I sometimes use an Iona liturgy for Holy Communion which, towards the end, contains the phrase, "no longer is what we have been important: it is what, with Christ, we can be..." The phrase invites us to remember that with Christ, the renewing power of the Spirit can lead us into new opportunities. I have had the privilege of considering 'what, with Christ, we can be' in many exciting new ways at the Methodist/United Reformed local ecumenical partnership (LEP) I serve in Worksop, Nottinghamshire. The Church there decided, just before my arrival, that a new building might be effective in finding out what with Christ they might fully be.

Over the course of the last four years I have been part of a church that has seen a vague dream turn into a concrete reality. In the first year of the appointment in Worksop, two church buildings, two houses and one school were demolished. A large bare town centre site, some of which was sold off to a developer, now has a quite radical £2m building on it which is the new home of the LEP Church, re-christened The Crossing Church & Centre. As well as the flexible sanctuary space at its heart, it also contains a complex which the wider community uses well. This includes a café, that operates six days a week, an ICT (information and communications technology) suite run by the local college and other training facilities including office space for charities.

There have been many areas where the church has been able to take a 'blank sheet of paper' approach to aspects of the premises, such as the design for the café, and the bold front façade, but boldness of vision has not just been architectural. Not all of the innovation here is connected to having a blank sheet of paper. I am conscious that many situations will not have that opportunity (or the headaches that go with such schemes). Some of the approaches employed here might well be translatable to other quite different situations and one example of this is in the embracing of new technology in the life of the Church. Perhaps the new build gave an excuse to open the door to possibilities that in many other contexts might have been deemed unnecessary or pointless. Consequently many new ideas were accepted without great debate. As an enthusiast for such new technologies I would have valued an opportunity to discus whether these were appropriate directions to be moving towards, but surprisingly many of these innovations were uncontentious. There are, perhaps, two reasons why was so. Firstly, ICT infrastructure was deployed in a relatively cost effective way (more on how this was achieved later). Secondly, I suggest that even in the relatively conservative situation of a traditional denominational church these technologies are becoming everyday. An increasing number of people accept that embracing them is a normal part of the way we work and operate.

This article provides an opportunity to reflect upon the experience of the new church building project and its ready embracing of technology. My proposition is that these technologies are changing the way many, arguably most, people live in our (western) society. In the same way in which the printing press, the telephone and television have radically changed people's lives in previous generations, modern communications technology is doing the same today. I would like to suggest that, with the widespread adoption of such technology, the ways in which people learn, communicate, think and live are being shaped in a fundamentally new way. If that is the case then the Church needs to be aware of it and reflect upon it, for if people and society are changing the mission of the Church is also affected.

This reflection will firstly question whether ICT really is changing the society around us in ways that the Church should be aware of. Secondly, practical examples of these technologies in the life of a real church will, I hope, highlight that there are important trends in the development of ICT that the Church can learn from. A conclusion will ask us to consider whether those observations could

inform us theologically as the nature and mission of the Church is considered.

Is ICT Really Changing Anything?

Perhaps the premise that ICT is going to radically change and transform a society seems quite extreme. I would like to suggest that this process is more dramatic than we often realise, and that the implications for social institutions, such as the Church, needs to be appreciated. Although, as we shall see later, some have been anticipating this for many years, recent developments and the rapid adoption of ICT by a majority of people in our society, needs to be understood.

The recent rate of this change, for example, is dramatic. Things have changed substantially in less than one generation I suggest. For someone who is enthusiastic about the use of ICT, my encounter and use of a PC (personal computer) was relatively late; I was not an early adopter of the technology, nor did I have the foresight to anticipate the changes these things might bring. That was partly because of some of my early experiences of what a computer might do. A cousin proudly received a Commodore Vic 20 computer in the early 80s for his birthday¹. Apart from a few primitive games as far as I could tell it was a virtually useless object, there were almost no applications with it except tools to write programs. Hours spent doing that might enable a very simple character to crawl across the screen, but it seemed more than likely that it would not work because one full stop or comma was in the wrong place. The point of all this evaded me (for many though it gave an introduction to computer programming). I wanted to do things with a computer, not do things for it. It was the same with computer studies at senior school; that was all about processes, programming and flow diagrams. My conclusion was that home personal computers did not do things for you automatically, they needed you to provide all the instructions. Of course since those early days and in the following 20 years we have seen computers become much more productive tools, and it has been the developing ability to word-process, desktop-publish, video-edit and email that has made the PC the consumer product that it is today.² These same trends have transformed the way I work as a minister and given access to a wide range of tools. This ability to engage with tasks that not so long ago were only the prerogative of people with specialist skills and industrial tools has certainly brought about a revolution of a sort. Desktop publishing is a good example. The specialist vocabulary of the print type-setter is now known to many as they 'justify' and 'kern' fonts themselves using word processors. However, it is not this aspect of using ICT that I suggest is fundamentally changing our society. It is related to the fact that the computer in no longer personal.

Until recently I perceived ICT to be merely a tool, a powerful tool, indeed a veritable toolbox, but no more than that. In 'Using Technology in Worship³' I flatly declared that it was important to remember that the technology was merely a tool to achieve an end. This I suggest is changing. With the advent of broadband and other technologies, which dramatically increase the type and amount of information shared, opportunities are being exploited in a new ways. Although the creation of online communities has been going on for over twenty years now, these experiences were, to some extent, the preserve of a niche group of pioneers. Many years before the ready availability of high speed, always-on broadband connections, through the use of text-based bulletin board systems, people like Howard Rheingold were describing the internet as a 'place to go', somewhere one could 'be'⁴. Ecunet, foresaw the potential of Christians communicating together electronically many years

¹ http://en.wikipedia.org/wiki/VIC20

² For statistics on PC usage: http://www.statistics.gov.uk/CCI/nugget.asp?ID=1659&Pos=&ColRank=2&Rank=224

³ http://www.methodist.org.uk/downloads/ca technology 1005.pdf

⁴ The Virtual Community - Online book: http://www.rheingold.com/vc/book/intro.html

ago. The sacred space that Christian worship seeks to encounter with in our hearts and minds, as well as in the architecture of our buildings, is increasingly to be found in the virtual world as well. Stephen O'Leary in an essay entitled Cyberspace as Sacred Space: Communicating Religion on Computer Networks, suggested that 'it should not surprise anyone that as more people come to spend more and more of their time online, they have begun to devise ways to fulfil the religious needs and identities that form such an important part of the fabric of our society.'6 Some experimental church communities have been engaging with this process of online church for many years, indeed the first online worship was available in 1986. Despite some of these developments taking place many years ago I suggest that something different is happening today. That difference is that the niche is now mainstream. What was once the preserve of the cyber-enthusiast is now the everyday to a new generation of young people for whom these technologies are taken for granted. Rather than perceived as anything special, computer usage and access to others through the internet is normative to a younger generation. That younger generation influences an older one. It is through the persuasion of my children that I recently created a a 'Facebook' account, one of the latest examples of so called 'social networking' websites. By doing so I soon received an invite to attend a new alternative worship service⁸. The invitation encouragingly told me that I could join the gathering either in person, or if I didn't live near London, virtually, online. In a similar way, the online gaming experience, Second Life⁹ attempts to create an alternative reality portrayed by your 'avatar¹⁰ where anything possible in the real world can be replicated in the virtual one. People 'live' there, and people engage in every activity under its virtual sun – including living as a Christians, going to cyber-church and 'witnessing' to others, all online.

As my own amount of time online has increased I have felt compelled to agree that this is an important trend in our society. The use of technology to enrich and create meaningful lives appears to be rapidly spreading. All around us we see technology being the paradigm in which communication is set. People Bluetooth¹¹, instant message¹² and Facebook each other and a new generation takes all this for granted, not regarding it as anything novel.

These I suggest are substantial changes, but what direction do these changes take us in?

Increased Connections and Collaboration

Part of the point of a personal computer was that it was a device that could stand alone. It needed no connection to a main frame behemoth. Within its beige tin interior on the desktop was everything one needed to be productive. The indications are that this model of computing is changing rapidly, ironically the model of use is beginning to more closely resemble the mainframe predecessor. Now computers increasingly need to be connected to others. Although this has been possible with dial-up

- 5 For history of Ecunet see: http://www.ecunet.org/history.html
- 6 Religion Online, Dawson, Cowan, (eds.), Routledge, 2004
- 7 Ecunet's predecessor hosted an online service at time the of Challenger shuttle disaster, often cited as the first 'cyberspace service' in 1986.
- 8 Phos. See Facebook Group: http://www.Facebook.com/group.php?gid=4991204321
- 9 http://secondlife.com/
- 10 A graphic identity you either select from a group of choices or self-create to represent yourself to the other party in the program. An avatar is a caricature, not a realistic photo and can be a simple image or a bizarre fantasy figure
- 11 A type of wireless communication used for example to connect mobile phones.
- 12 Instant Messaging sends short text message in real time using computers, sometimes combined with voice and web cameras.

modems for many years, the rapid adoption of broadband connections indicates the appetite there is to access an increasing amount of information that is not on the local machine. There is a new generation of applications now available online. For example, there are web-based offerings from search engine giant Google, offering word processing and spreadsheet creation, without the need to load an application locally¹³. Although these attempts are arguably primitive at the moment, such an approach will, I suspect, become increasingly normal. In future it is possible that no external connection might mean no operation at all. Another example of this is the development of Software-as-a-Service (SaaS)¹⁴. This is increasingly a buzzword in the software industry and describes the possible future of software deployment, and firms like Salesforce are offering products built on this model now¹⁵. Of course applications running across the internet from a provider makes the connectivity a critical part of the system. Take up of broadband recently supports the trend. In 2007, 15.23 million UK households had internet access. This represented 61 per cent of households and an increase of nearly 1 million households, or 7 per cent, since 2006. Of all UK households, 51 per cent had broadband Internet access in 2007, an increase from 40 per cent in 2006. Of the UK households with internet access, 84 per cent had a broadband connection in 2007. 16 Dramatic statistics like this indicate the importance substantial numbers in our society place on being 'online'.

What has brought about these changes? In the first instance perhaps, such connectivity has been inspired by businesses which have benefited from the increased levels of communication and accessibility that 'always on' connections have brought. This convenience and power has moved out of the workplace into the home. The desire to use technology in a collaborative and interconnected way appears to be very desirable. In both work and leisure people have been drawn to the idea that their ICT experience is enhanced by making it a shared one. The rapid rise of 'social networking' websites in recent years supports this assertion. The confidence that business has that these applications will be popular has been reflected when some have been offered for sale. Last year when Facebook was put on the market, there was speculation that it might be worth \$2billion.

Examples of ICT in practise in the new Church at Worksop also illustrate the power and popularity of online working. At The Crossing a PC-based room booking system has been introduced. ¹⁷ One of the key features of this was the fact that the program was hosted and accessible through a website. Accessing the bookings diary through the web enabled many people to access the information; not only that but the number of people able to make the bookings also expanded. Upon bookings being made any number of people can receive emails advising of the fact. Prospective users can view the website and see if there are vacancies when they might want to use the Church premises. Another part of the dream of the new building was that we would have a facility that was well used. Theologically of course it is good stewardship. The online room booking software helps us achieve that purpose, and has changed the way we work. No longer is any one person controlling the diary. If people are interested to know exactly what is happening they can find out. ¹⁸ Although in some ways a simple basic tool, it has revolutionised the ability of the Church and Centre team to coordinate a busy bookings schedule, and it heralded in a new collaborative approach. There is a new freedom of information which typifies the society which has the ability to 'Google' for answers to

¹³ Google Apps: http://www.google.com/a/help/intl/en/admins/editions_spe.html

¹⁴ For definition see: http://en.wikipedia.org/wiki/Software as a Service

¹⁵ http://www.salesforce.com/

¹⁶ Office of National Statistics, 'Internet Access, Households and Individuals 2007' http://www.statistics.gov.uk/pdfdir/inta0807.pdf

¹⁷ The Meeting Room Booking System, http://mrbs.sourceforge.net

¹⁸ http://thecrossing.co.uk/bookings

almost any question.

Another example of the importance of access to this kind of shared information is the fact that the Church, without any objection, supported the installation of wireless internet access in the new building. This gives café customers and other users of the Centre the ability to connect to the internet. Although in reality take up of this facility in the café has been modest, amongst many of the groups that are using the building regularly, this ability has been one of the attractions for them. In particular we have three charitable agencies working with those who are long-term unemployed or who have been excluded from regular education. Access to the internet is deemed an essential tool in helping these end users achieve their goals. Supporting such groups was always part of the dream and vision of the Church. Such technology is part of the resourcing toolbox for such work, and the reason it is important, I suggest, is that it is all about making connections. The tag 'excluded' which has been attached to some of the young people we now encounter is perhaps the antithesis of what is needed to help them in life, namely inclusion. Arguably, the internet is by its nature inclusive, since it requires people to be connected and integrated to be anything meaningful at all.

A final observation with regard to collaboration and increased connections is the development of "open source" software and non-proprietary approaches to ICT. In the way that the personal computer brought the ability to do things at home that were previously only the preserve of specialists, for some time now there has been a growing movement of people both developing and using ICT and doing so by offering powerful software tools at no financial cost, under the banner of open source. Open source software is quite different from freeware - applications which are often ineffective or slimline versions of proprietary commercial products, whose purpose was to encourage purchase of a full product. Rather, the proponents of open source, as its names suggests, believe there should be no restriction on the knowledge that lies underneath the software, namely the program code. Although licensed, there is typically no charge for the product, and further adaptation and development, far from being strictly taboo through copyrighting, is permitted and encouraged. This is a different model of software creation. These software products, instead of financially benefiting commercial businesses, strive to enable a social profit. Examples of the outworking of this approach? This software could enable millions in developing countries to have the ability to use computers without the costs associated with commercial software. The One Laptop One Child project²⁰ is aiming to produce a \$100 laptop for children in developing countries. Such a price tag is enabled by using an open source operating system and applications. In a less dramatic example, this software can allow non-commercial organisations like churches and other charities to benefit from the use of software tools that business takes for granted.

The use of such tools has been employed wherever possible in the new church at Worksop. This approach has enabled some most effective collaborative working and the delivery of facilities that commercially would have been way beyond a church budget. For example, the Church and Centre administrative team share information and files on a secure business-like network domain, controlled by an open source fileserver, with email, calendar, task lists and addressbooks shared on the network also²². The office-suite of programs likewise is open source²³, as is the software that gives timed access to the café's wireless internet. Open source software is used to filter content and

¹⁹ For a further explanation of open source: http://www.opensource.org/docs/definition.php

²⁰ http://laptop.org/

²¹ Ubuntu Linux operating system: http://www.ubuntu.com

²² Outlook Exchange alternative, EgroupWare: http://www.egroupware.org

²³ This article was written using Openoffice 'writer': http://www.openoffice.org

secure the internet connection²⁴, and most recently, a website creation tool is employed which allows any number of online users the ability to update and maintain the website. ²⁵ Of course these tools are not a simple panacea for all ICT needs just because they are open source and cost effective. They still require many of the things that any ICT solution needs: hardware to run on, and skilled people to implement, set-up and maintain them. However, commercial applications also require these things, and, in addition, large budgets to purchase them. With the open source ethos comes open source enthusiasm; the notion that we will work together, share experience, knowledge and skills willingly, not for financial profit, but to achieve a common goal. It is often suggested that the ability to roll out such a program of software requires skills that are rarely found in the Church. My experience suggests that, although the work here has been blessed by an enthusiastic team of volunteers, (some of whom have considerable ICT skills in open source and systems administration), our situation is not unique. Several years of experience in encouraging the use of ICT in the church has left me with the feeling that perhaps it is chicken and egg, or as one non-canonical source puts it, 'if you build it, they will come'²⁶

This increased collaborative and connected approach, expressed and encouraged in recent developments in ICT, should inform the Church, as it seeks to relate to those around it and find the most effective means of going about its work.

Technology Theologically Shaping the Church?

At certain points in the life of a society or community we can perceive that there are significant changes happening, although these are often only observable with the benefit of hindsight. Literacy in society is an example of such a dramatic change. No one would argue now that the ability of a society to be literate is simply a means to an end; that literacy is 'just a tool' to achieve something else. Nor would it be seriously suggested that literacy has not had much impact on the way people live. Rather, there is an acceptance that a literate society is different in its very nature by the way it lives, acts and communicates. For some time now it has been proposed that, 'the arrival of the internet has provoked a paradigm shift comparable to that which accompanied the invention of the printing press in the 16th century, away from a hand-written literary culture and towards duplication and the wide dissemination of knowledge.²⁷

For many years now sociologists have investigated the impact of technology upon society. This has resulted in theories of technology 'socially shaping' societies. In such studies both the rate of technological change and the directions it is taking are explored in relation to the impact they may be having upon a society. David Edge for example spoke of this nearly 20 years ago, and stressed the importance of understanding the impact that technological shaping was bringing to society. Is an appreciation of 'theological shaping' of technology also needed by the Church as it goes about its business? This should be not just an academic observation but an awareness by Churches on the ground that these are increasingly relevant and normal influences in peoples lives. Without such an appreciation the rift between Church and community might increase further than it has already in our society.

²⁴ IPCop Router: http://ipcop.org

²⁵ CMS Made Simple: http://www.cmsmadesimple.org

²⁶ Movie: Field of Dreams (1989)

²⁷ Virtual Christianity, Bazin and Cottin, WCC, 2003

²⁸ The Social Shaping of Technology, from Information Technology and Society; Heap, Thomas, Einon, Mason, Mackey (Eds.), Sage, 1995

It is possible to argue that the widespread adoption and embracing of ICT in the ways we have discussed is another dramatic shift in the life of a society. Whilst proposing this, it is important to remember that ICT does not permeate the entire globe and all societies, so the thinking here cannot be applied globally. It is also important to stress that there is no hierarchy of society being implied in these observations. Poverty, poor utility infrastructure and totalitarian regimes, for example, place limits on the ability of communities to embrace these trends, in the same way that illiteracy is still a reality for millions. The suggestion is not that those who live with online realities are better people, or necessarily have better lives, just that they have different kinds of lives.

If it is accepted and understood that many people communicate and exist in an online way which is very real and meaningful to them, we should ask how the Church responds to such a situation. Part of the response, I suggest, must be a respect and an appreciation that this new way of being is intrinsically worthy and valid in its own right. One interesting attempt to express that validity and importance was the Methodist Church sponsored 'Church of Fools²⁹', facilitated by the online magazine 'Ship of Fools'³⁰. Here, for 3 months in 2004, an experimental 3D graphical interface invited you to pray, listen to sermons and meet other worshippers in real-time, online. The importance of this 'cyber-church' was that it was easily accessible in a *visual* way, something quite different to text based virtual gatherings. As Churches consider the questions of mission and outreach in the future, reaching those whose public persona is increasingly online will, I suggest, become ever more important.

The influence of open source approaches is another area that needs to be reflected upon theologically. Groups like OST³¹ (open source theology) are doing just that. At present they work towards two basic objectives: i) to explore and promote the idea of an open-source theology, and ii) to implement the open-source model as part of, and in support of, a renewed mission to the emerging culture. For me, one of the inspirations of the open source model is its altruistic generosity of spirit. An example of this is the support discussion forums that are an integral part of the open source programs. In the best open source projects these forums discuss technical problems and issues to support the end user. Responses to problems can be expected within hours of posting a message. Problem solving and support is the task of the community of volunteer developers and users, who in a desire to help each other and build the reputation of the software, work for each other. Of course, commercial products also need to enhance the reputation of their product, by offering good support, but the ability to do so is limited by commercial realities. Support costs money, consequently it can only be offered to a limited degree. Is it not impossible that the days of the proprietary applications, loaded onto individual PCs are numbered? Online web-based applications make the nature of your operating system and PC hardware irrelevant. The internet becomes a giant operating system, offering to work for you in a much more powerful way than working in isolation ever can.

Could these approaches of volunteered, information sharing speak to the Church, as it considers it mission and ministry? Would it be going too far to suggest that the process of denominational fragmentation, observable since the rise of modernism, looks like the power struggle for a disparate range of 'operating systems'. How much more effective would the Church be if it employed models of working which were *truly* collaborative and interconnected? One traditional feature of the Methodist 'operating system' has been an emphasis on 'Connexion'. Perhaps in light of the directions we see technology moving in, there has never been a better time to re-claim and emphasise the implications of that word. If the traditional Church at large can work towards the dissolution of the

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²⁹ http://churchoffools.com/

³⁰ http://ship-of-fools.com/

³¹ http://www.opensourcetheology.net

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stand-alone approach, to a model which truly embraces working together, the world, our society and the open and accessible God we speak proclaim, might be much more effectively served.

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