

What do we mean by a digital environment?

Shift from primary engagement with the physical to a mutual reliance on the virtual within the physical

e.g. how do you develop this paper. You go online and search for someone else's definition of 'digital environment' and can't find one. You read books but they provide competing, fracturing frameworks. You head into the library and pull out loads of texts on Cyberculture...

So, sources will include virtual-, artistic-, web-based-media, as well as books:

General Digital Age:

<http://www.caslon.com.au/digitalguide.htm>

<http://www.oii.ox.ac.uk/microsites/oxis/publications.cfm>

<http://worldinternetproject.net/publishedarchive/>

<http://www.digitalcenter.org>

John Armitage & Joanne Roberts: *Living with Cyberspace* (Continuum, 2002)

David Bell: *Introduction to Cybercultures* (Routledge, 2001)

David Bell & Barbara Kennedy (eds.): *Cybercultures Reader* (Routledge, 2000)

Mark Curtis: *Distraction* (futuretext, 2004)

Charles Leadbetter: *We Think* (Profile Books, 2009)

Steven Shaviro: *Connected* (Uni Minnesota, 2003)

Don Tapscott & Anthony Williams: *Wikinomics* (Atlantic, 2007)

Thomas Zengotita: *Mediated* (Bloomsbury, 2005)

Digital Generations:

Bernard Cathélet *et al.*: *Les Screenagers* (Foreseen, 2000)

Sarah Holloway & Gill Valentine: *Cyberkids* (RoutledgeFalmer, 2003)

John Palfrey & Urs Gasser: *Born Digital* (Basic, 2008)

Don Tapscott: *Grown Up Digital* (McGraw-Hill, 2009)

Digital Fiction:

Doug Coupland: *Generation X* (Abacus, 1992)

Doug Coupland: *Microserfs* (Flamingo, 1996)

Doug Coupland: *JPOD* (Bloomsbury, 2007)...***et al!***

M T Anderson: *Feed* (Candlewick, 2002)

*The Matrix Trilogy, I-Robot, Minority Report...****et al!***

The interesting thing is how hard it is to find a definition of what the Digital Environment is. If you go on Wikipedia (where else!) then it tells you that a Digital Environment is a created world within a computer. So *Second Life* is a digital environment. But that definition totally misses the point. In fact, what Wikipedia is defining here is *cyberspace* rather than the Digital Environment. In other words, the development of a virtual environment in which individuals can take on virtual identities and transcend the limitations of the human environment. This is indeed an interesting aspect of the DE, but it mustn't be used as a definition of a DE – indeed cyberspace may be one of the problems with the DE. So, although Kevin Robins begins his introduction to cyberspace with eulogy, he actually sees it as: 'a consensual hallucination.¹ He begins with quotes from Nicole Stenger: "cyberspace is like Oz – it is, we get there, but it has no location", 'it opens up a space for collective restoration, and for peace...our future can only take on a luminous dimension.' For Robins, cyberspace becomes a utopian vision for postmodern times (both outopia (nowhere) and eutopia (somewhere good)) – a place "to rebuild the neighbourhood community and the small town public sphere and in a world in which every citizen is

¹ Kevin Robins, "Cyberspace and the World We Live in", in Bell & Kennedy (eds), *Cybercultures Reader* (Routledge, 2000), p.77

networked to every other citizen, we can expand this ideal (or myth) to the scale of the global village".² But Robins discussion soon turns to questioning the reality of the whole cyberspace argument:", "The prophets of cyberspace and virtual reality are immersed in the technological imaginary...It is as if the social and political turbulence of our time – ethnic conflict, resurgent nationalism, urban fragmentation – had nothing at all to do with virtual space...I think it is time that this real world broke in on the virtual one". This move from utopia to dystopia is fleshed out in the media. Films like *Wizard of Oz*, *Tron*, *The Matrix Trilogy* and *The Truman Show* play on how cyberspace and physical space (note the decision here to avoid the dichotomy of 'virtual' and 'real') can intersect and infect one another. But the films are more about the dangers of losing our 'real' identities within cyberspace and on the need to regain or maintain our grasp on the physical – the so-called reality of the physical over against the unreality of the virtual. In each of the films, the virtual is synthetic, unreal, dehumanising and in each case the individual must escape the virtual simulation in favour of the physical reality. Of course, escape into the virtual in each case was to avoid the trauma of the 'real'. But in each narrative, utopia is seen to be a sham often more dehumanising than the horror of real life.

Leaving behind cyberspace and human identity for another paper, the Digital Environment is not wholly synonymous:

- with digital technology, or
- with the ubiquity of the internet, or
- with the move from analogue to digital broadcasting, or
- with the mass appeal of mobile phones, or
- with the demise of the newspapers, or
- with the paradigmatic shift from Enlightenment to Postmodernity, or
- with the concomitant shift from definitions to word games, or
- with the move away from deductive teaching and the promotion of student-centred learning, from passivity to interactivity, or
- with the proliferation of information and the demise of the expert, or
- with the commercial and political strategies associated with globalisation and commercialisation, or even
- with the ubiquity of the personal computer.

The Digital Environment is the conglomeration of all of those events, facts, realities into a tangible experience of a changed way of being. A culture shift has happened where a technological leap forward has matched with or been contemporaneous with sympathetic philosophical and pedagogical advances. Wikipedia happens not only because the technology can make it happen but also because the collaborative working strategies have also become mainstream and because postmodernity has fractured public confidence of alternative forms of knowledge.³ Of course, the synergistic relationship between all aspects of this culture shift is complex with different aspects feeding other developments promoting rapid, greenhouse, development.

The digital world permeates every part of our lives – our homes, our schools, our workplaces, our public spaces (transport, libraries, cafes, cities), our government. It is, in fact, very hard to get away from the digital environment. "Even those who continue to resist computers, faxes, e-mail, personal digital assistants, let alone the Internet and the World Wide Web, can hardly avoid taking advantage of the embedded microchips and invisible processors that make phones easier to use, cars safer to drive, appliances more reliable, utilities more predictable, toys and games more enjoyable and the trains run on time."⁴ Increasingly it surrounds us wherever we go. M T Anderson's *Feed* looks into the future, as

² Robins, "Cyberspace", p.78

³ Charles Leadbetter, *We Think*

⁴ John Seely Brown and Paul Duguid, *The Social Life of Information* (Boston: Harvard Business School press, 2000) 13

does *Minority Report*: in that future digital media is everywhere and internet advertising is constantly responding to the individual viewing it, interacting with that subject, providing goods and services ideally matched to the user's known profile. The DE has become intensively invasive, even implanted into the human brain. The novel explores the effects of these digital implants upon a group of futuristic teenagers – where the inconvenience of accessing the internet through a secondary device is removed by the internet invading the human body – a kind of cyborg reality. In the end, Anderson's *Feed* is an anti-digital book as the heroine Violet strives against the *Feed* and tries to live an archaic pre-internet lifestyle, somewhat reminiscent of *Fahrenheit 591*. But the dystopic fear of the DE is a familiar trope in science fiction and in modern Hollywood - *I-Robot*, *Minority Report*, *I am Legend*...

This innate wariness concerning the DE among the creative/management generation may reflect a generational difference in attitudes to the Internet.⁵ Generation X (those born between 1965 and 1976) is somewhat wary of this new technology – they tend to be called Digital Immigrants or Exiles – with Immigrants able to cross the Digital Divide and Exiles unable by ability or choice to do so. However, it is the generation after them, the Net Geners, or Generation Y, or Screenagers (those born between 1977 and 1997) who are the Digital Natives and who look on Gen X anxiety as being so old fashioned. Don Tapscott recalls doing a TV programme about how to use the internet and being ridiculed by his children:⁶

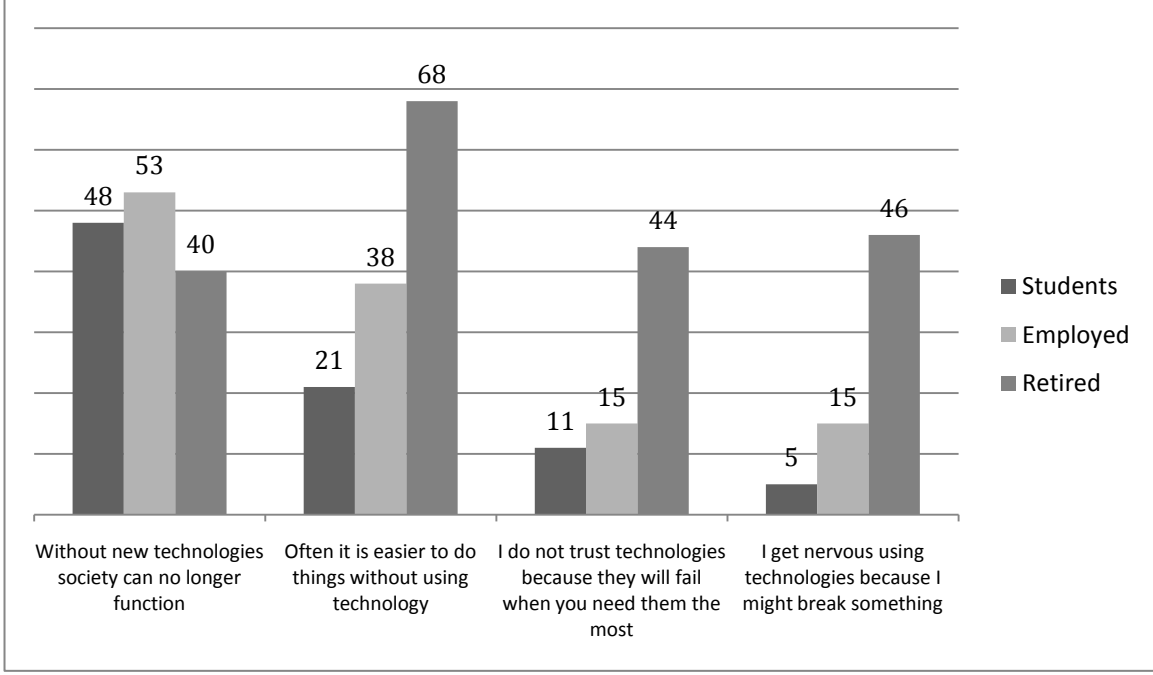
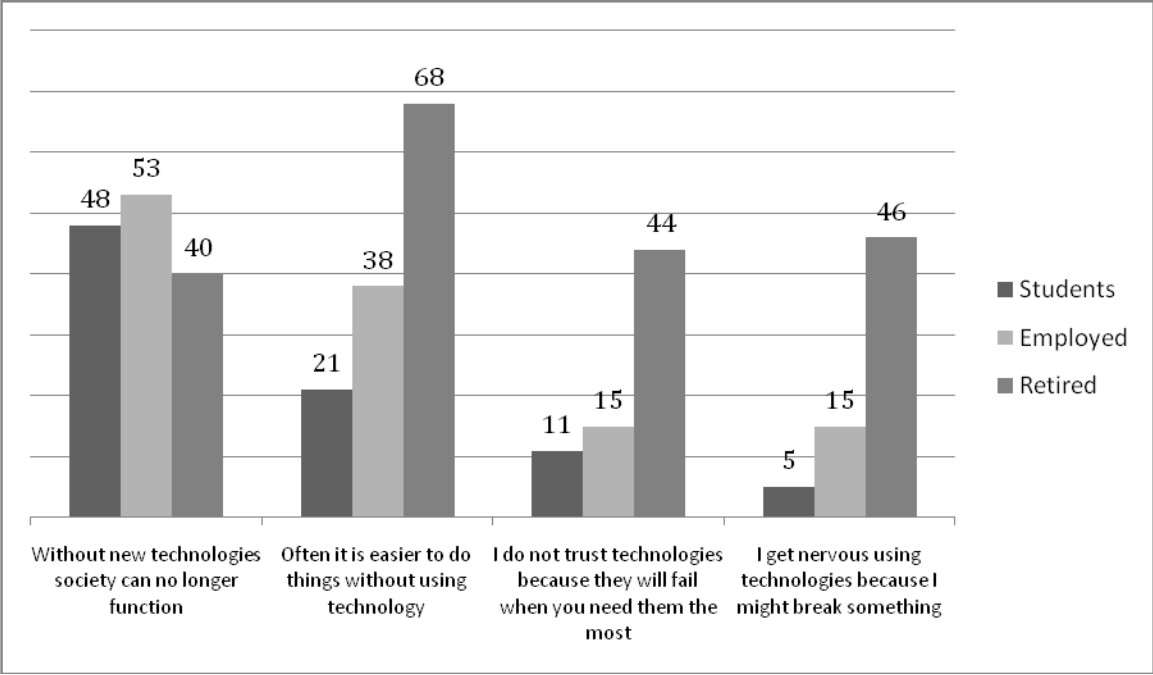
“Dad, no offense, but I think you adults are obsessed with technology. You call this a technology revolution and you are so fascinated by how the technology works. Imagine some other technology, Dad. The television – is that technology to you, Dad? Imagine a TV show where people watch you surf television! Wow! Let's see if my dad can find a football game on television! Now my dad is going to try and find a sitcom...Yeah, Dad, how about the refrigerator? Remember, it's technology too. Why don't we have a TV show where we can all watch you surf the fridge? Check this out, my dad has found some meatloaf! This is fascinating TV.”

The Internet In Britain Report gives some interesting data on attitudes to technology adoption across lifestages and the gradually shift to adoption within the Netgeners:⁷

⁵ See Maich, Steve, 'Is this the future? Don't bet on it.' Macleans magazine, Monday 24th November, 2008 <http://www2.macleans.ca/2008/11/24/is-this-the-future-dont-bet-on-it/> (accessed 15.10.09). With reference to Tapscott's *Grown up Digital* and Ron Alsop's , *The Trophy Kids Grow Up: How the Millennial Generation is Shaking Up the Workplace*, Maich writes: 'Reading these books, it's tempting to write off the entire generation as a bunch of vain and vacuous prima donnas, but that's not exactly fair. One of the key weaknesses of this whole business of studying young workers as if they were some exotic species is that it ignores the lessons we should have all taken from our own callow youth. Young people have always thought they were smarter than their bosses, that they deserved more money, more freedom, more responsibility, and more recognition for their efforts. Millennials don't respect office hierarchy? No kidding. Doesn't everybody at the bottom of the corporate ladder want less hierarchy? And doesn't every generation look down at the youngest and lament their lack of direction, their lack of respect and their crazy music? The authors assume that these immature, self-absorbed young adults, many of whom are barely into their first apartments and have never faced the challenge of a competitive workplace, will remain essentially the same throughout their careers. Yet it's not at all clear how much of the millennial attitude toward work is due to genuine generational difference, and how much is simple immaturity and inexperience.'

⁶ Don Tapscott, *Grown Up Digital* (McGraw Hill: 2009), p.20

⁷ OIIS, *Internet in Britain 2009*, p.69



It is important to note this generational gap, but also the epistemological gap. Digital Natives accept the DE without question – it is not a technology to be learnt but part of the givenness of their lives. It is not about acceptance of and immersion into a technology. The DE has become invisible and does not need learning or explanation. The Digital Environment is just that – the environment within which we live – it is second nature, and asking someone to define it is like asking a goldfish to analyse the water in which it swims. It has become, especially for Digital Immigrants and Natives, the accepted environment in which we live and move and have our being. The Digital Environment is so invasive and ubiquitous that it has become invisible. So, we can expect lots of people to talk about the effects of the digital environment upon business, leisure, newspapers, knowledge, authenticity, learning, ethics, information, but few people will actually take time to define what it is exactly – a similar issue has happened with postmodernism. But for some of us, this lack of definition will be unsettling - Don Tapscott gives another good illustration: He goes to talk to his son and finds him looking at Mars online through the

Hubble Telescope. Don is amazed at the technology – his son is amazed at Mars – the technology has become invisible for him.

This mixture between definition of the DE and analysis of the effects or symptoms of the DE are seen on the online digital guide developed by Caslon Analysts in Australia, which lists a number of key aspects which make up the DE or issues relating to the DE, especially from their own interest in the regulation of this brave new world:⁸

- [technologies](#): machines, software and networks
- [etopia](#): the development of a digital utopia as in the writings of Toffler, Gilder, Negroponte, Dyson, McLuhan, Barlow and offers a critique of the 'Californian Ideology'
- [dystopia](#): the equally fashionable view that digital technology means the end of civilisation as we know it
- [geopolitics](#): the geographies of information production, information flows and consumption in the digital environment
- [rights/ethics](#): the debate about digital rights, responsibilities and freedoms
- [time](#): concerns over the 'new laziness', 'information overload', 'internet time' and lifehacking
- [spaces](#) & traces: the notion of cyberspace: everywhere and nowhere, out of control or business as usual?
- [cities](#): urbanism, location and architecture
- [bodies](#): mind and body, including cyborgs and the 'body as data'
- [datasmog](#): electrosensitivity and e-waste
- [gender](#): writing about gender, intimacy and sexuality in cyberspace
- [intelligence](#) & information: two perspectives on cyberspace, artificial intelligence and pervasive profiling
- [community](#), class and generations: how 'being digital' affects nations and communities, including the digital ghetto and the digital divide
- [culture](#)
- [education](#): the 'enterprise university', knowledge management and 'learning ware'
- [commerce](#) and economy
- [work & play](#): the nature of work, employment and industrial relations
- [play](#): recreation and entertainment in the 'internet economy'
- [happiness](#)
- [the state](#): studies of politics and governance explored in our guides

⁸ <http://www.caslon.com.au/digitalguide.htm> accessed 4 November 2009. The site belongs to Caslon Analytics, a research, analysis and strategies consultancy particularly interested in technology and regulation.

- [war & peace](#): the shape of conflict in the digital environment
- [forecasting](#): a reality check, an examination of the crystal ball gazing business
- [futures](#): writing about emerging technologies and their implications, including truly pervasive computing and artificial intelligence, and comments on technology forecasting.

The Caslon site is huge and its emphasis is on providing an analysis of key thought trends in a number of areas, which will be helpful to its customers. However, Caslon seems to miss the point about the DE. It provides a plethora of information but doesn't really manage to hit the nail on the head about what the DE is or does.

In his book on the effect of the internet on social identity, Mark Curtis focuses on a number of crucial aspects of the DE which move us away from an obsession with the technology and into a consideration of the kind of environment which it produces.⁹

- Context:lite – Curtis argues that the internet removes information and media from the context in which it was first developed. So a music track is isolated from the album of which it is a part. Indeed, with pictures ripped from their context, brief 140 vignettes on Twitter taking the place of context-based conversations and the propensity of young people to text their friends in preference to spoken conversation, context is a major casualty of the DE. Compare this, however, with the arguments for contextual reading of Scripture, contextual analysis in ethnography, contextuality in Practical Theology, preaching and mission. Taking things out of context is part and parcel of the internet experience and one of its huge benefits in that it removes prestige, opens up the opportunity for all to shine – note the popularity of YouTube and the demise of sales-based charts in favour of download charts. But the dominance of the immediate and the available robbed of the context of history, knowledge and experience turns everything into an orgy of self-gratification and ignorance (see Ben Elton's novels).¹⁰ What are the political implications of this? Yes- could be dystopian, but, what about situations where political context means information is locked down and communication limited? The fact that bits have no borders creates the ability to transcend the immediate context through the DE, offering a new kind of democracy? But what happened to the Twitter Revolution in Iran?
- New time:new space¹¹ - introduction of terms such as 'cyberspace', 'virtual reality', 'global village', 'always on', 'warp speed'. Distance is no longer an issue. Neil Postman had already raised the shifts which the introduction of the telegraph and then television inaugurated within our understanding of the world, but the internet and digital communication makes everything instantaneous.¹² We can watch what is happening across the world as it happens. This process re-defines our conceptual maps as well as destroying the sense of downtime (see below). The re-definition of what we think of the world happens in two ways – a reduction in distance appreciation and an re-introduction of a two realm metaphysics – whereas the Enlightenment Project taught us to think only of the physical, the Digital Environment forces us to believe in both the physical and the virtual as real entities. Indeed, Curtis argues that the virtual is beginning to take precedence. Of course, this means there is little room if any for the spiritual – where is the spiritual realm in *Star Trek*, *Minority Report*, *I-Robot*, *I Am Legend*? Although, perhaps it makes more of an appearance in *Star Wars*, *Dune*, *The Matrix*?

⁹ Mark Curtis, *Distraction* (futuretext, 2004), pp.11ff

¹⁰ Ben Elton, *Blind Faith* (London: Black Swan, 2008); *Dead Famous* (Black Swan, 2002).

¹¹ Curtis, *Distraction*, pp.29ff

¹² Neil Postman, *Amusing Ourselves to Death*

- Mobile Reality¹³ – mobile maps us into the network – we become part of the Borg. We are now always available and responses are expected to be instantaneous. Telephony and television had already started the process. But the mobile revolution unlocks the potential even more – no more are we limited by wires or by mainstream power sources or by computers which fill whole rooms. Mobile phones increasingly bring the world to us wherever we are through internet connection, email, text messaging and phone calls. It also means that we can be contacted wherever and whenever. No longer is work a 9-5 thing. Specific action has to be taken now to make that the case with people actively choosing to have different phone numbers or emails for different phases of their lives. Indeed, there are a few who deal with email only at the time when the post would arrive each day and regard emails as normal snail mail. The problem is that senders of email do not work on the same assumption. Moreover, the ‘always on’ buzz is such an addiction and so influential that such actions would already be seen as exotic/eccentric. The infection of the workspace with Facebook and Twitter suggests that the ‘always on’ society is here to stay and those who resist it will be the odd ones out! Amongst the young, there is already a dependency on mobile communication – hence the angst when the computer goes wrong or the phone breaks. Tapscott asked a group of young people to list words and pictures they had when he proposed the loss of their mobile connectivity. The results show an extraordinary dependency on mobility: nervous, lost, dazed, unsure, closed, obsolete, left behind, withdrawn and several versions of sad face emoticons.¹⁴
- Distraction¹⁵ – a direct result of always on mobile technology is distraction. We will all have been in meetings where people are constantly flicking on their phones. Instantaneous communication needs feeding whether it is responding to a text or email or twittering about what someone has said or relieving the boredom by surfing the net or checking what friends are doing elsewhere.¹⁶ Multi-tasking is also the norm with young people especially much more accustomed to doing multiple tasks – computer, TV, homework, facebook and MSN all operative at the same time. Again data from the *Internet in Britain Report 2009*, confirms that multi-tasking is almost ubiquitous among students (while also debunking the myth that multi-tasking is a female attribute):¹⁷

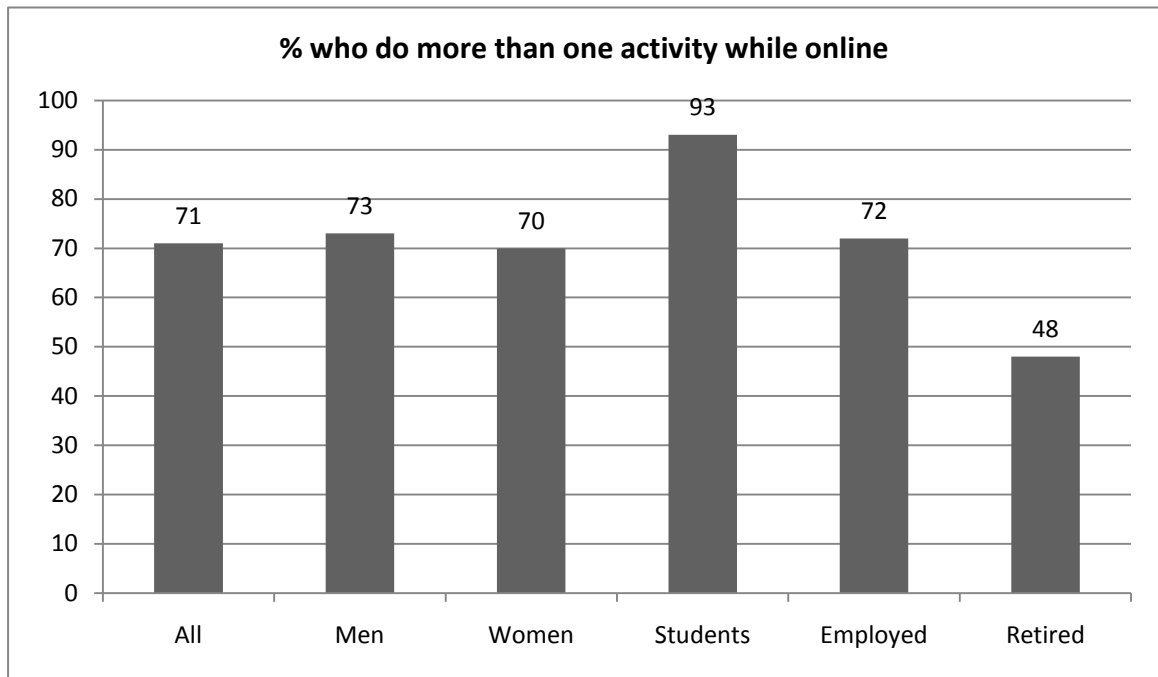
¹³ Curtis, *Distraction*, pp.37ff

¹⁴ Tapscott, *Grown Digital*, p.48

¹⁵ Curtis, *Distraction*, pp.53ff

¹⁶ See also Tapscott, *Grown Up Digital*, p.94

¹⁷ OIIS, *Internet in Britain Report 2009*, p.37



- Epistemological Democracy (???) – where do we go with Wikiknowledge and the move of authority into the digital realm. Is it a needed debunking of academic authority structures which limit authority to what the privileged middle class (white) people think?. Or is it an overall dumbing down of the world?

Curtis' book lists positive aspects of the Digital Environment – not least the opportunity it has given for postmodernity to fulfil its desire for community. However, he points out that this is community as we have never known it before – community which transcends context and physicality, indeed a hedonistic, narcissistic community, that revolves around the kind of people who I choose/accept/follow rather than the more haphazard group of friends which normal physical existence limits us to!

A number of texts (see above), list specific ways in which young people are embracing the DE much more fully than older generations. Tapscott and Palfrey have both analysed the differences between Digital Natives – those who have been brought up within the DE, and Digital Immigrants or Exiles – those who have had to learn how to embrace the DE or have chosen to reject it. Most of these texts agree that the fundamental shift in perception, communication and distraction are changing what it means to be a human being. We are moving towards a new sense of *homo digitus* (or whatever it might be called).

A French study about youth in the Digital Environment, *Les Screenagers*, maps the changes over the years:

	In The Past			Yesterday	Today	Tomorrow
Sociology of becoming	silent child	non-existent adolescence	the replica adult	youth in revolt: crisis generations	<i>la generation 'zapping'</i> ¹⁸	screenagers – chameleons & bisons
Personality	Obedience			freedom	ambiguity	Chameleons
Lifestyle	a 'transfer' life		fractured		free	life "en oscilloscope", multi-everything ¹⁹
Societal Role	transmission of status			job/skill acquisition	Checking/resisting professionalism/adulthood	
Citizenship	at one with roots			individualism	return of the clans/gangs	Adaptive citizenship

Cathelat argues for two distinct versions of emerging youth – chameleons and bisons. So, the chameleons, those who embrace the Digital Environment have the following characteristics:

- Multifaceted lifestyle
- Where one plays on many tables (“où l’on joue sur plusieurs tableaux”)
- Many roles independent of one another
- To be elusive at all times, to avoid all conflict, out of caution
- To miss nothing, out of opportunism
- Always adapted to context, out of interactivism
- To remain durably young, open and responsive, supple, plastic and flexible, that is to be capable throughout life of adapting oneself – a new model of personality better adapted to the world of the 21st century.

Such a lifestyle already seems to be linked to the most ambitious in society – those who have decided to be integrated into society and to prosper, and those who set off with their best attributes.

On the other hand, the Bisons have the following characteristics:

¹⁸ Cathelat, *Les Screenagers*, p.33: la stratégie du zapping qui consiste à être tout à la fois, sans choisir, mais successivement comme une sorte de montage de video-clips qui enchaîne des sequences sans liens entre elles : un doigt d’enfant sage et un zeste de contestataire, à peine rêveur romantique et un peu pragmatique calculateur, un moment copain et un moment amoureux, à l’occasion moral et l’instant d’après cynique. Vivre “zapping”, c’est être tout à la fois, mais en spectateur, sans implication, et non en actes, si ce n’est en consommant quelques produits symboles. Les 20 ans zapping se font leur cinema en se projetant eux-mêmes dans une sit-com...” (*the strategy of zapping consists of being all the time, without choice, but successively, like a kind of montage of video-clips – a succession of episodes without links to one another; the wagging finger of the wise infant and a passion for questioning, scarcely a romantic dreamer and a bit of a pragmatic strategist, at one moment a friend and another a lover, on one occasion moral and at the next instant cynical. To live 'zapping' is to be at all times merely a spectator, without implication, not involved, unless this is in consuming some symbolic product. The 20 year old zapper makes their own cinema in projecting themselves like sit-com...*)

¹⁹ “multifacettes”, multitâches”, “multiprojets”

- Similar to *la génération "street war"*
 - Violent rage as depicted in hard rock, rap
 - Sense of being excluded
 - Rejection of social institutions
 - Celebration of non-existence
 - Need to exist within other's sight – especially their own clan/group
 - Potential for explosive violence
- The section of young which doesn't possess the possibility of taking the route of technological hyperadaptation and social flexibility.²⁰

Of course, the distinction is too limited. We all know of bisonic chameleons and chameleonic bisons – those people who bridge both – who have the opportunities to develop all the skills needed to embrace the DE but decide to subvert those skills into anarchy or anti-social behaviour or those who have no opportunities but naturally manage to embrace the DE almost by accident. Indeed, it may be that as IT skills are developed more and more in primary education, the bisons are likely to be as multi-tasking as the chameleons.

Further exploration of the generational divide across the DE would need to embrace both Tapscott and Palfrey's work. But the DE is a late 20th/early 21st century phenomenon. With the leadership of academy and church filled mostly by the boomer generation (those born between 1945 and 1964) (and so more inclined to be pre-digital or, at best, Digital Immigrants), we may need to consider the academic and ecclesial implications of the digital divide in which an increasingly digital society leaves behind church and university locked into another century.²¹

As the digital revolution sweeps across the globe we in the church have two choices: to work with the dramatic changes or to stay put and find ourselves serving a diminishing remnant.²²

Conclusions – some more questions rather than a set of conclusions....

- DE ubiquitous in nature? – what about the digital divide?
- Theological questions – to what extent does the DE change the nature of humanity or of God
- If we experience the death of distance in the DE – why do people gather together in places like Silicon Valley? Ironically, in an industry which boasts the death of distance we see clustering occurring around particular locations. Why? 'In the Valley, people live in and out of each other's (sic) pockets, and this helps them to see what's doing, what's doable, and what's not being

²⁰ Cette partie de la jeunesse qui n'a pas la possibilité de prendre le chemin de l'hyperadaptation technologique et de la souplesse sociale

²¹ Do we also need to listen to the voices which are critical of Utopian analysis? Steve Talbott, *Devices of the Soul: Battling for Our Selves in an Age of Machines* (Canada: O'Reilly Media). Talbott argues concerning the use of the computer in teaching that it can often become used because it is available rather than the best medium for the task. He cites the anecdote of a teacher attending a technology in education conference where she looked at a new multi media package for the teaching of reading. The teacher asked the salesman why she should use this product over traditional methods. The salesman responded that having pitched the product to thousands of teacher she was the first to have asked the question. (130.) This anecdote points to a technological determinism at work. Should we be more critical of aspects of the DE?

²² Revd Mark Brown http://brownblog.info/wp-content/plugins/wp-downloadMonitor/user_uploads/The_Digital_Revolution_and_the_Church.pdf , (accessed 20.09.09)

done.²³ Physical presence, embodied relationship matters – in business as in the Church, because it is a central feature in human relating.

²³ Brown and Duguid, 169