regarding the American consumer culture being exported to the rest of the world including the Muslim world, according to Mazrui (1998
p.12), "the counter-penetration of Islam (through technology or otherwise) and the Muslims into the Western civilization with a significant Islamic presence may begin to reverse the wheels of cultural homogenisation. Values will begin to mix, tastes compete and perspectives intermingle as a new moral calculus evolves on the world scene". According to McGowan (2000, p.7), "The process of integration, for an immigrant-receiving society, is best described as one in which both the stream of immigrants, and the society into which it moves, take something from each other. Over time they begin to reflect one another, however dimly this may happen at first". This researcher believes that there is truth in both statements, considering how fast Islam is spreading in the United States particularly in the black community. The figure quoted on Sharja television by an American professor on 29th July, 2000 was 185,000 conversions during 1998. No formal statistics are available in the United Kingdom but there are some well-known converts to Islam, for example Yusuf Islam, the former pop singer Cat Stevens and now an internationally renowned Islamic preacher.

Globalisation is one motivation behind the use of new technologies. The global marketplace that the convergence of modern information and communications technologies is said to have engendered is seen by some as a multi-trillion-dollar treasure trove. It is open 365 days a year, 24 hours a day and is relatively free from any national border controls although there are concerns regarding what it means to different cultures and countries (Mazrui, 1998). It is important to know that in the West there is a strong anti-globalisation movement which has resulted in violent protests in many capitals where World Bank and G6/G7 summits have been held in the past (Hopkins, Dodd and Allison, 2001, p.5). In the fields of education and training, unprecedented tele-learning opportunities are helping the spread of literacy, individual professional development, and the performance of organizations. Entire libraries of free material can be downloaded across the globe with great speed including Arabic language learning facilities and Islamic teaching lessons whether by satellite television or the Net for example Sharja satellite television and (islamicity.com, 2003).
According to Siddiqui (1998), the globalised cyber market place is not worry-free for all, and the euphoria with which it has been welcomed may be misplaced to some extent, a view also expressed by the previous Archbishop of Canterbury, “Damn the dotcoms” (Carey, 2000). On one hand the Third World has the rare opportunity to do business with the richer nations of the West and thus improve its material existence and these less developed countries certainly need trade instead of aid to attain sustained development and maintain their dignity. But, on the other hand they expose their economies, polities and societies to the risk of neo-colonisation via cultural domination in the initial stages. The developing nations including Muslim nations fear losing their cherished values, which have enabled them to survive despite their poverty and technological backwardness (Siddiqui, 1998). Siddiqui (1998, p.75) says,

“that the concept of globalisation has been rigorously pushed and popularised with the help of the latest information and communications technologies such as the Internet. Globalisation comes with cultural, political, and economic underpinnings. What values, beliefs, attitudes, and behaviour are being promoted and by whom? Who has how much control over the instruments of globalisation? ICT as represented by the Internet, has given us fabulous opportunities for accessing information not easily available through traditional means. Yet at the same time, they have exposed naïve children and adults to debased music, immoral literature and pornography. The process of watering down of moral standards has begun and is sweeping across the globe in the name of modernity. What has been globalised is the decadent myopic secular culture that serves the politico-economic interests of an oligarchy”.

Filtered Internet access in Saudi Arabia (Whitaker, 2000, p.17) discussed earlier reflects the concerns of the Muslim world and even the local Muslim community in Leicester discussed in case study chapters that follow. From the point of view of this researcher, however, no amount of filtering will solve the problem: the answer lies in good moral and general education, and Muslims will have to learn to cope with these new challenges as they have done over the centuries since the advent of Islam.
The location and nature of work is changing fast and Muslims in Leicester and indeed everywhere else will have to consider how the new information society (global society or 24hrs society) cuts across Islamic rituals like performing prayers five times daily, Friday prayers and most importantly the month of Ramadhan when Muslims are expected to fast from dawn to dusk and engage in prolonged prayers at night. The globalised society could present serious challenges to the Islamic way of life and indeed some “rethinking” may be required on the part of Imams and Islamic scholars (Ahmed and Donnan, 1998). An example of this challenge is reflected in how local schools and colleges with heavy presence of Muslim students are having to re-organize teaching terms. Local mosques in Leicester during Ramadhan of 2002 have introduced various times and sessions to catch the late-night prayers, which was not necessary before (Raza, 2002b).

In many of the sociological interpretations of globalisation, the notion of culture remains of primary importance. While enthusiasts have asserted that globalisation involves the development of something like a global culture, others have been more cautious, arguing that globalising cultural forces, such as international media and communications networks, produce ‘heterogeneous’ (composed of diverse elements, beliefs and views) dialogues between different cultures (Appadurai, 1998, p.42).

The remarks by Nelson Mandela (former President of South Africa) on globalisation at the Labour Party Conference in Brighton on 28th September, 2000 are worth noting. He said, “Anyone who ignores globalisation is like a person who says that he does not know what winter is and will therefore not buy any warm clothes”. He however warned those countries who ‘in the name of globalisation are inflicting poverty on other nations’. He clearly meant the third world under-developed countries in Africa like Somalia and Sudan and throughout the rest of the world including some poor Muslim countries like Bangladesh.

As ICT in general and the Internet are playing a central role in the globalisation process, it can be argued that, “the most important single ethical issue with respect to the internet is
whether it will act in a way that further exacerbates the differences between the 'haves' and 'have nots' in our societies" (Walsham, 2001, p.170). There has been a widening gap between rich and poor people in the world, and between different countries and regions. Inequality appears to be the worst legacy of the twentieth century, accepted by IMF (2000) and a question arises whether the Net will serve to increase this inequity, providing the privileged people and countries with a further resource to enable them to enjoy the benefits of improved access to people, ideas and goods and services, whilst relegating the disadvantaged to the role of outsider (Walsham, 2001). From examining the turmoil around the globe in the present era (including terrorism), action is needed on a worldwide scale to counter these trends. This researcher agrees with this analysis.

However, for a healthy picture of globalisation for Muslims, there is a long way to go considering that a report by the Runnymead Trust "Islamophobia" (1997) painted a rather depressing picture of the fear of Islam and the Muslims in the UK and Europe. This report was, however, strongly condemned by the Union of Muslim Organisations in UK & Eire, for 'creating' Islamophobia in a reasonably healthy multiracial society in the UK (Pasha, 1999). The events of 11th September 2001 in the United States created further damage to community relations and international relations between the Muslims and non-Muslims and, as the current American war against terrorism is almost global, a true and healthy globalisation may have suffered a serious blow at least for the foreseeable future.

2.8 Islamic Approaches
As the focus of this research is on the impact of ICT on the local Muslim community in Leicester, Islamic approaches have been discussed from different angles in the following order: Muslim scholars, computing and the Qur'an, ethics from Islamic perspectives, some Christian perspectives, terrestrial television and satellite TV from Islamic perspectives, Islamic perspectives on women in computing, and Islamic perspectives on e-commerce. This is clearly the longest section in view of the focus of this study, though none of the sections are mutually exclusive.
2.8.1 Muslim Scholars

Before discussing the work and role of Muslim scholars in the Muslim world and Muslim communities settled in the West, it is important to understand that most Muslim scholars are multi-disciplinary. A Muslim scholar may have specialised in a particular area, for example Islamic law (Sharia law), but can be well-versed with other aspects of Islam for example how to lead and conduct a Friday prayer gathering in a mosque or be able to explain the Islamic position on, say, 'life after death'. This particular feature of Muslim scholars comes firstly from the Qur'an which is a multi-disciplinary book. It is treated by Muslims as a final revelation of God to the Prophet Muhammad (sws) and as an A to Z of life covering all issues relating to Muslims from the point of conception, birth, adulthood, work, marriage, having children, divorce, old age, death and finally 'life after death'.

The second reason why Muslim scholars are multi-disciplinary is the example of the Prophet Muhammad (sws) himself who was multi-disciplinary as he actually explained all details of how the Qur'anic revelations, the A to Z of life, were actually put into practice. Muslim scholars/Imams, therefore, try and emulate the example of the Prophet (sws) so that, when they stand in the pulpit on Friday congregations, they actually have to reflect the example of the Prophet (sws) by speaking on several aspects of life from one Friday to the next, which is an example of their multi-disciplinary nature. (In this respect they are broadly similar to very many ministers of other religions). The Muslim scholars mentioned in the following paragraphs are multi-disciplinary. While they may be specialised as medical doctors or international lawyers, they are equally capable of fulfilling the role of, for example an Imam to lead prayers in the absence of an appointed Imam in a mosque or at any other venue – something that is less common with Christians working in a similar field.

Muslim scholars have made notable contribution in the fields of education – scientific and Islamic, in medicine and on issues such as organ transplant and Islamic Banking/Accounting. Some outstanding names are: Siddiqui (1998) - Communications professor and Khan (1998)- Professor in Philosophy at George Washington University,

The computing revolution is seen from two distinct points of view by Muslim scholars in general - (1) its benefits to mankind including Muslims in helping spread the correct image of Islam and (2) the dangers of its morally degenerating influences on a strong Islamically guided society whether in Leicester, UK or a traditional Islamic society in Saudi Arabia. As mentioned earlier in this chapter more and more discussions and debates are now emerging on Arab satellite television channels like MBC, Iqra and Al-Jazeera. In the work of all Islamic scholars the fundamental theme is guided by the teachings of Al-Qur'an and Hadith.

When considering some of the contributions made by some of the Muslim scholars and Imams, one significant contribution has been by Siddiqui (1998, p.76) who defines technology “as a device to compensate for human physical or psychological limitations and is usually considered as neutral, but can have functional and dysfunctional aspects based on its users' intentions”.

Siddiqui recommends that Muslims should arrange to be trained in ICT so that they can ensure its proper usage in their quest to establish just and judicious societal structures. “If we remain just passive users of ICT, we become even more vulnerable to it. On the contrary, if Muslims master the genie of technology and the techniques of message design for the Internet, we have a much better chance of fulfilling the Islamic mission of establishing peace with justice for all by using ICT to realize worthy goals and objectives” (Siddiqui, 1998 p.76).
One of the issues raised through interviews with Imams and Muslim scholars was the very fast developments in publication of information on the Internet, (Raza, 2001b). This has created possibilities for all sorts of material to be published – moral and immoral. From the Islamic point of view the Internet is now offering huge possibilities of publicising the true image of Islam and breaking its popular terrorist image through Western media. This has resulted in vast amounts of literature and information about Islam now available on the Net: one only needs to search under the word ‘Islam’ to open an ocean of websites, links and pages. No one can read all that is available or all that is published new every day. But this process is not without its own dangers. Whereas there are huge amounts of Islamic material now available, one can come across anti-Islamic websites and hate websites which could be against Muslims, Jews, Christians and indeed against many other groups. This is a huge new challenge to all of us.


“Cyber Islamic Environments offer insight into aspects of Islam, Muslim identities and issues associated with the ‘Islamic’ worlds. Computer-mediated communication provides a sense of commonality, associated with shared expressions and understandings, which might be described or associated with the concept of umma(wider Muslim population/family). The Internet also gives indications of the diversity associated with these Muslim expressions and understandings”.

Gary Bunt, however, does not mention the great challenges facing Islamic scholars as a result of anti-Islamic and hate material appearing on the net and being impossible to control.

As quoted earlier under Sociological Approaches (section 2.7), virtual reality and virtual self is an important issue as according to Turkle {a non-Muslim} (1997, p.184), “on the Internet, you can be whoever you want to be”. From the point of view of Muslims, this has some dangerous implications inasmuch as one can assume a Muslim name and then actually
start publishing incorrect and damaging material on Islam. Raza, (1999) described an article written on Islam by an apparent Muslim containing some of the worst allegations one could make against Islam. Some Muslim scholars have been constantly engaged in countering anti-Islamic materials on the Internet for some years (Raza, 1999 and 2003).

Hate websites are a known problem in the USA but the nature of the Internet is such that application of the law against any particular group is not easy. Hate websites can operate from different countries and locations. Closing one website in one country does not mean that the problem has been eradicated since it can re-open elsewhere. How to deal with anti-Islamic and hate websites is a matter of considerable debate among Muslim scholars and Imams. One simple solution suggested is that such URLs should not be quoted by Muslim scholars in their work or discussions so that if such sites are hardly ever visited, then due to lack of publicity such websites would die a natural death (Rahman, 2003) – see Appendix 8. There is then controversy created by Shi-ite websites and even worse through Ahmadiya websites (a group declared as non-Muslim in many Muslim countries due to their violation regarding the fundamental Islamic belief of the finality of Prophet Muhammad (sws), (see footnote page 23). Considerable controversy takes place within the main Sunni sect and other smaller sects within Islam and the Internet thus creates a whole new arena of challenge for Muslim scholars and Imams from various directions. Some scholars (Raza, 2002a) complain that they would prefer to spend their time more creatively in providing correct information to those who seek rather than replying to the work of those people whose sole aim is to create sectarian divisions among Muslims.

Another prominent Muslim author, Ahmed, believes that technological revolutions are affecting the lives of Muslims to such an extent that some 'rethinking' (Ahmed and Donnan, 1994) is required on the part of Muslim scholars and Imams with regards to the influence of technology. One example is accepting technical data from Greenwich observatory regarding sighting of the new moon, which has been a divisive issue within the Muslim community in UK and particularly in the city of Leicester. The reason for this ongoing
dispute is that the Muslim calendar is based on the lunar calendar. All festivals are
determined by the sighting of the new moon whether it is the beginning of the month of
Ramadhan (month of fasting from dawn to dusk) or whether it is to determine the day of
Eid celebrations (celebration to mark the end of Ramadhan). According to traditionalists,
the actual sighting of the moon by at least two witnesses is required to declare a festival
whereas the modernists claim that accurate data can be obtained from the Greenwich
Observatory and computer programs such as ‘Moon Search’ to make such decisions.
There is therefore a need for a proper debate and research on the growing influence of
technology on Muslims locally, nationally and internationally. Scholars such as Pasha
(2002) organise annual conferences to deal with such issues and to try and bring the whole
UK Muslim community onto a single platform. Regretfully this has not been fully possible
even within a small city like Leicester.

Undoubtedly Muslim scholars have made some major contributions to society in the past.
Unfortunately the apparent ‘hijacking’ of Islam by some extremists with their own political
agenda became brutally apparent to the whole world on 11th September, 2001, though there
is doubt in some quarters regarding the real truth behind these events. It is, however,
pleasant to note that today the Muslim world has been blessed by a person like Sheikh
Hamza Yusuf Hanson, a white American convert to Islam to bring sanity into the Muslim
world and to direct it towards what it should be doing and recognize its real responsibilities
and the vast contributions it can make in making the world a better place to live in for
generations to come (Hanson, 2001). Sheikh Hamza Yusuf Hanson is also raising the
consciousness of the West to recognise true justice as an advisor to the US government
(Hanson, 2002). One therefore hopes that Muslim contributions to the well-being of global
human society will therefore begin to function in full once again.

The Islamic Unity Conference (held in Washington, in 1998) had a full session on cyber
technology. A clear need was felt for more involvement and research on this subject by the
speakers, by the scholars and by many of the 2,000 international participants at the conference (Begg, 1998a and Siddiqui, 1998).

In the UK, at a Muslim Ulema and Scholars Conference (Leicester 13th September, 1998), Ulema and scholars spoke about the growing influence of technology on the Muslim community and its influence on the teaching and presentation of the Islamic faith. The participants expressed differing points of view. Some participants (Begg, 1998b) expressed the view that new technology, used correctly, offered a tremendous opportunity for the first time in history for accurate Islamic viewpoints to be presented to the world without the need of Imams and scholars having to travel all over the world - the Internet is actually carrying the whole message throughout the world and a markedly improved understanding of Islamic faith is now being witnessed globally, although this was considerably damaged by the events of 11th September, 2001 in the United States and the following ‘War Against Terrorism’.

Some information and experience of other writers and researchers within the Muslim community in the UK and Europe has been taken into account. Raza (1991 p.112), presented his findings on the cultural fabric of the Muslim community in the UK. The ‘Place for Islam’ in future, according to his research, lies in “Muslims joining and becoming part of the British Political System”. Prime Minister Blair’s speech to black church leaders (2000) echoed such a view. “I say to you young black people: you perhaps more than anyone can gain from going into politics”, he said. “Politics needs people from the ethnic minorities. They used to say Britain would never have a woman prime minister. It happened. One day there will be a black prime minister, too. But it means today’s young blacks thinking that politics matters, it is for them, they want to get involved and make a real difference.” One of the ways forward for Muslims is to get involved in politics and master the ‘genie of technology’. Siddiqui (1998 p.76), has written on the same lines, “One of the ways forward for Muslims is to get involved in politics and master the ‘genie of technology’”. This researcher agrees with this analysis.
2.8.2 Computing and the Qur'an

It is an established tradition among Muslim researchers and sociologists to refer first to the Qur'an and Hadith (Narrations and Practices of the Prophet Muhammad (sws)) whenever they embark on any research or sociological work. In accordance with this tradition this researcher carried out a study of Al-Qur'an and Hadith alongside the study of the secular literature. Several scholars and Imams were consulted locally, nationally and internationally during overseas visits. A list of the scholars and Imams consulted appears as Appendix 1 to this thesis.

According to Yousif (2002, p.123),

"The first thought which probably crosses the minds of those unfamiliar with Islam, is what possible relationship could there be between IT and a book revealed over 1400 years ago (ie. the Holy Qur'an)? Perhaps it is best to state the obvious. The Qur'an is neither a scientific text-book, nor a technological "how to" manual. Instead it is a book of guidance, which contains general principles applicable to all times and places. The Qur'anic principles and guidance pertain to all spheres of life, the scientific sphere being no exception and by analogy the domain of IT".

Knowledge according to Islamic tradition is classified into two categories. The first kind of knowledge is that given by God to man via revelation and is regarded as the highest form of knowledge: for example Al-Qur'an, The Bible and The Torah. The second form of knowledge is that which is acquired by humans through rational inquiry based on experience and observation. This includes deliberation, recollection, consideration, understanding and rationalisation, all of which are mentioned in the Holy Qur'an (Yousif, 2002, p.124). It is an Islamic belief that all knowledge (good and bad) comes from God, Allah (swt). There is therefore a direct link between ICT and the acquisition of knowledge in Islam which was stressed from the first revelation, “Read in the name of your Lord, who created, created man from a clot” (Al Qur’an, 96:1-2). This is supplemented by Prophet Muhammad (sws) in one of his famous Hadith, “Travel even to China to seek knowledge”. (Hadith 2). Muslims had not been advised by their Prophet to travel to China to learn about
Islam (China was not and is not a Muslim country), but to acquire other types of knowledge and skills useful for human society. It is here that the relationship between Al-Qur'an and ICT lies. Acquiring the knowledge and skills of ICT and computing is consequently not any different. In fact in Al-Qur'an, (45:5) there is clear mention that, "The sun and the moon follow courses exactly computed". Muslims believe that Al-Qur'an is the biggest source of knowledge for mankind. It has databases within databases. Muslims believe that Al-Qur'an has an in-built mechanism to explain matters in accordance with the existing age (Okinola, 1999). It is possible to understand this even from this research. Never before until recently has there been any need for Muslim researchers to look for computing and the Internet in Al-Qur'an and Hadith.

Al-Qur'an was revealed to Prophet Muhammad (sws) over 1400 years ago whereas computing as we know it today is less than sixty years old. Al-Qur'an explains many phenomena in quite some detail: for example the solar system, water cycle, plant life, animal life, marine life, human conception and childbirth and virtually all other major disciplines of study in today's world. The Qur'anic explanations match many secular scientific discoveries of our time. One only needs to read about conception and childbirth in Al-Qur'an, eg.(96:2) to see how accurately it fits in with today's medical discoveries. Islam and Science is a major topic of study by some Muslim Scholars (Naik, 2002). Some reflection on computing and the Qur'an is presented below by this researcher from his own study and interviews with Muslim scholars and Imams, locally, nationally and internationally.

There is a very clear explanation in the Qur'an that every single human being's actions are being recorded by angels. The one on the right shoulder records the good actions and the one on the left shoulder records bad actions (Al-Qur'an, 82:10-11). These records are then being saved and kept at two distinctly mentioned places 'Sijjin (for bad people) and Ilyin (for good people). (Al-Qur'an, 83:7-22) The Qur'an further explains that mankind will be sorted into three broad categories on the Day of Judgement. The ones on the right side will
be the good people and the ones on the left side will be the bad people (Al-Qur'an, 56:7-10). The excellent people like the prophets and saints will be right in front. The Qur'an explains that on the Day of Judgment the good people will get their record of deeds in their right hands and the bad people will get their record in the left hand (Al-Qur'an, 84:7-12). This will determine whether a person finds heaven or hell after the Day of Judgment. The Qur'an claims that this record of deeds will be 100% accurate and no one has power to interfere or corrupt this record. This can be termed as the most secure data ever kept. The record of deeds which people will receive on the Day of Judgement can be easily compared to a print-out from a database program. Muslim scholars (Al-Kabbani, 1998 and Al-Haqqani, 1998) claim that the Qur'an revealed to Prophet Muhammad (sws) over 1400 years ago has explained that data can be saved for millions or billions of years before being printed or reproduced. Humans have discovered the microchip only recently by comparison. Other references in the Qur'an regarding computing are mostly related to verses discussing time, space and the accuracy of the solar system eg. (Al-Qur'an 45:5). According to Islamic beliefs, God (Allah, swt) is not dependent on anything. He only has to say, "Be and it will be" (Kun faya Kun, Al-Qur'an 36:81). This is, of course, a matter related to the Islamic faith and is not easy to explain to sceptics or those who do not share the Islamic beliefs.

There is a Hadith (Narration) by Prophet Muhammad (sws) in Mishkat (one of the Hadith books (Hadith 1) that “A time will come when Islam will enter every house made of mud, brick or tent from East to West and from North to South”. Muslim scholars (Noorani, 1998 and Raza, 1998) say that this is a clear reference to the Internet and satellite television which are undoubtedly fulfilling this prophecy as Islam is now available in every house which is connected to the Internet and satellite television (Islamic programmes are broadcast through satellite television globally), wherever this house may be or whatever it may be made of. At no time in history was Islam available for study for such a large proportion of humanity as it is now, and such access is growing daily. This is why many Muslim scholars now regard the Internet as a useful tool to be used properly (Whitaker,
2000, p.17), although this view is still not shared universally among Muslim Imams, for example Bayat (2002).

2.8.3 Ethics from an Islamic Perspective

A definition of computer ethics from an Islamic perspective was provided earlier and is mentioned here once again as: "Moral principles or rules of conduct which at least for Muslim should be tied to the Sharia Law (Islamic Law) in the use of computers or production of software that are run on the computers" (Begg and Raza, 2002b). Views of non-Muslims have to be considered for the purpose of this research. According to Langford (1999, p.2), "ethical business practices can generally be seen as necessary, simply because today ethical behaviour is generally expected. Those concerned in the current business world, whether as shareholders, supplying companies, customers or clients, not to mention the general public and media, all have the expectation that a well-run business will behave in an ethical way". We do, however, know that this is not always the case from reports in media and personal experiences.

All ethical and moral considerations within Islam are, however, injunctions placed in the Islamic holy book Al-Qur'an and the traditions of Prophet Muhammad (sws) clearly indicating how he dealt with certain situations. For example there is a very strict injunction in Al-Qur'an (83:1-5), "Cursed are those that deal in fraud", and further "Give just measure and cause no loss to others by fraud, and weigh with scales true and upright, and withhold not things justly due to men, and spread not any evil in the land" (Al-Qur'an 26: 181-183).

If software companies are paid large amounts to provide a custom-built program, then it is their ethical and moral duty to supply software that will fulfil the needs of the client/customer. Making any false claims or providing second-class goods or services at the rate of first-class are likened to 'eating fire'. Too much suspicion and backbiting are strongly discouraged (Al-Qur'an, 49:12). Moral conduct and ethics are covered extensively in the Qur'an, touching on all walks of life. Further explanations particularly in relation to
the computing revolution are continually being sought through scholars and Imams. Some similar views of Christian scholars follow.

2.8.4 Some Christian Perspectives
‘Cybernauts Awake’ (Church House Publication, 1999), provides an interesting Christian perspective on the ICT revolution and has a few things in common with some Muslim perspectives like ‘everything is from God’ and ‘everything happens with His will despite the limited ‘freewill’ given to man’. According to the previous Archbishop of Canterbury, Dr. George Carey, money, power and fame are “transitory, paltry things”, symptomatic of a “dotcom society” in comparison to the “ultimate things of the spirit” (New Statesman, 2000). ‘The Guardian’ (2000) reported Dr. Carey saying that, “The Christian emphasis is on relationships not just connections. We must be sure that the virtual community is at the service of the real community, not a substitute for them. It must be a tool for inclusion not a weapon for exclusion”. This is an important message from Dr. Carey to the ICT innovators. Such views are echoed and shared by Muslim Imams speaking from the pulpit on Fridays (Raza, 2002a). An ethical use of ICT is recommended in ‘Cybernauts Awake’ and by Siddiqui, (1998) and Yousif (2002) from an Islamic perspective.
2.8.5 Cultural Influences on UK Muslims

The UK example and particularly the Muslim community in Leicester is interesting inasmuch as it lives in an industrialised Western country and yet tries hard to maintain its religion and culture, which is fundamentally based on Islamic teachings but is being strongly influenced by Western, more liberal culture which is actually producing a new breed of ‘Western Muslims’. (Pasha, 2000). The new breed of Muslims includes those who are professional but less inclined towards religion, at the other end of the scale are those who have gone into religion totally by training as Imams or Hafiz (those who memorise Al-Qur'an by heart) and have taken religious roles as their profession within the Muslim community in the UK. Then there are those in the middle who are mostly involved in small businesses of different kinds and may be quite religious or luke-warm in their approach depending on the influence of family and friends.

Figure 2.1 on the next page highlights the powerful influences.
Cultural Influences On The Leicester Muslim Community

Western More Liberal Culture in the UK

Leicester Muslim Community

Pakistan Culture

Indian Culture

Bengali Culture

East African Culture

Arab/Muslim More Conservative Culture

Figure: 2.1 Cultural Influences on the Local Muslim Community.
The Arab/Muslim conservative Islamic culture is a dominant feature of the Saudi Arabian society where Islam first originated through the birth of Prophet Muhammad (sws) over 1420 years ago. The Arab society in the Arabian peninsula was clearly shaped by the injunctions as revealed in the Qur'an which places strict moral guidelines in all aspects of human behaviour and especially in relationships between men and women, which are the foundations of the fabric of society. Sexual relations out of wedlock carry a strict penalty according to Islamic law which is still in force in countries like Saudi Arabia and the United Arab Emirates. Marriage is a fundamental recommendation of Islam to protect and to advance a healthy society. Contrary to this the more liberal Western culture accepts living together out of wedlock as a common and acceptable feature of the Western society. These are the two strongest opposing forces at work, between which the Muslims living in the West are trapped. One of the results of this is that young Muslims are now choosing their own partners through Muslim introduction agencies on the Internet without parental involvement (Begg, 1999d).

To add to this complexity, Muslims from different countries carry their own brand of national culture as well, in addition to the Islamic culture. For example the Pakistani, Indian and Bengali Muslims carry a brand of Hindu culture, a dominant culture of the Indian sub-continent. Their Islamic way of life is in some ways tinted with Hindu cultural influences through language, music or the practices of dowry in marriage (which is contrary to Islamic teachings) and by the British influence on these former colonies.

The Muslim community from East and Central and South Africa are yet another mix of cultures having lived under either British rule, Apartheid rule or now African rule, which has its own varieties due to tribalism, poor literacy and poverty, despite the fact that Africa is one of the richest continents by way of mineral resources (gold and diamonds). All the Muslims living in Leicester or any other UK city are under the dominant pressure of the more liberal Western culture, creating a new breed of Muslims, many of whom are now technologically orientated.
Despite all the pressures, the Muslim community in Leicester and the UK is striving hard to maintain its cultural and moral fabric, which can be observed by the fact that most Muslim children in Leicester attend the mosques (supplementary schools) for Arabic lessons. Computer programs like The Alim, Al-Ustadh, Al-Qari have been introduced in the teaching methods. Leicester Muslim children appear to be showing more interest in learning Islam and Arabic through computer programs rather than from a teacher with a cane which has been the traditional method for centuries. Islamic computer teaching programs are extensively used in the USA (Islamic Unity Conference, 1998). It is important to note at this juncture that in some rural areas of Pakistan and Afghanistan, introducing computers into Islamic teaching is regarded as an American strategy to weaken Islam at Madressa teaching stage, which the Americans regard as a ground where terrorists are produced (McCarthy, 2000, p.16).

It is important to realise that many Muslims in Leicester who have lived without such technology for most of their lives are at a later age less interested in learning about it. They have their own ways of passing messages from one source to another, however primitive it may look to an outsider. As well as this there is the problem of accessing software when they have little grasp of the English language. Thus for many, the issues of cross-cultural transfer of technology are profound (Siddiqui 1998, and Begg, 1999).

It appears that the best example of a successful transfer of technology to Muslims has been in the USA. The main reason for this is that most of the Muslims who migrated to the USA have been professional people like doctors and lawyers and they have been exposed to technology for much longer than the Muslims in the rest of the world (Siddiqui, 1998).

2.8.6 Terrestrial/Satellite television – Islamic Perspective
In addition to the Internet, satellite television is playing a huge part in the acceleration of the concept of globalisation. Globalisation in terms of satellite television media means being able to witness an event 'live' at any given moment in any part of the world. Such
.broadcasts are now a daily event on satellite television and many Indian/Pakistani and Arab
satellite television channels now totally absorb immigrant residents in Europe (Hargreaves
and Madhjoub, 1997, pp.459-77). There are many privately financed satellite channels
now available and some are totally devoted to the teaching and spread of Islam in the world,
for example the Arabic channel 'IQRA'. In addition to this Arabsat – the pan-Arab satellite
network comprising of 21 Arab member-states, regularly broadcasts Islamic information
programmes in addition to commercial broadcasts (Mohammadi, 1998, p.262). It is
important to note at this point that interactive satellite broadcasts are extremely popular
within the Arab and Muslim world. Questions can be posed to a panel sitting in Dubai
Television Centre from audience as far as Morocco and Algeria and even from Muslims
living in the USA or Australia and replies given immediately. Arabic, Indian and Pakistani
channels are very popular with Muslims in Leicester as fieldwork in this research has
revealed.

The introduction of the Ahmadiya channel, that of a minority un-recognized group (as
discussed earlier in this chapter), is seen as a matter of concern and regret by the majority
Muslims as some sort of conspiracy (Raza, 2002), though freedom of speech in the West
allows such a development. Others argue that the majority Muslims could start their own
channel but are gripped with complacency (Hashimi, 2002).

During the American 'War Against Terrorism' (ongoing), the Arabic channel Al-Jazeera
based in Qatar earned the nickname of "CNN of the Arab World" (Sardar, 2001), and
television pictures from the war scene in Afghanistan which no other channel was able to do.
Al-Jazeera has been providing uncensored pictures from Iraq during the Iraq war in
March/April, 2003. It was reported by ITV Channel 4 (2003) during an interview with a
Lebanese minister that the Arab world now prefers to watch news through Al-Jazeera and
several other Arab satellite channels instead of BBC or CNN as they felt that reporting by
BBC and CNN was biased and provided different menus to suit and justify the policies of
their governments. Preference to view mostly satellite channels from home countries is
confirmed through this research (Chapter 5). If this trend continues to increase then BBC and CNN will lose their place as the top international news providers. The satellite television channels and the Internet are clearly raising the awareness of people even in remote parts of the world, resulting in quick response and protests against an event, which may be seen as unjust. In the days of newspapers, it took a long time for information to reach even those who were literate, and in many cases other events had taken over by the time the first news came through. Satellite television combined with live broadcasts on the Internet have truly revolutionized communications. Several Indian and Pakistani channels are now available through Sky and digital providers. ZEE television and associated channels are very popular with the Indian community (Muslim and Hindu) in UK. The ZEE network has aimed to reach the mass market by pioneering entertainment television based on popular culture (Thussu, 1998, p.278). The term 'global village' seems to be more realistic now than ever before. Regretfully these channels appear to be serving more of entertainment value and less of an educational value according to this researcher's observation and views.

2.8.7 Women in Computing – Islamic Perspective

It is currently estimated that there are over 25,000 Muslims living in the Leicester area, (Salim, 2003). With some figures now available (Census 2001), the overall make up of the population of Leicester is 48% male and 52% female. Details of Census, 2001 to be published later in 2003 will provide a more accurate indication of the Muslim population nationally and locally. There are no official statistics available on the number of Muslim women in Leicester. In general one can assume that roughly half of the Muslim population of Leicester are female. In any case it is important to consider what the ICT revolution means or what likely impact it will have on the Muslim women. No formal research has yet been conducted or published so far in relation to computing and Muslim women. Currently Muslim women are included along with women nationally by Women in IT Forum explained below.
There is a national organization in the UK called Women into Computing (WiC) which is committed to encouraging more women to participate in computing education, to take up work in the computing industry and to be involved with professional bodies and research. However, the whole issue has been approached from women and computing in a wider sense and no particular reference to Muslim women has been made. The general concern about the level of women into computing was highlighted in several papers for example, “The position of women in the UK software industry, relative to the position in other European countries and the United States gives real cause for concern. The need for and significance of empirical research to establish the underlying trends is becoming urgent” (Panteli, Stack, Atkinson and Ramsay, 1997, p.94). Women in I.T. Forum (2000) is another organization which deals with I.T. and women at large and they too have approached the issue from the point of view of women as a whole.

The ICT industry appears to be a male dominated world and it appears that some women are not prepared to work in an ICT environment. One reason is that, apart from some ambitious women, most women do not achieve career advancement in this male-dominated field nor do they influence this industry in any noticeable way. However, Women in I.T Forum, 2000 is making a mark by its conferences and reports in Computing Weekly papers and national newspapers. Since the ICT industry has become very popular, efforts are being made by Women in I.T. Forum and WiC (Women into Computing) to integrate women further into various positions. How effective it is and whether Muslim women are included in this process is not known at present. This is clearly an area of research waiting to be explored by researchers and deserves urgent attention. This researcher has managed to explore some aspects of this issue namely ‘Muslim women into computing’, which follows.

Salih (2000, pp323-327), in her article ‘Shifting Boundaries of Self and Other’, explains how Moroccan Muslim migrant women in Italy are ‘renegotiating’ their Islamic identity to live and work in a non-Muslim European country. This she explains is done by having two identities - one Muslim for the home and one for work without wearing traditional Islamic
dress and a head cover (Hijab). Many professional Muslim women in Britain have such
dual identities to make progress in their profession and it appears that ambitious Muslim
women may take this route to progress against the wishes of the traditionalists who insist
that a Muslim woman is a Muslim woman whether in Morocco, Pakistan, France or the
United Kingdom. Ambitious Muslim women can, however, be seen today in the UK and in
Leicester working in professions while fully conforming to the Islamic way of dressing. An
example of this can be seen within the University student population where Muslim girls
are training in various professions and yet appear to be conforming to most of the Islamic
traditions of dress and attending Friday prayers within the provisions made for Muslim
students by UK universities. Some of the issues facing women in ICT are further explored
in the following paragraphs.

One reason why women lag behind in the ICT world may be attributed to the fact that “they
are not provided with the right environment and flexibility to suit their family
circumstances” (Patel, 2000). “Asian women face cultural and family constraints in ICT
jobs which involve a lot of travelling particularly nationally or internationally which is a
feature of some ICT professions” (Female DMU student, 2000). [The Asian student
interviewed in this case was not Muslim].

Another student (Veeren, 2000) said she “welcomed a job which involved travelling
whether nationally or internationally as she felt that she was not constrained by the Asian
culture”. She did, however, agree that the position would “alter if she had the
responsibilities of looking after a family regardless of culture”.

However, as the Islamic culture has stricter conditions for Muslim women travelling alone
or beyond a certain distance, they are unlikely to be attracted to any ICT jobs and indeed to
any other jobs that require constant travelling nationally or internationally. Muslim women
are discouraged to travel alone or in the company of unknown people as far as humanly
possible due to Islamic injunctions and cultural traditions (Raza, 2003a).
The proportion of women of all faiths in the industry continues to decline - 24% in 1999 compared with 29% in 1994 (Women in I.T. Forum, 2000). Statistics relating to the uptake of Computer Science courses by female students in UK universities is not encouraging (WiC, 2002). Taking into account the above possible explanations, what is the position of Muslim women in the ICT world? Clearly this is an interesting question and it appears that the percentage of Muslim women in the ICT field is even lower, although no formal statistics are available.

Strong role models, family-friendly tax incentives, flexible working hours (most suitable for Muslim women together with tele-working) and better training are some of the ways to attract and keep more women in ICT. Another example to learn from is Arab women. Arab women entrepreneurs in Egypt and other Middle Eastern countries have begun to use the e-commerce facilities progressively as they are able to combine business and family commitments more easily by operating from home (Dechant, 2000).

However, what is the position of Muslim women in Leicester? On the face of it they are lagging behind along with women nationally. One fact is quite certain and that is that Muslim women are not particularly encouraged to work in a male-dominated environment due to religious and cultural constraints and, unless the ICT world becomes more balanced, Muslim women will not make much progress by way of career in this field nor will they be able to impact the industry itself. A huge opportunity is being lost even within Muslim countries. Young Muslim women ought to take more interest in this field and come up with innovative ideas on how technology can benefit them particularly, for example by setting up a network of Muslim women to share Muslim women's issues from their national or regional perspectives.

In the USA there is already such a network of Muslim women called KAMILAT, and their website can be accessed at (kamilat.org, 2003). They organize regular conferences,
meetings, educational programs, and all their activities are conducted through their adverts on their website and email facilities. Muslim women all over the world can learn a lot from Kamilat and particularly those living in Western countries like the UK. Kamilat have managed to create a virtual Muslim women community in the USA as becomes clear from their website. Taking advantage of distance learning can be another way of helping Muslim women.

The two case studies undertaken for this PhD research highlight some further issues relating to women into computing. In any case, ethnic minority women and particularly Muslim Women into Computing is a very large and important area of research which has been hitherto not properly addressed and needs to be considered seriously in future.

2.8.8 E-commerce – Islamic Perspective

A critical area of business where successful cross-cultural transfer of technology is required is e-commerce. Some aspects of this were covered under the section on Cross-Cultural Transfer of Technology (2.7.1): e-commerce involves business transactions being carried out through the aid of computer technology. E-commerce can be Business to Business or Business to Consumer or Consumer to Business (Kosiur, 1997). Price Waterhouse Coopers (PWC, 1999) define e-commerce as follows: 'The application of information technology to facilitate the buying and selling of products, services and information over public standards-based networks', as quoted in Walsham (2001, p.160). E-commerce is a fast growing activity and is expected to be worth 1 trillion US dollars between 2003-2005, the USA being a main leader in this field (Walsham, 2001, p.160). What implications this has for Muslims and Muslim countries is an important question which has not been researched sufficiently so far. From the Muslim point of view e-commerce is a new Western approach to conducting business and can be a topic for another PhD research since business transactions in Islam carry different responsibilities, for example avoiding involvement in paying of interest (usury) as far as possible (Al-Qur'an, 2:275-6). This injunction equally applies to credit card payments if one keeps accumulating debt and hence adding interest to
the transactions. The importance of conducting business honestly and in accordance with the injunctions from Al-Qur'an were discussed under Ethics from Islamic Perspectives in this chapter (2.8.3).

There appears to be little research carried out in respect of e-commerce so far in areas where specifically people of Islamic religion and culture are involved. However, conferences are taking place: for example the e-Commerce conference in Riyadh, Saudi Arabia from 22-24th April, 2002 discussed various aspects of e-commerce. Interest in the Islamic banking system has, however, been attracting considerable attention and regular conferences are held, for example 'The 2000 World Islamic Banking Conference', held in Bahrain on 28-29th October, 2000 which attracted large numbers of delegates from the Arab world and other Muslim countries. A point to note is that it is a common experience that when one writes to an Arab or Muslim organization, getting a swift reply is never easy. Similar experience through e-commerce dealing would be devastating for a company since the whole philosophy behind e-commerce is swift transaction and swift delivery. If, due to cultural or religious reasons, Muslim e-commerce companies do not provide a swift service, then failure is inevitable. It appears at the moment that the United Arab Emirates is leading the way in the Arab world, while Malaysia in South East Asia has established a Cyberjaya cyber village from where most businesses seem to be functioning and observed by this researcher during a visit to Malaysia in July, 2002 (Unity Conference, 1998 and Begg, 2002).

There do not appear to be any examples of Muslim e-commerce companies operating from Leicester though there are likely to be some nationally in the United Kingdom: for example some Muslim matrimonial websites charging fees for membership. E-commerce is gaining popularity in some Arab countries like the UAE, Jordan and Egypt (Decant, 2002). As far as the UK is concerned, the present Labour government headed by Prime Minister Tony Blair wants e-government to be a reality by 2005 involving both the private and public sectors. How this will affect the minority communities and particularly the Muslim
community, which is the largest ethnic/religious minority (over 1.6 million population in UK), is yet to be seen. Some problems of language and culture are inevitable in moving the whole UK population in this direction (Guardian, 29th November, 2001). Electronic voting facilities are being studied and if possible are expected to be in place by the next General Election around 2005 as part of the e-government drive. It is hoped that the new generation of Muslim children growing up with computers in this country will not find the whole change too frustrating; but the older generation or newcomers to the country may not be able to adjust or benefit from e-government strategy in the same way. Further research in future will be required to determine how government strategies and developments are affecting different sections of the UK population.

2.9 Conclusion
In this chapter various perspectives on the impact of the computing revolution have been considered. Firstly, the views of philosophers, academics and computer professionals were considered, followed by some sociological views expressed by sociologists and academics in sociological fields. Finally, some views from Muslim scholars and academics were considered. It is evident that, while this revolution is bringing many benefits to society, there are undoubtedly many concerns that remain to be addressed, which have been further investigated through the two cases studies (chapters 4 and 5) conducted for the purpose of this thesis.

This chapter has provided an indication of some of the hopes and fears not only of the Muslim communities but also of those who belong to other faiths and those who do not view this technological revolution from the point of view of any religious faith. Many of the hopes and concerns are common to all human society but there are some concerns and hopes which are unique to the Muslims, for example how the Internet is now carrying Islamic knowledge to even the most remote parts of the world where Islamic scholars would perhaps never have a chance to travel to. At the same time there are concerns on how this technological revolution if not controlled properly can become a main source for the spread
of hatred against Islam and Muslim people which to some extent has been experienced since the events of 11th September, 2001 in the USA resulting in the strain on international relations and community relations and worsened by the war in Iraq. The ICT revolution is helping a rapid response to events which may be taking place on the other side of the globe since the average person is able to view the events 'live' whether through the Internet or satellite television.

This chapter has highlighted how Muslims are trying to apply the principles of their faith in harnessing this technology to their advantage. The local Muslim family case study (Chapter 5) is particularly relevant in this respect.

The next chapter on research methodology considers various research methods available including some discussion on Islamic research methods and approaches leading towards the actual methods and approaches considered appropriate for this PhD thesis.
CHAPTER 3

Research Methodology

3.1 Introduction

In this chapter, a variety of research methodologies and approaches are discussed, firstly to understand the important methods available and secondly to decide which methodologies and approaches are suitable for this particular contemporary research within a local Muslim community in an industrialised Western city such as Leicester. There are two main schools of research, 'quantitative' and 'qualitative'. Each has its own validity when collecting and analysing data. "The key difference between quantitative and qualitative research methodologies can be noted in that 'quantitative' researchers work with few variables and many cases, whereas qualitative researchers rely on few cases and many variables" (Creswell, 1998, pp.15-16). The merits and weaknesses of these two methodologies are first considered.

3.2 Quantitative Research

A quantitative method is strongly associated with a "positivist" perspective of the world. The positivist perspective holds that the social world exists externally, and that its properties should be measured through objective methods, rather than through sensation, reflection or intuition (Easterby-Smith, Thorpe and Lowe, 1991). It uses operations such as creating statistical data in order to enable facts to be measured quantitatively, and by reduction to the simplest elements for analysis. In order to enable generalisation of the results, it is seen as necessary to sample a sufficiently sized group and to undertake a cross-sectional analysis to make comparisons of variations across the samples (Easterby-Smith, Thorpe & Lowe, 1991, pp.116-134).

The key concept in quantitative data is quantity, and numbers are used to express quantity. Quantitative data are, therefore, numerical; they are information about the world, in the
form of numbers from either counting or scaling or both. Measurement turns data into numbers, and its function is to help us make comparisons. Counting and scaling are part of measurement and it is variables which are measured. “The concept of a variable (something which varies) is central to quantitative research and the measurement of variables, are essential to the way quantitative research proceeds” (Punch, 1998, pp.58-59).

Quantitative research is used extensively in the medical field, for example measuring the success rate of a new drug compared to its ineffectiveness or side effects. The use of large amounts of specific data enables a statistical approach to be undertaken which will allow the investigator to ascertain the significance of the data. Postal surveys and questionnaire filling are another approach to quantitative research. Considering that this research is not a direct study of how many Muslim families in Leicester have a home computer compared to the indigenous families, a quantitative approach was inappropriate. Any postal surveys were discarded fairly early in this research as the rate of response is even worse in Muslim communities possibly due to language barriers, lack of interest in the subject matter, apathy and a somewhat cultural norm of not replying to post quickly (Raza, 1998).

This research is attempting to predict the impact of ICT within a sub-culture located within the city of Leicester in the United Kingdom. “Social reality cannot be defined objectively but subjectively: reality is interpreted social action. Objectivity can only lead to a technocratic and bureaucratic dehumanization” (Brieschke, 1992, p.174). “Quantification often results in ‘meanings’ that are closer to the beliefs of the researchers than to those of the respondents” (Sarantakos, 1998, p.43).

The quantitative or positivist approach, therefore, appears to be unsatisfactory in this research. “Within the realm of cultural/religious studies which are spiritual in character, man cannot be studied through the methods of natural sciences. In the cultural/religious sphere man is not subject to law in the physical sense but is free to choose and act” (Galliers, 1994, p.44). As culture and faith are important issues to consider in the study of
the impact of ICT on the local Muslim community, the above views make sense within Islamic beliefs, namely that man is given a limited free will to choose and act as he pleases. The difference here is as with Christians that the fact that man has been given a limited free will does not mean that he is not accountable. Muslims are reminded in Al-Qur’an that a record of their deeds will be presented to them on the Day of Judgment which will show the most minute details of their actions and they will be punished or rewarded accordingly (Al-Qur’an, 82:10-11).

As this research is concerned with sociological/religious/cultural/technological and ethnographic issues, a positivist perspective appears to be inappropriate and thus quantitative methods aimed at delivering positivist answers are unlikely to be helpful. It should be noted, however, that some numerical data provide supporting evidence on particular issues, as will be seen in the case study chapters, particularly the Educational case study (chapter, no.4).

3.3 Qualitative Research

There have been many attempts to define qualitative research in the social sciences and to determine whether or not it can or should be differentiated from what we call quantitative research (Silverman, 1997). There does not, however, appear to be a consensus on these questions because qualitative research does not represent a unified set of techniques or philosophies and indeed has grown out of a wide range of intellectual and disciplinary traditions (Mason, 1998).

Qualitative research is commonly associated with certain schools which fall broadly within what is known as the interpretivist sociological tradition, particularly phenomenology, ethno-methodology and symbolic interactionism (Silverman, 1997). Postmodernists have begun to show interest in empirical research and qualitative methods (Dickens and Fontana, 1994).
One element of a working definition of qualitative research is “grounded in a philosophical position which is broadly ‘interpretivist’ in the sense that is concerned with how the social world is interpreted, understood, experienced or produced” (Mason, 1998: p.4). The position of Muslim scholars is however, ‘how the social world ought to be interpreted, understood, experienced or produced in the light of the guidance from Al-Qur’an and Sunnah (sayings and traditions of Prophet Muhammad (sws)).’ Hence a totally different point of view can emerge, since Muslim scholars are likely to interpret events in view of their knowledge of the study of Al-Qur’an and Hadith which Western scholars are unlikely to consider. The two case studies (chapt. 4 and 5) highlight some of these issues.

The second element of the definition is “based on methods of data generation which are flexible and sensitive to the social context in which data are produced (rather than rigidly standardised or structured, or removed from ‘real life’ or ‘natural’ social context, as in some form of experimental method)” Mason (1998, p.4). Data generation within an Islamic perspective has to be ‘flexible’ and ‘sensitive’ otherwise data generation may itself become impossible (Raza, 1998). This is because, if sensitivities are not respected, respondents may not ‘respond’ to the requests made to them. This is further explained in the case study chapters.

The third element is “based on methods of analysis and explanation building which involve understandings of complexity, detail and context” (Mason, 1998, p.4). Qualitative research aims to produce rounded understandings on the basis of rich, contextual and detailed data. There is more emphasis on ‘holistic’ forms of analysis and explanation in this sense, than on charting surface patterns, trends and correlation. “Qualitative research often does use some form of quantification, but statistical forms of analysis are not seen as central” (Mason, 1998: p4).

Other authors such as Sarantakos (1998, p.47) on the subject of qualitative research mention “unique case orientation”, which means there are unique features of the sample
under study as in the case of a Muslim community living in a Western country and industrialized city such as Leicester, and "design flexibility", with the evaluator open to adapting the inquiry as understanding deepens, which is very much the case in this research.

3.3.1 Strengths and Weaknesses of Qualitative Research

Qualitative research makes it possible to research people in natural settings. Qualitative research helps 'humanise' the research process by raising the role of the researched, and by allowing greater flexibility it can help present a more realistic view (Chadwick Bahr and Albrecht, 1984, pp.214-15).

As with other methods, there are some weaknesses of the qualitative research methods. There is a risk of collecting meaningless and useless information, and problems of objectivity and detachment, which are particularly acute in this case where the researcher and the researched both belong to the same faith and community. Against that the researcher has a better inside knowledge of the community (Stanfield and Dennis, 1993, pp.39-52). There is also a need to be aware of the ethics of entering the personal sphere of the subjects - as in this research particularly when studying a Muslim family. The section on case studies within this chapter covers some strengths and weakness of the case study method.

However, open-ended qualitative research is often more appealing to researchers who are keen to capture directly the lived experience of people, as is the case in this research, where, determining the impact of Western technology on Muslims is effectively at present an original research. Large amounts of data may be collected, as it has been in this case, and such unstructured qualitative data requires some processing to prepare for analysis. For example, recordings need to be transcribed and edited, and field notes need to be corrected and informal interviews require considerable discipline and careful coding (Punch, 1998, pp.60-61). Some of these processes were necessary when interviewing Imams and scholars both locally, nationally and internationally.
A serious question for this researcher has been how to apply qualitative research methods within an Islamic context, as none of the research methodology books mention how to apply these methods when studying a Muslim community as an example. In order to understand how this can be best accomplished it is firstly important to understand some issues of race and ethnicity in research methods (Stanfield & Dennis, 1993 p.39-52). Sociological studies of race have often been distorted as Ladner (1973, p. 23), points out:

"Blacks have always been measured against an alien set of norms. As a result they have been considered to be a deviation from the ambiguous white middle-class model, which itself has not always been clearly defined. This inability or refusal to deal with Blacks as a part and parcel of the varying historical and cultural contributions to the American scene has, perhaps, been the reason sociology has excluded the Black perspective from its widely accepted mainstream theories."

Like women's studies, black studies seeks to build more inclusive research through incorporating the experiences and perspectives of traditionally excluded groups. "One way to accomplish this has been to encourage studies of race and ethnic relations by minority scholars themselves, on the assumption that they are better able to understand the nuances of racial oppression" (Stanfield and Dennis, 1993, pp.39-40). There is no direct study of oppression involved in this research but elements of 'haves' and 'have-nots' are likely to surface as the local Muslim community is not particularly prosperous. Additionally, considering the sensitivities of the local Muslim community is a very important issue. The recommendation by Stanfield and Dennis (1993, pp.39-40), namely to "encourage studies of race and ethnic relations by minority scholars themselves", has been followed in this case since the researcher and researched belong to the same faith and can therefore bring out a more realistic conclusion to the study. In a study of satellite viewing habits by Arab minorities in France (Hargreaves and Madhjoub, 1997), an Arab woman was employed to facilitate the interviewing part of the study taking into account the sensitivities of interviewing the local Arab community (mostly Muslim) in Paris. Employing a Muslim woman to carry out any interviewing was, however, not necessary in this case as no large-scale interviewing of Muslim women was required.
3.4 Ethnographic Research

The main features of this research method are:

Participant observation – This is the first important characteristic of this type of research as it provides some form of up-close participative involvement in the natural, “everyday” setting to be studied. It is therefore in line with the “interpretivistic” nature of a qualitative research methodology. Participant observation was an important feature of this study at the educational institution where the researcher had taken up a part-time teaching position and was therefore a member of the teaching staff. This position had been taken not only to gain teaching experience in an educational institution with very high ethnic population but also to become a participant observer in an officially accepted capacity.

Holism – This is the second characteristic of this type of research. The ethnographer synthesizes disparate observations to create a holistic construct of “culture” or “society” (Strathern, 1992, Thornton, 1988).

Socio-cultural description – another characteristic of ethnography, which follows from personal involvement in human contexts, is the detailed depiction and analysis of social relations and culture (Wolcott, 1992, p.27). It should be noted, however, that it has not been possible to gain a ‘holistic’ picture or to make a “detailed depiction and analysis of social relations and culture” of a Muslim community in this research as this particular research was restricted mainly to the study of the impact of the computing revolution on the local Muslim community.

There are, however, many features which are uniquely common to Muslim communities, for example the same Qur’an is read all over the world by all Muslims. At the same time there are different schools of thought within the Muslim world regarding the practices and cultural heritage of a particular country which may differ from another thereby affecting its religious and cultural practices. For example, giving a dowry to the prospective son-in-law
is essentially a Hindu practice in India which has filtered through to the Muslim families living in India and to some extent in Pakistan. The local Muslim families in Leicester who are from India and Pakistan still find themselves subject to these practices. Another example is that Muslim families in India and Pakistan are often not keen on university education for their daughters as they have a fear that they will be corrupted in that process, and they tend to, marry them away very early despite the fact that acquiring education is a fundamental instruction for Muslim men and women equally. Such 'context sensitivities' were encountered within this study even though the local Muslim community is living in the industrialised Western city of Leicester in the United Kingdom. This research has ethnographic connotations to it as the local Muslim community itself is made up of Muslim from various backgrounds, countries, cultures and languages. Therefore elements of the ethnographic research have been used in this research. This becomes clearer within the two case study chapters 4 and 5.

3.5 Islamic Approach to Research
As this research is focused on the local Muslim community in Leicester it is appropriate to consider how qualitative ethnographic social research is conducted within an Islamic environment as this will have considerable bearing on the research methodology and approach adopted. Whereas the research methodology is a term used to express the set rules of a particular method to be followed (Henrichsen, 1997), the research approach is the route taken in applying the overall methodology, and the research technique used, a special way of working to achieve the required results in a particular context which becomes clear from the following paragraphs.

Whenever Muslim scholars and scientists study any subject, there are two aspects to consider. It is a tradition to consider first of all what the Qur'an and Sunnah (traditions and sayings) of the Prophet Muhammad (sws) say about that subject. The subject may be scientific, sociological, legal; worldly or spiritual. The injunctions of the Qur'an and
Hadith are then further explained by Imams and scholars of the time by taking into account work done by previous Imams and scholars (the consensus of opinion - *Ijtihad* in Arabic).

Secondly, when conducting research within a Muslim community, it is important to consider religious/cultural sensitivities. For example, it is completely forbidden for a man to visit a family at a time when only the wife or small children are present. All visits or interviews must be conducted while the head of the family is present and even pre-arranged visits would have to be cancelled if the head of the family was out of the house. Interviewing women alone is particularly discouraged. There are strict injunctions in the Qur'an regarding entering someone's house (Al-Qur'an 49:1-7). The normal practice for an interview of a Muslim woman by a Muslim man who is not a relative is for it to be in the presence of another woman or one of her relatives, male or female (Raza, 2000).

3.6 Studying Muslim Families

The so called "traditional" family that consists of two parents married to each other and their biological children is becoming less common in the West. Enormous social change in the past several decades has raised new questions about what constitutes a "family" and has challenged previous conclusions based on the traditional definitions. One example is an increase in single-parent families, a trend likely to continue possibly at a higher rate (Copeland & White, 1998). Although these trends have a gradual influence on all communities including the Muslim community in the UK, the majority of Muslims are still being guided by their Islamic values. One cannot, however, tell what the future holds.

In Islam, the family is recognized and dignified as the basis of society. Great value is thus attached to keeping family relationships healthy and harmonious: the rules of conduct governing these relationships are of the highest importance (Al-Kayasi, 1986, p.91).

There are unique religious/cultural sensitivities to consider when studying a Muslim family. The very first almost impossible hurdle to cross is to convince a family to take part in such
a study in view of the strict privacy issues that most Muslim families observe. Even when this hurdle has been crossed, as mentioned earlier, a man visiting a Muslim family in the absence of the head of family is only allowed in exceptional circumstances and only when accompanied by another female (Raza, 2000). This is understandable as the arrival of two men (acting as witnesses to each other) to the house in the absence of the head of the family would be even more daunting and would be unlikely to yield any correct information for research purposes. Video camera recording of a Muslim family study is not normally acceptable (privacy reasons) although a tape recorder may be allowed. Semi-structured informal interviews are more likely to succeed as the interviewee feels more at ease and is less likely to feel intimidated and is more likely to give more honest replies to any difficult questions. It is important to note that the attitude of indigenous English Muslim families is different to those of traditional Asian Muslim families in many respects and particularly when dealing with technology. English Muslim families take a very straightforward positive approach in this respect compared to, for example, a traditional Indian Muslim family who might not even encourage a television set in the house. This researcher has had experience of visiting English Muslim families and English Muslim scholars like Abdul Haqq Bewley in Norwich, UK and discussing some of the issues which had been discussed with other Imams and Muslim scholars.¹

From the above descriptions and taking into account all the strengths and weaknesses of qualitative research and considering that the nature of the research questions in the aims and objectives in chapter 1 are "interpretivistic" (Yin, 1986, p.6), which means observations or data from which some meaning or understanding can be interpreted. A case study method with an ethnographic approach and enveloped within an Islamic approach to research would be suitable. "According to this, (a case study method) the role of the researcher is to understand everyday or lay interpretations, as well as supplying social science interpretations and to move from these towards explanations" (Mason, 1998, p.140). "The

¹ Abdul Haqq Bewley is a well known English Muslim scholar in Norwich, UK who has translated several Islamic Arabic books including Al-Qur'an into English.
basic idea is that one or more cases will be studied in detail, using whatever methods seem appropriate where the objective is to develop as full an understanding of the case(s) as possible" (Punch, 1998, p.150). The reasons for adopting the case study methodology are further explained.

3.7 The Case Study Method

Yin (1989, p.23) defines 'case study' as "an empirical inquiry that investigates a contemporary phenomenon within its real-life context when the boundaries between phenomenon and context are not clearly evident, and in which multiple sources of evidence are used."

Case studies can be exploratory, descriptive, or explanatory. "How" and "why" questions, such as, "How is the Leicester Muslim community responding to the computing revolution?" or "Why is the Muslim community expressing caution in adopting the new technologies?" are more explanatory and are likely to lead to the use of case studies. It is important, however, to note that the three strategies, namely exploratory, descriptive, or explanatory, are not mutually exclusive (Yin, 1994, p.9).

According to Berg (2001, p.234),

"Case Studies of communities can be defined as the systematic gathering of enough information about a particular community to provide the investigator with understanding and awareness of what things go on in that community; why and how these things occur; who among the community members take part in these activities and behaviours, and what social forces may bind together members of this community".

The above definition does not, however, fully apply to this particular research as the local Muslim community in Leicester is not by itself being studied, rather it is only the impact of ICT on this community which is being studied.

And according to Yin (1989),
"Unlike the experimenter who manipulates variables to determine their causal significance or the survey researcher who asks standardised questions of large, representative samples of individuals, the case study researcher typically observes the characteristics of an individual unit - a child, a clique, a class, a family, a school or a community. The purpose of such observation is to probe deeply and to analyse intensively the multifarious phenomena that constitute the life cycle of the unit with a view to establishing generalisations about the wider population to which that unit belongs. Whatever the problem or the approach, at the heart of every case study lies a method of observation. There are two principal types of observation - participant observation and non-participant observation. In the former, the observer engages in the very activities he sets out to observe”.

Two case studies, an educational institution and a local Muslim family, which are effectively the chosen sample within the local Muslim community, were studied and suitability of this method is further considered. The choice of the two case studies is discussed at length within the case studies in chapters 4 and 5. Fundamentally, the choice was made on the grounds that the chosen case studies were likely to answer most of the research questions (chapter 1, p.5/6).

To facilitate the first case study (a local educational institution) this researcher took up a part-time Adult ICT Trainer's post at a local educational institution from September, 1998 with the knowledge and consent of the institution as a direct opportunity to gain access and thus became a participant observer, a very important aspect of ethnographic research. Action research, “research orientated towards bringing about change” (Sarantakos, 1998, p,110) was not a direct objective of taking up the part-time post, but it did have some influence on the management to consider changes in future provision.

Case studies have their own limitations. A common criticism of the case study concerns its generalisability: ‘This study is based on only two cases, so how can we generalise?’ The first point is to ask whether we want to generalise from one or two case studies. Generalisation is unlikely to be possible (though there are common features between Muslim communities across the world), as the sample being studied is within the Leicester
environment which may differ radically from the Muslim community in Pakistan or Saudi Arabia or United Arab Emirates. It could be argued that the sample of persons studied within the two case studies in this research may not be fully representative of the whole community being studied even within the Midlands let alone the whole of the United Kingdom or the whole Muslim world. It is therefore important to choose case studies that can sufficiently satisfy the criteria of representation at least within a local scene. It may be questioned that the family chosen for this study was perhaps not ‘fully representative’ of the local scene. However, in defence of this choice, this researcher has to say that there was no point in choosing a family which did not use technology or used minimal technology but allowed access. In such a choice there could hardly be a case study. It is quite possible that with time, as more and more Muslim families become technologically oriented, choice of such Muslim families may increase but access is still likely to remain a serious hurdle.

Properly conducted case studies have a valuable contribution to make as there may be similarities between Muslim communities settled in the inner city areas of other big cities in the United Kingdom with large Muslim population, for example Birmingham and Bradford. This is particularly true where complex social behaviour or attitude is involved as in the case of diverse Muslim communities regardless of their location. “Discovering the important features, developing an understanding of them, conceptualizing them for further study, is often best achieved through case studies” (Punch, 1998, p.156). The two case studies chosen in this research appear to satisfy that selection procedure reasonably and further details regarding the choice of the two case studies are mentioned under the respective case study chapters 4 and 5 in this thesis.

3.7.1 Horizontal versus Vertical Approach

It should be noted that this research as a whole and the chosen method of case studies has been approached from a “breadth instead of depth” angle. This can also be termed at “horizontal approach instead of vertical approach”. There are several reasons for adopting such an approach which become clear when considered in the light of the number of issues and sub-questions which needed investigation. For example in the first case study (chapter
4), there were twelve issues and in the second case study (chapter 5), there were thirty issues which required investigation. The issues that were to be investigated had been derived earlier through interviews with Imams and scholars (see Appendix 1). The two case studies did not provide comprehensive answers to all the issues and sub-questions. A considerable amount of information and evidence was derived through literature review and study of Islamic scriptures like Al-Qur'an and Hadith (sayings and practices of Prophet Muhammad, (sws)). BBC interviews with members of another Muslim family in Leicester (facilitated by this researcher) provided further evidence during the field work (see Appendix 4C). A “depth or vertical approach” was therefore not possible in this case. This approach would have been suitable if there was a single issue being investigate. The “breadth or horizontal approach” has been suitable in this case as this research is many ways an original research providing ground work for other researchers to further investigate several areas of the impact of ICT in local, national and international context (see 7.6.1).

3.8 Data Collection Methods/Approaches
Data for this research has been generated and collected through two case studies from the local Muslim community, namely an educational institution in a densely Muslim populated area of Leicester and a local Muslim family in Leicester. The data collection approach in this research has had to be enveloped within the Islamic religious and cultural norms discussed earlier in this chapter.

3.8.1 Observation
This is a very important method of collecting data within empirical research. Case study observations take place over an extended period of time, the researcher can develop a more intimate and informal relationship with those he is observing, generally in more natural environments than those in which experiments and surveys are conducted. In the observation study, the investigator is able to discern ongoing behaviour as it occurs and is able to make appropriate notes about its salient features (Stewart, 1998).
In laboratory-based experiments and surveys that depend on verbal responses to structured questions, bias can be introduced into the data that the researcher is attempting to study (Cohen and Manion, 1992) and Yin, R.K(1989). Observation therefore appeared to be a suitable method to be incorporated within the case studies proposed despite the fact that researcher bias of the observations is a factor to contend with (Lofland & Lofland, 1995, pp. 74-75).

The 'self' or researcher bias in a social inquiry is a critical factor. It has been an even more critical factor in this research since the researcher and the researched both belong to the same community and faith. According to Douglas and Moustakas (1984), in the first phase of any qualitative study, the researcher must look at his or her bias and any preconceived notions of what he or she will find before beginning the research. Consequently this researcher has had to examine his own preconceptions and attempt to gain clarity of vision. According to Ihde (1977), this requires that looking precede judgment and that judgment of what is 'real' or 'most real' be suspended until all the evidence (or at least sufficient evidence) is in, as quoted by Strever, (2003). For example, at the beginning of this research, this researcher had a strong pre-conception that traditional Muslim Imams and scholars were totally against Western technologies. However, the findings of this research have proved otherwise. Researcher bias is further examined in view of the following quote.

"It has always been hard for social investigators to know what to do with their selves. On one hand there have been voices encouraging us to keep our selves out of our inquiry, to take postures that are distant. On the other hand there are those who suggest we become fully involved, to swim, as it were, in the streams whose currents we wish to know. No matter what methods we use in our social investigations, we have to make a choice about where we will position our selves, at one of these extreme points or some place in between. Whatever our choice, the position we take is still a position. And what we look at, what we see, what we encode, what we make sense of, all are a function of that positioning" (Smith & Berg, 1998, p.9).

This researcher has been conscious of this factor and took a position that did not affect the quality or outcome of this research as far as humanly possible. This was carried out in
different ways. For example, at times this researcher took an objective view of the Leicester Muslim community and the Islamic faith to view how things appeared from an outsider’s point of view. On other occasions a fully immersed position was taken as mentioned in the above quote to be able to appreciate a middle ground in order to have sufficient flexibility and also to criticise how the local Muslim community was functioning and where change was due or overdue. Another method through which any bias was reduced was by discussing the issues with Imams and Muslim scholars and then putting some of them to non-Muslim university staff at my own university, and any counter views were thus obtained to appreciate a middle ground. However, it was definitely not the intention of this researcher to take a position that cuts across any of the fundamental beliefs of Muslims. In order to be sure that the question of bias had been dealt with satisfactorily, this researcher arranged two meetings with Imam Shahid Raza, an Islamic scholar in the UK to seek guidance on this matter. One such meeting was held before commencing the case studies and the second was held towards completion of the two case studies. (See Appendix 9). Imam Shahid Raza drew attention of this researcher to the following quotes from Al-Qur’an to direct towards minimizing and ideally eliminating the element of bias.

“be just witness and let not the enmity and hatred of others make you avoid justice. Be just, that is nearer to piety, and fear Allah. Verily Allah is aware of what you do.” (Al-Qur’an, Chapter 5:8).

“Do not follow your own desires and deviate from the truth. If you distort your observation or refuse to record it, verily, Allah is aware of what you do.” (Al-Qur’an, Chapter 4:135).

“Verily, Allah commands that you should render back the trusts to those, to whom they are due, and that when you judge between people, you judge with justice. Verily, how excellent is the teaching which He gives you. Truly Allah is All Hearing, All Seeing.” (Al-Qur’an Chapter 4:58).

This researcher has therefore taken into account the above quotes from Al-Qur’an to eliminate bias as far as humanly possible while this research was in progress. Appendix 10 and Appendix 11 demonstrate how this researcher tried to step back when raising a sensitive issue with the respondent to ensure that any element of bias did not come in. On
the other hand, the respondent's reply equally demonstrates how he tried to take a position of justice in accordance with the above quotes from Al-Quar'an.

In addition to the 'self', the participants in a study may be "Good, Apprehensive, Suspicious, Negativistic or Faithful" (Tashakkori & Teddlie, 1998, p.99). In the two case studies selected, a whole variety of participants were encountered. The "Faithful" participant is an ideal participant as he or she responds or behaves in a "real" and "true" manner regardless of their perceptions of the investigator and/or predictions/expectations of the study. The family chosen for this study fell very much in this category; however, this was not the case in the study of a local educational institution. Some members of staff felt that the interviews were taxing on their already busy schedules, while some students were apprehensive or uninterested in the exercise. Observation and participant observation have been an important source of data collection in this research.

3.8.2 Document Review

"Except for studies of preliterate societies, documentary information is likely to be relevant to every case study topic" (Yin, 1994, p.81). This is, therefore, another technique in supplement to observation. Documentary information for example in an educational institution can take various forms and should be treated as a primary source of data collection. Primary source documents like minutes of meetings and correspondence provide a first-hand account of a situation, for example ICT policy. Most of the policy issues were communicated to staff through staff memos from the Principal or Head of Community Education and were important sources of information together with staff meetings where other documents were handed out.

The attendance register proved a very important document to consider and study the attendance patterns at this institution and was used in this study in addition to the records showing the pass and failure rate. While this approach falls within the domain of quantitative data, it is only one of the few incidences where it served a useful purpose.
Secondary documents like the Annual Report can offer some unique perspectives of the organisation. When documents are considered jointly, it may become possible to gain a holistic perspective of the organisation. It must be clearly understood that documents can only be examined with the full consent of the organisation concerned. Any confidential documents were not available to the researcher. This is one of the constrains of this method (Yin, 1994, p.81). It should be noted that in view of the confidentiality agreed with the educational institution no documents have been included as appendices in this thesis.

3.8.3 Interviews
This was a major source of data generation in this research and is a very important method of research whether “positivist” or “interpretivist”. Interviews can be conducted formally following a structured setting or procedures, or informally with no strict structure and maybe open-ended. Informal open-ended interviews have proved much more successful from this researcher's own experience when dealing with the Muslim community so far as the interviewees felt free to express their views and did not feel as if their views are likely to be quoted somewhere else.

3.9 Data Analysis Methods/Approach
As the Muslim community in Leicester comes from a variety of backgrounds, national cultures and languages, it is very difficult to ground any explanations on any particular theory except perhaps that the Muslim community is collectivist in nature as that is the nature of the community's general operational method. There is, however, some shift towards individualism (where decisions are made by individuals and not collectively - (Dechant, 2000), Hofstead, (1984)) within the Muslim community in the West (Begg, 1999d).

As qualitative research often concentrates on the study of social life in natural settings, its richness and complexity mean that there are different ways of looking at and analysing social life (ie. the impact of the computing revolution in this research), and therefore multiple perspectives and practices in the analysis of qualitative data: “There is variety in
techniques because there are different questions to be addressed and different versions of social reality that can be elaborated" (Coffey and Atkinson, 1996, p.14). The different techniques are often interconnected, overlapping and complementary, and sometimes mutually exclusive (Miles and Huberman, 1994, p.9). Whether complementary or contrasting, there are good reasons for the existence of the many analytic strategies, since any set of qualitative data can be looked at from different perspectives.

The variety and diversity in approaches underlines the point that there is no single right way to do qualitative data analysis - no single methodological framework (Punch, 1998, p.99). Much depends on the purposes of the research.

According to Miles and Huberman (1994, p.4), data analysis is directed at tracing out stable relationships among social phenomena, based on the regularities and sequences that link these phenomena. The analysis has three main components, which were applicable in this research even if stable relationships may not have appeared:

- data reduction;
- data display;
- drawing and verifying conclusions.

These are three concurrent streams or activities, interacting throughout the analysis as was the case in this research. Data reductions occurred continually throughout the analysis through editing, segmenting and summarising the data. Data displays helped organise, compress and assemble information considering that qualitative data can be so voluminous, bulky and dispersed. Displays helped at all stages in analysis. The reasons for reducing and displaying data are to assist in drawing conclusions. The drawing of conclusions logically follows reduction and display of data as in this research. Thus possible conclusion were noted early in the analysis. They were not finalised until all the data was in. Conclusions are in the form of propositions, and needed to be verified. For example in this research, it
emerged that the dominant view of the Muslims is to adopt 'Western technology' (normally rejected by traditionalists), some clear explanation had to be provided of why such an attitude is emerging.

It is important, however, to consider how case study evidence is analyzed since two case studies had been selected for this research. According to Yin, (1994),

"Data analysis consists of examining, categorizing, tabulating, or otherwise recombining the evidence to address the initial propositions of a study. Within such a strategy, four dominant analytic techniques should be used: pattern matching, explanation-building, time-series analysis, and program logic models".

'Pattern-matching' logic compares an empirically based pattern with a predicted one. If the patterns coincide, the results can help a case study strengthen its internal validity whether the case study is explanatory or descriptive. 'Explanation-building' is another analytic strategy where the goal is to analyse the case study data by building an explanation about the case (Yin, 1982b). 'Time-series' analysis is directly analogous to the time-series analysis conducted in experiments and quasi-experiments. 'Program-Logic Models' are effectively a combination of pattern-matching and time-series analysis (Yin, 1994, pp.103-109). Examination of trends in attendance patterns at the educational institution can be one example of this.

Constant comparative explanations can explicitly compare social phenomena, social processes, social locations, social meaning, and so on. Comparative explanations will aim to draw some explanatory significance from a specified set of comparisons. In other words the logic of explanation will be tied up with the mechanism of comparison. The operation of data collection, coding and analysis remained a continuous process in this particular research. Such a mode of analysis enables the researcher to consider as much diversity in the data as possible (Mason, 1998, p.137).
Developmental explanations are those which attempt to trace and account for the development of social phenomena, social processes, social change and so on. Here, the logic of explanation is centered on the idea that a meaningful process of development, or a story, or a narrative, can be invoked (Mason, 1998, p.137). Change in attitudes within the local Muslim community is a developmental process which is reflected in this research.

A descriptive explanation may involve the construction of some kind of explanatory account of what is going on in a particular social location, or of the operation of a set of social processes (Mason, 1998 p.137). Therefore, a descriptive explanation of the developmental process analysis appeared to be appropriate.

Predictive explanations are those where the logic of explanation is tied in with conventions for predicting social phenomena. Therefore, predictive explanations may be based on the principle that, if it is possible to observe what happened under certain specified conditions in a certain social condition, then it may be possible to predict what might happen in the future under similar situation or where conditions are different in certain known ways (Mason, 1998, p.137). As the Muslim community in the West is undergoing considerable social change both as regards its practices and social environment, a predictive explanation would appear to be ambitious as similar conditions will not arise again and the way differences will arise is not yet known.

As the Muslim community in principal remains collectivist (societies where decision making is a collective process) in nature, some of the analytic strategies mentioned above had to be applied. The complexities of the local Muslim community mean that, just as data collection has to be carried out with such a consideration, data analysis too had to be carried out with some Islamic connotations as traditional methods might not provide the correct analysis. For example if the data collected reflected that Muslim children were taking less interest in education, how can one explain this from an Islamic point of view when 'reading and learning' are fundamental instructions according to the Islamic faith?
Having considered various research methods, data collection, data analysis and their strengths and weaknesses, the most appropriate way to approach this research as suggested in this chapter was by way of two case studies, namely an educational institution in a densely populated area by Muslims in Leicester and a Muslim family living in this area. An ethnographic approach within two case studies chosen incorporated qualitative research methods and a few quantitative methods as discussed and indicated in this chapter. The Islamic approach to research is a unique feature introduced throughout this research. A qualitative research by way of two case studies using ethnographic methods was therefore enveloped within sensitivities of Islam research approach.

Before going on to the case study model, it is important to clarify the research process that took place from the beginning of this research. This thesis has combined Western scholarship and Islamic scholarship to reach its final conclusion. This is explained through the following table:
<table>
<thead>
<tr>
<th>Western Scholarship</th>
<th>Muslim Scholarship</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Consult and read work done by Western scholars on computer ethics</td>
<td>1. Consult Muslim scholars and Imams and read any work done by them on computer ethics.</td>
</tr>
<tr>
<td>2. Understand and note important issues raised and discussed at local, national and international level.</td>
<td>2. Understand and note important issues raised and discussed at local, national and international level.</td>
</tr>
<tr>
<td>3. Present research papers at important local, national and international conferences.</td>
<td>3. Present research papers at Islamic conferences at local, national and international level to understand research issues and possible research questions arising.</td>
</tr>
<tr>
<td>4. Decide on research methodology.</td>
<td>4. Decide how research methodology can be adapted to deal with the local Muslim community/Islamic research methods.</td>
</tr>
<tr>
<td>5. Carry out two case studies</td>
<td>5. Carry out two case studies taking into account Islamic sensitivities.</td>
</tr>
<tr>
<td>6. Carry out analysis and draw conclusions</td>
<td>6. Carry out analysis and draw conclusions with regards to the local Muslim community and Islamic scholarship</td>
</tr>
<tr>
<td>7. Synthesis of case studies</td>
<td>7. Synthesis of case study results to determine how far the two case studies have answered the issues and research questions</td>
</tr>
<tr>
<td>8. Final conclusion/contribution made to Western scholarship.</td>
<td>8. Final conclusion/contribution made to Islamic scholarship with a future research agenda.</td>
</tr>
</tbody>
</table>

**Table: 3.1  Research process  (December 1997 - May 2003)**

Having decided to carry out two case studies to seek answers to the relevant issues and research questions, the following case study model was used in respect of the two case studies with a few variations to suit each particular study. This case study research model was adapted from Yin (1989 p.56) and has three main components:
1. Design: Develop research questions, select cases and design data collection protocol.

2. Data Collection and Analysis: Collect relevant data regarding the Muslim community in Leicester/UK, conduct case studies. Write relevant information regarding the Muslim community in Leicester and write individual case study reports to be transferred into a case study chapter in the thesis.

3. Cross Case Analysis: Present evidence and analysis and draw conclusions regarding issues emerged from each case study, check if all research questions are answered, develop any recommendations leading to a final conclusion of this research with indications of any proposed post-doctoral work.

This model has been pursued with some flexibility bearing in mind that the two case studies cover different situations although the central purpose is to study the impact of ICT on the local Muslim community and thence its implications for the wider Muslim communities and its possible implications for human society globally.

Adapted Model from Yin(1989) follows on the next page.
**Data Collection and Analysis**

An Educational Institution and a Local Muslim Family in Leicester - Study Method:

**Case Studies**
3.10 Conclusion

In this chapter various research methods available have been examined. The suitability or unsuitability of the methods has been discussed and why case study method with a qualitative and ethnographic approach was chosen. Having chosen this method, explanation has been provided on why it was necessary to envelope this method within guidelines of conducting research within Muslim communities. The actual application of these methods raised some new issues within the family case study which have been discussed in chapter 5.

The two case studies chosen namely an educational institution and a local Muslim family were regarded as suitable as it was envisaged that these two case studies were likely to answer most of the research questions raised by this research. These two case studies proved a satisfactory choice since family and education are pivotal in any sociological research.

Since choice of appropriate case studies was an important matter, it should be noted that other choices for case studies like a Muslim business in the area using considerable technology and a social/cultural institution were considered. However, serious difficulties were encountered by way of access. The business did not want an outsider to know details of what was going on and the social/cultural organisation considered was outside this area and in fact was based in the county. Mosques were considered, but the amount of technology used is minimal and therefore not worthy of a case study.

Having adopted a model for design, data collection and analysis, and cross case analysis, the next two chapters provide further account relating to the justification of the two chosen case studies, how they were carried out and the practical application of the chosen research methods. An interpretative analysis was carried out from the evidence obtained and an indication is provided where the research issues and questions have been partly or comprehensively answered.
CHAPTER 4

Case Study 1

An Educational Institution

4.1 Introduction

There are many reasons why an educational institution has been chosen for case study purposes and some explanation of this is provided below.

The Muslim community has been settling in the Highfields area of Leicester for the last 35 years. The composition is very diverse although the majority of the Muslims are from India, Pakistan, Bangladesh and Muslims of Asian ancestry from East and Central Africa. Other nationalities are present like many Arab students from the Middle East and Malaysia. As mentioned in the introduction, more recently (2000 onwards) there has been an influx of Somali Muslims in Leicester via Belgium and the Netherlands as asylum seekers. The reason for this concentration has been mostly due to economic factors and availability of cheap accommodation both rented and owner occupied. In the early 70s the houses in the Highfields area and Belgrave area were designated for demolition and rebuilding by the Leicester City Council. However, that would have meant displacing whole communities which had already been well established in these areas. A different policy of refurbishment was eventually followed and many properties within these areas were improved with the aid of Leicester City Council Home Improvement Grants. As a result these areas were saved from demolition or further deterioration. While some housing conditions in the area have now improved, there is still considerable overcrowding, deprivation, unemployment, health problems, security problems, parking and traffic congestion problems (Leicester City Council, 2000).
Despite many problems in this area, the Muslim community seems to be holding together here for many reasons, the most important being over ten mosques which now exist in the area providing all the religious and social requirements. Most young children go to the mosques after school (Madressa - supplementary schools) for learning Arabic and Islamic studies and this particular provision is actually attracting people to this area despite all the problems mentioned earlier.

On the economic front the area is booming in business whether it is Asian food shops, Halal Meat shops, Asian clothes and fashion shops, travel agents specialising in trips to Saudi Arabia and other Muslim countries, opticians, general practitioner surgeries, dentists - virtually all businesses can be found here. Most of these businesses are being run by Muslims and most of the Indian sub-continent languages are spoken as a result of which customers with difficulty in English have no difficulty in managing their shopping requirements - a facility not easily available in city centre shops.

The Imams appear to have a very strong influence on this community both in terms of religious activities, and social and economic pursuits such as the types of businesses most suitable, dress codes and what type of education the community should prefer. The result is that many women dress like women in Saudi Arabia and most men wear white hats in readiness to go to the mosques at prayer times. Little girls too can be seen wearing head-covers and little boys wear white hats to go to learn Arabic and Islamic studies in the supplementary schools in most of the mosques in this area after normal school. These features of the community have a considerable bearing on the cultural, religious and educational pursuits of the community. It is in this regard that studying the impact of ICT becomes particularly interesting since there are some opposing forces at work, as some Imams are not very enthusiastic about new technologies particularly those who are of the Saudi Arabian school of thought. Their views are, however, not shared by those mosques who do not depend on Saudi financial support. The Islamic Centre mosque on Conduit Street, Leicester being one important example.
As far as state education is concerned most of the children and adults attend five main educational institutions in this area. Four of them are junior schools while the case study is in the only main purpose built institution serving as a comprehensive school during the daytime and providing community education in the evenings. It has a very large population of Muslim students from this area and has become the first choice for the local Muslim population both logistically and educationally. The large presence of Muslim pupils appears to be a supportive influence within themselves while it seems that the light presence of non-Muslim pupils perhaps has the opposite effect on that category. The institution itself seems to be conscious of everyone’s welfare. The influence of some of the Imams appears to be carried through into the state education as certain activities like mixed games, mixed worship, Friday congregation in the school, dress codes are influenced by the school governors who are majority Muslim, while still respecting the needs of the non-Muslim students. Whether they are influencing state education with regards to ICT is an important question to be investigated. Privacy issues have been discussed in 4.3.

Some of the data collected and issues identified are occasionally more related to day time activity and on other occasions it is more concerned with community education, while at other times the issues relate to both day time and evening activities. This can be explained by the fact that prolonged absence of some pupils during the Hajj(Pilgrimage) season is more of an issue during day time education. On the other hand Ramadhan affects community education much more seriously since all the major activities take place in the evenings (eg. breaking fast and late night prayers) thereby directly clashing with community education evening activities. The influence of parents, community leaders, Imams and governors extends both to daytime and community education.

Data collection was comparatively easier in relation to community education as this researcher had taken up a part-time ICT tutor’s appointment which was a great help in getting access to information. Data collection during the day time activities was much more difficult as some of the teachers were not too keen to have another observer sitting in their
class. The explanation provided by one teacher was that immediately before this researcher's visits they had visits by Ofsted inspectors and before that from some members of the Local Education Authority. This is understandable since this researcher felt the pressure of Ofsted visits which took place for the first time in evening classes during October, 2001. The number of visits and interviews during the day time were therefore comparatively restricted compared to the community education as will be apparent from the log sheets (Appendix 2).

4.2 Access Negotiations/Appointment as Part Time ICT Tutor
Access negotiations to the educational institution go back to April, 1998 when this institution had advertised for a part-time ICT tutor in the local paper. Having had some input into adult education at this institution before, this researcher took the opportunity to apply for this post with dual purpose, namely to teach ICT at this institution and secondly to use the opportunity as a means of this researcher's own PhD study which was made clear at the time of the interview and was accepted by the management. This researcher then started teaching two evenings a week at this institution teaching computer literacy and information technology (CLAIT) and intermediate business technology stage 2 (IBT2) courses. This resulted in becoming a member of the teaching staff and thus opened up access to a number of documents and for this researcher to become a participant observer of all that was on offer at this institution and how the local community was responding to it. Participant observation in studying cultures and communities falls within the domain of ethnographic approach to research.

It was agreed with the Principal of the institution that interviews with key members of staff and some students could take place by pre-arranged appointment within the limitations of time constraints of staff and students. Such appointments were made from the beginning of February to the end of April, 2001 (three months) while some visits during the day had already been taking place over the previous two years (2000-2001) for various reasons like staff meetings, meeting important visitors or open days which were used for observation
and informal interviews with whoever was available for such a purpose from staff or students. The study of community education had taken place between 1999-2001 in conjunction with part time teaching in the evenings. Interviews were a major part of data collection as this is a very important approach within case study methods.

4.3 Limitations of this research
There were clear indications by the Principal regarding the boundaries of this research which were discussed on two separate occasions, one being the time of appointment as a part-time ICT tutor and secondly at the time when day visits and appointments for interviews with the Principal and staff were made. Below are a list of conditions placed before the researcher. These conditions were accepted as they appeared to be reasonable for the purpose of conducting the study and maintaining the reputation and privacy of staff and students at this institution.

- The name and address of this institution would not be made public in this research due to the pressures under which this institution was already functioning.
- No names of any members of staff or students would be published as part of the privacy policy which was to be respected.
- The research would focus purely on ICT educational provision at this institution and how the local community was responding to it.
- No other aspects of this institution or areas of teaching at this institution would be observed or reported.
- Any visits and interviews were to be conducted strictly by appointment. Eavesdropping would not be entertained.
- Any interviews in the evening sessions were to be conducted during the break time of 15 minutes. Actual teaching sessions must not be allowed to suffer while observations could be made during the teaching sessions and recorded where necessary.

4.4 Application of Research Methodology
Various research methods available were discussed extensively in the research methodology chapter 3 and an explanation provided why some methods were discarded and conducting
two case studies within an ethnographic approach were chosen. The conducting of case studies within an ethnographic approach then had to be enveloped within an overall Islamic approach to research. Before proceeding further the following quote from Bassey (1999, p.39), appears appropriate though this is not enveloped in any Islamic research.

"Educational research is systematic, critical and self-critical enquiry which aims to contribute to the advancement of knowledge and wisdom about the experience and nurture of personal and social development towards worthwhile living and the acquisition, development, transmission, conservation, discovery and renewal of worthwhile culture. Expressed more succinctly, Educational research is critical enquiry at informing educational judgements and decisions in order to improve educational action."

Such a description fitted well with the choice of a case study enquiry at this educational institution.

Opportunities to attend Annual General Meetings were availed and some links with daytime staff were established. During the first year (1999) a general appreciation of how this institution was running became familiar. The actual case study was conducted during the following two years (2000-2001). The part-time teaching post provided very valuable information regarding ICT teaching at this college and some indicators regarding the issues of cross-cultural transfer of ICT within a densely populated Muslim area. A full log of part time teaching and research activity was kept (Appendix 2). During this period the views and attitudes of adult ICT students at the college were studied and logged. The ICT culture at the college in so far as it could be discerned in the evenings and the response of the students both by way of attendance, achievement and results were noted. A number of informal discussions were recorded with students and staff.

Many interviews with local community leaders and Imams of mosques in this area took place as they had a major influence on the direction which the community was taking in education and dealing with the technological revolution. The interviews with Imams and scholars have been an excellent source of background knowledge in this whole study.
4.4.1 Data Collection & Analysis

Informal open interviews were used to identify important issues for the Muslim community regarding ICT provision in state education. 4.1 is a table of pre-identified issues from the response of persons interviewed. The interviewees were Imams, Muslim scholars, teachers, community leaders, community education providers, parents and some students. While only 12 issues are listed in the following table, Arabic language teaching and having more Muslim women teachers in schools were brought up during interviews. The importance of these issues is not disregarded from the point of view of this research but as they are related to administration, supply and demand, they have been discussed where relevant in the thesis.

Some issues are Muslim specific and have been categorised accordingly and other issues are either directly relevant or indirectly relevant. Appendix 5 shows the form used with these pre-identified issues when conducting interviews for this case study. (Note: Appendix 5 provides data directly from the Principal, 5a, Vice Principal and 5b, Head of Community Education). Additional data was collected by this researcher's own involvement as a part time teacher. It must be noted that while some tables within this case study have been reproduced from information collected by this researcher, all the data collected has not been shown in the appendices for confidentially reasons. Only the three main interviews (Appendices 5, 5a and 5b) have been included in this thesis as actual evidence. The data collected was used to provide evidence from which this researcher drew an analysis in relation to a particular issue in an interpretative manner.

Some of the 'issues' identified below may not appear to be issues as such but they become 'issues' when studied in relation to the impact of ICT on the local Muslim community in Leicester (and elsewhere). It must be borne in mind that these are not 'the only issues' with regards to the Muslim community and ICT provision in state education. In other cities of the United Kingdom there may be other issues for example how affluent or poor the local Muslim community is, existence or non existence of State funded Faith Schools and
existence of privately funded Faith Schools. The literature review chapter provided additional coverage of some of these issues. The following table shows issues that surfaced as important from the point of view of the local Muslim community in Leicester.

<table>
<thead>
<tr>
<th>No</th>
<th>ISSUE</th>
<th>Muslim specific?</th>
<th>Relevance to this case study</th>
<th>Section No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ICT provision Day-time</td>
<td>No</td>
<td>Yes</td>
<td>4.6</td>
</tr>
<tr>
<td>2</td>
<td>Attendance – Day time</td>
<td>No</td>
<td>Yes</td>
<td>4.7</td>
</tr>
<tr>
<td>3</td>
<td>Influence of parents, community leaders, Imams and Governors</td>
<td>Yes</td>
<td>Yes</td>
<td>4.8</td>
</tr>
<tr>
<td>4</td>
<td>Attitude of students – Day time</td>
<td>No</td>
<td>Yes</td>
<td>4.9</td>
</tr>
<tr>
<td>5</td>
<td>Muslim Parents Guide(publications)</td>
<td>Yes</td>
<td>Indirect</td>
<td>4.10</td>
</tr>
<tr>
<td>6</td>
<td>Cross-cultural transfer of technology</td>
<td>No</td>
<td>Indirect</td>
<td>4.11</td>
</tr>
<tr>
<td>7</td>
<td>ICT provision for Community Education</td>
<td>No</td>
<td>Yes</td>
<td>4.13</td>
</tr>
<tr>
<td>8</td>
<td>Influence of faith, culture and knowledge of English language</td>
<td>Yes</td>
<td>Indirect</td>
<td>4.14</td>
</tr>
<tr>
<td>9</td>
<td>Provision for women, OAPs, and disabled persons</td>
<td>No</td>
<td>Yes</td>
<td>4.15</td>
</tr>
<tr>
<td>10</td>
<td>Attendance in Community Education programme</td>
<td>No</td>
<td>Yes</td>
<td>4.16</td>
</tr>
<tr>
<td>11</td>
<td>Results in Community Education</td>
<td>No</td>
<td>Yes</td>
<td>4.17</td>
</tr>
<tr>
<td>12</td>
<td>Future plans</td>
<td>No</td>
<td>Indirect</td>
<td>4.18</td>
</tr>
</tbody>
</table>

Table: 4.1. Table Of Pre-identified Issues for investigation

4.5 Daytime Comprehensive School

In order to carry out a case study at this institution, it was important first of all to consider the student profile both during daytime and community education together with teaching and administrative staffing levels. This has been considered separately for day and evenings teaching (chart 4.1).

The daytime comprehensive school has been considered first and as mentioned earlier it was necessary to establish a student profile to obtain a clear picture of what percentage of Muslim students were receiving state education at this institution and whether staffing
levels were adequate in providing a satisfactory level of education since recruitment of qualified teachers remains an ongoing concern within state education. The following table provides an accurate number of students on the school register as at 30th April, 2001 provided by the Principal from school records.

<table>
<thead>
<tr>
<th>Religion</th>
<th>Number</th>
<th>Religion</th>
<th>Number</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muslim</td>
<td>386</td>
<td>*(48%)</td>
<td>Muslim</td>
<td>417</td>
</tr>
<tr>
<td>Christian</td>
<td>21</td>
<td>Christian</td>
<td>28</td>
<td>49</td>
</tr>
<tr>
<td>Jewish</td>
<td>-</td>
<td>Jewish</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Hindu</td>
<td>20</td>
<td>Hindu</td>
<td>29</td>
<td>49</td>
</tr>
<tr>
<td>Sikh</td>
<td>1</td>
<td>Sikh</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>No religion</td>
<td>2</td>
<td>No religion</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>Not known</td>
<td>61</td>
<td>Not known</td>
<td>49</td>
<td>110</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>Other</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Unclassified</td>
<td>1</td>
<td>Unclassified</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>493</td>
<td>TOTAL</td>
<td>539</td>
<td>1032</td>
</tr>
</tbody>
</table>

Table: 4.2 **% of Muslim Pupils – 2000/01 Student Analysis by Gender & Religion

Source: Interview with Principal 08/02/01 - (Appendix 5).

A very high percentage of Muslim students (nearly 78% at this institution) raised issues regarding their special requirements for example, food, nature of Physical Education lessons, uniform for boys and girls taking into account special requests by Muslim girls for head cover (Hijab), facilities for worship and influence of special events on attendance and results. At the same time it was important to ensure that the needs of non-Muslim students were not overlooked. The school management team was conscious of this fact. From the observations and research carried out, no serious complaints were highlighted apart from comments by one student who felt that the Muslim culture dominated the scene (a concern
of some non-Muslim parents in Northern cities as reported in the press after the riots of summer, 2001 (Guardian, 8th July, 2001).

Student population represented in a pie chart (4.1) together staffing levels.

Chart: 4.1. Student Population Represented In a Pie Chart.

Total Muslim Students = 78%  Total Non-Muslim Students = 22%
Staffing Levels:

Day Full Time ICT Staff (including 1 technician) = 5
ICT Manager = 1
Head of Community Education = 1
Community Education Part time Teaching Staff = 5

Total ICT Staff = 12

Source: Records at this institution as at 30th April, 2001 provided by the Principal and Head of Community Education (Appendix 5 & 5a)

The very high proportion of Muslim students at this institution meant that any major event in the community was likely to have a visible effect on attendance and in other respects which are discussed later in this chapter.

The ICT staffing level of 12 (full time and part time) covered the time table at that time, however, when some members of staff were off sick or unable to come in due to other reasons during day or evenings, it had an effect on the classes some of which had to be cancelled as no other tutor was available to cover the absence. Several training opportunities were available for staff to improve their ICT skills both internally and externally. The National Grid for Learning provides several initiatives and opportunities for teachers to improve their skills. One of these is ‘Computers for Teachers Initiative’ (England). Teachers On-line project (TOP) was available for teachers to join free of charge (Becta ICT Advice, 2003). Staff were encouraged to join such initiatives.

4.6. ICT Provision at this Institution - Day Time: (Issue No.1)

4.6.1 Evidence

The student composition and staffing levels have been shown earlier as revealed by the Principal and the Head of Community Education when interviews were conducted for the purpose of this case study. The primary source for the information was interviews with the Principal and Head of Community Education on 8th February, 2001 & 9th March, 2001 respectively.
At Key Stage 3 all children during day time get basic ICT Training at this institution like word processing, spread sheets, databases etc. At Key Stage 4, 14 to 16 year olds were offered IT at G.C.S.E level training. Details of skills required to be taught and learnt are outlined in the National Grid for Learning: Knowledge, Skills and Understanding (National Curriculum online, 2003). Initial discussions and observations indicated that most of the requirements were being fulfilled although no formal investigation could be carried out to assess whether the necessary Knowledge, Skills and Understanding are being acquired in accordance with the recommendations of National Grid for Learning. All subject teachers have opportunity to take their students to the library for Internet access of their respective subjects provided by the National Grid for Learning. From the evidence collected, the teachers do avail this opportunity but the pupils felt that this was not happening as often as they would have liked. From the evidence collected, some teachers felt that there were constraints imposed by timetables while others remarked that the more they did, the more seemed to be thrust in their direction. The Internet provision through the National Grid is filtered and all lessons were supervised. According to the Principal, Vice Principal, Head of Community Education and the School Secretary, no serious cases of abuse of Internet had been reported.

Information resource was provided through brochures and other advertising material. Children get 2-3 periods per week on computers. The school roll was on maximum capacity which suggests that the take up of ICT training during the day time was running at a maximum level.

A Home Work Club had been established whereby children had the facility to carry out Internet search during lunch time or after school hours. There were five Computer Suites available (2001), two with full Internet connection through the National Grid (this is filtered). Technician support for Community Education was withdrawn in early 2000 which created considerable difficulties (Appendices 5-5b).
4.6.2 Analysis

Evidence suggests that this institution was providing ICT education in accordance with national government guidelines and the National Grid for Learning. There was a great sense of motivation to learn through use of computers and to acquire ICT skills. While no serious cases of Internet abuse were noted during the day, the situation at home was not the same where Internet access was available and the parents were not computer literate.

Over the previous few years (1999-2001) this institution had made tremendous progress in setting up new computer suits equipped with Internet connection and many new terminals and printers were now available, the students still complained that they did not get enough time on computers though what they want may not be strictly what they need. There were many reasons for this, the main reason being time constraints imposed by timetables in trying to provide as fair as possible opportunity for all and would thus not be able to meet demands of all pupils. The teachers too had a timetable to work to and found it difficult to provide extra help much as some would like to, though some teachers avoided as much extra involvement as possible. The issue of the level of resources that can be provided is always a difficult one on the part of the providers as they themselves are restricted by budget guidelines and budgets allocated to them by the local and central government. This institution was, however, trying to get as much support as possible through various initiatives including European community grants (not materialised up to the end of 2002). Analysis of Student support follows.

**Total student population = 1032**

<table>
<thead>
<tr>
<th>ACTIVITIES</th>
<th>BOYS</th>
<th>GIRLS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have a home PC.</td>
<td>59%</td>
<td>52%</td>
<td>55%</td>
</tr>
<tr>
<td>Have access to Internet at home</td>
<td>42%</td>
<td>34%</td>
<td>38%</td>
</tr>
<tr>
<td>Attend Home Work Club</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Receive Study Support out of School time</td>
<td>17%</td>
<td>15%</td>
<td>16%</td>
</tr>
</tbody>
</table>

Table: 4.3. Analysis of Student Support - for this institution

Source: Reinterpretation of Institution's own survey results (30th April, 2001) provided by the Principal.
The figures above suggest that boys are comparatively in an advantageous position as regards to availability of a Home PC or Home Internet connection. While the above figures are as a percentage of the total student population it was quite likely that Muslim boys have more facilities at home than girls. In a household with boys and girls, the boys tend to spend more time on computers than girls as was observed during the second case study, chapter 5 (Muslim Family in this area). Some Muslim parents favour the boys' education more than that of girls but the Principal and Head of community education, however, insisted during interviews that every effort was made to provide equal access to boys and girls while they were at this institution. The analysis here provides some answers to the first research question (p.4).

4.7. Attendance - During Day time (Issue No 2)

4.7.1 Evidence
According to information received from the Principal during interview on 8th February, 2001, attendance at this institution during the day time was quite good and was regularly monitored. Indeed there was an Attendance Officer in post whose job was to see that attendance at this institution was maintained at an acceptable level. The actual acceptable level of attendance was, however, not specified by the principal. This was subsequently checked through League Tables which indicated that the absence rate was 3.5% during 1999/2000, compared with the average for the area of 1.9% and 1.0% of the average in England (BBC, 2001). It should be noted that the actual URL of the specific page is being withheld from the Reference page for privacy reasons mentioned earlier in this chapter. Students who failed to keep a good attendance record were followed up by the Attendance Officer who investigated reasons for poor attendance or non-attendance.

The principal expressed serious concern on the effect on attendance during certain periods of Islamic festivals like the month of Ramadhan (month of fasting), and Hajj, the period of pilgrimage to Makkah in Saudi Arabia. The principal was concerned that performance of students does fall during the month of Ramadhan and absenteeism increases. The principal
was even more concerned about what happens during the period of Hajj, annual pilgrimage to Makkah, in Saudi Arabia. She expressed serious concern about several families who just leave for Saudi Arabia for a period of six to eight weeks and in some cases without even informing the school that they required permission to be away. This has had serious affect on the education of children and their overall performance and in turn can affect the performance rating of this institution in league tables. To counteract this particular difficulty the institution has had to introduce new rules on attendance and absenteeism which was that any student who misses four weeks continuously without permission would have to apply for re-enrolment and a place in this institution would not be automatically guaranteed. It was hoped that these new regulations would curb absenteeism without permission and parents would organise their religious duties without affecting the education of their children. The result of this new approach had to be assessed. It was hoped, however, that it will help the situation to some extent. The effect of Islamic festivals was much more serious in community education which takes place mostly in the evenings or week ends and this is discussed separately under community education.

4.7.2 Analysis

Islamic festivals have implications on attendance and performance particularly when these festivals fall within term times. During the period of study almost all Islamic festivals fell within term times thus providing indicators on how serious this issue can be, for example the absence of some pupils from daytime during the Hajj period (pilgrimage) without the permission of the school. The effect of Ramadhan which has much more serious implications in community education is discussed more fully under Issue No. 10 (4.16) making it clear how serious the issue can be. It is important to note at this juncture that the Islamic calendar runs according to the Lunar calendar with the result that every festival moves back about 10 days in every Christian year of 365 days. As such Islamic festivals can hit term time activities for several years before moving into holiday period of July and August. When the festivals fall back into this period, the attendance and performance is unlikely to be as seriously affected.
An important feature of the Islamic festivals lies in the fact that it takes almost 36 years for the month of Ramadhan to repeat itself say in the month of July if records are started in July of a particular year. It takes 3 years for a festival to move back one month assuming all months are 30 days and hence $12 \times 3 = 36$ years approximately for a complete cycle. While this is useful information, there does fall considerable responsibility on the part of the Muslim community and the education authorities in managing these festivals during term time and their effects overall. This particular institution has done well so far in accommodating the demands of the local Muslim community but it appears that it was to some extent at the expense of its position in league tables. While the absence rate of 3.5% may not appear to be too high during the day it was still almost twice the average for this area and more than three times the national average for England. This would tend to support the evidence and hence the analysis that the higher rate of absence may well be due to the specific religious events which fell during the term time. The absence rate has a knock on affect on performance and eventually the results and the position of this institution in League Tables. There does not, however, seem to be an easy answer to this issue but it must be stressed to the parents and the community that the education of the children should not be underestimated when planning for the Hajj (Pilgrimage visit to Saudi Arabia normally lasting 6 weeks). The Hajj is not an obligation on children, it is an obligation on adults who can afford the journey. Parents may argue that they cannot leave the children alone in the house for 6 weeks. However, pulling children out of the school for six weeks or more, often without permission from the school, is not a teaching of Islam. The parents and the community as a whole needs to understand the need to strike a balance between the importance of children’s education (high priority in Islam) and religious duties, only obligatory on adults.

As there was already a heavy demand on computer terminals during term time, the students were only able to get on to the terminals in a strictly time-tabled manner. High rate of absenteeism particularly for those who did not have a home PC or Internet connection could
lead to poor results particularly in ICT and other subjects as a direct result of poor attendance. The message which the Principal (a Muslim person) conveyed to this researcher was that you cannot expect the authorities to wait for 36 years and then see an improved attendance record due to Ramadhan falling in July or August. Due to strict timetables, the non-Muslim students did not necessarily benefit by way of time on terminals when Muslim students are away. The evidence and analysis of this particular issue provides an answer to some of the reasons for the slow take-up of technology within the local Muslim community though other reasons are likely to emerge within the overall findings of this research. The analysis here provides some answer regarding the apparent reasons for the slow take up of technology in the local Muslim community (research question 1, p.4). This could equally apply to Muslim communities in other UK cities.

4.8. Influence of parents, community leaders, Imams and Governors: (Issue No. 3)

4.8.1 Evidence
From discussions with the Principal, Vice Principal and other members of staff it appeared that there was not any serious interference on what was being taught at this institution and the methods of teaching from the parents or community in relation to ICT provision and particularly the use of the Internet. Parents had, however, requested that their daughters should be kept away from certain mixed activities like games or physical training etc. The attendance at parents evening had improved over the years but was still not very encouraging according to the Principal. The needs of the non-Muslim students were not being overlooked according to the Principal although one student during an interview remarked that her parents were not particularly keen on the strong presence of Muslim culture at this institution. (See Appendix 5a –5c).

4.8.2 Analysis
Normally the Muslim community is very active in criticising anything which they observe as ‘un-Islamic’. The information that there had not been much interference from parents, community leaders, Imams and governors was somewhat surprising particularly as the Imams are highly critical of TV, satellite TV and the evil side of the Internet which is often
mentioned in Friday sermons (Jameel, 2001). It appeared, however, that the local community had some confidence in the fact the majority of the governing body was made up of Muslim members and the principal was a Muslim person. The needs of the non-Muslim students appeared to be met as there were no serious concerns noted apart from the apprehension of some parents of non-Muslim pupils. This type of reaction had been in the news media particularly during riots in the Northern cities of UK during the summer months of 2001 highlighted in the Cantle Report (Cantle, 2002).

4.9. Attitude of students – Day time (Issue No. 4)

4.9.1 Evidence

From discussions with the Principal, Vice Principal, members of teaching staff, students and own observations, the majority of students appeared to be motivated to learn particularly any computing related activity. If anything they felt that they did not get enough time on computers due to demands of the rest of the student population and time tables allocated for computer use. The attitude of Muslim girls to ICT training came up in the discussions and here too the discussions and observations revealed that they were motivated to learn through computers. The comment from some of the female students was that there was more opportunity for boys in computing than girls. On further questioning they said that it was more to do with computer games which their brothers enjoyed on home computers and had an unfair share of time on computers both at home and to some extent at school. The teaching staff, however, said that every effort was made to provide a fair share of time on computers both for girls and boys.

Interviews with two teachers and a few students during the day time revealed that generally the motivation to learn computing was very high and for some reason students appeared to be more interested in learning through computers than sitting in a classroom lesson. One reason given by teachers and students was that the ‘hands on’ experience gave the students a greater sense of involvement with their work compared to when they were on the receiving end in a classroom setting. Another positive aspect of learning through
computers reported by the teachers was that maintaining discipline was comparatively easier, again as a result of 'hands on' involvement. One teacher went as far as saying that computers appear to be the answer in controlling some of the most difficult young students at the institution. The difficulties encountered are mostly to do with resources - there were just not enough computers for every student. The demand was very high but the time available was strictly controlled through timetables to allow for fair opportunity for everyone. Those who did not have a computer at home struggled to get as much time as possible while at the institution. Those with home computers and Internet connection appeared to be performing better than those without home connection. This was confirmed by the teachers and indeed the students themselves that they were able to present much better home work having carried out some research on the net (see Appendix 12).

4.9.2 Analysis

It appeared that there was no serious difficulty as far as motivation to learn on computers was concerned and statistics confirm that the number of home computers was increasing even within the traditional Muslim families as some change in attitude had come particularly from 2000 onwards. The shift in attitude had been taking place particularly since Saudi Arabia allowed a filtered access to the Internet in 1999. That it appears has had the influence of shifting the attitude in the remaining traditional Muslims both locally, nationally and to some extent even internationally. The vast amount of resources on Islam and Islamic games now available has clearly had a strong influence in shifting attitudes. The majority of Muslims both young and old, educated or not so educated, economically well off or poor believe that the answer lies in proper education both religious and secular. There was no way one could run away from the everything around oneself and still be able to live a progressive life both religious and otherwise. Indeed the Islamic faith itself regards the status of those people who maintain their religious integrity regardless of the environment as higher than those who may shut themselves off in a totally protective environment. This evidence and analysis here points towards a partial answer to the fourth research question of cross-cultural transfer of technology issues and any change in attitudes which is the first research question in the introduction (chapter 1, p.4).
4.10. The need for guidance to Muslim Parents (Issue No. 5)

4.10.1 Evidence

The idea of publishing a Muslim Parents Guide on the use of ICT at home was first floated during interviews in the Muslim family case study as it was apparent that some guidelines were required for parents and children in the use of new technologies at home, an issue which had gained serious attention even in the West during the early part of 2001. The Muslims generally follow guidelines from the Qur'an in their every day lives. However, guidelines in dealing with specific issues has to be done from time to time by scholars by taking into account some of the finer guidelines contained in the Qur'an which every ordinary Muslim is not capable to interpreting or applying in daily situations, hence the need for an informed guidance was very important.

This recommendation was put to every member of the staff interviewed and even adult students in the community programme and was most welcomed and encouraged by all persons interviewed. It was felt that there was no guidance to parents at present on how they should supervise their children's use of ICT at home in view of all the publicity in the media regarding paedophiles and chat rooms. According to the information gathered at this institution, there were no cases reported of any young girl eloping with anyone having met through chat rooms while there had been at least two cases in the Muslim community at large in this area (reference withheld for privacy).

4.10.2 Analysis

The Muslim community is greatly in need of such a publication which could be translated into Asian languages and Arabic for ease of proper understanding. The most important difficulty to understand is that majority of the Muslim parents currently are not computer literate from interviews with Imams, scholars, families and individuals and as a result do not know what to do or how to supervise the use of ICT at home. As a result a number of
problems have arisen where young girls in teens had been enticed by men through chat rooms and had left home secretly thereby bringing great misery to their families and quite possibly on to themselves as well. However, as the age of consent in UK is 16 years, parents and families cannot do anything if the daughter leaves home and is over 16 years of age. The whole issue of the influence of the Internet at home is being debated in some quarters of the community, for example the Islamic Centre in Leicester. While no cases of eloping through chat rooms contacts had been reported at this institution the dangers presented by contacts through chat rooms is a real one and has been discussed in more detail in the next chapter 5. The need for a parents' guide to the use of Internet at home was not a research question but transpired as a result of carrying out the two case studies and is further discussed in the conclusion to this thesis. The evidence and analysis here provides an indicator towards the need for publishing a parents guide (see chapt.7).

4.11. Cross-cultural Transfer of Technology (Issue No. 6)

4.11.1 Evidence

The computing revolution has come from the West and as such it has been developed essentially in English with connotations of a Western cultural approach and phraseology. Transferring such a technology to Eastern cultures and people whose mother tongue is not English presents its own challenges, obstacles and fears in other communities as indeed expressed by the Principal, Vice Principal, Head of Community Education and some staff members and even students. Some students, particularly new arrivals, whose command of English was poor, found some of the terminology used in ICT a little alien for example 'default setting', which some students had understood to be a faulty setting.

The eastern communities face two major hurdles on their road to adopting the computer technology, the first being economic, sheer inability to afford a computer system and secondly lack of proficiency in English Language. Any community which is facing these two hurdles is likely to remain behind for a long time. These difficulties exist to some extent even with the United Kingdom Muslim communities including Leicester where
many families were just about coping with every day expenses and new arrivals were likely
to have a poor knowledge of English as confirmed through fieldwork in this area. Some
students reported during interviews that the reason why they did not have a computer at
home was because their family could not afford one or their house was overcrowded and
there was no room to accommodate a computer system. Some students reported that their
families prefer to keep the box room free for prayers and therefore do not want a computer
in that space.

4.11.2 Analysis
There is a great need to redress some of the economic and language barriers faced by many
people in relation to ICT literacy. As reported by some students, their families were unable
to afford the system (there was some indication that as the prices were coming down more
families are now able to invest in a computer system), the accommodation left no room for
a computer and the their English literacy level was not enough to get the maximum benefit
out of such a large investment.

The cultural aspects of this Western technology presents its own problems to people from
other cultures with phraseology. A good example mentioned earlier is the phrase ‘default
setting’ which does not register quickly with many people. The notion to reject ICT since it
is a ‘Western development’, is becoming weaker as the people were beginning to reap some
benefits out of these developments even in relation to the achievements of their children at
this institution and in relation to the propagation of Islamic faith. Here further answers to
the fourth question of cross-cultural transfer of technology have been revealed (chapt. 1,
p.4). These issues have been discussed in more detail in the family case study Chapter 5.

4.12 Community Education Programme
As in the case of Day programme, it was important to consider student numbers and student
profiles and teaching staff levels in community education. Community education dealt
mostly with adults who were returning to education or trying to update their skills. The
whole organisation of community education was very different from day schools. As the
focus of this research was on the impact of ICT on the local Muslim community, details of how community education was funded and other organisational details are not discussed in this thesis. ICT provision in community education has been treated as a separate entity in itself.

4.13 ICT Provision in Community Education (Issue No. 7)

Some information regarding community education is provided as a prelude to Evidence (4.13.1). ICT training opportunities in community education is a vital service since most of the older generation within the Muslim community has not grown up with computers in the way their children are in schools today. Very often the children are more knowledgeable than their parents in ICT matters. Hence there was an important gap that needed to be filled. The best way to tackle this was through community education wherever it could be provided whether through further education centres or even supplementary schools and mosques. Currently this institution is a main provider of such training for the Muslim community in this area although there were plans for extending such provisions to supplementary schools through Intranet connection. Details of adult student population follows.

<table>
<thead>
<tr>
<th>Identity</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muslim</td>
<td>177</td>
<td>133</td>
<td>310</td>
</tr>
<tr>
<td>Non-Muslim</td>
<td>64</td>
<td>45</td>
<td>109</td>
</tr>
<tr>
<td>Total</td>
<td>241</td>
<td>178</td>
<td>419</td>
</tr>
</tbody>
</table>

Table: 4.4. Student Population in Community Education (All Courses including ICT) 2000/2001

<table>
<thead>
<tr>
<th>Identity</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muslim</td>
<td>69</td>
<td>32</td>
<td>101</td>
</tr>
<tr>
<td>Non-Muslim</td>
<td>18</td>
<td>20</td>
<td>38</td>
</tr>
<tr>
<td>Total</td>
<td>87</td>
<td>52</td>
<td>139</td>
</tr>
</tbody>
</table>

Table: 4.5 ICT Student Population 2000/2001 ICT Tutors = 5 P/T

Source: Information from Head of Community Education from Records held at this institution as at the date of interview 9th March, 2001 (see Appendix 5b).
The enrolment figures for various courses were encouraging as the figures suggest. A maximum capacity at least during the first week of the new first term had been achieved and there was a waiting list for most of the ICT courses. A complete breakdown of all the various faiths was not kept in the case of Community Education. However, records of Muslim and Non-Muslim students were kept which provided useful information.

4.13.1 Evidence

While the major portion of Community Education Programme was offered during the evenings, it should be noted that some provision was made during the day to accommodate the needs and wishes particularly of women who have domestic responsibilities and the duty of taking and bringing back children from local schools. Internet Training classes were therefore offered between 1.00pm and 3.00pm during the day and there was a considerable provision during the evenings. ICT Courses are listed below. New courses are under consideration.

1. OCR Internet Technologies Stage 1
2. Computer Literacy and Information Technology Stage 1 (CLAIT)
3. Information and Business Training Stage II. (IBT2)

There were numerous other courses available for the local community like English for speakers of other languages, Arabic for Beginners, English for over 60s, Aerobics/Fitness workout for women, Henna courses, Access to Caring professions, English with computers, Tasters courses in Nursing, Yoga, Basic Food Hygiene Course. Further courses like ICT training for Imams was being considered.

The main source of evidence in this case is the researcher's own involvement in Community Education Programme through enrolment evenings and teaching ICT courses in the evenings which was supported by evidence from publicity leaflets, interviews with the Principal, the Head of Community Education, Staff Secretary and other staff members. The
Withdrawal of a technician support during the evenings community education programme created some serious difficulties in managing students and trying to work PCs that were apparently not working. The matter was brought to the attention of the management but no help was forthcoming as the institution could not afford a technician for evening classes in addition to the day time requirements.

The response to Community Education was generally quite good with some courses (particularly ICT) were over subscribed and there was always a waiting list of students for almost all ICT classes which was an encouraging sign that the local community in this area was trying to take advantage of the ICT courses on offer (see Appendix 5b).

4.13.2 Analysis

It was evident from the vast number of courses on offer during the day and Community programme that the institution was doing a lot in the process of providing ICT training both to school children during the day and the local community during the day and the evening. The community was responding to all the provision during the day and evenings (there was a waiting list for ICT courses) but for many reasons the full benefit of all that was on offer was not being realised and the reasons for this were many.

From the analysis of data collected, it appears that there are factors that have contributed to this and they are as follows:

- The community had been slow in responding to the computing revolution due to economic reasons. Affording a full home computing systems costs more than four to six weeks pay for an average employee which most residents were not able to afford.
- The housing conditions in the area were quite grim with overcrowding and small dark terraced houses giving little incentive to install a computer system.
- There had been religious and cultural constraints in adopting an essentially Western developed technology often criticised by Imams and scholars.
- Poor literacy rate and lack of command of the English Language.
- Cross Cultural Transfer of Technology issues.
• Tendency of the community to encourage children to go into factory work for more short-term money rather than education to go into a profession.

• The arrival of festivals in middle of school terms, thereby drastically affecting attendance and hence performance and results.

Lack of technical support in the evenings was another reason why schools were failing to get full benefit from ICT provision since some terminals have to be left unoccupied for emergency if some of the occupied terminals develop a technical fault which cannot be dealt with immediately. Minor technical faults with printers or even with PCs. means that useful training time was lost from the point of view of potential learners. There was lack of encouragement from Community leaders, Heads of families and Imams in the area in propagating the need to adopt the new technologies. This was however, changing gradually as indicated by higher numbers of enrolment in ICT classes during the previous 12 months (2000/2001). The institution's own research in 2000 had revealed that 38% of the children had home computers which was rather surprising even to the management itself. A much lower percentage had been anticipated. Apparently the push had come over the previous 12 months due some change in the attitude of the elders in the community. Here further reasons for the slow take-up of technology within the local community have been revealed (research question 1, p.4).

4.14 Influence of faith, culture and knowledge of English language (Issue No. 8)

4.14.1 Evidence
From discussions with staff and students at this institution and personal observations during teaching sessions, it was evident that the students were considerably directed by their faith and culture. For example some Muslims students asked for permission to perform their evening prayers while the teaching session was in progress. As prayer facilities are provided at this institution, this researcher and other members of staff did give permission to students to carry out their prayer rituals in the room provided. It should be noted that not all Muslim students asked for such a break and those who did take a break did so only for a maximum of about 7 minutes. On Fridays, during the day time, Friday congregation was
held which was usually conducted by some trainee Imams from the local community. This had two way benefit (a) the students did not miss the Friday congregational prayer while it was held in their own environment and (b) the trainee Imams had their own practical training on how to conduct Friday congregations and be able answer any questions asked by the students. Such prayers usually took place between 1.15pm to 1.45pm which was normally lunchtime for most students and staff and as such it did not interfere with any normal lessons.

The knowledge of English language as observed by this researcher during the teaching role showed a varying degree of proficiency. Those who had lived in this country long clearly appeared to be better whereas those who were recent arrivals from abroad had difficulties which in turn reflected on their ability to learn the ICT skills. However, separate English classes were available and many such students attended both sessions for a swifter progress. Due to cultural and religious reasons, there was a greater demand for separate classes for women.

It was noted from 1999 that less and less Muslim women joined mixed ICT classes as provision for separate classes for women was established. Even when operating in the same room, Muslim ladies were usually grouped together on one side of the room so that they were not forced to sit next to a male student. Some, however, did not mind where they were seated. It should be noted that the Muslim demand for separate schools for girls is an on going campaign which has actually led to some separate Muslim schools to be established around the country. There are at least two separate Muslim girls schools operating in this city and one is within the area of this study. Some of these issues are further discussed in the next section.

The influence of Islamic festivals is an issue in itself and has been discussed separately under Issue No. 10. Issue No. 6 (Cross-Cultural transfer of technology) provided further insight into cultural issues.
4.14.2 Analysis

It was apparent from discussions with staff and students, observations and this researcher's own knowledge that the Islamic faith and culture have a major influence on how the Muslim community operates generally and for those involved in education and other community provisions (health was another major area) need to have a good general awareness of the community's requirements and make reasonable provisions for smooth running of any service without attracting too much outcry or uproar from sections of the Muslim community or indeed the local indigenous community. Many of the requirements of the Muslim community only require small changes and adjustments here and there and given the right attitude should not be too difficult to accommodate. Girls wearing head scarf (Hijab) do not cause harm or offence to anyone, if anything it highlights the variety of cultures present within any environment. Here some answers regarding cross-cultural transfer of technology became apparent (research question 4, p. 4).

4.15. Provision for Women, Old Age Pensioners And Disabled People (Issue No. 9)

4.15.1 Evidence

There were women only classes at this institution to encourage women to learn ICT with a woman tutor. Crèche facilities were provided. The Internet Training course was proving particularly popular with a good attendance record and a woman tutor. Provision was being made for retired Muslim people and disabled people to be able to join computing classes (one 85 year old Muslim man was learning ICT and a disabled Asian lady was being provided special attention in ICT Training during 2001). Voice Recognition computer programs were not yet being used but would be considered in future as demand arose.

The above information was gathered during an interview with the School Secretary and the Head of Community Education. Demand for Women Only classes had increased and the provision had thrived and was over-subscribed. By contrast the demand by Muslim retired persons and disabled people remained low. Below is an analysis of some of the reasons (see Appendix 5b).
4.15.2 Analysis

Women tutors were short in supply for recruitment (part of overall shortage of teachers and tutors in education), which meant that as the demand for women only classes grows, the provision may remain restricted due to lack of women tutors. During the interviews with the School Secretary and Head of Community Education (both Muslim), it transpired that the demand by Muslim retired people and disabled people to learn ICT was quite low and it appears that this was more from cultural rather than any other reasons. Old age pensioners in the Muslim community tend to think that the Mosque was the best place to be in during the remaining years of their life. However, according to the real teachings of Islam, acquiring knowledge is a cradle to grave recommendation. The majority of Muslims, particularly pensioners tend to think that this is more applicable in terms of acquiring religious knowledge rather than learning ICT. Hence, the interest in Muslim pensioners to learn ICT was very low. They would rather learn Arabic so that they are able to read the Qur'an in Arabic. From the religious point of view this was a natural choice.

With Muslim disabled persons, there were different reasons. One of the reasons discovered during various interviews was that somehow Muslim disabled persons do not like to feel that they are a 'burden' on too many people and do not consider exercising their 'rights' on the same level as non-Muslim disabled people in the West. Additionally, language difficulties and fulfilling religious duties become further factors in deterring them. This appears to be more applicable to Muslim women disabled persons rather than men. The reasons are again more cultural and religious. Here some answers to research question 1 and 4 (see p.4) are understood.

4.16. Attendance in Community Education Programme (Issue No. 10)

4.16.1 Evidence

The month of Ramadhan falling during term time had a serious affect on attendance at this institution. Data collected for over 2 years and the interviews with the Principal, Vice Principal, Head of Community Education, Community Secretary and indeed attendance register kept by this researcher in his own class substantiated these facts. For the three
years (1999-2001) the month of Ramadhan, Hajj season and Hijra (Islamic new year) had been falling within term times. When the most important events fall within term time, major disruption in attendance was quite noticeable. Both attendance and performance fall noticeably. This researcher's register of attendance in his own ICT classes revealed clear evidence of substantial fall in attendance during these three important events in the Muslim calendar. Table 4.6 provides evidence in this respect.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of students on</td>
<td>9</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Register as at commencement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>of term in September.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drop outs during the first</td>
<td>4</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>four weeks.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regulars left on the Register</td>
<td>5</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>as at end of October.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average attendance November/</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>December. (Ramadhan)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Muslim students attendance</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>during Ramadhan.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Did not return after Ramadhan.</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

**Table: 4.6 Observations on attendance from this researcher's own ICT class for the years 98/99, 99/2000, 2000/2001 - Tuesday Evenings - 30 weeks**

**Source:** Attendance Register records Tuesday Evening ICT class taught by this researcher as at 30th June, 2001.

The Ramdhan during 2001 had an even greater impact on the administrative aspects of running Community Education. During 2001, Ramdhan started on 16th November and finished on 16th December and thus fell squarely on the last four weeks of Autumn term at this institution. The result of this was that none of the Muslim students were interested in attending evening classes as this clashed with the time of breaking the fast in the evening and the late night prayers in mosques which normally started at 7.00pm which was the time when most evening classes start in Community Education. The last four classes were therefore cancelled and added to the end of June, 2002 thus creating a break of eight weeks before the commencement of the Winter term in January, 2002. This was most welcome by all the Muslim students but some of the non-Muslim students felt that the break was too
long and could affect their continuity and even motivation to complete the course. This institution tried hard to provide alternative classes during day time but not all non-Muslim students were able to avail such an alternative provision with possibly another teacher. The comments of the non-Muslim students were actually made to this researcher during his teaching session on 13th November, 2001, three days before the commencement of Ramadhan. Fortunately the whole re-arrangement was agreed amicably with the student concerned and institution.

During a post-research review meeting with the School Secretary (22nd January, 2002) a memo to staff and students regarding proposals on how to deal with Ramadhan 2002 was discussed at this institution clearly felt the need to plan ahead regarding organisational matters to manage Ramadhan effectively and sensitively. According to the School Secretary (post research interview, 2002), attendance during the day time was not affected seriously during Ramadhan, but after mid-day pupils were unable to take any effective part in Physical Education lessons or other physical activities like games because of fasting and they were unable to concentrate on class lessons. When allowed to leave early, some of them tend to hang around the adjoining housing estate which then resulted in complaints to Police by residents or complaint by pupils’ parents as to why they were let out early and at a time when parents were not in position to pick them up. In 2002 according to the School Secretary, the institution wanted to take all the issues into account and then plan ahead.

4.16.2 Analysis

The dramatic variation in attendance was very noticeable during three important Islamic festivals in the Islamic Calendar particularly the month of Ramadhan, The Hajj (pilgrimage to Makkah) and the Islamic New Year in the Islamic month of Muharram - the Islamic new year (Hijra). The variations are so dramatic particularly in the Community Programme in the evenings that sometimes classes have to be re-scheduled and students moved around as was the case during Ramadhan in November/December, 2000 & 2001. The clear effect of absence was noticed in this researcher's class when attendance fell to all time low as shown in the preceding chart. The position during Ramadhan of 2001 as explained in the evidence
required a complete re-organisation of the evening time-table which was not particularly convenient for non-Muslim students since the four weeks normal break at Christmas had actually turned into eight weeks of break thereby affecting the continuity of the course much more seriously. The beginning of Ramadhan varies from year to year as explained earlier and with it any re-organisation that has to be accommodated. The other two events had an effect on the attendance though not as dramatic as month of Ramadhan. Due to extra four weeks of absence during this month in addition to the term break, some students loose motivation and do not return at all as indicated in the chart. Having discussed this matter with the Head of Community Education, the picture in other evening classes was found to be very similar.

While the day time attendance was not affected on the same levels as it was during the evenings, the fact that pupils during the day time lost their efficiency by mid day was an important consideration particular if serious problems could arise due to letting them go early. The fact that some pupils who were let out early from the school because of fasting and then hang around the adjoining housing estate was not a healthy situation. These pupils could get involved in crime and other forms of unwelcome bahviour to which the authorities would put the blame on Ramadhan. This researcher had suggested organising a joint seminar at this institution involving staff, pupils, parents and governors and community leaders on how to tackle the issues that arise during Ramadhan. This had not materialised by the end of this research. The influence of the Month of Hajj (Pilgrimage to Makkah) was, however, more noticeable during the day time as whole families travel to Saudi Arabia for Hajj. The community programme was not seriously affected by the Hajj.

It was evident that the attendance at this educational institution was considerably affected by all major Muslim festivals and had consequent influence on performance and results including ICT. This institution went a long way to accommodate the wishes of the community it serves but in some ways at the expense of its performance records and League Tables.
However, as soon as the festivals start falling outside term times, the picture was likely to improve dramatically. This may not be the case say when Ramadhan falls half within term time and half outside term time. As it takes a cycle of almost 36 years for Ramdhan to move from peak summer to return to peak summer, the authorities and the community has a lot of planning and organisation to consider. Here again some answers to research questions 1 and 4 are understood (see chapt 1, p.4) cross-cultural transfer of technology issues have surfaced.

4.17. Results in community education (Issue No 11)

4.17.1 Evidence

The following is a table of results of CLAIT examinations for this Researcher's Tuesday evening class. It should be noted that results of other CLAIT classes held on other evenings and daytime adult education reflected similar results as confirmed by the Head of Community Education.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total enrolled at commencement of term in Sept.</th>
<th>Left during course</th>
<th>Completed tuition without passing</th>
<th>Male Pass</th>
<th>Female Pass</th>
<th>Total Pass</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998/99</td>
<td>9</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>99/2000</td>
<td>8</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>2000/2001</td>
<td>8</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Table: 4.7. Results of CLAIT (Computer Literacy and Information Technology) Examinations
Source: Record of Tuesday Evening CLAIT classes taught by this researcher as at 20th June, 2001.

4.17.2 Analysis:

The results are a reflection of the motivation and commitment of students and staff. The institution was generally satisfied with the results it gets taking into account all the various
factors that come into play particularly attendance levels, commitment levels and the complex structure of the community living in this area.

It is, however, expected that as the community begins to appreciate the need to become more and more computer literate and as the economic condition of the community improves, home computers will grow and the levels of results and commitment to learning will improve particularly as the shift in attitude was now in progress. Some reasons for the slow take-up of technology can be understood under this analysis (research questions 1 and 4, p.4).

4.18. Future Plans – overall Day and Community Education (Issue No. 12)

4.18.1 Evidence

In the year 2000 for the first time a separate room with full ICT facilities (including full Internet connections) became available at this institution. Facilities to teach languages through computers was being introduced eg. Urdu, Arabic and French.

A grant application had been made to European Union for building a complete new ICT centre. The result of this application had not materialised by the end of this research. There were 80 such centres in the country already including one on the Belgrave area of Leicester where the residents can make use of all sorts of facilities ranging from Word Processing to Internet connection and e-mail facilities.

There were plans to establish Intranet connection between this institution and several supplementary schools (Madressas) in this area as indicated by the Principal during interview on 8th February, 2001 and reiterated by the Head of Community Education when interviewed on 9th March, 2001. Madressas have unfortunately earned a somewhat bad reputation after the 11th September events in the United States as there were some speculation that Madressas particularly in Afghanistan and Northern Pakistan were perhaps the breeding ground for future terrorists. While the Madressas in Leicester and United
Kingdom as a whole do not carry such a reputation, it was generally accepted that the standard of teaching was low and the discipline was very harsh and some feel that it is a "more divisive culture than any likely to prevail in a state sponsored faith school", (Wazir, 2002). Such a reputation of supplementary schools (Madressas) clearly needs improving and the Intranet connection proposed by this institution can be a way forward.

During the period of study, changes were noted in the standard of equipment that was available and how some of the facilities like new terminals and printers were introduced. These improvements were observed by this researcher and the students alike and the improvements were most welcome. One of the worst problems with previous terminals was that they were not fully networked, different terminals had different programs installed on them with the result that if one terminal failed, the students could not easily find the same program on another terminal. This researcher was, however, assured that the management at this institution was constantly seeking further financial support from the Local Education Authority while some help has been received through various Inner City Development programmes and efforts were continuing to get help from the European Union.

4.18.2 Analysis

As far as future plans are concerned, it was evident from interviews and personal observations as a part-time tutor that this institution was making every effort to improve the facilities at this institution and to encourage the local community to take active part in making positive use of all the facilities that were available. While the improvements had been coming slowly, it was evident that there was a noticeable improvement in the facilities available and the response of the local community was encouraging, considering the level of enrolments, improved desire to learn reflected by the number of home computers now available within the local community.

While the nature and standard of equipment at this institution had improved, there was still a long way to go to upgrade all the equipment available at this institution. When these
issues were discussed with the Principal and Vice-Principal, the answer received was as expected that this was due to financial constraints and the amount of money available from the Local Education Authority.

One of the most revolutionary ideas generated at this institution which was to create an Intranet connection between this institution and the supplementary schools (Madressas) in this area was commendable as no such previous efforts have been made and bearing in mind how the reputation of Madressas had suffered after the events of 11th September, 2001 in the United States and even in the United Kingdom there were concerns on how they are run (Wazir, 2002). Implementation of this proposal could not only improve the reputation but also help with the improvement of actual standards in place. While this proposal had not yet been implemented, the response of the local community was generally positive. However, the biggest problems lies with the fact that those in charge of supplementary schools and those teaching at the supplementary schools were themselves not fully computer literate, thereby creating another hurdle in the path of this proposal. Before the Intranet connection is set up, a programme of computer literacy is needed to be offered to the persons in charge and teachers at the supplementary schools so that a full benefit of this development can be realised. This researcher had discussed this matter with community leaders and some heads of supplementary schools. There was a high level of enthusiasm. The difficulty, however, was with lack of computer literacy on the part of community leaders and indeed the heads of supplementary schools. Some of the evidence and analysis points to the reasons for the slow take-up (research question 1 and 4) and the need for a future research agenda discussed in more detail in the conclusion chapter 7 in this thesis.

4.19 Conclusion
Evidence suggests that this educational institution was trying very hard to provide the best possible ICT training to students during the day and the adult classes in the evenings. Considerable effort was being made to tailor the courses to suit the needs of the local community even by way of providing separate classes for women with women tutors.
Parents were being encouraged to take an interest in what the college was trying to do both for school children and adults, and the local community as a whole.

This case study was chosen with the expectation that it would provide some answers to the research questions raised in the aims and objectives chapter 1. In this respect it can be stated that the choice of this case study proved quite appropriate as answers to some of the important questions raised had been realised to a satisfactory level.

An important question to which this researcher was expecting to find an answer to was the reasons for the slow take up of ICT within the local Muslim community. In the beginning of this research it was presumed that the Imams and Muslim scholars were having a profound influence on the community to reject the take up of Western technologies. To some extent this was true in the first two years of the research. However, it was very interesting to note that a change in attitude was in progress as the research had moved into its second year and continued to improve during the subsequent years (2000-2003).

Among the reasons for the slow progress to take up of ICT was that the response to initiatives taken at the institution was perhaps not as encouraging as was hoped. For example, this research has shown that initial interest in taking up a course was high but the completion rate and results were poor. Many of the reasons for this, like poor attendance, interruption due to festivals, request for women only classes and initial mixed attitudes regarding Western technologies were some interesting reasons discovered during this research. However, with the passage of time and technology dominating all aspects of our lives, the local community in this area was beginning to show more interest in learning ICT than was the case before. The demand to spend more time on computers was growing during the daytime and the evenings. While the progress was slow, the Imams, parents and the community leaders were not interfering with the ICT provision directly as was originally presumed and indeed attitudes were changing. There was, however, some apprehension regarding the Internet at home, a concern expressed to this researcher by
various members of the community and some teaching staff at this college. The need for some sort of a parents guide on the use of ICT at home was also confirmed during this research.

This institution's initiative to link up with the supplementary schools (Madressas) through an Intranet system deserved the full support of the local community and the Local Education Authority to raise the standard of education in these schools to an acceptable and recognisable standard within the educational system. The supplementary schools management and staff needs to be trained to be computer literate before this initiative can realise full potential. Such a programme must therefore precede the actual Intranet launch.

Specialised ICT training for old age pensioners and disabled persons from the local Muslim community was not fully available and though recognised by this institution was not being provided at a proper level. Here again it was discovered that old age pensioners and disabled persons from the community were encouraged to take up religious studies more than learning ICT as was confirmed through some students and Head of Community Education. A balanced approach was not being encouraged by the community even though Islam encourages education from cradle to grave regardless of gender, age or disability. The main achievement of this institution was providing women only ICT classes which were successful and did address an important setback for Muslim women to take up ICT training.

This case study was not expected to answer all the questions raised for the purpose of this research. Therefore, a second case study (a local Muslim family) was undertaken and follows in the next chapter 5.
CHAPTER 5

Case Study 2

A Local Muslim Family

5.1 Introduction

As mentioned in Section 3.10, various potential case studies were considered and some of them were discarded for the reasons explained. The choice of a Muslim family living in this area was very appropriate as in Islam the family is a highly regarded unit. In Islam the father and the mother are given a high status as people who provide the first seat of learning for their children and their influence on their development and education is an on going process. Muslim parents play a crucial role whether their children will pursue a purely religious education career or whether they will pursue wider education into professions suitable for any country like medicine or law. Some Muslim parents discourage their daughters to follow careers which put them in the middle of men. The general practice is to marry the daughters off as early as possible for their protection. The Muslim family is therefore the first strong directional influence on what children are likely to do in their adulthood. The Muslim community can be regarded as a collectivist society. As the computing revolution is beginning to affect all aspects of our lives, an important question that arises is whether Muslim families will change their attitude towards what professions their sons and daughters will follow in future and whether their adult children will choose their own future marriage partners for example through the introduction agencies on the Internet (Begg, 1999d).

It should be noted that the whole of summer, 1999 was spent in consultation with various members of the local Muslim community to seek a volunteer family for study. Muslim

1 A collectivist society is where decisions are made collectively whether in the family or community. Most Eastern societies are collectivist by nature whether due to religious influence or culture.
families are extremely reluctant to have another person in their house who may be studying the family. Traditional and religious arguments were presented to this researcher against having a person in the house for study purposes many of which can be understood within any family setting. Access to a Muslim family under the best of conditions is very difficult and for the purpose of conducting a case study one is almost dealing with an impossible mission.

This researcher was fortunate to have obtained agreement from a Mr. (A) and his family for this case study and this came about after prolonged negotiations with the family and agreement was reached in principle during the end of July, 1999. This family lives in the middle of densely populated Muslim area of Leicester where the study has been carried out and was subject to all social and environmental influences discussed in the introduction to the first case study.

5.2 Introduction to this Family

Members of this family

Mr. (A) - now deceased.
Mrs. (B)

Children:

Sons: (C) 13 years old, (D) 8 years old. (Sons are local students)
Daughters: (E) 17 years old, (F) 14 years old (Daughters study abroad)

(G) Adult daughter lives away from home.

(Ages quoted by Mr. (A) in January, 2000).

Mr. (A)’s first wife passed away very young leaving a daughter (G) behind. Mr. (A) subsequently re-married a woman from the Indian sub-continent referred to in this research as Mrs (B). He had two sons and two daughters from this marriage. His two sons (C) and (D) 13 and 8 are keen video games enthusiasts. His two daughters (E) and (F) are studying Islamic studies abroad. Mr. (A) himself was an Islamic scholar and substantial user of ICT
and had a good appreciation of this research. Computing and video recording with computer aids was one of Mr. (A)’s interests. Mr. (A) belonged to a group of indigenous English Muslims in this country though he himself was of Asian origin but had spent his early life in Guyana, South America. Mr. (A) was substantially involved in a state funded welfare association which was adopting computing in service delivery during the time of his involvement. Mr. (A) passed away in April, 2000 and his loss made this case study even more difficult.

Mrs. (B) agreed for the case study to be completed although with considerable constraints. For example, it was no longer possible for this researcher to visit the house alone when only Mrs. (B) and her young children were present in the house. Another volunteer (male or female) had to accompany the researcher into the house for all remaining visits as it is against Islamic rules for a man to visit a house when only a wife or daughter is present in the house. There is a strict injunction in the Qur’an regarding manners of visiting another Muslim’s house particularly when no man is in the house. (Al-Qur’an, Chapter 49).

Fortunately a lot of work had already been completed before Mr. (A) passed away and therefore not many visits were remaining for the study to be completed. A log of all the visits made and subjects/issues discussed with members of the family had been kept (Appendix 3).

It is important to note at this point that this study was only concerned with how this Muslim family was adopting technology in its daily life. While the influence of the Islamic faith, the family's social interactions and the influence of the community around this family will be taken into account, this study was not intended to intrude into any other aspects of this family. This was a clear agreement with the late Mr. (A) and every effort has been made to uphold his wishes. (It should be noted at this point that this researcher had facilitated the BBC to interview another Muslim family in Leicester with regards to the impact of ICT.
This interview was shown on BBC 1 on 4th January, 2001. Some evidence has been taken from the BBC interviews facilitated by this researcher).

5.3 Negotiations

Agreement with the family was first reached in the summer of 1999 while negotiations for access had started in March, 1999. During the negotiation stage a number of issues had to be agreed with the family and below are the points discussed and agreed:

- The Privacy of the family would be respected at all times whether during the case study or after the case study has been completed. As a result of this it was agreed that no names would be used in the report. Instead it was agreed to use letters A to G to refer to various family members. The use of a tape recorder was acceptable but no video recording was permitted.

- Access to the house of the family would be through pre-arranged telephone appointments and no spontaneous access would be allowed. Even when a pre-arranged appointment had been made, access would only be possible if the head of the family was present in accordance with Islamic principles of when a man is visiting another Muslim family. If the head of family was not in, another appointment would have to be made. Appointments by telephone had to be made with the agreement of head of family and not with the wife or children. Sunday was the preferred day for appointments and every appointment would be two hours maximum at a time.

- The subject under study would be purely concerned with adoption and use of ICT at home within the family together with related issues of Islamic principles of education, Islamic family moral codes of conduct, the family's role in community education, computer programs for Muslim children and a reasonably detailed study of the influence of the Internet, computer games and other ICT applications. Any ICT related issues could be observed and discussed. No other aspects of the family were open to study. These were therefore the boundaries of the research.
All the above conditions were agreed by the researcher as they were reasonable from the Islamic point of view and general methods of conducting a study particularly related to families. Data collection began in July, 1999 and was concluded at the end of November, 2000.

The death of the head of the family in April, 2000 cast doubt on whether it would be possible to conclude this study. While a large amount of data had already been collected by the time of the death of the head of the family, this researcher had to re-negotiate agreement and access to the family to complete the remaining work. Fortunately Mrs. B agreed for the case study to be completed as a tribute to Mr. (A) after a four months break. \(l'ddat\) in Arabic). This, however, delayed and restricted remaining visits.

### 5.3.1 Re-negotiation

The renegotiations included the following points:

- Any further visits would be kept to a minimum and no more 1hr. 30 minutes duration as far as possible.
- Visits to be pre-arranged by telephone with Mrs. (B).
- The researcher would take along a female member of his family during the visits or another member of Mrs. (B)'s family would have to be present during the visits in accordance with Islamic laws of visiting another Muslim family particularly in these circumstances. (Al-Qur'an Chapter, 49).
- The researcher would readily accept cancellation of a pre-arranged visit if the family were not in a position to receive him at that time.

This researcher agreed to these further conditions which were quite normal within an Islamic environment in order to complete the study.

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2 Muslim women observe a period of about four months during which they do not go out unnecessarily after the loss of a husband called \(l'ddat\) in Arabic.
5.4 Research Methodology

Various research methods available have been discussed in chapter 3. Before any case studies had been identified, the first steps taken by this researcher when this research was undertaken was to determine what were the important issues within Muslim communities in relation to ICT and technology. To determine the important 'issues', informal unstructured interviews were conducted (1998-2001) with Imams, Muslim scholars, Community leaders and heads of families both locally, nationally and Internationally while attending conferences or important Islamic events like Ramadhan and Hajj, Pilgrimage to Makkah in Saudi Arabia. A list of the most important Imams and Muslim scholars interviewed was kept (Appendix 1). Interviews and discussions were conducted in English, Arabic, Urdu, Punjabi and Gujarati, where respondents were not proficient in English. Some of these interviews were pre-arranged. This researcher's own knowledge of these languages has been an invaluable resource during this whole research.

5.5 Data Collection & Data Analysis

The process of informal interviews started in November, 1997 and continued throughout the whole of this research to ensure that this researcher remained up to date with what the scholars and Imams have been saying since this research was initiated and if a shift in attitude was taking place. The purpose of these interviews was to identify which issues were being considered important and highlighted by the Imams and scholars. The Imams and scholars consulted were local, national and international. Interviews took place in Leicester, the UK, the United States, Saudi Arabia, United Arab Emirates, Pakistan and Italy (Appendix 1). In addition to this local community leaders, heads of Muslim families and Muslim University students both male and female)were consulted. An informal interview method was followed to gain wider perception of issues relating to ICT and Islam. From the data collected from the Imams and scholars, 30 issues were identified by using a data analysis form for each interview (See Appendix No 4). A table showing Pre-Identified issues was then created so that the issues could be investigated in relation to this case study of a local Muslim family. It should be noted that some of the issues were
discussed in the literature review chapter. In this case study most of the data was collected by interviewing the head of family Mr. (A), the wife Mrs. (B) and children (C), (D), (E) and (F) and some observations. (See Appendices 4-4b). It must be noted that all the data collected has not been reproduced for confidentiality agreement with interviewees.

Some issues have a direct relevance, others indirect relevance and then there are other issues of a more general nature which have been discussed in more detail under the literature review chapter 2. The analysis presented in both case studies and particularly in this case study is interpretive ie. some understanding has been derived through interpreting observations and interviews.

Table 5.1 showing pre-identified issues and which research questions were answered follows.
<table>
<thead>
<tr>
<th>No</th>
<th>ISSUE</th>
<th>Relevance to this case study</th>
<th>Muslim specific</th>
<th>Direct</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fundamental principals of Islam</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Supporting information</td>
</tr>
<tr>
<td>2</td>
<td>Importance of practicing and maintaining faith in Islam.</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Supporting information</td>
</tr>
<tr>
<td>3</td>
<td>Importance of education in Islam – religious and general.</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Supporting information</td>
</tr>
<tr>
<td>4</td>
<td>The Importance of Arabic language in Islam/Muslim Families.</td>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Supporting information</td>
</tr>
<tr>
<td>5</td>
<td>Importance of family &amp; community ties in Islam.</td>
<td></td>
<td>Partially</td>
<td>No</td>
<td>Supporting information</td>
</tr>
<tr>
<td>6</td>
<td>Importance of guidelines to the use of ICT at home</td>
<td></td>
<td>No</td>
<td>No</td>
<td>Future Agenda</td>
</tr>
<tr>
<td>7</td>
<td>Importance of the teachings of Qur’an</td>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Supporting information</td>
</tr>
<tr>
<td>8</td>
<td>The lessons from Hadith</td>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Supporting information</td>
</tr>
<tr>
<td>9</td>
<td>The importance of travelling in Islam</td>
<td></td>
<td>No</td>
<td>No</td>
<td>Answers Res. questions 1 &amp; 2</td>
</tr>
<tr>
<td>10</td>
<td>Research methods in Islam</td>
<td></td>
<td>Partially</td>
<td>Yes</td>
<td>Supporting information</td>
</tr>
<tr>
<td>11</td>
<td>Science and Islam</td>
<td></td>
<td>Partially</td>
<td>No</td>
<td>Supporting information</td>
</tr>
<tr>
<td>12</td>
<td>Western technologies and Muslim attitude towards them</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Answers Res. Q. 1,2 &amp; 3</td>
</tr>
<tr>
<td>13</td>
<td>Rejection of Western technologies and values</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Answers Research Q. 1,2 &amp; 3</td>
</tr>
<tr>
<td>14</td>
<td>Acceptance of Western technologies and values</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Answers Res. Q. 1,2 &amp; 3</td>
</tr>
<tr>
<td>15</td>
<td>Islam &amp; globalisation</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Answers Res. Qs. 1,2,3.</td>
</tr>
<tr>
<td>16</td>
<td>The Importance of the role of Imams and scholars in Islam</td>
<td></td>
<td>Yes</td>
<td>Yes</td>
<td>Supporting information</td>
</tr>
<tr>
<td>17</td>
<td>The role of community leaders in Islam</td>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Supporting information</td>
</tr>
<tr>
<td>18</td>
<td>Collectivist nature of Muslim community</td>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Answers Res. Qs. 3 &amp; 5</td>
</tr>
<tr>
<td>19</td>
<td>Introduction of individualism in Muslims in the West</td>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Answers Res. Qs. 3 &amp; 5</td>
</tr>
<tr>
<td></td>
<td>The level of ICT use among Imams and Scholars in Islam</td>
<td>Yes</td>
<td>No</td>
<td>Answers Res. Qs. 1 &amp; 4</td>
<td></td>
</tr>
<tr>
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<td>------------------------</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Hopes &amp; fears of Imams &amp; scholars in Islam</td>
<td>Yes</td>
<td>No</td>
<td>Answers Res. Qs. 2 &amp; 3</td>
<td></td>
</tr>
<tr>
<td>21a</td>
<td>How does the Qur’an provide guidance in every century without being changed itself?</td>
<td>Yes</td>
<td>No</td>
<td>Answers Res. Q.2</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Computer games</td>
<td>Partially</td>
<td>Yes</td>
<td>Answers Res. Qs. 1 &amp; 5</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Chat rooms/bulletin boards</td>
<td>Partially</td>
<td>Yes</td>
<td>Answers Res. Qs. 1 &amp; 5</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Islamic websites</td>
<td>Partially</td>
<td>Yes</td>
<td>Answers Res. Qs. 1 &amp; 3</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Anti-Islamic websites</td>
<td>Partially</td>
<td>Yes</td>
<td>Answers Res. Qs. 1 &amp; 3</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Hate websites</td>
<td>Partially</td>
<td>No</td>
<td>Answers Res. Qs. 1 &amp; 3</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Mobile phones</td>
<td>Partially</td>
<td>No</td>
<td>Answers Res. Qs. 1 &amp; 3</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Terrestrial TV &amp; satellite TV</td>
<td>Partially</td>
<td>Yes</td>
<td>Answers Res. Qs. 1 &amp; 3</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Internet gambling</td>
<td>No</td>
<td>Yes</td>
<td>Answers Res. Qs. 1 &amp; 3</td>
<td></td>
</tr>
</tbody>
</table>

Table: 5.1. Table Of Pre-identified Issues for investigation.

All the above issues were then discussed with the local Muslim family even those with indirect relevance which had been identified for the case study and observations made and recorded in respect of these issues.

The research methodology applied to this family has been semi-structured formal or informal interviews and direct observation. The dates and times were pre-arranged by telephone. The sensitivities of faith and culture were taken into account throughout the study as initially agreed with the family and in accordance with Islamic approach to research within a Muslim environment which has been discussed in some detail under Research Methodology Chapter 3. Telephone conversations and personal visits to the
family were the main source of data collection. A log of all visits and substantial telephone calls was kept (Appendix 3).

It is important to appreciate at this stage that a lot of discussions and time had been spent with Mr. (A) as it has to be understood that in a Muslim family setting no conversation with the wife or children can be started without first greeting the husband or father and briefing him on the purpose of the visit. The questions asked to the wife were usually in the presence of the husband for the meetings that were prior to his death. The question might arise of whether the wife's responses were biased due to the presence of the husband while being interviewed. This is a possibility that was specifically investigated. Considerable attention was given to the responses made by the wife after the loss of her husband comparing them with responses made by her in the presence of her husband. While there was not a huge shift on her position to various questions, it was quite clear that she had become more protective of her children. For example, she preferred to have them indoors playing computer games for long hours rather than being outside exposed to the dangers of traffic or adverse influences whereas the father while alive was more keen that the children went to the park with their friends to play games like football. Some interviews with children were conducted independently as it was not necessary for the father or mother to be present. While, therefore, the Log Sheet may appear to be dominated by Mr. (A)'s name during most visits, this is mostly due to the traditional setting, the wife and children did make a significant contribution throughout the study. The last few visits were conducted in the presence of the wife and children and another family member or friend.

The evidence collected in respect of all the issues from this family together with an interpretative analysis of these issues follows. The analysis is interpretive. Some of the related issues have been linked together and an indication has been provided where an issue has been discussed elsewhere in the thesis.
5.6. Fundamental Principals Of Islam (Muslim specific)
Importance Of Practicing And Maintaining Faith In Islam (Muslim specific).
(Related Issues 1-2 discussed jointly)

It should be noted that where issues are closely related, they have been discussed jointly and some have also been discussed in literature review chapter 2.

5.6.1 Evidence

These two issues were first studied through the fundamental teachings of Islam as explained in Al-Qur'an and Hadith discussed on a regular basis at the Islamic Centre, Leicester on Sunday afternoon sessions. Further understanding of these issues was gained through interviews with Imams and Muslim scholars during 1997-2001 when this research was started. The five pillars of Islam are: Belief in one God, Belief in all the prophets from Adam including Moses, Jesus and belief in Muhammad (sws) as the final prophet of God (Allah), Five times daily prayers (Salat), paying Charity (Zakat – 2.5% of one’s annual income) and finally, performing the Pilgrimage to Makkah (Hajj) at least once in life if one can afford it.

Mr. (A) and Mrs. (B) had been for Hajj (pilgrimage to Makkah) in March, 2000. It can be safely said from conversations and from this case study that the husband and wife were observing all the five pillars of Islam. The observations also pointed to the fact that the family considered upholding and practising Islamic rites as very important in maintaining the faith and the family relationships particularly in bringing up the children in an Islamic environment at home even though that may not be the case at the local authority schools where the children study. The children too were observed praying at home or going to the nearby mosque used as a supplementary school and the children joined the adults if the prayer time fell within their lessons. The family, and particularly the children were obtaining the prayer timetable information and Ramadhan timetable information from the Internet. Accurate information on the timing of the new moon which marks the beginning of a new lunar month (eg. Ramadhan) is available on the Internet. The children demonstrated BBC online information on Islam which was fairly comprehensive and
provided accurate information on prayer times in all major cities in the UK including Leicester. The children and the family print off the time-table when necessary (see Appendix 6). The BBC site provides a quiz on Islam which adults and school children regularly use as an alternative to computer games as was demonstrated by the children in this family during one of the visits. These facilities are, however, not yet free from criticism by some Imams and scholars who see them as an erosion of traditional methods of getting this information. A second family in Leicester interviewed by BBC (facilitated by this researcher) provided evidence in this direction. (See Appendix 4c).

Mrs. (B) performed her prayers at home as Muslim ladies have to maintain a continuity in their domestic responsibilities at the same time. Going to the mosque is optional for ladies, though Mrs (B) complained that many local mosques in Leicester did not provide facilities for women (thus almost discouraging women from mosques intentionally or unintentionally). Only the main mosque on Conduit Street in Leicester has proper facilities for women. She said that it was very encouraging that prayer calls (Adhan) are broadcast from mosques and can be heard at home on home receivers which was very useful warning that prayer time had begun.

5.6.2 Analysis

It was clear that this family fell somewhere in the category of a typical decent Muslim family as all fundamental principles of Islam were well understood and respected within the family setting as Mr. (A) himself was an Islamic scholar. Having spoken to members of this family and through general knowledge gained through wider community dealings and discussions, while many of Muslim families try very hard to maintain an Islamic environment within the home and fall within this category, there are some who just seem to observe Islam in a very superficial manner. Despite some negative impacts of technology mentioned above, the fact that the Internet is being used to obtain accurate information for some of the Islamic rituals is an interesting aspect of how ICT is impacting even on such Muslim specific issues as practicing of the faith.
5.7. Importance Of Education In Islam - Religious and General

The Importance Of Arabic Language In Islam/Muslim Families (Muslim specific) (Related Issues 3-4 discussed jointly)

5.7.1. Evidence

As before evidence regarding the importance of these issues was gained through informal interviews with Imams and scholars over a period of three years. Consideration of these issues was then applied to the family setting.

The importance of education in Islam featured in many interviews with Mr. (A). He explained that the first word revealed to Prophet Muhammad (sws) was 'Read' (Iqra). It is therefore the duty of every man and woman in Islam to educate themselves both in Islamic knowledge and worldly knowledge. The importance of Islamic education is to understand the reality of creation, particularly human beings, God as their Creator, what lies beyond this physical world and man's eventual accountability leading to reward or punishment (views shared by all People of the Book). The purpose of worldly education is a means to earn one's living and to communicate effectively with people, share skills and incorporate many of the lessons taught in religions in every day life. It is interesting to note that many aspects of Islamic teaching are now dominated by use of technology. For example the Internet is now proving a major source of information on Islam to the extent that some people have embraced Islam through information gained through the net. The head of this family and this researcher both met a small number of people who confirmed that the Internet was their first source of introduction to Islam. Islamic education through the Internet and Computer programs like the Alim, Al-Ustadh and Al-Qari are being increasingly used in Islamic teaching schools around the world though some traditionalists see it an American invasion of Islamic education (McCarthy, 2000, p.16).

During the study and observations of this family, it was abundantly clear that this family was educationally orientated even though Mrs. (B) herself was not a highly educated
person. Poor education levels in women in Muslim communities was more due to cultural reasons and due to fears of corruption. It important to note that the two teenage daughters in this family had been sent to India to become female Islamic teachers as the father felt they would be ‘safe’ in an Islamic environment rather than going to a university in the UK. In Muslim education debates, the Hadith by prophet Muhammad (swh) saying “Travel even to China for the sake of education” is often quoted (Hadith 2). Some scholars like Siddiqui (1998) therefore ask why we are resisting learning technology though the resistance of some scholars has been on grounds of immoral material available on home screens.

The importance of the Arabic language featured in several discussions with the family and its importance was quite evident in as much as all Islamic rituals are conducted in Arabic, therefore learning the language is a requirement of Islam. In addition to this Mr. (A) explained that Arabic was the language of Prophet Muhammad (swh), it is the language of Al-Qur’an and according to the Prophet’s prophecies is the language of Heaven. Its importance in Islam therefore cannot be over estimated. Another reason why the issue of Arabic language has been raised up was the fact that some Muslim scholars think that the dominance of English language on the Internet was a threat to Arabic and other languages since with the advent of the Internet and the computing revolution (at least implicitly) that everyone was expected to learn English and use English as their medium of communication world-wide (Khan, 1998). Mr. (A) felt that while there may be some fears in that direction, Arabic was never likely to be drowned by the computing revolution and in fact it may work the opposite direction which was confirmed by countless Arabic websites now available on the Internet and language translating programs which allow a site to be read in a variety of languages. Mazrui (1998) expressed the opinion that the Arabic language was unlikely to suffer because of the Internet since all Islamic rituals are performed in Arabic and as such the Arabic language would always survive. This family had Alim, Al-Ustadh and Al-Qari computer programs available on their home computer as a means of assisting Mr. (A) and his family to enhance their Islamic knowledge and improve their Arabic language. Mr.(A), however was concerned that it was quite likely that the American consumer culture would
penetrate the Muslim world through excessive use of the Internet. Mr. (A) felt some concern in this direction but said that a counter-process was going on in as much as Islam was being exported to every corner of the world through the Internet and there is evidence that several people have embraced Islam thorough Internet information.

5.7.2. Analysis

While gaining Islamic education has not been an issue of any real dispute within the Muslim families, seeking Western degree education has long attracted criticism within traditional Muslim communities, especially in relation to the education of Muslim girls in a Western environment. It is a common view among traditionalists Muslims that girls would be corrupted by Western influences and hence they tend to seek to have them married as early as possible. This has resulted in some forced marriages (although this is not very common) as reported by Ward (2001). While the study of this family revealed a balanced view of education both for boys and girls, it was interesting to note that the two daughters in this family were actually sent to India while in their teens to become female Islamic teachers so that they remained ‘safe’ in an Islamic environment. The “corrupting” influence of ICT was not particularly in the mind of father when he had decided to send his daughters to India. From analysis of various interviews it appears that another influence outside the scope of this research was the main consideration. Later realising some of the “corrupting” influences of ICT simply made him more convinced that he had made the right decision.

The importance of Arabic language cannot be overestimated in Islam as it is a language used fully, partially or nominally (at times of prayers) by all Muslims regardless of their country of domicile. Learning Islamic studies and Arabic was one of the main reasons for this family to send their two daughters to a special school in India. All the supplementary schools (Madressas) in the UK teach Arabic so that children are at least capable of reading Al-Qur'an even if the meanings are not fully understood at that stage. Use of computer programs to assist in learning Islamic studies and Arabic language was growing gradually as indicated through this case study.
5.8. Importance Of Family And Community Ties In Islam (Issue 5)

5.8.1. Evidence

According to Mr. (A), the computing revolution was playing a big part in improving communications within Muslim families and the community. He showed a number of email messages received daily and more so at the time of festivals which was never the case before. An Eid Card (Greeting Card sent at the time of celebrations at the end of the month of Ramadhan, a month of fasting in the Islamic calendar), took several days to arrive from India or Pakistan where as an email message and an Electronic Eid Card now arrives within minutes and is much more effective as it arrives on the day of celebrations rather than a week later when everything is past. Sending greetings and messages to relatives was easier through email for him and his family, with relatives spread throughout the world (including the UK, the USA, Guyana, India, Pakistan, the Middle East). New technologies were a great help in this direction when used appropriately. Mrs. (B) too felt happier with the fact that she was able to receive swift information from far distant relatives and the children expressed joy to be able to exchange their photos as attachments to their emails to their cousins living on other continents.

5.8.2 Analysis

There has always been a consensus of opinion within the Muslims that family ties and community ties are extremely important. While technological facilities like the email, telephone and Mobile phones are helpful, these ties are, however, under threat for Muslims particularly living in the West. For example in the West, an unmarried man and woman living together and having a child and living together as 'a family' is nothing extra-ordinary today whereas in a traditional Muslim environment this is totally inconceivable and in a country like Iran it would be a clear case for 'Death Penalty'. While there is no danger of a death penalty for Muslims living in the West if they adopt such a way of life, it appears that to a very large extent the local Muslim community is still complying with this fundamental characteristic. It should be noted, however, that the issue of marriage for young Muslims is introducing individualism (5.17) within the community which was seen as serious threat to traditional family and community ties. Undoubtedly communications between Muslim
families have increased with email facilities and electronic cards and while some virtual communities are developing through the use of the Internet (see 19), ICT forums like chat rooms for community discussion programmes are still not popular within the Leicester scene at least as the local community was not anywhere near the level of the United States Muslim communities who use technology to its full extent. The main reason for this is that the Muslim community in the US is largely of a professional nature compared to the European Muslim community which has been largely an economic migrant community

5.9. The Importance of Responsible Use of ICT at home (Issue 6)

5.9.1 Evidence

Mr. (A) was very clear in mind when he explained that most Muslim parents and many other parents simply did not know how to supervise the use of the Internet at home nor were many parents ICT literate enough to appreciate the need for such supervision. When asked Mrs. (B) too expressed the view that a simple guideline in various languages would be quite a help to both computer literate and not literate Muslim mothers to get a grasp of the issues related to the Internet. While the elder daughter shared this view, the boys who are much younger did not have much to say on this subject. The idea of on-line help for Muslim parents was floated by Mr. (A). As far as this family was concerned, the parents had installed the home computer in the living room so that they were able to keep an eye on what the children were doing and the time spent on the screen was controlled. The children were allowed to play computer games.³

5.9.2 Analysis

It is evident from field work and discussions with the family members of this family and some other families more generally that Muslim parents in particular were not sufficiently aware of the many dangers their children could be exposed while using the Internet particularly at home. Chat rooms have already resulted in a lot of research and recommendations by some government bodies. The importance of a responsible use of ICT

³ Note: Computer Games, Chat Rooms/Bulletin Boards, Islamic and Anti-Islamic Web-sites, Hate Web-sites, Satellite TV and Internet Gambling are home related issues which are dealt with separately in view of their importance, see 5.20 – 5.24 in this chapter.
was observed in this family as the home computer was located in the living area of the house and amount of time spent in front of the screen was to a large extent monitored by the parents. However, not all parents are computer literate or aware of how a proper supervision at home is necessary.

5.10. Importance Of The Teachings Of Qur’an (Muslim specific)
The Lessons From Hadith - (Teachings and Practices of Prophet Muhammad, (sws)) (Muslim specific 7-8)

5.10.1 Evidence
The teaching and learning of Al-Qur’an as has been mentioned at several points in this research and is now of course being facilitated through computer programs like the Alim, Al-Ustadh and Al-Qari. The Qur'an and Hadith are available on the Internet not only in English and Arabic but several other languages like French, Swedish, German, Spanish etc. Mr. (A) demonstrated some of the above facilities available. Mr. (A) himself was an Islamic scholar and had considerable knowledge and command of Arabic and he actually spent his last year of life teaching Arabic and Islamic studies in one of the supplementary schools near his house. Similarly his two daughters are studying to become female Islamic scholars and are training in India. Learning, understanding and teaching the Arabic language is one of the fundamental requirements of such a training. His two sons attend a nearby supplementary school where they too are learning Arabic and Islamic studies. The value of learning the Arabic language lies in the benefit it brings in understanding the meaning of Al-Qur'an and the various injunctions which are clarified in quite some detail, eg. the law of inheritance in Islam, Sharia law in daily matters, marriage and divorce, protecting the environment, natural medicines, ethical business transactions and virtually any other subject one can think of in every day life.

The second major development observed in the family was receiving the teaching channels like IQRA and Sharja TV which broadcast globally and have global audience. These
developments are continuing with the result that all satellite channels being operated from Muslim countries have a fairly substantial amount of Qur'an and Hadith and other Islamic issues being broadcast globally. Many satellite TV broadcasts are interactive where people can ring in to ask a question during a live programme or send an email.

Following the sunnah (traditions and saying of the Prophet Muhammad, sws) is an integral part of the Islamic faith for the vast majority of Muslims. From interviews and observations of the family, it was clear that the father and mother were conscious of respecting such traditions, one of the most important being honouring and respecting the guests in the house by making them feel comfortable and by providing them with food and drink while they are there. This researcher was always well received during all the visits that were made to the family. These observations though not part of the formal study were obvious in the course of the visits. One of the Sayings of Prophet Muhammad was that ‘A day will come when Islam will enter every house made of brick, mud or tent’. Many scholars now agree that the Internet and satellite TV are now fulfilling this prophecy as Islam is now potentially available in every house in the world which has an Internet connection. In this regard Muslim scholars feel that there may be many Sayings of Prophet Muhammad which have yet to come true as centuries go by. Learning Hadith is therefore part of Islamic faith and does provide answers to some mysteries which are otherwise difficult to understand or explain. The elder daughter (E) explained that she was actually studying Hadith (Teachings and practices of Prophet Muhammad, sws) and found the knowledge very helpful in daily situations. Hadith is now available through some computer programs although these were not being used at the college where she was studying in India. The Internet has virtually all the major books of the Hadith and they increasingly accessed both by this family and many Muslims and non-Muslims alike across the world.

5.10.2 Analysis

Satellite TV broadcasts of the Qur'an and Hadith are revolutionary methods of reaching a global audience and global teaching. It is quite evident from this study that the Muslim world is having to cope with the question of how to adopt the new technologies to 'serve'
Islam and Muslims globally. The importance of learning the Qur'an and Hadith are not disputed by the vast majority of Muslims and indeed Muslims living in the West feel 'threatened' with the erosion of their values due to the influence of Western culture and are in many cases even more conscious of the value of using the new technologies to serve their cause. The result of all this is that Muslim software engineers have spent a lot of time and effort in producing Islamic Software programs like the Alim and Al-Ustadh some traditional scholars see it as an 'American invasion of Islam' (McCarthy, 2000, p.16).

Never before in the history of Islam before has it been possible to reach a global audience in presenting Islamic teachings in a way similar to what has now been facilitated through the Internet and satellite TV. Imams and scholars can be seen answering questions from viewers as far apart as the US and Australia within minutes of each other. TV and satellite TV is further discussed in 5.23.

5.11 The Importance Of Travelling In Islam (Issue 9)

5.11.1 Evidence
The Qur'an itself instructs believers to 'Travel through the earth and see what happened to those who lived on this earth before them - both the successful and unsuccessful people and reflect on the reasons why they were successful or unsuccessful. (Al-Qur'an 30:9-10).

On the importance of travelling in Islam, Mr. (A) explained that one of the pillars of Islamic faith is for a Muslim to travel to Makkah, Saudi Arabia, at least once in life if he or she can afford which automatically feeds the travel element in the faith of a Muslim. In addition to this there is a Hadith of Prophet Muhammad (sws) that if one finds himself persecuted or unable to make any progress in the place he has been living for a long time, then it is recommended that such a person should migrate to another city or country and would then most likely improve his economic and social condition. Mr. (A) himself travelled considerably in his life. He explained how new technologies in air travel and Internet booking systems had made life a lot easier for Muslim families like his to be able to travel.
in comfort to Saudi Arabia for pilgrimage. He demonstrated how he booked his ticket through the Internet and his hotel in Makkah without any difficulties.

Mr. (A) demonstrated how Mosque locator programs now available through many Islamic websites that can enable travellers in a new country and city to be able to locate the main mosques in that area. Mr. (A) demonstrated how such a facility was useful during his visit to Lisbon in Portugal. He demonstrated through an Islamic web-site mosque locator program, the address and details of the main mosque in Lisbon, Portugal where he and his friends eventually performed a Friday prayer during their visit. In addition, Mr. (A) demonstrated a route planner program available through websites in Britain where one is able to get a print out of a door to door route of an address in another city in the UK. This is a very time saving facility for Muslim scholars and Imams as sometimes they have to attend two or three programmes as speakers during the same day. In the past arrival of Imams and scholars in a mosque in another city on time used to be a surprise as they never arrived on time, the most common excuse being not traffic but inability to find an address. One can clearly see how ICT was helping even Imams and scholars in planning their journeys and time more efficiently.

5.11.2 Analysis:

Since travelling is a part of the Islamic traditions, the developments within the travel industry with newer faster aircraft, supported by the computing revolution and satellite TV live broadcast of events like the Hajj (Annual Pilgrimage to Makkah in Saudi Arabia) is actually creating a bigger demand in travelling by Muslims all over the world. People are booking their air tickets and hotels from home through the Internet and take on the journeys without the problems of the older generations. Travelling by Muslims is a fast growing concept with all the latest facilities provided by new technologies. Mosque locator programs are a great step forward for Muslims when travelling to locate the nearest mosque

*Mr. (A) warned that he knew for certain that one of his friends who had used the mosque locator program while travelling in Sweden ended up in a mosque which belonged to the Ahmadiya sect whom the majority of Muslims in the world do not regard as acceptable Muslims because of their deviation from some of the fundamental beliefs of Islam (Finality of Prophet Muhammad, sws).*
when they are away from home although there is a danger of finding a mosque which belongs to an uncommon sect of Islam for example the Ahmadiya sect which is not generally recognised as an acceptable sect of Islam.

The route planning programs are of great use to Imams and scholars who are frequently travelling in locating their destination addresses. Since most of the time the Imams are trying to locate mosques or other Islamic Centres which may not be well known to the general public they either tend to ask other Muslims for directions or prefer to find their own way. Unfamiliarity of Muslim locations by the general public can result in being given wrong directions unintentionally (Rahman, 2001). Mobile phone and email facilities are helping in promoting greater efficiency in planning journeys.

5.12 Research Methods In Islam (Muslim specific –Issue 10)

5.12.1 Evidence
The Research methods this researcher was using while carrying out research at this family's home and research methods generally and those used by Muslim researchers were discussed at quite some length. Mr. (A) was satisfied with the semi-structured interview methods I was using at his house which was making the research feel an interesting experience and not a ‘burden’ on him or his family. The rest of family members (particularly the wife) expressed the opinion that research was being conducted in a manner which was not too intrusive into their home life and the focus had been maintained on the study of the impact of ICT only. The family was comfortable that the research was being conducted within an Islamic frame of principals ensuring that appointments had been pre-arranged and the head of the family was present (during his life time) and even after his demise, all the necessary re-arrangement conforming to the Islamic requirements was being met.

5.12.2 Analysis
From experience gained through this case study, it is an important discovery that any person engaged in research within a Muslim environment has to be familiar with not only the traditional research methods but must also understand how to apply these methods within
an Islamic environment. Consulting a Muslim scholar or Imam would be an important step to ensure a successful research.

Search facilities on programs like the Alim enable a person to conduct a quick search on any subject in Al-Qur'an and Hadith. This is now an extremely useful facility for any researcher Muslim or non-Muslim. Many Islamic websites offer a facility to seek answers on any aspects of the Islamic faith and community and the best ways to conduct research in such communities (Islamicity, 2003). At the same time ICT has become a means of global communications and can help increase or reduce travel.

5.13 Western Technologies And Muslim Attitude Towards Them (Muslim specific)
Rejection Of Western Technologies and Values. Acceptance Of Western Technologies and Values (Related Issues 11-14 discussed jointly)

5.13.1 Evidence
Mr. (A)'s response to these issues which were raised during various visits was simple and straightforward - any development/invention whether by Muslims or non-Muslims which is good for mankind and environment as a whole should be welcomed provided it does not cut across the fundamental Islamic Sharia laws. If the email facilities enable Muslim families and their children to communicate with each more easily and effectively, then it is to be welcomed but when the same facility begins to promote a swifter and wider spread of immorality, then it must either be controlled in some way or rejected at worst. In brief any thing that cuts across the guide lines provided by Al-Qur'an and Sunnah and the general consensus of the Muslim scholars and Imams must be rejected as strongly emphasised by Mr. (A) and any development which falls within the Islamic guidelines can be adopted wholly or partially if it is beneficial in saving life whether that of Muslims or non-Muslims.

This family's own response has been a straight-forward as explained by Mr. (A) and that was to accept what was useful to him, his family and his community and to reject anything
that cut across fundamental Islamic principles and created a dilution in the faith and brought corruption in society. He went on to explain that freedom of speech for example was a value and Islam does not reject it but where freedom of speech takes the shape of hurting another person’s feelings or his or her religious beliefs, then it has to be controlled.

5.13.2 Analysis
Some arguments regarding rejection of Western technology have been discussed above. As far as values goes, the same principle applies, namely that any Western values which do not cut across the guidance of Al-Qur'an and Sunnah can be adopted wholly or partially. However, any Western values that clearly cut across Islamic values derived from Al-Qur'an and Sunnah have to be rejected. Free speech is considered to be an important Western value. Expressing one’s opinion is allowed in Islam but insulting or criticising fundamental principals of Islam is unacceptable as it can take a person outside the boundaries of Islam.

5.14 Islam And Globalisation. (Issue 15)
5.14.1 Evidence
This issue was raised several times during visits to the family and indeed during many conferences and interviews with Imams and scholars. According to Mr. (A) globalisation appears to be technology led at present and the Internet and email facilities have enabled him and his family to develop new contacts with Muslim families particularly in relation to seeking a suitable partner for his elder daughter (E) through Muslim Internet matrimonial services. Some of these contacts have been in other continents. Mr. (A) explained how these contacts helped create new sense of harmony between Muslim families living thousands of miles apart and help each other in perhaps one of most difficult issues faced by Muslim families living in the West (Begg, 1999d). It is important to note that in October, 1999 only a handful Muslim Matrimonial Sites were discovered whereas a search on 20th June, 2001 revealed at least 51 Muslim matrimonial sites which strongly suggests that these have been popular.
Globalisation of Islamic information is seen as a positive side of the ICT revolution through vast Islamic materials on the Internet and several satellite TV broadcasts. The Muslim involvement in E-commerce is another pointer towards globalisation. Mr. (A) demonstrated E-commerce facilities within some Islamic websites eg. (Islamicity, 2003). He did, however, point out the level of efficiency of some of the Islamic E-Commerce web-sites was less than desirable and Muslims have some way to go on individual and micro levels to make success of e-commerce in the global context. Credit card frauds and the dangers of getting into debt by using them and hence payment of interest were unattractive aspects of e-commerce.

Mr. (A) expressed concern that while the Islamic culture has deep roots and has survived centuries of influence from other cultures, current globalisation developments with the help of ICT and satellite TV were having some diluting influence on traditional Muslim culture, a concern expressed by other Muslim scholars for example, Khan (1998).

5.14.2 Analysis

Islam and globalisation is not simply about young Muslims getting married to spouses across continents. Like the rest of the world, Muslim societies across the world (including the local Muslim community in Leicester) have been deeply affected by globalisation. The lives of their people have been changed, as have their thought patterns, and sense of creative expression. Academics and business men have welcomed these changes, while some Islamic scholars and traditionalists worry about the nature of the transformations taking place and the capacity of those affected to respond appropriately. One of the underlying causes of such anxiety has been a multifaceted cultural concern: how to protect a unique heritage in the face of global pressure: to uphold religious traditions: to preserve linguistic purity: to maintain a viable identity in the midst of a rapidly changing global environment.

The process of Islamic globalisation through marriage has been going on for a long time though not through the use of technology. What technology is doing today is simply to
increase the pace and extent of this process. As far as globalisation through matrimonial websites are concerned, there is considerable concern within the Muslim community in connection with the potential of marginalising parents altogether if their sons and daughters started direct communications through matrimonial websites and made their own decisions without any parental involvement thus introducing individualism in a normally collectivist Muslim society. However, it is important to note that when the elder daughter (E) was asked about this matter during one of the study visits to the family, she clearly expressed the view that while she was being brought up traditionally, she still felt the need to know directly the person she may be recommended to marry or if possible to be able to make a first choice all by herself if it was possible and still keep within the Islamic boundaries. Some form of the development of individualism therefore appears to be inevitable.

Young Muslims living in the West see Muslim matrimonial websites as a positive development. However, the increasing numbers of Muslim matrimonial websites means difficulties in determining the best and most genuine websites. While the increased number of these sites may provide more choice but simply navigating through them is becoming an extremely time consuming task if not impossible. Most of these sites now charge fees which means it has become a source of business rather than support for the community. 5

The Internet is helping some young women to come up with some innovative ideas. Ward (2002), reported a story in ‘The Guardian’ how a young lady called Kay Hammond put herself up for an Internet marriage auction and managed to net £251,000 from the highest bidder. She may have done well for herself but the idea of such a development involving Muslim women would appear to be a frightening development from the Islamic perspective.

Turning to another aspect of globalisation which is happening through E-commerce and the development of Islamic E-commerce web-sites are an indicator that Muslims are conscious of these developments and are trying to catch up but the efficiency level is still needs to be

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5 Searching for a Muslim partner through the Internet is more popular in the US due to extensive use of ICT.
improved. One of the reasons why E-commerce is still feared in Muslim communities is because of the high level of credit card frauds all over the world and dangers of getting into debt and paying of interest which is discouraged in Islam.

The Internet and satellite TV broadcasts are instrumental in increasing availability of Islamic publications and cultural diversity to a much wider audience than ever before, a fact which must not be overlooked in the whole globalisation process.

5.15 The Importance Of The Role Of Imams And Scholars In Islam (Muslim specific)
The Role Of Muslim Community Leaders (Muslim specific - related Issues 16-17)

5.15.1. Evidence
This is a Muslim specific issue. The role of community leaders in Islam is like the role of a father within a family. In the Muslim community such a role is given to a person of wisdom and knowledge who has the ability to bridge the gap between the community and the state or local authority for various concerns and needs of the community. Mr. (A) himself had been a community leader for some time and in such a capacity he helped bring families together, solve disputes, prevent divorces and help marriages, and provide a guidance role to those who came to see him. A good working knowledge of Islam and general education are essential for such a role and now being computer literate is an additional requirement as people want to communicate with community leaders through emails in addition to telephone and personal visits. Mrs. (B) however, expressed some reservation that some community leaders and Imams were imposing unreasonable demands on women, eg. to cover themselves up like women in black cloaks in Saudi Arabia which is not a strict requirement within Islamic law.

When the sons (C) and (D) were asked about Imams, they expressed some concern that the methods of teaching in the supplementary school were not compatible to what they are accustomed to at the day school. They felt that the Imams were not fully literate in English
and because of the number of children present they sometimes did not receive sufficient attention.

5.15.2 Analysis

Within discussions with Mr. (A) the role of Imams and scholars in Islam has been an important point as this is a body of people who after Prophet Muhammad (sws) have the duty of propagating and explaining religious issues to the masses and provide a consensus of opinion on critical matters of judgement by taking their guidance from Al- Qur'an and the Sunnah of the Prophet (sws). The children have a lot of work on their hands from school and the supplementary school attendances. The evidence suggests that ICT may have a role in supplementary schools if Imams are able to use it properly. Indeed their task could be considerably eased through the introduction of computer based learning (a) in terms of interest and self-discipline of children and (b) a more modern way of teaching now being adopted in the USA. An Intranet link proposed between supplementary schools and main education institutions in the area would be an important step forward when links are actually established and become interactive. The education authorities feel that supplementary schools are an extra burden on children as their play time and time for home work from day school is considerably reduced. Muslim parents, however, hold the view that along side their normal education it is essential that their children get Islamic education through the supplementary schools called Madressas usually located within mosques. There have been reservations even expressed by some Muslim families about the effectiveness of the teaching offered in the supplementary schools as some Imams and teachers are imported from India and Pakistan who are not in tune with the British way of life or education. However, mosque authorities say that they can only offer quality of teachers currently available in the market. Finding suitably qualified teachers for supplementary schools has always been problematic (Patel, 2001).
5.16 Collectivist Nature Of Muslim Community (Muslim specific 18-19)

Introduction Of Individualism In Muslims In The West - related Issues

5.16.1 Evidence

This is a Muslim specific issue. One visit to the family on 19th December, 1999 purely considered the collectivist nature of the Muslim community and how technology was helping or creating difficulties in maintaining collectivism. An excellent model of a collectivist community can be found in history at the time of Prophet Muhammad (sws) called the Madina model. This was when the Prophet Muhammad (sws) was in the process of building a Muslim state from scratch well over 1400 years ago. He had organised a community around him which worked in complete harmony and shared its knowledge and expertise and wealth in a very fair manner and supported each other's needs whether social or economic or defence. This model has continued since then although it may have become somewhat milder with time and the spread of Muslims across the continents. The recommended principle of operating is still the same, namely a Muslim community whether in Leicester, in London, New York, Chicago or towns and cities in the Middle East or the Indian sub-continent should follow the same principle of operating collectively for its benefit. The worst threat to this model is clearly to Muslim communities living in the West. When Mrs (B) was consulted on this subject, she expressed the view that collectivism was quite useful to ladies particularly in traditional settings when they were expecting children or in ill health, so that the neighbouring ladies would come to help them and isolation was not such a serious issue. She said that the neighbourhood did have such a spirit. However, in the West Muslim ladies do suffer from isolation considerably as neighbours may belong to another faith and may not be as friendly as in a collectivist Muslim community setting. One reason, she explained why the Muslims were concentrated so much in a particular area like the Highfields was to re-invent the collectivist Muslim community setting where the people in the community supported each other rather than relying on the state help.
It is important to note at this point that Muslim women in the USA have formed an organisation called *Kamilat* to maintain some form of collectivism within the community by operating through a national website whereby women communicate with each to discuss various issues and attend conferences and organise self-help programs. This is a slightly different type of collectivism emerging in the West with the use of technology.

Another rather original thought expressed by Mrs. (B) was that shopping from home through the Internet is another source promoting individualism and isolation when one considers that in Muslim countries the ‘Souk’ (Market Place) is a major source of shopping and fun as bartering is so common in these places and requires person to person interaction. No bartering is possible when shopping through the Internet as one does not know who is on the other end processing the order nor is bartering practical on the Internet shopping. However, ‘Shopping Bazaar’ was now a common feature of many Islamic websites through which one can buy goods ranging from tapes and videos to carpets and computer programs.

Another important factor as mentioned by Mrs. (B) which was introducing individualism in the Muslim community was the issue of marriage of young Muslim adult children living in the West. Mrs. (B) explained that while in their case both she and her husband Mr. (A) were consulting Muslim matrimonial websites to find a suitable partner for their daughter (E), in general the Muslim matrimonial web-sites were actually catered for individuals male and female to help themselves by direct contact with each other thus by-passing parents and family. This is quite noticeable when one examines some of the listings in Muslim matrimonial websites eg. (Zawaj, 2003) where at least 90% of the listings are in first person (male and female) and very few listings require contacting the head of family.

Mr. (A) explained that individualism was harmful in the long run to a Muslim society which was clearly built on collectivism. When Mrs. (B) was asked about individualism, she expressed the view that to some extent this was inevitable with the new generation growing in the West and who do not have a wish to live in poor housing dominated by the Muslim
presence. They seek freedom, being away from traditions and sometimes even to practice less and less Islam which posed a danger to keeping Islamic values in the long run for those living under Western cultural influence. Shopping from the home as a source of introducing individualism within the Muslim community was an interesting thought which came from Mrs (B). Home shopping clearly does not require person to person interaction or indeed any bartering and was therefore introducing isolation which can gradually develop into individualism.

5.16.2 Analysis
In the West, it appears that marriage was one of most important issues that was introducing individualism as most of the young Muslim men and women want to marry the person of their own choice even while retaining Islamic values. It was important to understand as explained by Mr. (A) that there was nothing like a 'Forced' marriage in Islam. According to the recommendations of Prophet Muhammad (saws), both the man and woman must see each other at least once and then give their free consent to marriage for a marriage to take place. The blessings of parents and elders is regarded as very important and this is from where some misunderstanding can arise. Individualism is resulting from the desire of young people to live on their own like many Western young men and women do. Currently, however, individualism is not a dominant feature of the Muslims living in the West but the fear is that it will inevitably creep in with time and the dominant Western culture which is mostly individualistic.

5.17. The Level Of ICT Use Among Imams and Scholars (Muslim specific 20-22a)

5.17.1 Evidence
This is a Muslim specific issue. Mr. (A) saw this as a serious draw back among Imams and scholars. Mr. (A) himself only within the last three years had made himself computer literate by attending training courses at a nearby college and started using the Internet and email facilities. As an Islamic scholar himself he felt that it was absolutely necessary that all Imams and scholars should be computer literate, a view which is shared by this researcher but still not shared by some Imams who do not want to touch Western technologies on grounds that it deviates them from the traditional methods followed over
centuries. With Internet and email facilities at home, Mr. (A) was now able to share knowledge with countless Muslim scholars across the globe and learnt many new dimensions about many issues like rulings in some medical developments like organ transplant and cloning. Mr. (A) who had the Alim program available on his home computer demonstrated how easy it was to conduct a search on any particular subject in Al-Qur'an through this program which within a matter of seconds was able to bring up all the verses in the Qur'an relating to a subject and information from Hadith (Practices and saying of Prophet Muhammad, (sws). When one considers that Imams and scholars sometimes spend hours locating particular verses in the Qur'an and Hadith when searching on a subject, it is quite evident that the computer is now a unique facility available to Imams and scholars to save time in long manual searches and use the time saved in higher academic pursuits. This program is now being used in at least one supplementary school in Leicester which is an encouraging sign.

5.17.2 Analysis

From consultations with Imams and scholars locally, nationally and internationally and the Head of this family, himself an Islamic scholar, it is reasonable to deduce that the level of computer literacy within this group is still very low. The main change that is taking place is in the training of the new Imams now taking place as they are now expected to be computer literate. If Islam is considered to be a global faith then it is important that the Imams and scholars should be ICT literate if they are to answer questions from a global community. To some extent this was already happening in the USA with some websites for example (sunnah.org, 2003) and email facilities to get a reply to any pressing question. The Imams within the local Muslim community need to take notice of this particularly if the proposal from the second case study for the establishment of an Intranet service between all supplementary schools in this area is to be developed successfully. Imams and scholars can make life a lot easier for themselves if they were able to use the Alim program using search facilities.
5.18 Computer Games (Not necessarily a Muslim issue - 23)

5.18.1 Evidence

This has been a very important issue under discussion and observation with this family setting. While Mr. (A) was allowing his children to play computer games, he felt most of the games were of a violent nature as clearly visible from the very names of the games. The daughters felt that there was hardly anything suitable for them by way of computer games and indeed if one makes a survey of computer games on sale, it is easy to observe that the vast majority of the games on sale are 'boys orientated' and violence seems to be a common feature in many of them to varying degrees. The children did demonstrate to this researcher BBC online information on Islam, UK (BBC, 2003), which provided comprehensive information on Islam and an excellent Islamic Quiz suitable for adults and children which this researcher himself found quite stimulating. This family encouraged the children to make full use of the BBC site for general information on Islamic projects and use of the prayer calculator and Quiz facility available in addition to considerable other comprehensive information. Many other Islamic websites now provide Islamic games and quizzes for adults and children (Islamicity, 2003).

5.18.2 Analysis

There appears to be less provision by way of good computer games marketed at girls. This is something very noticeable when walks into a computer games section in any high street shops. Figures confirm Britain's status as the third largest market in world after US and Japan (Millar, 2002). This progress is, however, not without criticism. Most of the games are clearly made for boys and are regretfully quite violent (at least some if not all of them). Published by Children Now, the year-long study, called 'Fair Play? Violence, Gender and Race in Video Games', examined the 70 best selling games in Britain and the US - available on Game Boy Advance, Dreamcast, Nintendo 64 and Sony's Play Station 2 (Wazir, 2001). The report discovered that in all, 48% of video games contained serious acts of violence and in none of the games were players punished for killing. The report's findings conclude that children as young as six are a risk from a 'desensitisation to violence', Muslim parents are therefore naturally concerned about the influence of these
games on their children even though there is a new rating systems by which games are classified on the level of violence. The popularity of “Lara Croft” character with disproportionately large breasts is one example to take note of. Some other research, however, suggests that playing computer games sharpens the ICT skills of the children while some more studies (Leake, 2000), suggests that screen games are linked to violence. The Islamic perspective in this respect is clear which states that the company and environment and particular the activities one pursues have a lasting influence on shaping a person’s character and one is therefore advised to be in the company of ‘Salihun’ (the righteous people) and to be engaged in ‘acts of charity’ which are interpreted to include pursuits of peaceful nature. It should be noted that some of the analysis presented above directly resulted from evidence of this case study.

This researcher found the BBC site as a very important contribution to an acceptable presentation of Islam with contribution from Arab scholars and material very relevant to the needs of adults and children. The quiz on Islam on the BBC site was found to better than many of those offered by Islamic websites. However, some Muslim software engineers are beginning to realize the need for Islamic computer games and quizzes and some Islamic websites are offering better and better Islamic games and quizzes for children (sunnah.org & Islamicity, 2003). It is important to note as indeed Mr. (A) pointed out to me that the answer to some of quizzes may not be strictly correct in accordance with different schools of thought within Islam and is actually a matter of concern to some people.

5.19 Chat Rooms/Bulletin Boards (Issue 24)

5.19.1 Evidence

Although not Muslim specific, the difficulties arising out of the use of chat rooms had been highlighted both by this family and another family interviewed by BBC reporter Julie Etchingham on 4th January, 2001 which suggested that many Muslim parents were concerned with the use of chat rooms particularly as the language being used gets worse and worse and inadvertent involvement with paedophiles and for this reason some Muslim
parents did not allow the use of chat rooms to their children. Mr. (A) had mentioned the
dangers of paedophile rings operating on the net through chat rooms, pretending to be
children when they were not and enticing children in a very clever way. Mr. (A) said that
he had instructed his children never to fill forms on-line giving their address and telephone
number as this how these rings operate through offering free gifts and other attractions. The
government in UK announced in late February, 2001 that known paedophiles will be
banned from using Chat rooms that are commonly used by children, (Begg, 2001). A TV
report (Vorderman, 2001) highlighted how quickly children can end up talking to
paedophiles using chat rooms within minutes of logging on. Muslim parents are getting
concerned that Muslim boys and girls are now increasingly using chat rooms to befriend
each other and meet in real life with all sorts of dangers like teenage pregnancies creeping
into the Muslim community, a concern expressed by Mr. (A) and Mrs. (B).

5.19.2 Analysis
The problem of paedophiles operating on the net is not restricted to non-Muslim criminals
and notice of this problem has to be taken seriously by all parents including Muslims
parents. Publication of some sort of guidelines for parents therefore appears to be an urgent
requirement. It appears that the Muslim community has a more serious dilemma in as much
as the children now cannot do without computers and Internet connections at home because
their studies require them to carry out some research but the children are clearly in danger
of being attracted to the wrong web-sites whether pornographic, chat rooms, gambling or
getting enticed by paedophiles and they seem to be getting little help or advice from any
direction on how best to cope with these new challenges. As such it is hoped that some of
the recommendations by this researcher will go some way to address the serious concerns of
Muslim parents and indeed even some non-Muslim parents.

5.20 Mobile Phones (Not necessarily Muslim specific - 28)

5.20.1 Evidence
Mobile phones have become a multi-billion dollar business in the world today and Muslim
families have been pretty quick to acquire mobile phones. They are seen as a security tool
particularly for the female section of the community and every Muslim female appears to
have one these days or is on the way to getting one. In Mr. (A)'s family there were two
mobile phones, one for the husband and one for the wife. Within the family setting too
mobiles ringing particularly in the midst of prayers or reading of Al-Qur'an are most
annoying. Mr. (A) mentioned how mobile phones ringing were a source of annoyance
during his recent visit to Saudi Arabia to perform Hajj (The pilgrimage). He said that some
people from Leicester and from within the area under study were noted to be conducting
business transactions on mobile phones while in the midst of the Hajj. He said that this was
totally contrary to the whole spirit of performing the Hajj when one is expected to cut
oneself off completely from 'worldly affairs'. (This researcher himself noticed this
particular problem during his own Hajj visit in 1999).

It is important to note that the school which Mr. (A)'s sons were attending, had banned the
use of mobile phones by pupils within its perimeters as it had been used as an instrument
for bullying by sending threatening text messages (mostly within boys). The dangers of
radiation for high users of mobile phones was discussed and was one reason why Mr. (A)
was reluctant to buy a mobile for his children. He was concerned about misuse and text
message harassment towards his own children.

5.20.2 Analysis

Mobile phones are a very positive invention on the whole and the Muslim community
locally and world-wide is using them extensively. Mobile phones can save lives in
emergency situations and help to relieve the anxiety of a waiting relative or friend.
However, the mobile phone has its down sides too. It is dangerous to use while driving and
can cause accidents. Then there are some unconfirmed health risks associated with high use
(radiation). Mobile phones affect brain activity has, however, already been confirmed
(Department of Health, 2003). The dangers of using mobiles while driving are known to
have caused several serious accidents according to many investigation reports (CUTR,
2003) and there are moves within the UK to ban the use of mobiles while driving. Phone
bills can soar up quite easily when mobiles are used for social purposes and many Muslim
families including the family under study remarked how much they have to pay just to talk. This is especially relevant where Muslim families have low incomes.

The other great annoying feature of the mobile phone for the Muslim community is when mobile phones ring in the middle of Friday prayers in a mosque or while performing the Hajj in Saudi Arabia as commented by Mr. (A), and by this researcher and indeed many other Muslims who have been through the Hajj. As a result big signs reading "Switch Off All Mobile Phones" now appears at the gates of all mosques – but the mobiles still ring to the annoyance of the whole congregation. There has been a huge rise in mobile phone thefts from children widely reported in the press (Travis, 2002, p.3). When the victim rings his or her own number, the respondents start demanding money and a meeting place for the exchange. This usually leads to raising the stakes and verbal abuse and dangers of physical assaults. Mobile phones are therefore bringing their own version of benefits and dangers to public. The family had such concerns therefore mobiles were not on the immediate shopping list bearing in mind that the school to which the boys went had banned mobiles on their campus to protect them from any form of harassment.

This family study did confirm that Muslims are now very much inclined to buy a mobile phone as a present particularly for its female section as this is seen as a great security device. Mr. (A) has bought one for his wife and was encouraging his daughters to have one too although they were studying in India. International mobile phones are becoming popular with the Muslim community as ground phone lines are sometimes not very reliable in the Indian sub-continent.

5.21 Television (Terrestrial & Satellite - 29)

5.21.1 Evidence
Through various visits made at this family home, the need and influence of TV both local and satellite was discussed at some length as it is a sensitive issue within Muslim communities generally everywhere.
The following is a Menu of local and satellite TV channels which Mr. (A) and his family watched at different times and days. Mr. (A) himself preferred the Arabic channels as he could understand Arabic and was able to find a variety of programmes which he personally watched and enjoyed together with the local BBC and ITV broadcasts in English while his wife Mrs. (B) preferred the Asian channels. The children on the other hand preferred the local English channels. There were three TV sets in the house so everyone could pursue their own interest without disturbing the others. The time spent watching was no more than two to three hours a day maximum by any member of the family though this was not observed and recorded, the information being provided by Mr. (A) and his wife Mrs. (B).

<table>
<thead>
<tr>
<th>ARABIC CHANNELS</th>
<th>ASIAN CHANNELS</th>
<th>OTHER U.K. CHANNELS</th>
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<tbody>
<tr>
<td>MBC</td>
<td>ZEE TV (INDIA)</td>
<td>BBC1</td>
</tr>
<tr>
<td>ART EUROPE</td>
<td>ZEE CINEMA (INDIA)</td>
<td>BBC2</td>
</tr>
<tr>
<td>IQRA (ISLAMIC)</td>
<td>ZEE MUSIC (INDIA)</td>
<td>ITV</td>
</tr>
<tr>
<td>ABU DHABI</td>
<td>B4U MUSIC (INDIA)</td>
<td>ITV CHANNEL 4</td>
</tr>
<tr>
<td>DUBAI TV (EDTV1)</td>
<td></td>
<td>ITV CHANNEL 5</td>
</tr>
<tr>
<td>SHARJA TV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>QATAR TV</td>
<td>ARY DIGITAL (PAKISTAN)</td>
<td>CNN</td>
</tr>
<tr>
<td>SAUDI CHANNEL 1</td>
<td>ANJUMAN (PAKISTAN)</td>
<td></td>
</tr>
<tr>
<td>KUWAIT TV</td>
<td>PRIME TV (PAKISTAN)</td>
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<td>OMAN TV</td>
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<td>IRAQ TV</td>
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<tr>
<td>AL-JAZEERA</td>
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</table>

Table: 5.2. Choice of channels with this Family.
Source: Menus displayed by Mr. (A) (11th January, 2000 – visit by this researcher)

The Head of this family Mr. (A) remarked that it was impossible to afford subscription to so many channels now available (Asian and English) and was happy that all Arabic channels were free. In his house only three Asian channels had been subscribed to – ZEE TV, ARY Digital and Prime TV.

During a recent social visit to the family (28th October, 2001), Mrs. (B) brought to the attention of this researcher that a new Digital Sky Channel 675 had recently come on to the air called MTV (Ahmadhiya Muslim Channel) which was causing some unease within her
family and many other Muslim families. This is a minority group (originated in India during the British Raj in early 1900s) who due to their non-compliance with all the fundamental principals of Islam have been declared as non-Muslims in Pakistan in the mid 1970s. They have a large presence in Germany settled as asylum seekers from apparent persecution in Pakistan. One of the fundamental Principles of Islam is that Prophet Muhammad (sws) is the last Prophet and Messenger of Allah (God) but this sect promotes the notion that it is possible to have another prophet after Prophet Muhammad (sws) and hence the dispute with the majority of Muslims. Some explanation to this effect was provided in chapter 2.

5.2.1.2 Analysis

Television is a sensitive issue within Muslim communities everywhere in the Islamic world and it is not any different within the local Muslim community in Leicester settled in the Western world and in a largely Christian country of United Kingdom. In the Muslim communities everywhere including Leicester, there are some Imams and heads of families who totally oppose the presence of a TV set within the home. Their main argument is that this is the worst corrupting influence one could have within one’s own home as TV can bring into the home films and programmes which are regarded as immoral within strict Islamic guidelines, for example sexually explicit scenes and violence. Any immoral relationships in a strict Islamic society like Saudi Arabia or Iran can result in a Death Penalty. The position in the West is different which is based on age and consent. It is this dilemma caused as a result of the British law (consent after 16 years age) which has serious implications for Muslim communities settled in the West or countries which are not Islamic by constitution or practice.

However, majority of the Muslim families everywhere in the world including Leicester do have a TV and a video recorder in the home. Their arguments is that “all viewing can be controlled simply by pressing a button, why miss out on the good stuff for fear of the wrong stuff”, as re-iterated by Mr. (A). Mrs. (B) was, however, less confident of this as she
thought it was not easy to switch off when viewing a programme of interest which included some immoral scenes. Education and control was seen as the solution.

However, today Interactive satellite TV makes it a communications channel as many Arab TV stations broadcast programmes which are interactive – viewers phone to ask a question or provide an answer to a quiz. Children too including Muslim children locally and internationally are interacting through satellite TV. A vast amount of Islamically related educational material is broadcast daily. An Arabic Islamic satellite channel called ‘Iqra’ is very popular in the Arab world and the Muslim world as some programmes are broadcast in English.

The new SKY MTV Channel 675 (Ahmadiya Muslim Channel) is seen by some Imams and Scholars and Muslim families as a threat to traditional presentation of Islam and a deliberate attempt and conspiracy by Western Media to provide an opportunity to this group to broadcast their version of Islam to viewers in the West both Muslim and non-Muslim. (Rahman, 2001). This researcher, however, does not believe that there is any real conspiracy, the real question is who is willing to pay the money to SKY for a new channel. Without consulting SKY one can speculate that SKY would be likely to provide another channel if they were paid the required payments and general conditions met. So far, however, no one has come up with the required money or ideas to combat this channel. Another effect of satellite TV is that some people seem to know more about events in India or Pakistan or in Cairo than what they know of events in their own city which was an interesting remark by Mr. (A) and Mrs. (B) during this study. The other difficult choice for this family and indeed for other families is which channels are suitable for the family as a whole and how many channels can they afford to subscribe to as some families can hardly afford the £110 TV License for BBC.
5.22 Internet Gambling (Issue 30)

5.22.1 Evidence

Other issues like Internet Gambling which were not discussed in any detail with Imams and Scholars came up in discussions with Mr. (A) because of his experience as a Youth Leader. He explained that he personally had never been attracted to gambling as this was strictly forbidden within Islam and then demonstrated to me how easy it was to get on to a gambling site in Las Vegas from his home in Leicester and the dangers this posed to the new generation. All one needed was access to the gambling sites and a credit card to get hooked to the games on offer. While gambling was not a direct issue for this particularly family but it could well become an issue for other families.

5.22.2 Analysis

The dangers posed by gambling sites are much more subtle. UK companies lead the world in online gambling. On-line betting is forecast to be 13.6 billion dollar business by 2005 (Laxton-Blinkhorn, 2001, p.18). As Internet penetration increases, more users will drive revenues up. Whereas to gamble in a conventional setting one would have to go to a betting shop, buy a lottery ticket from a shop, go to a horse race or visit a Casino in person and be seen by other people and thereby become a known gambler, Internet gambling provides that subtle privacy from the home from where one could be constantly paying away without anything in return and thereby bring hardship on one's self or the whole family.

5.23 Conclusion

The two case studies were selected with the expectation that if answers to some of the research questions raised in the aims and objectives chapter 1 were not answered through one case study, then the second case study was likely to provide an answer to those questions. In this regard the selection of a family case study has proved useful as it served the purpose for which it was selected. Nearly 30 issues identified previously through interviewing Imams and Muslim scholars were discussed with this family during the period of case study and a satisfactory level of answers were received.
This research suggests that Muslim families are responding to the computing revolution in a positive manner but on a rather individual pattern depending on their own educational background, economic conditions and the social and religious influences they are under. There are hopes and expectations that ICT revolution will bring benefits for the wider propagation and better image of Islam globally but at the same time there are serious concerns that ICT can open a window and facilitate immoralities like pornography or immoral relationships which the Islamic faith discourages in serious terms.

This case study provided an insight into how the attitude of Muslims moved towards a more positive direction towards ICT during the period of study and how ICT was having a strong impact even on some very specific Islamic requirements like prayer time tables, being able to locate a mosque through a mosque locator program when travelling away from home city or even finding a marriage partner through international Islamic matrimonial websites. This case study has confirmed that ICT is being considerably used in the propagation of Islamic faith and many websites offer extensive resource material for research on Islam which school children use quite often but there are also the dangers of anti-Islamic material being published to deliberately create offence or divisions. Some of the reasons for a gradual shift from collectivism towards individualism were also discovered. The influence of computer games, chat rooms, mobile phones and use of terrestrial and satellite TV at home provided a good insight to a Muslim family’s response to these developments. In the next chapter 6, a synthesis of research from the two case studies is presented.
CHAPTER 6

Synthesis Of Case Studies

6.1 Introduction

This chapter examines how far the two case studies have helped in providing some answers to the research issues and questions that were being investigated. The introduction chapter provided information on the aims and objectives of this research and the research methodology chapter indicated how the route towards conducting the two case studies was established. In the case study chapter 4 (educational institution), 12 pre-identified research issues were investigated, and in the second case study chapter 5 (a local Muslim family), 30 research issues were investigated. The two case studies provided considerable evidence on which to base analysis of the research issues and to derive at some answers to the main research questions and to perceive some indications of future trends. Various sections in this chapter are not mutually exclusive and some issues relate to both case studies.

The research issues (some common) investigated and discussed within the two case studies have provided an opportunity to synthesise and provide some answers to the main research questions. Six groupings of issues have been formed in order to structure the synthesis. The future trends and future research agenda are discussed in the final conclusion to this thesis. These groupings and an indication of the research question answered is provided.

<table>
<thead>
<tr>
<th>Groupings</th>
<th>Reference</th>
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<tbody>
<tr>
<td>Attitudes towards ICT (Res. Q. 1)</td>
<td>Section 6.2</td>
</tr>
<tr>
<td>Islam and the Internet (Res. Qs. 2, 3 &amp; 4)</td>
<td>Section 6.3</td>
</tr>
<tr>
<td>Cross cultural transfer of ICT (Res. Q. 4)</td>
<td>Section 6.4</td>
</tr>
<tr>
<td>Attendance at school/college (Res. Qs. 1 &amp; 4)</td>
<td>Section 6.4.1</td>
</tr>
<tr>
<td>Collectivism versus individualism (Res. Q. 5)</td>
<td>Section 6.5</td>
</tr>
<tr>
<td>Terrestrial/satellite television/Mob. phones (Res. Q.1)</td>
<td>Section 6.6</td>
</tr>
</tbody>
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Table 6.1  Groupings of issues
It should be noted that most of the issues investigated in the two case studies fall under one or several of the above groupings. These issues are now further discussed to provide a synthesis of what was discovered and which research questions were answered through the two case studies. The two case studies were chosen so that if a set of issues was not addressed through one case study then the second case study was likely to cover those issues. The main issues highlighted in table 6.1 are now further examined.

6.2 Attitudes
This research has revealed a variety of attitudes towards new technologies within the local Muslim community and reflecting attitudes in the Muslim world at large. While the field work revealed some reluctance towards having a home computer or an Internet connection, and concerns regarding the ‘corrupting influence’ of television, the larger proportion of the community does not subscribe to this view, as indeed in the case of the family studied, who were happy to have both a television and a computer with Internet connection within the home. Email facilities were being well utilised to maintain family contacts locally, nationally and internationally. Educational and religious knowledge was regarded as the guiding force in making a positive use of the new facilities now available. This seems to be a realistic, positive and practical approach. The education case study revealed that more than 50% of the Muslim boys and girls had home PCs. 42% of the Muslim boys and 34% of Muslim girls had Internet connections at home according to a survey carried out by the educational institution (30th April, 2001), which suggests that the presence of PCs and the Internet in Muslim homes is not as low as was originally anticipated.

It was revealed through the family case study that some items were bought from home using the e-commerce facilities now available on the Internet. There were concerns within the family regarding the time children spent in front of a small screen and the dangers of accidentally hitting pornographic websites. The violence within some of the computer games was a serious concern for the father but the children did not seem to be particularly bothered when they were questioned on this point. The influence of violence on computer
screens and television screens of course remains a controversial issue but according to Islamic principles any exposure to violence particularly in front of children is regarded as a damaging influence. Additionally there were some concerns regarding gambling websites, now a multi-billion dollar business, with the UK leading the field in gambling websites (Laxton-Blinkhorn, 2001, p.18). Concerns regarding gambling or violent computer games did not surface in the educational case study since all Internet access was supervised and the tight timetable during the daytime did not leave any room for playing computer games which is mostly a home activity.

On the positive side, the children showed this researcher how they were able to improve the quality of their school homework through research on the Internet and even how they were able to get good information on any Islamic research topics from the Internet. This was confirmed by pupils at the educational institution when they were interviewed: the Internet was a major source of information for them when working on projects or homework.

In discussions with the family it appeared that events and attitudes in Saudi Arabia (where only filtered Internet access is available) have a major influence on many Muslim communities around the globe including Leicester. This is an indicator of the reasons why Muslim communities across the globe including the Muslim community in Leicester have been somewhat reluctant to move fully to adopting the new technologies. The family treated for the purpose of case study, however, did not use any filters at all on their home system as the father was fairly conscious of what the children were doing on the home system which was installed in the living area of the house and the parents were thus able to keep an eye on what was on the screen. This approach later on was to become the first recommendation by a government body (ICF, 2001) to combat problems arising through chat rooms. In the educational institution case study, the principal, teachers and students appeared to be well motivated towards learning with the aid of a computer and using the Internet. All Internet provision is through the National Grid for Learning which provides filtered access only. There was therefore little concern over abuse or such difficulties. This
appears to be more of a problem in homes where unfiltered Internet access is available to the children and the parents are not computer literate (which did not apply to the family chosen for the case study). As far as the educational institution is concerned, if anything there were not enough terminals available to meet the demands of all the students. No influence of the ‘Saudi Arabia’ effect was noticed as the young new generation is growing up with computers and the Internet. If anything some of them appeared to be over-enthusiastic about the Internet. It is their parents who appear to have the ‘Saudi Arabia’ attitude as described by one member of teaching staff, an effect which itself is subsiding with time as Saudi Arabia itself is beginning to adopt technology more extensively.

As both case studies have indicated, attitudes are changing very fast particularly among the younger members of the Muslim community, locally, nationally and internationally. The element of ‘rejection’ of new technologies was not reflected in either of the case studies, whereas concerns regarding the need for its appropriate/monitored use were reflected in both case studies. The new generation want to use technology extensively both in education and in personal matters. The Local Education Authority (Leicester City in this case) and the Department of Education and Employment need to consider both the needs and the sensitivities of Muslims. Both case studies have, therefore, proved to be appropriate sources of information. The early assumption that the Muslim community was shunning or rejecting technology to a large extent was, however, proved to be incorrect, as far as can be revealed by the two case studies. By examining the above synthesis, it can be satisfactorily said that several answers to the first research question (p4) have been obtained through the two case studies.

6.3 Islam and the Internet

This has now developed into a major topic for debate locally, nationally, in the Arab world and the Muslim world as a whole. Contrary to previous attitudes, the Internet is now seen as a major source for the spread of Islamic knowledge throughout the world.
On the other hand, this research has highlighted the new challenges to the Muslim world through the Internet. For example, there are websites which appear to be Islamic but are in reality being used to damage the image of Islam; and, while there are several authentic sites on Islam, there are many sites which provide incomplete or misleading information. This information was demonstrated to this researcher by the head of the family in the family case study. For example the benefits of Ramadhan (Muslim fasting month) were very positively highlighted in one of the well-known websites (As-Sunnah Foundation of America, 2003), but when examined through other anti-Muslim unfriendly websites, it was treated much more lightly as some sort of unnecessary hardship imposed particularly on old and young, ignoring the fact that the very old, sick, pregnant women, children under the age of puberty and travellers are not expected to fast. As a recommendation to Muslims from Muslim Imams and scholars, only the best and authentic websites should be publicised so that the wrong ones die a natural death when no one bothers to access them (see Appendix 8). Hence the URLs of anti-Muslim websites are not quoted in this work. However, there are occasions where unfounded charges made against Islam or Muslims have to be replied to and some scholars have been spending considerable time on this process, a time that they would have preferred to do other scholarly work. The controversy appears to be becoming wider all the time particularly due to the situation in Palestine and the American war against terrorism.

The positive and some negative impacts of the Internet emerged mostly through the family case study and literature review, but were not so heavily reflected from the educational institution case study, apart from the fact that some children used the Internet for projects on world religions including Islam – Pilgrimage to Makkah was a popular project, with pictures imported from the Internet. As all Internet access is filtered through the National Grid for Learning before access in schools, any dangers of access to inappropriate websites are reduced and any abuse within the schools is minimal or negligible as all lessons are usually monitored. It must not, however, be forgotten that in February, 2002 three pupils from a secondary school in Wales were suspended as they were apparently caught setting up
a pornographic website during school time (ITV Teletext, 2002, p.305). The dangers through chat rooms have received considerable publicity in the media and press. The local Muslim community has had at least two cases where teenage Muslim girls went missing after chat room associations, though one could argue that there might have been other factors at play resulting in such an outcome. Since neither case study included these girls, it is not possible to comment or speculate further on these cases.

On the question of how Islam helps in dealing with any contemporary issues, the family case study was most useful, as one could see how the use of technology within the home was being guided by the faith. For example the prayer times ensured a break from any computer work or computer games and the need to rejoin the real world from the virtual world. The parents had kept the Internet connection and PC within the living area of the house and were thus able to keep an eye on what was on the screen. The parents had informed the children of the dangers of chat rooms and not to divulge their home address or telephone numbers to any strangers in chat rooms. The value of being with real people (community spirit) is constantly affirmed within the Islamic faith, which is an instruction not to live too much in the virtual world. Instead of being online constantly, Muslims are reminded to be constantly in remembrance of their creator, God (Allah). The principle of right and wrong - the allowed and the disallowed (harram and halal) - equally apply to how computing technology ought to be treated. These were discussed at length within the family case study but not to the same extent within the educational institution case study. This particular section provides some interesting answers to research question 2,3 and 4 (p4).

6.4 Cross Cultural Transfer of Technology
Several issues of the cross cultural transfer of technology were highlighted through the two case studies. The study at the educational institution revealed how Islamic events such as Ramadhan and Hajj during academic terms can have a drastic affect on attendance and consequently on the performance and overall results at this institution. In contrast to this observation, the result of the research within the family case study revealed that while both
parents travelled to Saudi Arabia for the Pilgrimage (The Hajj), they did not take their children along as they were conscious of their educational continuity particularly as the Hajj was falling within term time (February/March, 2000).

It appears, however, that the majority of the families in the area do not pay serious attention to this matter as revealed by the principal of the educational institution. This in itself is one of the indicators of the reasons for slow progress in transfer of technology within the Muslim community. There are cultural and religious barriers preventing Muslim ladies joining mixed classes as in the case of the family case study where Mrs. (B) attended Women Only English classes and the educational institution indicated that there was more demand for separate English and ICT classes from Muslim women compared to the mixed classes. The two case studies have shown how these difficulties are being tackled in addition to some language difficulties with the older members of the community and their reluctance to take on the new technologies. Difficulties in understanding Western terminology in relation to technology were discovered. For example the term ‘default setting’ caused considerable confusion in community education classes (some adult students thought it was a fault within the computer’s settings) but not during the daytime school education. Terminology is a more serious issue for the older generation but not so much with the new generation of Muslims growing up with computers. Mrs. (B) from the family case study was reluctant to use a PC at all whereas the children had no such concerns or fears. The indication from the educational institution case study was that the children during the day appeared to be comfortable with the ICT terminologies in use.

The use of certain colours for certain countries or communities was discussed in the literature review (chapter 2) and its practical implications were discovered within the family case study. For example the children associated domes and minarets and green and blue colours with Islamic websites both within the home and educational institution case study. The head of family agreed that the design of Islamic websites was very much a specialised task.
The Muslim family case study revealed changing attitudes towards Internet use. Internet and email facilities were being fully utilised within this family and no serious restrictions had been placed on playing computer games. It should be noted that many schools (including the one under study) now do not encourage the email addresses of their pupils to appear on their websites due to dangers of paedophile approaches and as recommended by a Home Office Report (ICF, 2001).

The best example of a successful transfer of technology (not through the two local case studies, although providing an interesting contrast), however, appears to be within the Muslim community in the United States as was discovered through three visits made by this researcher to United States. There are good reasons for this, particularly as the Muslim community in the US is more of a professional nature and has been exposed to technology much longer than the Muslims in the rest of the world. They are economically well off by comparison and can afford the latest technologies relatively easily. The Muslims in the rest of the world are still struggling with religious, cultural and economic arguments as was discovered through fieldwork within the Muslim community in Leicester. The local Muslim community is taking up the technology, though at a slower pace as revealed in this research. This researcher’s recommendation to the local Muslim community in Leicester, the UK and European Muslim communities to learn from the example of the US Muslim communities can, therefore, be a positive contribution. Here the research question 4 (p4) has been answered from various angles.

6.5 Attendance at School/College
Attendance for education has been an important issue in the educational case study and it is quite apparent that generally the attendance of Muslim children at their place of study is reasonably good but this is seriously affected during the months of Islamic festivals like Ramadhan and the Hajj as noted within the educational case study. Community education is even more drastically affected by Ramadhan because the evening is a time when most of
the mosque activities take place. The nature of Islamic rituals is such that for example, in Ramadhan, everyone young and old is normally at home to break their fast to have the evening meal and this activity virtually always cuts through the evening classes. The family case study revealed that children did not attend any supplementary schools during Ramadhan (1999-2000) and some classes were re-scheduled for Saturday and Sunday mornings where necessary. At the educational institution studied, Ramadhan 2001 led to an administrative re-scheduling so that the Christmas break for evening classes due to start in the third week of December was in fact started in the first week of December, 2001. The three weeks lost were added at the end of June, 2002 where it was felt these three weeks would be more productive. Given that the Ramadhan moves ten days a year, when compared to the solar calendar in use in the Western world, such a solution is often not available.

The impact of Islamic festivals on attendance (as revealed largely through the educational institution case study) will therefore remain an ongoing issue for educational institutions and Muslim families. While the Muslim family under study was acting quite responsibly with regard to attendance and festivals, other Muslim families simply take away their children for long breaks to Saudi Arabia and India then face the prospect of having to get their children re-admitted to the schools creating difficulties for themselves, their children and the authorities. Muslim families need to take a more responsible approach, meanwhile the authorities have little choice but to deal with this matter in as realistic, practical and sympathetic manner as the circumstances allow. The Islamic cultural requirements of separate environments for men and women, though not always easy to provide in the West, are not impossible. The students' demand to be allowed 5 minutes break for a prayer during a teaching session is not impossible to accommodate with a bit of goodwill from the tutor. The effects on performance and league tables due to the impact of Islamic festivals remains an issue of concern to the educational institution. From the synthesis of the two case studies it has been possible to understand some of the reasons for the slow take-up of technology within the local Muslim community in Leicester, which serves as an explanation
for such a slow take-up in other places. There may well be other factors that could be uncovered by further research. Under this section some answers to research questions 1 and 4 can be understood.

6.6 Collectivism versus Individualism
Perhaps the biggest impact of technology on the Muslim community particularly in the West is that its collectivist nature is gradually changing to a more individualistic one as revealed through the two case studies. The shift towards individualism is particularly reflected in the young Muslims’ desire to find their own partners, as was revealed in the family case study, and this in turn has been reflected in the growth of Muslim matrimonial websites - an approach totally contrary to the traditional method of parents choosing partners for adult children. While in the family case study, the parents were themselves consulting Muslim matrimonial websites, these websites are designed for individuals (male and female) to use themselves, as can be noted from the number of listings in the first person singular rather than from families. This is a route towards individualism. Some Muslim boys and girls were seen walking hand in hand on the campus during this researcher’s visits to the educational institution under study during day time which was a reflection of a more individualistic approach to life in the new generation now growing up in Leicester, the United Kingdom and the West generally. The girls were, however, still wearing the head scarf and wearing a dress which fully covered their bodies which suggested that they were conscious of Islamic traditions and codes of dress. The trend appears to be towards a more modern and moderate version of Islam at least among Muslim communities settled in the West. The family case study suggests that some parents, however, see it as a gradual process of erosion of Islamic values. Any use of matrimonial websites was not brought to the attention of this researcher through the educational case study.

Another example of individualism was noted in the somewhat selfish nature within the new generation when observed in a situation where sharing was required. Some reluctance
towards sharing was observed within the children in the family case study. For example they did not encourage children next door to come and share their new computer games with them whereas sharing is a fundamental characteristic of an Islamic community both in children and adults even when one does not have much to share. It is impossible to tell whether this is because of an atmosphere of individualism or simply the children falling below the high standards of Islam in a way that might occur even in a fully collectivist society. No examples of selfishness were observed in the educational case study partly because this researcher had spent comparatively less time observing the day school.

The Internet is, however, creating a new form of collectivism which is of a virtual nature and was not operating in history in such a manner. Individual Muslims (as was Mr. (A) in the family case study) and Muslim organisations are working with each other using email and websites to organise conferences and meetings locally, nationally and even internationally. Muslim women in the USA have a very popular website (Kamilat, 2003) which is helping create a very wide network of Muslim women in the USA (Begg, 2000). There appears, however, to be no such network through the Internet within Europe despite a very large population. Many Muslim organisations in the UK still do not have a website or e-mail address available, for example the Union of Muslim Organisations in UK and Eire still operates without a website or email. However, this organisation is now in the process of setting up a website (Pasha, 2003). Research question 5 (p.4) was an important question regarding the fundamental nature of Muslim communities and here some answers to the reasons for the creeping in of individualism are answered.

6.7 Terrestrial/Satellite Television/Video/Mobile Phones

In any contemporary study of a community in the industrialised world, the influence of television cannot be overlooked. As discussed in the family case study, television both terrestrial and satellite has long been a controversial issue within Muslim families. The vast majority of Muslim families have a television and video, and satellite television now brings programmes from across the world and in languages of their preference. The family under
study had satellite television, video, the Internet, computer games, games consoles and a
camcorder.

Television was not a particular issue within the educational case study as schools only use
 television and video for special educational programmes. Thus television did not feature
 significantly in discussions during the daytime school visits although it did arise to some
 extent during study of the community education programme (taking place mostly in the
 evenings). Even here most of the discussion was about television viewing and not during
 their study time at this institution.

Satellite Arabic, Indian and Pakistani channels appear to be most popular with Muslim
 families. Live pictures of Friday prayers can be received from Makkah, and many Islamic
 programmes are now available through channels like IQRA as seen during the family case
 study. One of the key influences of the development of these channels is that global
 awareness has vastly increased in the Muslim world (reflected not only through the family
 case study but also in discussion programmes on Arabic channels IQRA (2002). The events
 in Palestine and other parts of the world are often viewed live by Muslims across the world,
 fuelling anger at the lack of settlement of this problem and other international problems.
 This matter was discussed with Mr. (A) during the family case study. In the past the radio
 and newspapers were the main source of information but today satellite television
 technology has transformed information flows as was observed during the family case
 study. The head of the family under study participated in interactive discussions on
 channels from countries as far away as Saudi Arabia and Dubai.

Mobile phones are as popular within the Muslim community as they are within any
 community now. The family case study revealed presence of two mobile phones in addition
to the normal home telephone. The two mobile phones were mostly used by the father and
the mother and the children were only given access to one of them if they were away on a
trip or other such activities. They were not allowed to take one to school as the institution
where this family's children studied had banned the use of mobile phones on its campus. The reason for this ban as explained by the principal was to protect children from receiving threatening text messages, and from other forms of harassment which in turn would affect their concentration on study and general well-being. The health issues relating to excessive use of mobiles and children much publicised in the press (Stewart Group, 2000) were well known to the parents in the family study and the staff at the school. Banning mobiles on the campus by the school and discouraging usage by the family under study was therefore appropriate, although some pupils felt that they needed them as a means of urgent contact with parents if they were in difficulties.

Another serious problem highlighted in the press (Travis, 2002, p.3) was the alarming number of mobile phones being stolen particularly from children, who then get threats if they ring their own number and could be asked for money before returning the mobile or suffer further harassment of one sort or another because of the lost mobile. In the family case study the father had mentioned the possibilities of such harassment to his children and hence he had discouraged the use of mobile phones, but no real problems had been encountered. The pupils in the educational institution case study were not asked about this since none of them would admit to having a mobile on the school campus. Under this section some further answers to the research question 1 (p.4) can be understood.

6.9 Conclusion

In conclusion to this chapter, it is the belief of this researcher that the two case studies chosen for this research have proved an appropriate choice as several research issues and research questions have been addressed adequately (within the operating constraints) for the purpose of this research. It is a matter of satisfaction that this study reflected many common characteristics of Muslim communities living thousands of miles apart and still sharing common concerns and aspirations. For example the concerns expressed in Saudi Arabia (pornography, gambling, erosion of Islamic values) were found to be similar within the local Muslim community in Leicester and some of the aspirations shown in the United
Arab Emirates are shared among the young members of the local Muslim community who want to make full use of the new technologies and become citizens of the world rather than just the city of their residence and country of domicile. The need for further research is clear and it is hoped that more research on the impact of new technologies on various communities will be undertaken.
CHAPTER 7

Conclusion

7.1 Introduction

In this concluding chapter an overall view of this research is presented. To what extent the research questions have been answered was first indicated within the analysis of the two case studies. This was further discussed in the synthesis chapter 6. In this chapter a summary of answers to the research questions posed in chapter 1 is presented first. These answers then provide a justification for the title of this thesis. This is followed by the contribution this thesis has made to the academic body of knowledge. There are broader implications of this research which need to be understood both by the Western world where ICT has been developed and the rest of the world including the Muslim world who are its recipients and are adapting it to suit their own needs. A critical review of this research was regarded as essential by this researcher to reflect on what could have been done differently to the path followed. There are implications for other researchers considering the sensitivities of the Muslim world and how best results could be achieved. As this research has been more of a groundwork laying the foundations for future research, a future research agenda has been provided and was regarded as essential.

7.2 Answers to Research Questions/ Contribution to Academic Body of Knowledge

The answers to research questions have a bearing on contribution to academic body of knowledge both Western and Islamic. The answers to research questions are summarised first.

- What is the Impact of ICT on the local Muslim community? This research has revealed that there are both positive and negative impacts of this new technology on the local Muslim community. While it was originally thought that there was some reluctance to accept and adopt the new ICT technology among particularly
traditional Muslims, this research has shown that the attitudes towards it have been changing quite fast. ICT is now widely used within the local Muslim community in Leicester, nationally and even internationally. The information relating to the local Muslim community was obtained through the two case studies carried out while information relating to national and international aspects was obtained through literature review, current affairs and the Internet. Muslims are now extensively using email facilities and propagation of Islam through the Internet is very popular though it has brought its own setbacks which answer a later question. The negative impacts includes dangers to children through chat rooms and other unsuitable websites.

- Do the Islamic scriptures make any reference to computing and whether the faith provides any guidance on how to deal with the negative impacts of ICT and whether any re-thinking was required by Islamic scholars in addressing the issues? This was a particularly difficult question. A substantial portion of the answer to this combined question was found through literature review, study of Al-Qur'an and Hadith of Prophet Muhammad (sws). Additionally interviews and scholarly discussions with Islamic scholars provided much needed information. Basically, there are many verses in Al-Qur'an which mention scientific principles which also apply to computing and the faith provides guidelines which can be adapted to determine the 'permitted and the prohibited' actions during any period of time. Islamic scholars are constantly engaged in determining these matters to provide a consensus of opinion.

- What are the specific threats posed by ICT revolution to Muslims and the Islamic faith/What is the meaning of globalisation and the role of satellite television in the Muslim world? The answers to these combined questions were obtained more through literature review compared to the case studies. It was found that anti-Islamic websites and unauthentic Islamic websites were creating serious difficulties towards proper propagation of Islam and its correct message. Some countries like Saudi Arabia had introduced a filtering system through which the Internet was
provided to its citizens. The main fear being pornographic material and anti-government sentiments. On the local scene in Leicester, the parents were additionally concerned about the influence of unsupervised chat rooms. The recent closure of MS chat rooms confirmed that these fears were genuine. Violent computer games and their influence on children whether Muslim or non-Muslim remains an on-going concern. The family case study and information obtained from a second Muslim family (BBC, 4th Jan, 2000), Appendix (4C) confirmed parents' fears and the need for publishing a 'Parents Guide for use of the Internet at Home'. Satellite television is widely used within the local Muslim community, nationally and internationally within Muslim communities and is bringing its own influence positive and negative whether locally, nationally or globally.

- The fourth question regarding cross-cultural transfer of technology issues was answered through both case studies and through literature review. Basically, production of software for non-Western cultures is a specialized activity, particularly where software is being produced for the Arab world and Muslim world as a whole. The sensitivities and the cultural issues have to be taken into account. The choice of colours and aesthetics is a very specialized approach within Muslim culture and lack of its appreciation can mean failure particularly in e-commerce or e-government initiatives.

- The fifth research question was whether ICT is affecting the fundamental nature of Muslim communities which are normally collectivist. The Islamic faith promotes community spirit which means Muslim communities are normally collectivist but this research revealed that individualism is creeping particularly into Muslim communities living in the West due to the influence of Western culture. On the other hand another type of collectivism is now taking place through the Internet and email facilities which is joining individuals and communities who could be residing on the opposite ends of the world. This new type of collectivism did not exist before and has been created through ICT facilities whether Internet, email, telephone or satellite television.
This researcher believes that the research questions have been satisfactorily answered though further investigation by other scholars would enhance the findings. In addition to the research questions several research issues were investigated within case studies which had a bearing on justifying the title of this thesis. The research issues too were researched in some detail and were discussed within the two case study chapters 4 and 5. The literature review and study of Islamic scriptures and Hadith (narrations and practices of Prophet Muhammad (sws) provided vast volumes of information into understanding the Islamic faith itself which this researcher though himself a Muslim by faith had hitherto not fully understood or appreciated.

7.2.1 Contribution to Academic Body of Knowledge
As this research is in many ways an original attempt to study the impact of ICT on a Muslim community, its contribution to the academic body of knowledge is expected to be recognisable. There are some aspects of this research which appear to be original even from the Islamic point of view: for example the section on Computing and the Qur'an (chapter 2) has never been presented before in public to the approval of Islamic scholars, and some Hadith (Narrations of Prophet Muhammad (sws)), which have been hitherto dormant and were not fully understood or appreciated, have been presented in this work.

The fact that Islamic festivals are based on the lunar calendar rather than the solar calendar presents several implications for administrative matters since it is the solar calendar which is followed for global purposes. While the fact that Muslims follow the lunar calendar for religious purposes is well known, this research has provided some real evidence on how examination results in adult community education and schools which are heavily populated by Muslim learners can be seriously affected and how this can have a bearing on league tables and attendance records.
The choice of colours and aesthetics for web design in the Muslim world was discussed in the literature review chapter and case studies. This is an important consideration for web developers who may be called upon to design a website for Muslim clients. In fact its success or failure may well depend on simply the design of the opening page. Muslim e-commerce websites need to demonstrate how much importance is placed on trust not only in the general sense but also from the Islamic point of view. A verse from Al-Qur'an relating to trust and prohibition against usury would go a long way in attracting a potential Muslim customer. Retaining the trust would then become easier provided the transactions themselves are completed satisfactorily. This research finding is useful both for Western and Muslim software developers.

Despite the fact that this researcher had some previous experience of community work in this area of Leicester, many of the complexities of the local Muslim community became apparent only as a result of this research. For example the sheer diversity of the local Muslim community is not fully understood until one begins to work in this area. Within the local Muslim community in this area, the Somali Muslim community has grown considerably since the beginning of 2001. The Somali presence was not significant at the beginning of this research in September, 1997, yet by the end of this research, the Somali community had established its own mosque and community centre within this area. The presence of Somali Muslims started becoming apparent at the educational institution during the period of the case studies. More men and women of Somali Muslim origin joined ICT classes in community education. The population of the local Muslim community has been growing for quite some time but the actual Muslim population in Leicester will not be known until the results of 2001 Census are published later in 2003. Social and cultural researchers (Muslim and non-Muslim) can make use of this information.

It was discovered through this research that the influence of the Imams on the local community is very strong. There is diversity in schools of thought. Some mosques were under Saudi influence due to financial support and others were operating totally
independently through contributions of the local community, for example the Islamic Centre, Conduit Street, Leicester. The concerns and expectations of Muslim parents became apparent and how effort is being made to minimize any negative impacts of ICT within Muslim homes.

There has been a gradual shift in attitudes towards the use of ICT, the presence of Imams learning ICT in community education, hopes of connecting supplementary schools (Madressas) attached to mosques via an Intranet connection to the educational institution studied, increasing Internet connections within the Muslim home, computer games within Muslim homes, satellite TV, influence of chat rooms and the enormous growth in Islamic websites: all are indicators in this respect and their positive and negative impacts have been very useful findings through this research.

As discussed in the literature review (chapter 2), it appears that the contribution to the computer ethics field by Muslim scholars is scanty so far, though some research papers can be found from Muslim scholars in the US and the UK on the Internet. This thesis is therefore a step in the right direction in stimulating interest of other Muslim researchers in future whether in this country or the Muslim world at large. Many issues highlighted in this thesis can be subjects of future PhDs by other researchers (see p.202).

The urgent need to produce a 'Parents' Guide to the Use of Internet at Home' became apparent as a result of this research. This researcher is currently working on producing such a guide which would be useful to all parents.

Finally for the first time in history, this research has provided an Islamic definition of computer ethics (2.4, p.14). This definition may well be quoted by other researchers or it may be challenged.
7.3 Broader Implications of this Research

Currently the Muslim community in the United States is the most advanced in respect of using ICT fully compared to Muslims in the Leicester Muslim community, the UK, Europe and the rest of the Muslim world at large, and some of the reasons for this difference have been discussed in the literature review chapter. The three main reasons are the education level of the Muslim community in the USA, its economic prosperity and the longer time scale of using ICT. In the USA Muslim children use computer programs to learn about Islam and Arabic, a method which is just beginning to get some attention within the Muslim community in the UK and the rest of the Muslim world.

The family case study revealed that Muslim communities can benefit from improved communications within the family and among relatives using email. Children can learn a lot about Islam from the Internet at home when properly supervised. On the other hand the influence of computer games and more seriously the dangers through the use of chat rooms are becoming well known even within traditional Muslim families. The need for some supervision and parental guidance was understood. While there are implications for parents globally, there are further implications not only for the Leicester Muslim community but for the Muslim world as a whole in view of its religious sensitivities and Islamic culture.

The globalisation facilitated through ICT has its implications for the Muslim world as much as the Western world. E-commerce and e-government are new methods of conducting business which cannot be ignored by the Muslims. This requires radical changes in some of the cultural norms within Muslims. For example the traditional slow response to any enquiry would have to be turned into swift response when using technology.

Authentic information about the reality of Islam and its beliefs can be conveyed through the Internet and the popular terrorist image rectified even though it may appear to be a difficult task. There are serious reservations about technology developed in the West among traditionalist Muslims but, at the end of it all, recognizing the benefits and the dark side of
technology through good education and application of Islamic principles appears to be a better policy than total rejection of the technology by Muslims.

Finally, one cannot over-emphasise the implications of public surveillance techniques (discovered through literature review) now being used in the West, particularly in the USA, largely aimed at Arab and Muslim people in the ‘war against terrorism’. Many innocent Muslim people can suffer unnecessary harassment and interrogation simply because of their looks and names matching a suspect. For Muslims travelling in the West and particularly to or within the USA this has become a source of aggravation, with the result that there is now less interest in travel to the USA within Muslim communities including the local Muslim community in Leicester.

7.4 Critical Review

It is important in any research to carry out some critical review to understand how the research could have been conducted in a different and more productive manner. Overall this researcher is satisfied that the aims and objectives and research questions have been adequately addressed. However, given the opportunity to carry out this research afresh, it is felt that access arrangements by way of taking up a part-time tutor’s job at the educational institution, although very helpful in studying community education, were not sufficient in gaining fuller access during the day-time comprehensive school setting as the number of interviews conducted was restricted. While most of the senior staff were interviewed, access to day-time class rooms was not easy as at least one teacher refused outright to have this researcher as an observer in her class, the reason given being too many inspections already taking place or having taken place. Other members of staff though not refusing outright were still not particularly happy having another observer in their class or interviewing their pupils. It seems that perhaps a different timing for such visits or some sort of a specific commitment by daytime staff was necessary earlier in the research. However, one is still not certain how spending more hours during the day would have provided any substantially different results.
In the family case study, the loss of the head of the family towards the end of research was not something in anyone's control. While further hurdles to access arose, how the study was concluded was a unique learning experience which can be of benefit to other researchers. However, this researcher feels that perhaps more time spent with the children examining the computer games and what having such facilities at home meant to them and their friends compared to their parents, would have yielded useful further insight. Some people are concerned about the harmful effects of computer games due to violence, and others feel that they enhance children's ICT skills. Another aspect of further study could have been whether Islamic computer games can provide the same sort of fun to children as they appear to be getting out of the current computer games available in the market. Given that the time available for research was limited, to accommodate such research, some other aspect of this would have had to be sacrificed.

In the beginning four case studies were proposed, a Muslim business and Islamic religious organisation in addition to the two case studies. However, it was soon apparent that access was a major problem, as indeed it was in the two case studies that were pursued. Business owners are particularly reluctant to have an observer on their premises for privacy and confidentiality reasons. Perhaps with some extra efforts inclusion of an Islamic cultural and religious organisation might have proved a useful study. Here again one cannot but feel that time constrains laid down by university regulations would not have enabled further case studies to be investigated.

The research methods followed seem satisfactory on the whole but this researcher does feel that perhaps interviewing so many Imams and scholars, locally, nationally and internationally, was not necessary particularly within the same period of time, considering that some shift in attitudes was only noticed during the last two years of study. While the experience in itself cannot be regarded as wasteful, some variation in the research approach could have been considered, for example the length of interviews and the topics covered.
Some interviews particularly at the educational institution could have been made more formal. However, with hindsight, this researcher did what appeared to be practical and possible at that time.

7.5 Implications for other Researchers
This research has proved invaluable in understanding how conducting research within a Muslim community can present extra challenges for researchers and why it is important for someone not belonging to the Islamic faith to learn something about this faith and the Islamic culture before embarking on a research project in a Muslim community. While the research methods can be broadly the same as applied within a Western context, the research approach certainly needs to be considered seriously if the research is to be successful. As transpired during this research, understanding and bearing in mind some of the sensitivities of the Islamic faith and Muslim culture are important factors to be considered by any researcher working within a Muslim community, Muslim country or Muslim environment. This should not present an impossible task to a non-Muslim researcher provided he or she can show understanding and respect towards the community, the faith and Islamic culture. For example female non-Muslim researchers should avoid going into Muslim environments in short dresses or with overt make-up. The Muslim culture is normally very welcoming and any hospitality offered should not be rejected outright. A few words of Muslim greetings can help build confidence.

Female researchers are more likely to be successful when researching among Muslim women than men. It is important that male researchers should only visit a Muslim family when the male head of family or another elder is present. This is a religious and cultural norm within a Muslim family. This researcher's own experience due to bereavement within the family case study, during the study period, was perhaps a somewhat extreme situation but some of the lessons learnt about how to complete the research have wider relevance. Any home visits by male or female researchers should take into account prayer times so that any unnecessary clash of activity can be avoided. Finally a flexible approach and semi-
structured interviews are most productive while any surveys large or small are unlikely to yield any productive result. Employing Muslim researchers to investigate Muslim issues can be more productive (as discussed in the research methodology chapter) and provide deeper insight as they themselves would already have some background knowledge on the general principles of Islam and the nature of Muslim communities around them.

7.6 Future Research Agenda
Before presenting a proposed future research agenda, it should be noted that this author himself intends to carry out some post-doctoral work as a result of this research. A very important need of the local Muslim community highlighted through this research has been the need to publish some sort of a parents guide to the use of ICT within the home (7.2), with special reference to the Muslim community. As a result of this research and in response to the call of parents and teachers, this researcher intends to produce and publish such a parents guide which could be of use to all parents. It is proposed to be an easy-to-read guide for parents so that they can appreciate both the need for having Internet access at home and the need properly to supervise its use by their children within the home environment. It is also the intention of this researcher to research e-commerce/e-business within non-Western cultures particularly the Muslim world and its implications on the Western world for example software developers. This is again an area of research where little or no previous work can be easily located.

Before presenting a future research agenda it should be noted that at least one of the indirect aims of this research has been to build bridges between the Muslim and non-Muslim communities in Leicester and perhaps even nationally and internationally if such research begins to prove useful in this manner. The following quotes appear to be appropriate for consideration.

"New considerations have emerged in relation to the study of Islam and world religions after the events of September, 11th, 2001, there may be little attention paid to the cultural and religious diversity under the umbrella of Islam, with a
focus instead on political rhetoric and activism at the expense of quietist, mystically oriented beliefs", Bunt (2002, pp.156-164).

"It also needs to be understood that throughout the Islamic world, there are men and women who draw upon both eastern and western thought and tradition, who live and work in both worlds and travel easily between them, and who are quietly transforming the fields in which they work. We need to hear more from them rather than putting Bin Laden in the middle, and push this remarkable generation of writers, thinkers, musicians, artists, architects, educators, environmentalists, feminists, historians, human rights activists and entrepreneurs to the margin [some of them live in Leicester and within the area of study for this research]. We have much to learn from them, not just as ignorant observers of the so-called East, but as so-called Westerners. It is time we started listening to what they say" (Freely, 2002, p.18).

Examining these quotes it becomes clear that there is a great need to understand Muslims and the Muslim world more comprehensively than what is currently taking place and even more so how the revolution in ICT is affecting them and what is their response to this technology which has its development essentially in the West. Walsham (2001, p.250) has presented his proposed future research agenda. However, Walsham (2001) has made little reference to the Arab/Muslim world in his book. This researcher is therefore presenting his own 10 point proposed future research agenda specifically in relation to Muslim communities. This research agenda which follows can be adopted locally, nationally or even internationally according to the prevailing situation and circumstances.
<table>
<thead>
<tr>
<th>Table 7.1 10 Point Future Research Agenda</th>
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<tr>
<td><strong>Current coverage</strong></td>
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<tr>
<td><strong>Research further into implementation of Intranet connection between LEA schools/colleges with large Muslim population to the local mosques where supplementary education is provided (Madressas). (Under consideration locally (chapter 4)).</strong></td>
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<tr>
<td><strong>Produce a Parents’ Guide for the use of Internet at home with special reference to Muslim parents. (This researcher is committed to produce such a guide as one of his post-doctoral projects).</strong></td>
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<tr>
<td><strong>The Muslim response to globalisation, needs further research and to find ways and means through the use of technology to enhance co-operation between the Muslim world and the Western world.</strong></td>
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<tr>
<td><strong>Further research is required on how to enhance the use of ICT in Muslim communities and the e-government initiatives in the UK and other countries.</strong></td>
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<tr>
<td><strong>E-business within Muslim communities locally, nationally and internationally is another area which is under researched currently and needs urgent initiatives.</strong></td>
</tr>
<tr>
<td><strong>Muslim women and ICT appears to be a totally untouched area of research though some research does exit on women and computing generally.</strong></td>
</tr>
<tr>
<td><strong>Production of Arabic other Islamic computer programs and computer games suitable for the Muslim world is a vast area of research and innovation which not properly taped so far.</strong></td>
</tr>
<tr>
<td><strong>Further research on the impact of the Internet both on the Islamic faith and its users is required.</strong></td>
</tr>
<tr>
<td><strong>Meeting the ICT needs of Muslim disabled men and women is a special area of research and innovation which is largely untouched.</strong></td>
</tr>
<tr>
<td><strong>Meeting the ICT needs of Muslim old age pensioners (eg. In Housing Associations’ initiatives for the elderly Asians) is another growing area which needs attention and innovation both from the community and providers.</strong></td>
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</tbody>
</table>
A vast research agenda is therefore available. Many years of research by scholars from different parts of the world is needed to address the gap. It is therefore hoped that this research is a step in that direction and will serve as a stimulus to other scholars in the Muslim community to consider research in various fields where ICT is having a major impact. An important area for research within Muslim communities is the provision of e-learning facilities for Muslim women and disabled Muslim men and women. Similarly, satellite television too can be used as a teaching medium which indeed some Arabic channels (IQRA & SHARJA TV) are already doing by way of teaching Qur'anic Arabic.

Participation by Muslim scholars in international associations, such as the International Society for Ethics and Information Technology, can be very useful, but there are limitations created by high membership fees and the difficulty for delegates to travel and participate at international forums. The ability to travel and participate at international forums depends very much on the type of work one does and one's personal circumstances (Fairweather & Rogerson, 2003). Many organisations find it difficult to allow employees to travel and participate abroad when the nature of their daily duties requires them to be at the workplace. Family circumstances like young children and other dependants and family responsibilities can prevent travel and participation abroad. This can be particularly acute for Muslim participants where family ties and responsibilities are concentrated not only on the immediate family but on the extended family including grandparents, uncles and aunts. While there are exceptions, Western participants in international forums are less likely to have responsibilities to extended families.

As a result of some of the above constraints participation by Muslim scholars in the field of computer ethics is currently scanty when compared to scholars from the West or other non-Muslim countries. Interest in this area of research is gradually growing as discussed in literature review chapter. One way to increase the participation from Muslim countries would be to take international forums to Muslim countries instead of concentrating the activities in the West only.
7.7 Conclusion

The opportunities to use ICT for the benefit of mankind and the Muslim communities are enormous provided these facilities are used sensibly, sensitively and in a controlled manner so that the new generations do not become men and women who prefer to live in a virtual world rather than the real world. This thesis is concluded in the words of the previous Archbishop of Canterbury, Dr. George Carey, “The Christian emphasis is on relationships not just connections. We must be sure that the virtual world is at the service of real community, not a substitute for them. It should be a tool for inclusion not a weapon for exclusion” (Carey, 2000). Equally in the words of Sheikh Nazim Al-Haqqani, an internationally renowned Islamic preacher from North Cyprus, “True knowledge and wisdom can only be attained through real association (Sohbet in Arabic) with your Master” (Al-Haqqani, 1993). The two thoughts complement each other but the central message is still the same which is that the developers and users of technology must not lose sight of the real world.

Mohamed M Begg

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Chapter 5:8, *Al Maida*, “The Table Spread”
Chapter 45:5 *Al-Jathiyay*, “Crouching”
Chapter 96:2, *Al-Alaq*, “The Clot”
Chapter 83:7-22, *Al-Tatffif*, “Defrauding”
Chapter 84:7-12, *Al-Inshiqaq*, “The Sundering”
Chapter 36:81, *Ya Sin*, “O Man”
Chapter 83:1-5, *Al-Tatffif*, “Defrauding”
Chapter 30:9-10, *Ar-Rum*, “The Romans”


Chapter IV:58, *An-Nisa*, “Women”
Chapter V:8, *Al Maida*, “The Table Spread”
Chapter XLV:5 *Al-Jathiyay*, “Crouching”.
Chapter XCVI:2, *Al-Alaq*, “The Clot”
Chapter LXXXIV:7-12, *Al-Inshiqaq*, “The Sundering”
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APPENDIX 1

**Imams & Muslim Scholars Consulted**

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<th>NAME</th>
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<th>DATE</th>
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<td>Pakistan</td>
<td>10/03/98</td>
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<tr>
<td>Sheikh Mohamed</td>
<td>Saudi Arabia(Hajj)</td>
<td>18/03/98</td>
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<td>Maulana Sheikh Hisham Al-Kabbani</td>
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<td>07/08/98</td>
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<td>Maulana Shah Ahmed Noorani</td>
<td>Pakistan</td>
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<td>Prof. Dilnawaz Siddiqui</td>
<td>U.S.A</td>
<td>01/11/98</td>
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<td>Maulana Shabir Hussain Hashimi</td>
<td>Pakistan</td>
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<td>Maulana Sheikh Nazim Al-Haqqani</td>
<td>N.Cyprus/Turkey</td>
<td>05/01/00</td>
</tr>
<tr>
<td>Prof. Ahmed Thompson</td>
<td>U.K.</td>
<td>05/03/00</td>
</tr>
<tr>
<td>Mr. Shamasudeen Hassan (now dec’d)</td>
<td>U.K.</td>
<td>10/11/00</td>
</tr>
<tr>
<td>Maulana Attaullah Jameel</td>
<td>Pakistan</td>
<td>08/06/01</td>
</tr>
<tr>
<td>Prof. Ananda Mitra</td>
<td>U.S.A</td>
<td>20/06/01</td>
</tr>
<tr>
<td>Maulana Madani Mian Sahib</td>
<td>India/UK</td>
<td>10/07/01</td>
</tr>
<tr>
<td>Maulana Qamar Hashimi</td>
<td>U.K./Pakistan</td>
<td>27/10/01</td>
</tr>
<tr>
<td>Dr. Majid Khatme</td>
<td>U.K.</td>
<td>18/11/01</td>
</tr>
<tr>
<td>Maulana Hafizul-Rahman</td>
<td>U.K./Pakistan</td>
<td>18/11/01</td>
</tr>
<tr>
<td>Dr. Sayed Aziz Pasha</td>
<td>U.K.</td>
<td>01/12/01</td>
</tr>
<tr>
<td>Maulana Sheikh Abdul Hamid</td>
<td>U.K./Kenya</td>
<td>03/12/01</td>
</tr>
</tbody>
</table>

Note: Several subsequent informal meetings and interviews also took place with some of the Imams and Scholars mentioned above. Others who were met perhaps briefly are not recorded above.
### APPENDIX 2 (Community Education)

#### LOG BOOK 1 - CASE STUDY 1 (AN EDUCATIONAL INSTITUTION)  
**D=DAY VISIT  E=EVENING VISIT**

<table>
<thead>
<tr>
<th>Date</th>
<th>Visit/tel</th>
<th>Time in</th>
<th>Time out</th>
<th>Persons</th>
<th>Subject</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.09.00</td>
<td>Teaching</td>
<td>7.00pm</td>
<td>9.00pm</td>
<td>7 students</td>
<td>Clait wp. Observation</td>
<td>1st session full attendance</td>
</tr>
<tr>
<td>19.09.00</td>
<td>Teaching</td>
<td>7.00pm</td>
<td>9.00pm</td>
<td>5 students</td>
<td>Clait wp. Observation</td>
<td>2 absent</td>
</tr>
<tr>
<td>26.09.00</td>
<td>Teaching</td>
<td>7.00pm</td>
<td>9.00pm</td>
<td>4 students</td>
<td>Clait wp. Observation</td>
<td>3 absent</td>
</tr>
<tr>
<td>03.10.00</td>
<td>Teaching</td>
<td>7.00pm</td>
<td>9.00pm</td>
<td>4 students</td>
<td>Clait wp. Observation</td>
<td>3 absent</td>
</tr>
<tr>
<td>10.10.00</td>
<td>Teaching</td>
<td>7.00pm</td>
<td>9.00pm</td>
<td>5 students</td>
<td>Clait wp. Observation</td>
<td>2 absent</td>
</tr>
<tr>
<td>17.10.00</td>
<td>Teaching</td>
<td>7.00pm</td>
<td>9.00pm</td>
<td>4 students</td>
<td>Clait wp. Observation</td>
<td>3 absent</td>
</tr>
<tr>
<td>24.10.00</td>
<td>Half</td>
<td>Term</td>
<td>Break</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>31.10.00</td>
<td>Teaching</td>
<td>7.00pm</td>
<td>9.00pm</td>
<td>4 students</td>
<td>Clait sp. Observation</td>
<td>2 permanently absent. 1 absent.</td>
</tr>
<tr>
<td>07.11.00</td>
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<td>9.00pm</td>
<td>3 students</td>
<td>Clait sp. Observation</td>
<td>2 permanently 2 absent.</td>
</tr>
<tr>
<td>14.11.00</td>
<td>Teaching</td>
<td>7.00pm</td>
<td>9.00pm</td>
<td>4 students</td>
<td>Clait sp. Observation</td>
<td>E</td>
</tr>
<tr>
<td>Date</td>
<td>Subject</td>
<td>Time</td>
<td>Duration</td>
<td>Students</td>
<td>Activity</td>
<td>Notes</td>
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<tr>
<td>------------</td>
<td>-------------</td>
<td>--------</td>
<td>----------</td>
<td>----------</td>
<td>---------------------------</td>
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<tr>
<td>21.11.00</td>
<td>Teaching</td>
<td>7.00pm</td>
<td>2 hours</td>
<td>4 students</td>
<td>Clait sp. Observation</td>
<td></td>
</tr>
<tr>
<td>28.11.00</td>
<td>Teaching</td>
<td>7.00pm</td>
<td>2 hours</td>
<td>2 students</td>
<td>Clait sp. observation</td>
<td>Ramadhan affects attendance further</td>
</tr>
<tr>
<td>05.11.00</td>
<td>Teaching</td>
<td>7.00pm</td>
<td>2 hours</td>
<td>2 students</td>
<td>Clait sp. observation</td>
<td>&quot; &quot; &quot;</td>
</tr>
<tr>
<td>12.12.00</td>
<td>Teaching</td>
<td>7.00pm</td>
<td>2 hours</td>
<td>2 students</td>
<td>Clait sp. observation</td>
<td>&quot; &quot; &quot;</td>
</tr>
<tr>
<td>19.12.00</td>
<td>Christmas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>New Year break</td>
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<tr>
<td>09.01.01</td>
<td>Teaching</td>
<td>7.00pm</td>
<td>2 hours</td>
<td>3 students</td>
<td>Clait db observation</td>
<td>Permanent loss of 3 students</td>
</tr>
<tr>
<td>16.01.01</td>
<td>Teaching</td>
<td>7.00pm</td>
<td>2 hours</td>
<td>3 students</td>
<td>Clait db observation</td>
<td></td>
</tr>
<tr>
<td>23.01.01</td>
<td>Teaching</td>
<td>7.00pm</td>
<td>2 hours</td>
<td>3 students</td>
<td>Clait db observation</td>
<td></td>
</tr>
<tr>
<td>30.01.01</td>
<td>Teaching</td>
<td>7.00pm</td>
<td>2 hours</td>
<td>3 students</td>
<td>Clait db observation</td>
<td></td>
</tr>
<tr>
<td>06.02.01</td>
<td>Teaching</td>
<td>7.00pm</td>
<td>2 hours</td>
<td>3 students</td>
<td>Clait db observation</td>
<td></td>
</tr>
<tr>
<td>13.02.01</td>
<td>Teaching</td>
<td>7.00pm</td>
<td>2 hours</td>
<td>3 students</td>
<td>Clait db observation</td>
<td></td>
</tr>
<tr>
<td>20.02.01</td>
<td>Half Term</td>
<td></td>
<td></td>
<td></td>
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</table>

Appendix 2a(Community Education)
### LOG BOOK 1 - CASE STUDY 1 (AN EDUCATIONAL INSTITUTION)

<table>
<thead>
<tr>
<th>Date</th>
<th>Visit/tel</th>
<th>Time in</th>
<th>Time out</th>
<th>Persons</th>
<th>Subject</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>27.02.01</td>
<td>Teaching</td>
<td>7.00pm</td>
<td>9.00pm</td>
<td>3 students</td>
<td>Clait db Observation</td>
<td>E</td>
</tr>
<tr>
<td>06.03.01</td>
<td>Teaching</td>
<td>7.00pm</td>
<td>9.00pm</td>
<td>3 students</td>
<td>Clait db Observation</td>
<td>E</td>
</tr>
<tr>
<td>13.03.01</td>
<td>Teaching</td>
<td>7.00pm</td>
<td>9.00pm</td>
<td>3 students</td>
<td>Exams</td>
<td>Repeat exam E</td>
</tr>
<tr>
<td>20.03.01</td>
<td>Teaching</td>
<td>7.00pm</td>
<td>9.00pm</td>
<td>3 students</td>
<td>Exams</td>
<td>Acceptable E</td>
</tr>
<tr>
<td>27.03.01</td>
<td>Teaching</td>
<td>7.00pm</td>
<td>9.00pm</td>
<td>3 students</td>
<td>Exams</td>
<td>Acceptable E</td>
</tr>
<tr>
<td>03.04.01</td>
<td>Teaching</td>
<td>7.00pm</td>
<td>9.00pm</td>
<td>3 students</td>
<td>Exams</td>
<td>Acceptable E</td>
</tr>
</tbody>
</table>

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**Appendix 2b (Community Education)**
**LOG BOOK 1 - CASE STUDY 1 (AN EDUCATIONAL INSTITUTION)**  
**D=DAY VISIT  E=EVENING VISIT**

<table>
<thead>
<tr>
<th>Date</th>
<th>Visit/tel</th>
<th>Time in</th>
<th>Time out</th>
<th>Persons</th>
<th>Subject</th>
<th>Remarks</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>31.01.01</td>
<td>Tel</td>
<td>11.35am</td>
<td>11.45am</td>
<td>Principal</td>
<td>Appointment</td>
<td>Agreed for 08/02/01 12.00noon</td>
<td>D</td>
</tr>
<tr>
<td>01.02.01</td>
<td>Tel</td>
<td>7.15pm</td>
<td>7.25pm</td>
<td>Vice-principal.</td>
<td>Appointment</td>
<td>Agreed for 08/02/01 7.15pm</td>
<td>E</td>
</tr>
<tr>
<td>08.02.01</td>
<td>Visit</td>
<td>12.05pm</td>
<td>12.50pm</td>
<td>Principal</td>
<td>Ict provision</td>
<td>Excellent information on Ict provision day/even.</td>
<td>D</td>
</tr>
<tr>
<td>08.02.01</td>
<td>Visit</td>
<td>7.15pm</td>
<td>8.15pm</td>
<td>Vice-principal.</td>
<td>Adult provision.</td>
<td>Excellent information re. various issues.</td>
<td>E</td>
</tr>
<tr>
<td>05.03.01</td>
<td>Tel</td>
<td>7.25pm</td>
<td>7.30pm</td>
<td>Comm. Head</td>
<td>Appointment</td>
<td>Not available</td>
<td>E</td>
</tr>
<tr>
<td>06.03.01</td>
<td>Visit</td>
<td>7.00pm</td>
<td>9.00pm</td>
<td>Class</td>
<td>+ Appoint.</td>
<td>09.03.01 agreed</td>
<td>E</td>
</tr>
<tr>
<td>09.03.01</td>
<td>Visit</td>
<td>2.30pm</td>
<td>3.30pm</td>
<td>Comm. Head</td>
<td>Interview</td>
<td>Excellent info.</td>
<td>D</td>
</tr>
<tr>
<td>30.04.01</td>
<td>Tel</td>
<td>2.30pm</td>
<td>2.40pm</td>
<td>Secretary</td>
<td>Appt.</td>
<td>Appt. agreed-01/05.01</td>
<td>D</td>
</tr>
<tr>
<td>01.05.01</td>
<td>Home visit</td>
<td>9.00pm</td>
<td>11.00pm</td>
<td>Secretary</td>
<td>Women in ICT</td>
<td>Discussed women and Ict issues.</td>
<td>E</td>
</tr>
<tr>
<td>22-01-02</td>
<td>Home visit</td>
<td>9.00pm</td>
<td>10.15pm</td>
<td>Secretary</td>
<td>Post research</td>
<td>Ramadhan issues updated.</td>
<td>E</td>
</tr>
</tbody>
</table>

**Note:** Day students were seen in a class on the same day as any day visits that took place.

**Appendix 2c (Day School Education)**
## APPENDIX 3

**LOG BOOK 2 - CASE STUDY 2 (A MUSLIM FAMILY)**

<table>
<thead>
<tr>
<th>Date</th>
<th>Visit/tel</th>
<th>Time in</th>
<th>Time out</th>
<th>Persons</th>
<th>Subject</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>06.03.99</td>
<td>Visit</td>
<td>7.30pm</td>
<td>8.45pm</td>
<td>Mr. A</td>
<td>Access</td>
<td>Lengthy discussion - case study possibility</td>
</tr>
<tr>
<td>27.03.99</td>
<td>Visit</td>
<td>7.00pm</td>
<td>9.00pm</td>
<td>Mr. A</td>
<td>Access</td>
<td>Further negotiation</td>
</tr>
<tr>
<td>17.04.99</td>
<td>Tel.</td>
<td>9.00pm</td>
<td>9.15pm</td>
<td>Mr. A</td>
<td>Progress</td>
<td>Progress of negotiations</td>
</tr>
<tr>
<td>08.05.99</td>
<td>Visit</td>
<td>8.00pm</td>
<td>9.15pm</td>
<td>Mr. A</td>
<td>Agreement</td>
<td>Towards agreement</td>
</tr>
<tr>
<td>26.06.99</td>
<td>Visit</td>
<td>8.00pm</td>
<td>9.15pm</td>
<td>Mr. A &amp; Mrs. B</td>
<td>Agreement</td>
<td>Preliminary agreement</td>
</tr>
<tr>
<td>11.07.99</td>
<td>Visit</td>
<td>8.30pm</td>
<td>9.50pm</td>
<td>Mr. A &amp; Mrs. B</td>
<td>Finalise</td>
<td>Formal agreement</td>
</tr>
<tr>
<td>25.07.99</td>
<td>Visit</td>
<td>7.30pm</td>
<td>9.00pm</td>
<td>Mr. A</td>
<td>Principles Interview</td>
<td>Principles of Islam/family</td>
</tr>
<tr>
<td>01.08.99</td>
<td>Tel</td>
<td>9.00pm</td>
<td>9.29pm</td>
<td>Mr. A</td>
<td>Query</td>
<td>Answer to query</td>
</tr>
<tr>
<td>15.08.99</td>
<td>Visit</td>
<td>8.00pm</td>
<td>9.15pm</td>
<td>Mr. A</td>
<td>Family</td>
<td>Faith in action</td>
</tr>
<tr>
<td>22.08.99</td>
<td>Visit</td>
<td>8.00pm</td>
<td>9.30pm</td>
<td>Mr. A</td>
<td>Com. Ties</td>
<td>Faith in action</td>
</tr>
</tbody>
</table>

CONTINUED NEXT SHEET.
### LOG BOOK 2 - CASE STUDY 2 (A MUSLIM FAMILY)

<table>
<thead>
<tr>
<th>Date</th>
<th>Visit/tel</th>
<th>Time in</th>
<th>Time out</th>
<th>Persons</th>
<th>Subject</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.09.99</td>
<td>Visit</td>
<td>7.30pm</td>
<td>9.00pm</td>
<td>Mr. A</td>
<td>Issues 9-15</td>
<td>Wide ranging int.</td>
</tr>
<tr>
<td>26.09.99</td>
<td>Tel</td>
<td>9.00pm</td>
<td>9.15pm</td>
<td>Mr. A</td>
<td>Query</td>
<td>Clarification</td>
</tr>
<tr>
<td>03.10.99</td>
<td>Visit</td>
<td>8.30pm</td>
<td>9.45pm</td>
<td>Mr. A</td>
<td>Internet</td>
<td>Stimulating interview - wide range covered</td>
</tr>
<tr>
<td>17.10.99</td>
<td>Visit</td>
<td>7.00pm</td>
<td>9.15pm</td>
<td>Mr. A &amp; C+D</td>
<td>Comp. Games</td>
<td>Excellent interview re. Comp. Games + c+d</td>
</tr>
<tr>
<td>24.10.99</td>
<td>Tel</td>
<td>9.00pm</td>
<td>9.15pm</td>
<td>Mr. A</td>
<td>Games</td>
<td>Clarification</td>
</tr>
<tr>
<td>14.11.99</td>
<td>Visit</td>
<td>8.00pm</td>
<td>9.30pm</td>
<td>Mr. A &amp; C+D</td>
<td>Chat rooms</td>
<td>Wide coverage</td>
</tr>
<tr>
<td>28.11.99</td>
<td>Tel</td>
<td>9.15pm</td>
<td>9.35pm</td>
<td>Mr. A</td>
<td>Query</td>
<td>Clarification 27-30</td>
</tr>
<tr>
<td>19.12.99</td>
<td>Visit</td>
<td>8.00pm</td>
<td>9.30pm</td>
<td>Mr. A</td>
<td>Internet issues</td>
<td>Challenges/benefits</td>
</tr>
<tr>
<td>22.01.00</td>
<td>Visit</td>
<td>8.30pm</td>
<td>9.45pm</td>
<td>Mr. A</td>
<td>Guide</td>
<td>Need for parents' guide - wide range discussion</td>
</tr>
<tr>
<td>27.02.00</td>
<td>Visit</td>
<td>8.00pm</td>
<td>9.00pm</td>
<td>Mr. A &amp; Mrs.B</td>
<td>Travel</td>
<td>Travel to Saudi Arabia Technology &amp; Hajj</td>
</tr>
</tbody>
</table>

### Appendix 3a

Early March, 2000 Mr. A and Mrs. B left for Saudi Arabia for HAJJ - Pilgrimage to Makkah.
Returned 26.03.00.
29th March, 2000 - MR. A PASSED AWAY (traumatic event for all concerned).
**LOG BOOK 2 - CASE STUDY 2 (A MUSLIM FAMILY)**

<table>
<thead>
<tr>
<th>Date</th>
<th>Visit/tel</th>
<th>Time in</th>
<th>Time out</th>
<th>Persons</th>
<th>Subject</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>02.07.00</td>
<td>Visit</td>
<td>5.00pm</td>
<td>6.30pm</td>
<td>Mrs. B/family</td>
<td>Access</td>
<td>Re-negotiate access</td>
</tr>
<tr>
<td>16.07.00</td>
<td>Tel</td>
<td>2.00pm</td>
<td>2.10pm</td>
<td>Mrs. B</td>
<td>Query</td>
<td>Manner of visits</td>
</tr>
<tr>
<td>06.08.00</td>
<td>Visit</td>
<td>2.30pm</td>
<td>3.30pm</td>
<td>Mrs. B/family</td>
<td>Details</td>
<td>Further details re. Access.</td>
</tr>
<tr>
<td>27.08.00</td>
<td>Visit</td>
<td>2.30pm</td>
<td>3.30pm</td>
<td>Mrs. B/family</td>
<td>Agreement</td>
<td>Overall agreement reached</td>
</tr>
<tr>
<td>17.09.00</td>
<td>Tel</td>
<td>3.00pm</td>
<td>3.10pm</td>
<td>Mrs. B</td>
<td>Query</td>
<td>Resolved</td>
</tr>
<tr>
<td>08.10.00</td>
<td>Visit</td>
<td>3.30pm</td>
<td>3.30pm</td>
<td>Mrs. B+C+D+E</td>
<td>Com. Games</td>
<td>Interview with mrs. B and children c + d +e</td>
</tr>
<tr>
<td>29.10.00</td>
<td>Visit</td>
<td>3.00pm</td>
<td>5.00pm</td>
<td>Mrs. B+C+D</td>
<td>Int. Mrs. B</td>
<td>Int. &amp; participate in comp. Games with children.</td>
</tr>
<tr>
<td>05.11.00</td>
<td>Visit</td>
<td>3.30pm</td>
<td>5.00pm</td>
<td>Mrs. B &amp; E</td>
<td>Int.</td>
<td>Int. With mother and daughter</td>
</tr>
<tr>
<td>18.11.00</td>
<td>Visit</td>
<td>3.00pm</td>
<td>5.00pm</td>
<td>C+D (sons)</td>
<td>Int.</td>
<td>Int. at use at home</td>
</tr>
<tr>
<td>26.11.00</td>
<td>Visit</td>
<td>2.00pm</td>
<td>5.00pm</td>
<td>Mrs. B+C+D+E</td>
<td>Final int.</td>
<td>Final thoughts.</td>
</tr>
<tr>
<td>02.02.01</td>
<td>Visit</td>
<td>7.00pm</td>
<td>8.00pm</td>
<td>Mrs. B+C+D+F</td>
<td>Review</td>
<td>Complimentary visit after return from India &amp; review</td>
</tr>
<tr>
<td>25.03.01</td>
<td>Visit</td>
<td>7.00pm</td>
<td>8.00pm</td>
<td>Mrs. B+C+D+F</td>
<td>Review</td>
<td>2nd complimentary visit &amp; review</td>
</tr>
</tbody>
</table>

**Appendix 3b**

27th November, 2000 Ramadhan begins. No further visits possible
20th December, 2000 - family left for India for 6 weeks break.
APPENDIX 4

NAME/ID. OF PERSON INTERVIEWED.......MR.(A)...Family case study.
Main issues highlighted by analysing data gathered through informal interviews.

<table>
<thead>
<tr>
<th>Issue</th>
<th>Very Important</th>
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<td>X A very important part of Islamic teachings</td>
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<td>4 The importance of Arabic language in Islam</td>
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<td>5 Importance of Family and Community ties in Islam</td>
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<td>X A guide overdue!</td>
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<td>X Fundamental source of Islamic knowledge</td>
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<tr>
<td>8 The lessons from Hadith</td>
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<td>X Guide lines in dealing with various situations.</td>
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<td>12 Western technologies and the Muslim attitude towards them</td>
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<td>18 Collectivist nature of Muslim community</td>
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(COMPLETE ONE FORM FOR EVERY PERSON INTERVIEWED)
APPENDIX 4A

NAME/ ID. OF PERSON INTERVIEWED ........... MRS(B) ....Family case study.
Main issues highlighted by analysing data gathered through informal interviews.

<table>
<thead>
<tr>
<th>Issue</th>
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<th>Very Important to reject</th>
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<td>Science and Islam</td>
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(COMPLETE ONE FORM FOR EVERY PERSON INTERVIEWED)
APPENDIX 4B

NAME/ ID. OF PERSON INTERVIEWED......Children C, D, E and F (Family)
Main issues highlighted by analysing data gathered through informal interviews.

<table>
<thead>
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<th>Issue</th>
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<th>Important to accept</th>
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(COMPLETE ONE FORM FOR EVERY PERSON INTERVIEWED)
APPENDIX 5

DATA COLLECTION FORM FOR EDUCATIONAL INSTITUTION
IN RESPECT OF THE PRE-IDENTIFIED ISSUES

(Completed sample of this form in respect of the Principal)

<table>
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<td>The Principal provided detailed information of ICT provision at the college during the Day. For information on evening provision, this researcher was referred to Vice Principal and Head of Community Education. Full details of ICT provision during the Day can be see in chapter 4.</td>
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<td>Influence of parents, community leaders, Imams and Governors</td>
<td>Referred to Vice Principal and Head of Community Education.</td>
</tr>
<tr>
<td></td>
<td>Attitude of students – Day time</td>
<td>The Principal explained that most of the students were quite motivated but interruptions due to Islamic festivals like the Hajj and Ramadhan created serious breaks and the need to catch up.</td>
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<tr>
<td></td>
<td>Guidance for Parents re. ICT at home</td>
<td>The Principal agreed that there was a great need for some sort of a Parents’ guide to the use of Internet at home and it was a great idea if the researcher could produce one at some stage.</td>
</tr>
<tr>
<td></td>
<td>Cross-cultural transfer of technology</td>
<td>The Principal explained that this was more of an Adult education issue and referred to the Vice-Principal and Head of Community Education</td>
</tr>
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</tr>
<tr>
<td>7</td>
<td>ICT provision for Community Education</td>
<td>Referred to the Head of Community Education</td>
</tr>
<tr>
<td>8</td>
<td>Influence of faith, culture and knowledge of English language</td>
<td>Referred to the Head of Community Education/Governors/Community Leaders and Imams.</td>
</tr>
<tr>
<td>9</td>
<td>Provision for women, OAPs and Disabled persons</td>
<td>Referred to Head of Community Education.</td>
</tr>
<tr>
<td>10</td>
<td>Attendance in Community Education</td>
<td>Referred to Head of Community Education.</td>
</tr>
<tr>
<td>11</td>
<td>Results in Community Education</td>
<td>Referred to Head of Community Education and record of my own students’ performance in evening classes.</td>
</tr>
<tr>
<td>12</td>
<td>Future plans – overall Day and Community Education</td>
<td>The principal explained plans to establish an Intranet connection between the college and supplementary schools operating within the local mosques (Madressas). A very innovative initiative which could bring great benefits all round particularly the status of supplementary schools. Details in chapter 4. Referred to Vice Principal and Head of Community Education re future plans in Community Education.</td>
</tr>
<tr>
<td></td>
<td>Special Comments</td>
<td>This was a fascinating interview with the Principal where she also explained why she had banned Mobile phones on the campus. (The main reason was to stop bullying through text-messages explained in 5.20.</td>
</tr>
</tbody>
</table>
# APPENDIX 5A (VP)

**DATA COLLECTION FORM FOR EDUCATIONAL INSTITUTION IN RESPECT OF THE PRE-IDENTIFIED ISSUES**

(Completed sample of this form in respect of the Vice Principal from details of interview).

<table>
<thead>
<tr>
<th>No</th>
<th>ISSUE</th>
<th>Response to interview questions on issues. (Main points)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ICT provision Day-time</td>
<td>N/A</td>
</tr>
<tr>
<td>2</td>
<td>Attendance – Day-time</td>
<td>N/A</td>
</tr>
<tr>
<td>3</td>
<td>Influence of parents, community leaders, Imams and Governors</td>
<td>No serious interference from any source on what was being taught. There was no case of any serious abuse of computers during evening community education programme. She was encouraged to see that some imams were coming for ICT training.</td>
</tr>
<tr>
<td>4</td>
<td>Attitude of students – Day time</td>
<td>The Vice Principal explained that most of the students were quite motivated but interruptions due to Islamic festivals like the Hajj and Ramadhan created serious administrative problems and re-scheduling of some classes was not liked by non-Muslim students. Some exam results were affected.</td>
</tr>
<tr>
<td>5</td>
<td>Guidance for Parents re. ICT at home</td>
<td>The Vice Principal agreed that there was a great need for some sort of a Parents’ guide to the use of Internet at home and it was a great idea if the researcher could produce one at some stage.</td>
</tr>
<tr>
<td></td>
<td>Cross–cultural transfer of technology</td>
<td>The Vice Principal explained that knowledge of English was a serious problem with particularly those students who were recent arrivals in the country, like the Somali community and those from the Indian sub-continent. Many did not have home computers and were living in overcrowded conditions and were still adjusting to life in the West before any proficiency in ICT could be achieved.</td>
</tr>
<tr>
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</tr>
<tr>
<td>7</td>
<td>ICT provision for Community Education</td>
<td>Referred to the Head of Community Education</td>
</tr>
<tr>
<td>8</td>
<td>Influence of faith, culture and knowledge of English language</td>
<td>Referred to the Head of Community Education/Governors/Community Leaders and Imams.</td>
</tr>
<tr>
<td>9</td>
<td>Provision for women, OAPs and Disabled persons</td>
<td>Referred to Head of Community Education.</td>
</tr>
<tr>
<td>10</td>
<td>Attendance in Community Education</td>
<td>Commented that Islamic festivals had a serious bearing on administrative issues but referred to Head of Community Education for more details.</td>
</tr>
<tr>
<td>11</td>
<td>Results in Community Education</td>
<td>Referred to Head of Community Education and to records of my own students' performance in evening classes.</td>
</tr>
<tr>
<td>12</td>
<td>Future plans – overall Day and Community Education</td>
<td>The Vice Principal too mentioned plans to establish an Intranet connection between the local mosques and the college to facilitate further community development but the slow response by the local Muslim community was a particular problem. She commented with regret that the mosques are headed by persons who are not able to fully appreciate the value of these initiatives and hence the progress was pitifully slow.</td>
</tr>
<tr>
<td></td>
<td>Special Comments</td>
<td>This was an interesting interview with the Vice Principal where she explained that she had introduced Crèche facilities and some women only classes. The community was still not taking the full advantage of all the facilities that were on offer. She however, felt that attitudes were changing.</td>
</tr>
</tbody>
</table>
APPENDIX 5B(HOCE)

DATA COLLECTION FORM FOR EDUCATIONAL INSTITUTION
IN RESPECT OF THE PRE-IDENTIFIED ISSUES

(Completed sample of this form in respect of the Head of Community Education from details of interview).

<table>
<thead>
<tr>
<th>No</th>
<th>ISSUE</th>
<th>Person interviewed: Vice-Principal (Community). (Name withheld as agreed).</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Date: 09-03-2001 (2.30 pm – 3.30pm)</td>
<td>Response to interview questions on issues. (Main points).</td>
</tr>
<tr>
<td></td>
<td>Response to interview questions on issues.</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>ICT provision Day-time</td>
<td>N/A</td>
</tr>
<tr>
<td>2</td>
<td>Attendance – Day-time</td>
<td>N/A</td>
</tr>
<tr>
<td>3</td>
<td>Influence of parents, community leaders, Imams and Governors</td>
<td>No serious interference from any source on what was being taught. There was no case of any serious abuse of computers during evening community education programme. Request from community to provide prayer room had been met. Provision had been made for a prayer room for those students who wanted to break for prayers and a maximum time of 7 minutes was given.</td>
</tr>
<tr>
<td>4</td>
<td>Attitude of students – Day time</td>
<td>N/A</td>
</tr>
<tr>
<td>5</td>
<td>Guidance for Parents re. ICT at home</td>
<td>The Head of Community agreed that there was a great need for some sort of a Parents’ guide to the use of Internet at home and it was a great idea if the researcher could produce one at some stage. He had come across some cases of Internet abuse at home and was aware of parents’ computer illiteracy.</td>
</tr>
<tr>
<td></td>
<td>Cross-cultural transfer of technology</td>
<td>The HOCE too explained that knowledge of English was a serious problem with particularly those students who were recent arrivals in the country, like the Somali community and those from the Indian sub-continent. Many did not have home computers and were living in overcrowded conditions and were still adjusting to life in the West before any proficiency in ICT could be achieved. Cultural influences were preventing some to have a TV or Computers at home.</td>
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<tr>
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</tr>
<tr>
<td>7</td>
<td>ICT provision for Community Education</td>
<td>The HOCE provided details of Community Education Programme and many new initiatives that were being introduced like the Crèche facilities and women only classes. Some day-time pm adult classes were introduced for women collecting children from schools at 3.30pm. Successful generally.</td>
</tr>
<tr>
<td>8</td>
<td>Influence of faith, culture and knowledge of English language</td>
<td>The HOCE explained that the college has to introduce some administrative measures to conform to the religious and cultural needs of the dominant Muslim presence which sometimes does not go down too well with non-Muslim students. English is still a problem particularly with new arrivals.</td>
</tr>
<tr>
<td>9</td>
<td>Provision for women, OAPs and Disabled persons</td>
<td>The HOCE explained that he had taken personal initiatives in introducing women only classes, Crèche facilities and training for disabled persons including Muslim disabled persons who were not forthcoming. Disabled Muslim men and women need extra encouragement to train ICT facilities.</td>
</tr>
<tr>
<td>10</td>
<td>Attendance in Community Education</td>
<td>This was constant issue in community education. The attendance fluctuates seriously with Islamic festivals and steps have to taken in advance for the month of Ramadhan to be accommodated within the college terms. Some re-scheduling does not go down well with non-Muslim students.</td>
</tr>
<tr>
<td>11</td>
<td>Results in Community Education</td>
<td>The HOCE commented that the results are not as good as one would like and is a picture reflected throughout the community education and not just ICT. He pointed to the results in the researcher’s own classes over the years. When festivals move into summer holidays, some improvement was likely. It however, takes decades for this to happen.</td>
</tr>
<tr>
<td>12</td>
<td>Future plans – overall Day and Community Education</td>
<td>The HOCE explained all the new initiatives being introduced at this college. New computer suites had been furnished with Internet connection and new ICT training courses were being introduced for example the Internet Literacy course. Intranet with the local mosques was proposed but too was rather disappointed at the slow response of the community leaders. European Union grant was sought to establish a new ICT centre though no progress had taken place. Women only classes with women teachers was a difficult provision which the HOCE had introduced. Shortage of women ICT teachers prevented rapid progress.</td>
</tr>
<tr>
<td>---</td>
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</tr>
<tr>
<td></td>
<td>Special Comments</td>
<td>This was a very informative interview with the HOCE. Considerable information in relation to the local Muslim community was obtained. Attitudes were changing slowly and the Imams and community leaders were not discouraging computer training any more but did not like facilities for chat rooms to be made available. It was encouraging to note that some Imams of local mosques were now attending the ICT training classes in community education to develop their own ICT literacy and to make use of it in Islamic propagation.</td>
</tr>
</tbody>
</table>
APPENDIX 6

BBC PRAYER CALCULATOR

Please see next sheet

(http://www.bbc.co.uk/religion/religions/islam/features/prayer/preindex.shtml)
Calculate Salat times

Use this calculator to work out the five daily salat times.

Do tell us if there are any towns we should add to those in the menu. And of course, if you find any faults, we want to hear about them. Email us religion@bbc.co.uk

Fill in the details to calculate your prayer times:

**Location:**
Aberdeen

**Time Options**
Times may be calculated for dates between 1318 A.H. and 1625 A.H., or between 1900 C.E. and 2200 C.E. in the Western calendar. You may also specify a year of 0 (zero) to produce a 'perpetual' schedule (C.E. only). Times in the 'perpetual' schedule are essentially the average for the four years of a leap cycle.

**Year:**

**Month:**
Full Year

**Calculation Options**
Sun's depression angle at Fajr:

Fixed time from Fajr to sunrise:

Max time from Fajr to sunrise:

Shadow ratio at 'Asr:

**Fiqh:**
Hanafi

**NB** - If you specify Fiqh as either Shafi'i or Hanafi, you may not specify the shadow ratio at 'Asr (since this is all that the Fiqh setting does - the ratio is 1.0 for Shafi'i and 2.0 for Hanafi.)

Also, if you specify the angle at Fajr, or a maximum time from Fajr to sunrise, you may not specify a fixed time from Fajr to sunrise.
Your prayer times:

May 2003 C.E. Prayer Schedule for Leicester
Latitude = 52 38' N Longitude = 1 08' W Zone Time = GMT + 0h
Qiblah = 118 55' E (From N)

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<th>SHorwwQ</th>
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<th>'ASr</th>
<th>MaGHrib</th>
<th>'ISHaa'</th>
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</tbody>
</table>
APPENDIX 7
Islamicity Home Page (www.islamicity.com)

In the long run evil in the extreme will be the End of those who do evil; for that they rejected the Signs of Allah, and held them up to ridicule. *al-Qur'an* 30:10

(Click for Arabic)

---

We are good, and THEY are evil. That doctrine trumps virtually any argument. Analysis of commentary and much of scholarship reveals that its roots commonly lie in that

---

Noam Chomsky: Wars of Terror

WE are good, and THEY are evil. That doctrine trumps virtually any argument. Analysis of commentary and much of scholarship reveals that its roots commonly lie in that
Battle for Soul of American Republic
A battle for the soul of the American republic has begun in Washington. This is a battle of ideas being waged by people with an imperial concept of American power. More

Shadow Over Individual Rights
The bill grants law enforcement and intelligence powers that are antithetical to U.S. constitutionally guaranteed rights, and checks and balances on the executive. More

US PATRIOT Act
US makes two major Mideast moves
Mahathir slams US for 'war against Islam'
Sars subdues China's May Day
First American Muslim television channel
'Shock and awe' photo gallery

Multimedia
Interview with Ayatollah Bakr Al Hakim (PBS)
Crusade versus Jihad
Ideologues get so caught up with their own narrow vision of the way the world should be run that they tend to overlook or minimize the fact that other people might resist falling in with their preconceptions. More

Toward a Dialog of Civilizations
The world is currently reeking of the rhetoric of "clash", while each side is heaping the blame squarely on the "other" side. Many have no problem even though it jeopardizes the future of the entire humanity. More

Islamic Perspective - Understanding Iran (Pacifica/KPFK)
Live Radio (IslamiCity)
Yusuf Islam: Peace Train
An Islamic journey inside Europe (NPR)
Creation of the Universe
Selected Du'a (Prayers) from Quran
Miracles of the Qur'an
Jesus In Islam II: Birth of Jesus

Community

Comment of the week
The more I learned about Islam, the more it appeared to conform to what I was after. With the many resources and information which you

Request Free Islamic Literature
Survey: Describe Your Spiritual Experience
View Posted Comments
4th Online
Toward an Historic Mistake
Can anyone recall a time in history when the liberators of an oppressed people outlived their welcome in so short a period? This is no time to be making historic mistakes. More

Feminism & Islam

Islamic Traditions and Feminism
Islam is an ideology which influences much more than the ritual life of a people. It is equally affective of their social, political, economic, psychological, and aesthetic life. More

Bazar Products

like I was being called back to my mother's womb! Without you I would have never been able to take Shahada! Takbir! Yusuf (Van G.) from Alabama, U.S.A.

Request Free Islamic Literature

Survey: Describe Your Spiritual Experience

View Posted Comments

4th Online Quran Qiraah Competition

Join IslamiCity's Active Discussion Board
History:
570-1000 CE
An excellent historical account of Islam. More

Jesus Will Return
Jesus (Messenger of Allah) Will Return. More

Lion of the Desert (Umar al Mukhtar) (DVD)
An historical documentary of Fascist Italy. More

Prayers of the Last Prophet (cassette version)
A collection of prayers by the Prophet Muhammad (peace be upon him). More
Dealing With Anti-Islamic Websites

By Yaqoob Abdul Rahman

One of the drawbacks of the Internet is that it can be used for information and education as well as for spreading hate and hatred. The same goes for the Internet's role in Islamic education. There are many websites that spread false information about Muslims and Islam. However, a word of caution is necessary for users. Be careful when using the Internet, and be aware that not all websites are reliable.

The fact is that we have all benefited from the very beginning by the Internet and that is why we should strive to make it a better tool for the betterment of society. What's more, since Muslims are in a very moral position, there is the amount of anti-Islamic propoganda on the Internet that we have to be sensitive to it. However, we still have all the advantages that the Internet offers, and we should make use of it. The Propost (propos) is aimed at limiting the growth of the Internet. Our first reaction is to get in touch with the nearest website to see if there is a need to do something about it. What should we do? We should be educated, and a good sign of strong faith if we are indeed strong faith. May Allah always keep you safe.
Dealing With Anti Islamic Websites

by Yahya Abdul Rahman

One of the downsides of the internet is that it has given our critics and enemies an opportunity to publicly defame the religion of Islam. I guess this is the price of having freedom of speech. Sometimes you have to read and hear things which are just plain detestable.

The fact of the matter is that Islam has been defamed from the very beginning by its enemies and this is not about to change anytime soon. What's more, since Muslims are in a very weak position these days, the amount of anti-Islamic propaganda is on the rise from many quarters. I am sure we have all encountered numerous websites which have slandered the Prophet (pbuh), twisted the meaning of the Qur'an, attacked the companions of the prophet, etc. The more disturbing thing is the ease with which millions of people now have access to this information as a result of the growth of the internet.

Our first reaction is to get angry and get all fired up with a zeal to do something about it when we find these offensive sites. It is indeed a good sign of strong faith if we get angry when our faith is under attack, and may Allah always keep our faith in Islam strong.
One must keep in mind that for the most part, these people are interested in nothing more than to arouse feelings of hatred and fury against Muslims and generating poisonous feelings in the hearts of the readers. Some websites are much more subtle, however, and criticize Islam in a more "civilized" manner. Actually, this second kind of approach may be more dangerous as they tend to leave the impression that they are honestly seeking the truth, when in fact they are not.

I want here want to offer a few suggestions on dealing with these anti-Islamic websites so we can more effectively counter this continuing and mounting menace:

1) Keep your cool: As I said before, it is good to be angry when you see Islam attacked, but keep your cool and act with a level head. When we are overly angry we cannot act rationally and thus we undermine our goals. We will do and say things which later on we will regret. For example, we may be tempted to attack the person's religion in a bad way which is not permissible in Islam.

2) Don't write the webmaster back unless you are ready: For the most part these people thrive on confrontation. They would love for you to respond and are ready for a quick answer. Remember, many of these people know a lot about Islam so if you are not ready for them they will soundly defeat you in any argument. Also, if you answer back but don't have the proper knowledge you will end up making Islam and Muslims look worse. Some webmasters actually post all responses on the website for all to read. The more silly the response then the more likely it will be placed on the site. Please note, just because someone wins a particular argument does not mean they are right. The loser may just not have all the information on hand at the time of the argument.

3) Don't try to have the page removed from the internet: Many Muslims try to have the website removed from the internet altogether by writing the company which hosts the site and complaining. In my opinion this is a waste of time. Even if the host removed the site they can open up in a few days under another host, so our time is wasted on such efforts.

4) Don't publicize the site to others: One of the biggest mistakes we commit is to tell others about the offensive website. All this does is give the site owner free publicity which is what he/she wants. If you see
an offensive site don't spread it all over the place as you are actually helping the site owner when doing this.

5) Best defense is a good offense: Finally, the best defense against anti-Islamic websites is to develop your own excellent website which presents Islam in a beautiful and accurate manner. Many people are out there searching for answers and more and more are turning to the internet to find these answers. Possibly they could visit your website and as a result become Muslim. Also, other Muslims could use your site to get information they need for dawah or research and Allah will reward you for providing this service. Even if you cannot start a website, you can at least submit articles to existing websites which they can use so that all can get the benefit. Remember, you can play a valuable role in improving the Islamic content on the internet. Don't wait for someone else to do it.

I hope this advice helps. May Allah help us to be more effective in defending Islam.

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• Previous message: Online Vote re: Jerusalem's Fate
• Next message: Why Muslims Should Participate in American Government
• Messages sorted by: [date] [thread] [subject] [author]
APPENDIX 9

Extract of an Interview with Imam Raza at the Islamic Centre, Conduit Street, Leicester
Date: 22nd August, 1999 Time: 3.00pm.

Topic: Islamic Guidance on how to remove pre-conceived bias when conducting research within an Islamic environment.

Question by Mr. Mohamed Begg:
Imam Raza, as you are aware I am conducting a PhD research on the Impact of ICT on the local Muslim community. An important question that I have to address within my thesis is how I can distance myself from any pre-conceived prejudices that I may have against the writings and inventions made by non-Muslim Western people?

I can put this to you in a different way. For example, I am a Sunni Muslim person. However, if I have been asked to carry out research into the approach to Islam by 'Shiite' Muslims, how can I carry out such a research without letting my own pre-conceived prejudices against the 'Shiites' come through my work.

Reply by Imam Raza:
Mr. Begg you have asked a very important question. As Muslims we believe in eventual accountability to Allah (swt). Therefore, it is important that if you find yourself facing such a situation, you must apply your unbiased intelligence to make any analysis and come to a conclusion even if it may appear to be against your pre-conceived ideas. If you do not do this then you would be disobeying the commands of Allah (swt) as indicated in the following verses of the Qur'an:

"be just witness and let not the enmity and hatred of others make you avoid justice. Be just, that is nearer to piety, and fear Allah. Verily Allah is aware of what you do." (Al-Qur'an, Chapter 5:8).

"Do not follow your own desires and deviate from the truth. If you distort your observation or refuse to record it, verily, Allah is aware of what you do." (Al-Qur'an, Chapter 4:135).

"Verily, Allah commands that you should render back the trusts to those, to whom they are due, and that when you judge between people, you judge with justice. Verily, how excellent is the teaching which He gives you. Truly Allah is All Hearing, All Seeing," (Al-Qur'an Chapter 4:58).

However, please note, there is no compromise acceptable as far as the fundamental five pillars of Islam are concerned namely, (1) Belief in One God and Belief in all the Prophets and Muhammad (sws) as the last Prophet, (2) Salaat (Five times Daily prayers), (3) Fasting during the Month of Ramadhan, (4) Paying 2.5% of annual income as charity and (5) Performing the Hajj (Pilgrimage to Makkah once a life time if one can afford the expenses).

Mr. M. Begg: Thank you very much Imam Raza.
APPENDIX 10

A Specimen Record of questions and answers with Mr. (A) – Local Muslim family case study (chapter 5). Date: 03.10.99. Time: 8.30pm – 9.45pm.

**Question:** Mr. (A), here is a difficult question to which I am trying to seek an answer. The Muslim community in this area of Leicester appears to be operating in a collectivist manner because of all the mosques, Asian and Halal food shops, neighbourhood schemes working on Islamic principles. However, the Internet is in some ways breaking down these traditions. One example is the rise in Matrimonial websites on the Net, which young Muslim men and women appear to be using to find marriage partners. On the face of it, this is against the normal Islamic principles because the couples are directly creating a relationship without knowledge of parents and thus creating individualism within Muslim communities. Personally, I think this can be justified as there is no proper system through which young Muslims, particularly professionals can meet and find a suitable partner. This particular problem is being experienced by young Muslims living throughout in the Western world. The real question that arises is therefore that as a father of teenage daughters, do you agree that Matrimonial websites can fulfil a useful role without threatening the fabrics of a collectivist Muslim community?

**Answer by Mr. (A):** Mr. Begg, this is indeed a very difficult question. However, you must remember that the Islamic faith has stood the test of time over the last 1400 years and it is therefore expected and as confirmed in Al- Qur’an that it will survive up to the end of time. In Islam there are ways to deal with an easy situation, a difficult situation and an impossible situation. The dilemma which the young educated Muslim men and women are facing is a difficult situation not a totally impossible situation. Therefore, if Islamic Matrimonial websites can help in alleviating this problem then in principle it is not a bad development as it could be one of the means in easing the match-making difficulties for individuals and their parents. On the other hand the parents could also use them for searching partners for their children as indeed I am doing and have made contacts with other families living on the side of the world – Australia and Canada. I could not have done this before. Individualism will inevitably creep in within the Muslim community to some extent but as long as the parents are not totally side-lined, and the individuals concerned are observing wider Islamic principles, then I do not see any harm in such a development. You have to take into account that we are a minority community in this country. My eldest daughter from a previous marriage has married an English man. Clearly they had met somewhere without my knowledge but she invited him to accept Islam before marriage which this gentleman did after studying the faith for some time. Therefore, it is important to keep an open mind when dealing with difficult situations. Not finding a solution would mean many young professional Muslim men and women remaining single or spinsters. If that happens, where will the new Muslim community come from? Some acceptable flexibility in approach is therefore the answer. Some individualism will creep in but the net may also have the opposite effect of creating virtual Islamic communities spread across the world.

**Mr. Begg:** Thank you very much indeed Mr (A) for providing such an analytical answer to my question.
Extract from an interview with the Head of Community Education.

Date: 09.03.01 Time: 2.30pm-3.30pm.

Question: (By Mr. M. Begg to Head of Community Education)
Mr. (HCE)), Islam places a great emphasis on education as you know quite well being a Muslim yourself. However, my observations and I am sure all your records show that the attendance and results in Community Education particularly ICT are not very encouraging. How can this be explained within the context of the local Muslim community who are the main subscribers to this institution?

Answer: (By HCE)
Mr. Begg, I have been trying to find an answer to this question myself for several years that I have been at this institution. It is true that Islam places a great emphasis on education to the extent that Prophet Muhammad (sws) recommended Muslims to “travel even to China to seek knowledge”. However, what we see is that the level of literacy itself is very low within Muslim communities and the level of ICT literacy is even lower. As far as I can tell, the faith itself is not an obstacle since Muslims in the past have made many major contributions to knowledge in science, medicine, astrology and mathematics. The local Muslim community in Leicester is caught between various forces pulling them in different directions. The first is the variety of cultural influences they face – strong Western influence at school, college, university and work and then a strong Islamic influence at home, within the community and the influence of Imams and scholars within the Mosque and religious circles. The result of all this is that the local Muslim community is still negotiating between life in this country and upholding Islamic values in all aspects of their lives. These are two very strong opposing forces and not easy to negotiate.

The result is that priority can be given by families to fulfil religious activities at the expense of education as the system here does not fully cater for Islamic festivals and other rituals. Hence attendance can be affected seriously during the month of Ramadhan, which can fall to almost 10% during this month and lessons are consequently lost and then affect performance and results in examinations.

The second most serious reason is that some families simply go away to Saudi Arabia for Hajj (Pilgrimage to Makkah) and then onwards to India, Pakistan or Bangladesh thereby creating a gap of almost two months in the education of their children or their own education if they are following further studies or skills like ICT.

Both the above factors have an influence on results. This can be further exasperated due to poor knowledge of English or simply lack of determination to complete a course successfully or apathy. To some extent the Imams and scholars have also been resisting influence of Western technology for fear of erosion of Islamic values. To add to this, the housing conditions in this area are not conducive to have a home computer due to overcrowding and very small houses. However, attitudes are gradually changing and I hope new generation will be more active.

Mr. Begg: Thank you Mr. (HCE) for that analytical reply to my question.
APPENDIX 12

Extract of an interview with a teacher and student at the educational institution, 8th Feb. 2001, 1.30pm – 2.00pm.

Teacher X was consulted on the standard of work of students with Internet at home and those without Internet at home.

“There is clearly a vast difference in the standard of home work produced by those students who have access to the Net at home and those who do not. The clear indication comes from some excellent graphics which the students are able import including charts and graphs. Those without the Internet have little chance of producing anything like it. At the same time this exercise enhances the student’s ability to search for the right type of material. One may, however, be concerned about the dangers of plagiarism but the students are told and are expected to quote the source of their research”.

Student Y was asked how she felt about doing home work without the facility of the Internet at home.

“I cannot imagine life without the Internet. I am able to produce a very good piece of home work when I have done some research on the Net before writing about it. The facility to import pictures and graphics is very good and makes my home work that much more interesting and enjoyable. There is sometimes too much material available and it becomes difficult what to take and what to leave. Anyway, I used to hate home work before but with the Net at home I do not mind whatever the subject”.

NOTE:

Please see Appendix 4C where the son Haji Hassam made similar remarks that he needed the Net to be able to do his home work properly and could not imagine life without the Net available at home, even though the parents have these old fashioned ideas that there are too many bad things on the Net.