



DO MEDIA TECHNOLOGIES SCRAMBLE YOUNG MINDS?

Our ability to observe, think and learn is affected in profound ways by cultural and technological innovation. It is common to think of these issues in terms of a progressive advancement, where innovation adds icing to the cultural cake. In this article I speculate on how innovation may also involve regressions and losses which undermine our ability to think holistically and adapt to the emerging energy descent future. The ideas were stimulated by the experience of learning and teaching skills in reading landscape and have been refined through informal discussions on Permaculture Design Courses over a number of years. The bleak analysis it contains provides a counter balance to my prevailing optimism about information and design creativity providing the lubricant for rapid evolution of low energy systems.



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In pre-literate societies, story telling, poetry, songs and art were essential ways of conserving, passing on and adapting knowledge and culture. The advent of writing thousands of years ago allowed a huge expansion in the range of knowledge and culture which could be conserved and passed on, although it was not until the development of the printing press in the 16th century, and the spread of literacy in the centuries since, that reading and writing have dominated our ways of seeing and thinking.

Although literacy brings new powers there is little doubt that it has reduced memory capacity and replaced many complex patterns of seeing and thinking with precise but linear symbolic thought structures. On the other hand, because it is difficult for a very young child to learn to read and write, literacy does not reorganise the foundations of our mind which are created in the early years of life through exposure to our mothers, others close at hand and the natural world. In Steiner education it is recognised that other ways of seeing and expressing oneself should be allowed to flower before children are taught to read and write. Seven is considered the age generally suited to introducing literacy in Steiner schools.

The next great cultural innovation comparable to literacy in its power has been the developments of recorded sound and moving picture. Invented in late 19th century, the radio became a household fixture in my parents' childhood homes. Within my lifetime most of the affluent world's population have become exposed to regular consumption of recorded image through broadcast television. Because humans are predominantly a visual animal, the effects of video image have been more potent than audio. The power of video to change culture was amply demonstrated in the highlands of New Guinea by the "first contact" adventurers, the Lay brothers, who took film footage of local ceremonies in the 1930's. The story goes that when shown themselves performing ceremonies including mistakes, the locals then took the film version to be the correct record of their culture. The moving picture is so close to nature that at a very primal level we can mistake it for nature.

Unlike literacy, as soon as a baby can focus it can begin to take in video image which in turn structures its mind in a similar way to seeing the natural world. My generation, born in the 1950's was the first to have its mind formed in this way.

Most of the debate about the effects of television on children, focus on the content, very little on the nature of the medium. The most important aspect of this medium is that it can be, and always is, edited, cut and pasted, rearranged in any and every conceivable way for art, entertainment, commercial or political purpose. While this might be ok for the mature mind, it tends to scramble the pattern language of visual input which contributes greatly to the structure of the young mind.

In the world before TV we became attuned at a very young age through our eyes to the patterns of day and night, the rhythm of daily life, the irreversible and slow processes of seasonal change, germination, growth, flowering and death in the plant world, birth, growth, decline and death in the animal and even human world and so on.

In developing my own pattern recognition skills in observing nature and landscape¹ over the last 25 years and trying to teach these skills to others over the last 15, I have begun to suspect that being raised with television is an impediment to being able to see nature as process rather than static image. There is a supreme irony in a medium which creates endless moving pictures but kills our ability to see nature as a dynamic process and replaces it with a dead static image which tells us little of what has been or what is about to happen.

The loss of this skill can be attributed to many aspects of modern life but I am convinced that regular exposure to video image at a young age is the prime culprit.

(I speculate on all this having grown up without TV which dominated the childhood of every one of my peers but without knowledge of the whole field of childhood development theory. Maybe I am struggling to reinvent the wheel of some well known and debated childhood development theory but then again, maybe this is a novel idea because its just possible that most of the academics in the field have themselves had their brains scrambled by TV.)

The key lesson for me from these musings over the last decade or so is the enormous cultural value in the living memory of older people who remember a time when things were very different but struggle to describe that world in words which younger people will understand.

So what about the effects of radio which have been a powerful influence on the minds of babies and children for a generation longer than television? To some extent radio was a precursor to television which may have had the effect of scrambling our auditory sense in a similar way to which TV scrambles the visual sense. But sound is very different from sight. We are used to a variety of chaotically mixed and changing auditory patterns as unborn babies in the womb and continue to experience the soundscape after birth as a mixture of sounds and voices quite unlike the way we see the world around us. There is little doubt that modern life since the industrial revolution has scrambled the soundscape and overlaid it with the harsh sounds created by movement, especially high speed movement of machines, things and people. The patterning of maternal and fraternal language and song which dominated the soundscape for the new born in more traditional societies is now a minor element in the domestic soundscape.

Recorded and broadcast sound is different, however, in that it is predominantly human speech and music and so acts as a substitute or surrogate for the traditional soundscape. There is no doubt this has enriched our experience with other voices, accents and languages as well as a diversity of musical experience beyond that imaginable a hundred years ago. My mother tells of her childhood fascination listening to shortwave broadcasts in Chinese, a window into an alien world (more extraordinary in some ways than that

1 See *Reading Landscape* paper (Article three)

created by the arrival of the Internet]). But like the later, more pervasive, visual electronic media, recorded sound is (almost always) selected and edited. It scrambled the human voice landscape of the pre audio era. Like video it took something away.

Perhaps the most important aspect of audio recording and broadcast (as radio and records or with video image in TV and film) is its pervasive, even constant presence in the modern home. In some families, that has been the case for three or more generations. For my father, a natural musician, the radio and the record of his youth was something to be listened to intently but for limited time. In my own childhood my parents love of music and politics made the record and the radio an almost constant part of my childhood experience. Perhaps my own appalling auditory and musical sense maybe partly attributed to that environment.

In focusing on the adverse nature of the electronic media, I do not want to underestimate the effects of the content of those media. I am so grateful to my parents that it was only ABC radio without advertising which filled my childhood home. Before radio and television, the home was a whole world largely free of the direct effects of mercantile capitalism. The travelling hawkers and grocers dealing with the woman of the household was the closest it came, with jokes about the salesman getting the foot in the door. Children were specifically protected from the values of the market place and were initiated into the world of economics through the household economy where cultural, moral and spiritual constraints applied.

American author Russell Banks² has spoken of the arrival of TV into the 1950's as inviting the salesman to a permanent and honoured place in the living room and then, over succeeding decades, into the bedroom and the nursery, as fraternal and nurse companions. Banks describes this invasion of the home by capitalism as 'autocolonisation' by which it creates succeeding generations of consumers to replace the contracting frontiers of "natives" to be colonised. The consequences of this autocolonisation are manifold but Banks see it as the source of the pervasive anger and violence which are the focus of his stories.

Before we have had a chance to culturally digest and adapt to audio and video image, the next massive cultural innovation is upon us from computers. Invented in the post war period, the computer became the tool of corporations and government in my childhood and adolescence but have only entered the everyday home domain in the last decade.

Adding interactive capacities to audio and video image, computers provide a fantastic learning tool for mastering complex and important skills with little risk or consequence. One of the first uses of computer simulation was to teach astronauts how to land on the moon, not the most valuable human endeavour, but better than crashing. Today from a young age, children play an endless array of video games where you get instant rewards,

2 Interview on *Spirit of Things*, ABC Radio National 19/7/2000

excitement, thrills and nine lives, in environments which mimic reality but without risk [except EMR exposure].

Again the debate is about the content and the need to tone down the blood and gore when you slaughter people. More important for the young mind, is the building of the expectation that if there isn't a reward in 5 seconds then its not worth doing, that anything slow must be dead or as good as, that there are no consequences to any action, that it is possible to bail out of any situation and restart the program. Perhaps for a child approaching adolescence, who's taken the skin off their knees in a bike accident, had their best friend move away to another state, and seen their dog die after being run over by a car (for example) the distinction between reality and games is clear enough but for the very young it may be quite different even if they do later intellectually understand the difference.

Coming to grips with the non-negotiable nature of many of life's challenges is hard enough. In the affluent world we have found many ways to avoid at least some of these challenges through medical and other technology, while scientists continue the search for more solutions to life's hardships. In a low energy future, options to move sideways, restart, or take another path than the one you are on, will decline. Even without the effects of computer gaming, this or future generations will be faced with the frustration and anger that the opportunities and freedoms of the past have gone, that the party is over, that they will have to grow up tough in a way no previous generation has had to. To face this world we will need very different skills and beliefs from those learnt at the computer simulator.

Within a decade current advances in virtual reality threaten to immerse the next generation fully within the machine. It is hard to imagine a quicker way to destroy human capacity to survive and prosper in a uncertain world, but while the oil keeps flowing and the wheel of technology keeps spinning, the promise of new possibilities blinds us to the loss of old ones, or as Joni Mitchell sang "You don't know what you've got till its gone".

We have many examples where the consequences of loss of natural resources are not felt until the machine of growth and hubris fails. In the ecological history of the decline of the Roman Empire, it is well documented³ that the land degradation in the food bowl of central Italy only became a critical problem when it was no longer possible to maintain the grain supply from Carthage in north Africa. In the modern world we have also accumulated massive ecological debt, the import of which will not be felt until growth in energy and technology fail. Like the depletion of natural resources in the modern world we are accumulating massive social and psychological debt, of which, the side effects of video and computers are but one part.

It is only the return of a low energy slow moving future which will show us what we have lost. Perhaps an antidote to this bleak analysis of our current situation is the realisation

3 See Goldsmith, Edward The Ecological History of the Decline of the Roman Empire in *The Ecologist* (1973)

that the prospect of decline in material wealth and opportunity in a low energy future doesn't look so bad after all, and that it is possible to unlearn these dysfunctional ways of being and seeing and reconnect with a more sensible and sane natural world before we are forced to change.