The Dilemma of Emancipation in the Information Society

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Unless knowledge can be brought into a coherent system, we shall either have to abandon the hope of finding man's place in the universe or else to accept, with pious resignation, dogmas that disregard the lessons of natural science, and acquiesce in the continuing divorce of fact from value that has been the chief cause of our present bewilderment.

J.G. Bennett
The Dramatic Universe

Introductory Summary

The burgeoning and much-heralded information society is upon us. Western society has begun an irreversible process in which economic development will depend more on information than on physical raw materials[1]. This process is being fuelled by the startling increase in communications world-wide and the emergence of the so-called Information Superhighway epitomized by the Internet and the World-Wide Web (or WWW). This network of information, with in excess of 40,000,000 users, a number which is more than doubling every year, is a cornerstone in the evolving global village. All of these developments are resulting in revolutionary, and consequently uncontrollable, changes in society.

This revolution has a good side: information is a resource which is potentially the product of any human mind, and thus knowledge, that which information begets, is capable of empowering vast numbers of people world-wide and potentially placing economic and intellectual power - the power to choose - in the hands of the many rather than the few.

The revolution may also have a negative side. The WWW and the Internet enable not just complete freedom of speech but they provide a global soapbox. Significantly, information on just about every conceivable topic is freely available - fascism, ecology, pornography, cooking, paedophilia, fine art [2,3,4,5,6,7] - and it all resides in one global infrastructure without any differentiation whatsoever. It is fact-based and value-neutral. To the browser on the WWW, to our children, to the population at large *there are no absolute values anymore*: the value of the information is entirely relative to the disposition of the emancipated individual. The hazard of this freedom is that the information can equally contribute to or detract from the humanity of society. This is the dilemma of emancipation in the information society.

In this short essay, I would like to suggest that now more than ever our young people and our children, who are the ultimate owners of the information society, need a framework for the *development and adoption of values rather than the blind acceptance of extant ethics*. Any dogmatic attempt to foist values on the emancipated young is doomed to failure. These are people who are intellectually-liberated - who see the process of questioning and challenging received wisdom are an inalienable right - and they will not accept values unless they themselves perceive them to be meaningful to their own lives.

I would like to suggest that all groups in society who are concerned with education - schools, universities, and, indeed, religious organizations of all denominations - have an extremely important role to play in this revolutionary process by adopting a more dialectic stance, with less emphasis on dogma, and more emphasis on the development of understanding through the exploration of the experience of the individual. Today, adolescents openly question received wisdom and traditional values, ethical, sociological, or religious. At the same time, they are deeply concerned about life, the earth, and their place in the grander scheme of things. Their questions are probing, and answers, if there are answers, don't lie in the domain of fact or knowledge: humans are sentient autonomous beings and consequently such knowledge, if it exists, is precluded simply on epistemological grounds. If we want answers at all, we must extend our frame of reference to the domain of value, to address the meaning underlying these questions in strong reference to personal experience[8].

The information age is helping man to evolve faster than ever before, just as the advent of the book did five hundred years ago. This time, however, there are no absolute certainties and hiding behind the easy rhetoric of dogma and established morals will not suffice. The answers lie in the creation of a deep ethical developmental framework which itself embraces the information society's paradigm of personal emancipation. The challenge in education today is not to train the young for the technological opportunities presented by the information age but to equip them with the ability to make sense of this `brave new world' and, in the process, to enhance the humanity of society.

The Information Age
Knowledge is power. It has always been so. Whether it was prehistoric knowledge of how to create fire or the ancient Chinese knowledge of how to manufacture gun-powder; whether it was the power of mediaeval religious bodies which was predicated upon the ignorance of the masses, or whether it was the power of modern societies borne of their knowledge of nuclear physics. What is significant about these examples, however, is neither the power nor the knowledge but, rather, that the empowering was achieved because the knowledge was held by a relatively *small* number of people. What made countries great during the industrial revolution was not that they had great natural resources but that a small number of people knew how to process them and exploit them (and, often, exploit the sources of the natural resources).

The age in which we are now living or, rather, the age which we are presently entering - the information age - is quite different from this. There is occuring a fundamental reversal in the order of things. Now, information - and access to information - is the province of everyone, at least in the so-called western world. Information is the natural resource of the new industries; it is the raw material of wealth creation in the developed world and it is beginning to supplant, if it has not already supplanted, the traditional resources which once made empires great (or, at least, wealthy). This is good, given that information is a resource which is potentially the product of any human mind, and thus knowledge, that which information begets, is potentially capable of empowering vast numbers of people world-wide. And that brings with it the possibility, although not necessarily the certainty, of a much more egalitarian society. This emancipation through accessible information also brings with it

some dangers, for the coming of the information age is not borne of an *evolution* of technical capability but, instead, of a *revolution* in technological prowess. And it carries with it, as have all technological and scientific revolutions, the potential for a fundamental shift in social patterns and social organization.

In this short paper, I wish to look at the possible implications of this shift in culture and society and, in particular, I wish to assess the very real dangers that confront humanity as its people are emancipated: given free access to information and free rein to use and to interpret it just as they wish.

To set the scene, let us look briefly at the scale of the present information revolution so that we can appreciate the truly profound impact which it is capable of having on society and on people's lives.

Evolution and Revolution

The problem with revolutions is to recognize that they are afoot before its too late to do anything about them and to influence the consequent changes in a constructive manner. Quite often, the changes happen so fast and we have so much social, cultural, and intellectual inertia that we fail to spot the early signs. In the present information revolution, the signs have not been easy to see because the increasing pervasiveness of information and the increasing predominance of knowledge-oriented industries seemed to be much less a revolution and much more a natural evolution of the industrial, manufacturing, age. Such an evolution requires no more than a change in raw materials: from natural resources to human knowledge. On the face of it, this is quite the case. If it were not for one key feature: communications. We now have the capability to exchange vast amounts of information between individuals anywhere in the world and, more significantly, there is nothing in principle which stops anyone from engaging in this exchange. In the western world at least, man as an information hunter-gatherer has come of age.

It isn't easy to comprehend what this means. It is not just a question of speeding up existing ways of doing things - such as the telegraph did for written communication - it is the sheer scale of the communication infra-structure and the public accessibility of that infra-stucture which is really significant. World-wide, there are in excess of 40 million people in 100 countries using the so-called information super-highway, *e.g.* the Internet, and that number is more than doubling every year. That means that well before the end of the century, the worldwide user-base could be equivalent to the total population of Europe.

There are other signs which might alert us to the fact that this is a revolutionary process and not an evolutionary one: the types of people who are enabled by the changes are totally different to what we have been accustomed. Instead of it being the Chief Executive Officers, the policy formers, the managers, the entrepreneurs, the so-called captains of industry - even the educators - we are now seeing children and young adults exploit this new resource and, arguably, making it their own. Around the world, young people are embracing the technology with open arms: classes of girls and boys at a national school in Bilbao now communicate and collaborate on a daily basis with their peers in a school in Dortmund using the Internet; the cafeterias around the Berkeley campus at the University of California have seen their video games

being supplanted by coin-operated workstations which allow student access to the Internet and the World-Wide Web (WWW) for fifty cents for so many minutes. Instead of space invaders, it's real-life cyberspace; instead of games junkies, we have `info-surfers'. And, if you want more signs of 'revolution not evolution', read the *Irish Times* every Monday. It has a full page devoted to information systems and it contains a weekly update on the strange and somewhat idiosyncratic language which is springing up to reflect this new reality.

Make no mistake, it is a revolution and the revolution is underway. But, if it's often difficult to recognize that a revolution has started, it's even harder to say what point it has reached when you are caught up in it. Has it just begun? Is it nearly over? Without the benefit of historical hindsight, *i.e.* until it's over, it is impossible to be certain. However, given that revolution leaves societies in a very different state to that which prevailed before it started, with different ways of doing things, different attitudes, different values, in essence, a different world view, it is likely that this revolution is just beginning. We have seen much change in the last ten years but it is nothing, absolutely nothing, to the changes which inevitably will come. And therein lies the rub· whilst you can anticipate with some confidence the nature of events in an evolutionary scenario, if for no other reason than you can control the changes, it is extraordinarily difficult, if not impossible, to control the process of change in a revolution, and it is certainly impossible to predict the social and technological outcome of that process.

So what should we do? Sitting tight and waiting for the revolution to end would *not* be a sensible strategy for dealing with these circumstances. It is much better, indeed it is essential, to participate in that revolution so that we can help shape it and be shaped by it as it proceeds. To do otherwise would be a great folly for, as Winston Churchill sagely remarked, `First we shape our structures, and afterward they shape us.' Quite clearly, there are many arenas in which we need to be active in our shaping: in business, in industry, in government, in international affairs, in environmental protection. The arena I want to concentrate on in this paper is, however, the individual and his or her personal behaviour and the values which guide that behaviour. If we fail to do this, then the great positive potential of emancipation can very quickly become a creeping erosion of what makes society meaningful: its humanity.

Some Consequences of The Information Society

The hallmark of the advent of the information age is, as we noted above, the proliferation of communications. The Internet and the WWW are not so extraordinary for their information content but for the fact that all of the information which they embrace is transparently available to anyone who cares to look at it anywhere in the world. Thus, the advent of the information age and the information society is helping to accelerate the transformation of the world's individual societies into a global village. This is a transformation which is being echoed in several other domains. The growing awareness of the ecological sensitivity of the earth is making us conscious that any action we take in one part of the globe has an effect on all other parts of the globe. So too in industry and commerce, where multi-national corporations and small businesses alike are being forced into forging strategic alliances with other companies elsewhere in

the world in order to compete in an every more `globalized' market. Nowadays, it is common for a company to manufacture parts on one continent, assemble the product on another, and sell it on yet another.

And yet, the free global access to information may have the most profound effect of all, not on the ecology or the economy, but on human society. Why? If every person is able to read and to view and to hear all of the information on the increasingly domesticated WWW, so too are they able to express their own views and to make available to everyone else their own brand of written, visual, or aural information. The WWW and the Internet enable not just complete freedom of speech but they provide a global platform or soapbox. There is no censorship on the 'net' and, despite emerging attempts to enforce some form of regulation, given the complex interconnectivity of the 'net', it is highly unlikely that there will ever be any effective censorship. Significantly, with the increasing pervasiveness of satellite transmissions, this trend is being mirrored in other global communication media.

All of this is very positive, of course, especially in an ideal and altruistic world. But we don't live in an ideal and altruistic world and, with all of the interesting and educational information on the 'net', there comes as well huge amounts of material which some might consider seditious, or pornographic, or racial. Just about every topic conceivable is catered for: from sado-machochism to paedophilia to facism. It's all there sitting alongside the information which we might consider 'normal'. You can even buy a Yellow Pages to help you find it (if you were desperate enough to use conventional paper-based books rather than the more effective 'net' search engines.) The key point in this is not the availability of the information - fascist or progressive, sexually-deviant or socially-normal - but that it all resides in one global infrastructure without any differentiation whatsoever. To the browser on the WWW, to our children, *there are no absolute values anymore*: it's all just information to be looked at and assimilated and any value it has or doesn't appear to have is entirely relative to the disposition of the individual, an individual who is now more free to choose than at any previous point in the history of mankind. The freedom of thinking which is born of the information age is accompanied by a freedom to question, to challenge, to demand rational justification for all assertions and dogmatic positions.

Clearly, the information society affords very significant intellectual freedom - emancipation of thinking - but along with that freedom comes the hazard that this freedom will not be used in a manner which contributes to the greater benefit of *human society*, as opposed to the *information society*. Or, if one wishes to cast this in less idealistic language, there is a significant hazard that the humanity in society may regress rather than progress. This is the dilemma of emancipation in the information society. With freedom comes responsibility: the responsibility to choose well rather than poorly, to opt for `good' rather than `bad'. The questions then which necessarily arise are: what is `good' and what is `bad' and, perhaps more importantly, what guides our development of an understanding of good and bad and right and wrong. These are old questions which are ultimately concerned with the development of a value system - a system of ethics - in a society. Paradoxically, the emergence of the fact-based value-neutral information society makes them more pertinent questions than ever before. I would like to suggest that now more than ever our

young people and our children, who are the ultimate owners of the information society, need a framework for the development and adoption of these values. I place heavy emphasis on the word *development* in the previous sentence for I suspect that any attempt to foist values or ethics on young people in any dogmatic manner in the information age is doomed to failure. These are people who are intellectually liberated - who see the process of questioning and challenging received wisdom are an inalienable right - and they will not accept values unless they themselves perceive them to be meaningful for their lives. The only way that this can come about is for them to be empowered to develop these ethical values for themselves, by providing them with choices and providing them with a framework in which they can understand the implications of these choices.

I believe that all groups in society who are concerned with education - schools, universities, and, indeed, religious organizations of all denominations - must play their part in this process. Traditionally, these agencies, together with the conventional family and peer groupings, have been the primary mechanisms by which the values of a society have been passed on from generation to generation. However, if this educational forum is to be in any way successful in rising to the current challenges, I believe it must adopt a more dialectic stance, with less emphasis on dogma, and more emphasis on the development of understanding through the exploration of the experience of the individual, for this is the way in which values are developed and, especially, adopted.

Children openly question the morals of their parents, their behaviour, and their acceptance of a particular world view. In doing so, they are doing no more than participating in an accelerating trend in the evolution of society which began more than four centuries ago, albeit on a scale unimaginable a hundred years ago. With the opening blow to the grand ego of man dealt by Copernicus, displacing us from the centre of the universe, to mortal wounds inflicted by Einstein's relativity and Schroedinger's quantum mechanics in placing absolutes forever beyond our grasp, surely the *coup de grace* to our collective egos is now being delivered by the apparent reduction of life to the information content of DNA and the purported mechanization of mind by modern computer science? Perhaps. But is this supposed inexhorable demise in the importance of the individual as frightening as it seems? Young people appear less concerned about the need for certainty than were their forebearers and they seem to attach less importance to their own individual fears and more importance to the global ecology. From the apparently despondent chasm of modern materialism is springing an understanding of the limitations of our own knowledge and, indeed, the limitiations of knowledge itself. At the end of the second millenium, when children openly question the story of creation and challenge the church to reconcile its position with the accepted scientific theory of evolution, when they doubt the truth or validity of religious faith and ethical pronouncements, they are at the same time deeply concerned with life and its meaning.

When a ten-year old asks questions such as, *Why are we here on earth and what is the point in life? Why are there different religions? What would happen if the earth ended?* , they demand and deserve substantive answers. Any attempt to circumvent the questions with obtuse answers would be instantly transparent and would serve only to engender a very damaging cynicism. Of

course, anyone who is honest wouldn't even try to provide absolute answers to these questions. The answers to such questions don't lie in the domain of fact or knowledge: humans are sentient autonomous beings and consequently such knowledge is precluded simply on epistemological grounds. Ultimately, we can only know what is true for us as individuals and the absolute appearance of so-called objective knowledge is no more than an epistemological agreement between individuals (albeit an agreement that works extra-ordinarily well in the restricted domain of modern science.) If we want answers at all, we must extend our frame of reference to the domain of value, to address the meaning underlying these questions in strong reference to personal experience. Educationalists, philosophers, and theologians for centuries have recognized the importance of this approach but they have often not risen to the challenge of letting ordinary people know that this is the situation and they have hidden instead behind the easy rhetoric of absolute dogma. That may have been adequate, or even necessary, during some periods of social development in the past but in the emerging information society, where people have very considerable intellectual talents and complete intellectual freedom, it is simply a recipe for disaster, both, I believe, for humanity and for education worldwide.

Young people - and old people - demand more and humanity is in increasing need of a better approach. The information age is helping man to evolve faster, just as the availability of the book did five hundred years ago. The question remains as to whether the evolution is also a maturation.

Some Conclusions

The information age represents a great opportunity for the development of society. The potential for significant development will only be realized if there is an underlying set of values guiding and influencing the organic growth of the individual and his or her global community. This cannot be achieved by dogma but it can be achieved by adopting the information society's own paradigm of intellectual and informational emancipation, enabling people - children, adolescents, and adults - to formulate the questions, to seek and to find *their* answers, and to make *their* choices.

In the information age, we have unprecedented intellectual freedom - we are emancipated - but, in this new-found sea of fact, we have lost our anchor and there exist no absolutes any more. If we are not to drift, we must have a compass: a value system, a system of ethics, a set of beliefs. All of which are meaningless if they are not grounded upon one's own personal experience. The answer, I believe, lies in the creation of a deep ethical developmental framework which itself embraces the information society's paradigm of personal emancipation. The challenge in education today is not to train the young for the technological opportunities presented by the information age but to equip them with the ability to make sense of this `brave new world' and, in the process, to enhance the humanity of society. The challenge is there; will we rise to it?

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