

Ecological Humanism and Technology as an Enabler for a Better World

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Introduction

Technological visions are usually imaginative and exciting and open up realms of unheard of possibilities and frontiers where reality and fiction tend to blur and merge. Technological visions however are often devoid of soul and cast humans as secondary players in a historical plot inexorably unfolding towards the envisioned technological future. This chapter portrays a different vision, one that highlights the potential for a much better world. The vision gives humanity the lead role in shaping an information and communication technology based knowledge society.

The Starting Point – Globalisation

Globalisation is the result of the content, directions and dynamics of many circumstances and processes that have shaped the development of society. These include the attitudes and preferences of individuals. At a higher level, they include elements such as the computerised working of the international financial system, and the increasing importance of knowledge, technology and networks in all spheres of life. Together they form a powerful force of societal development that makes globalisation the future, one that belongs to a historical continuum that has seen humanity drawing closer together, particularly over the past 300 years.

The knowledge society is stimulating the networking of people. It involves tangible and intangible elements and aspects, impacts, relationships and interactions on a global scale. This process of globalisation however, is not fulfilling its potential to generate a quantum leap forwards towards the development of a civilisation capable of growing and living in harmony with itself and with the planet. And the reason lies in the governance of globalisation, which is based on maximising power. This gives preference to certain global activities and developments over others. The result is that the potential of a *global village*, in which freedom, democracy, justice and peace reach global plenitude in harmony with the planet, is not fulfilled.

Globalisation is not a negative thing in itself. Rather it is the tribal aspects of globalisation that favour the powerful regions, nations, organisations and communities that is problematic. For many developing countries this has meant crises, unfair subsidies and protectionism against their main, largely agricultural, products.

Ecological and Humanistic Globalisation

The vision is of a better world in which social and planetary responsibility plays a significant role along with the globalisation of solidarity. In this vision, the 21st century will be a crossroad century. It will be a century in which humanity will have to change and pursue an effective and balanced globalisation. Multiple issues, often interacting, will have to be addressed. These include finance, production, trade, profits, power, responsibility, solidarity, goodwill, health, education, jobs, knowledge, culture, experience, etc.

Harmonious globalisation will help shift the evolution of societies towards sustainable development and the knowledge society for all. It entails the globalisation of the best of humanity for all people and the planet. It involves the globalisation of efforts to combat all evils. For this reason, it is preferable to call it ecological and humanistic globalisation. This provides the holistic perspective required for an effective move to sustainable development.

Ecological and humanistic globalisation is a shift in world-view and implies evolving towards governance and institutions that favour human and ecologically centred processes of development. In practice, it means less emphasis on maximising power, and more emphasis on social and planetary responsibility in the governance of individual and social behaviour.

The Challenges of Achieving Ecological and Humanistic Governance

The implementation of ecological and humanistic governance is a complex and difficult process and requires a holistic approach.

Holistic governance is more than just legislative rules. It is the whole collection of rules that condition and influences the behaviour of individuals, communities, organisations and societies. So governance is much closer to culture. It is something deeply ingrained and resilient to change without a strong and compelling reason, negative or positive.

Here lies the depth and extent of the difficulty for humanity to change. Ultimately, it is people that must change. Just like the transformation of a caterpillar into a butterfly brings about a new and more beautiful expression of the same creature, humans need to become different. And this difference is a focus on ecology and humanity.

Everyone who embraces the dream of a better society for all, has a pivotal role to play because, in the words of Gandhi, "we must become the change we want to see."

Making Dreams a Reality

The development of information and communication technologies and the knowledge society in the 21st century is giving rise to new concepts based on the use of the internet, such as electronic government, electronic democracy, and electronic citizenship. New forms of information and communication technology based organisations, decision-making, campaigning, communicating, interacting, etc. are also emerging. This is a great opportunity to advance towards ecological humanism and, particularly, towards a knowledge society for all. It is in times of challenges, opportunities, threats and changes, that humanity is often best positioned to undertake the deep soul-searching needed to find ways to work and progress towards a better world.

The key is to *place people and the planet at the centre of reflection and action*. There needs to be a sharing and joining of forces to build, in an innovative way, on the opportunities opened by the new technology and the many initiatives aimed at including people in internet based activities (such as electronic government, etc.).

The path forward may consist of people doing two contradictory actions, simultaneously!

One of these is to dream and aspire for a better world, for instance, in the form of a knowledge society for all. A world without poverty, that is free, just, democratic, transparent and peaceful and a society in which environment and people are at the centre of developments. The other thing

that people need to do is to seek to advance the realisation of the dream in a practicable way, but in accordance with the magnitude of the challenges, difficulties and opportunities.

Many people across the world are implicitly pursuing dreams and practicable steps in their thought and actions. This force must be multiplied a thousand fold through many movements working for a better world. And in this vision, technology has a fundamental part to play.

The Fundamental Role of Technology

Often, technological visions are devoid of soul. In contrast, the vision described in this chapter gives humanity and the environment a central role and technology is placed at the service of people and the planet. Since this future is not guaranteed, the vision is simultaneously a goal and a challenge, which can be stated as:

To bring about a knowledge society for all, in which democracy, social and environmental responsibility, cultural diversity and achievement, transparency, justice and peace constitute the dominant governance of sustainable human and planetary development.

No Escape from Making Hard Choices

The future of society and the world is not pre-determined. People can shape it, taking advantage of the opportunities and benefits brought about by new technologies. For this to happen, however, technological visions and developments must be infused with a soul. Ecology and humanism must be the *reason for existence*.

This means everyone has to make choices and journey towards ecological humanism governance and practice. It means embracing new values. Reductionism needs to be rejected, and the borders that separate people from one another and from the environment need to be removed. Life with all its contradictions has to be embraced, and enjoyment and enrichment achieved through cultural diversity and the simple fact of living together.

Scientists, technologists, researchers, and others engaged in envisioning and building technical infrastructures, processes, products, knowledge and environments, need to reflect on what they are doing. They should consider their constructions, and the social drives that are shaping them, and the legacy they are creating for future generations and the environment.

Difficult as this is within the established order, scientists, technologist, senior managers, leaders, and others have a degree of power and choice by virtue of their expertise and positions. This can be used to direct talents and efforts to generate knowledge, products, and processes that improve the lot of people and the environment and, ultimately, foster a society where intellect, actions and spirit are integrated in harmony.

Among the many processes already pointing in the direction of ecology and humanism are the United Nations Millennium Goals, Agenda 21, and the Universal Declaration of Human Rights. In technology development, there are already examples to draw on for inspiration. For instance, the environmental movement and the *appropriate technology* movement are very much epitomised in Schumacher's book *Small is Beautiful*. These movements have represented humanity's efforts to put people and the planet at the centre of technological development. Their impact has been significant, yet not enough to alter substantially the negative consequences of the established order. Technological advances offer new possibilities and opportunities to move forward to establish a new order in the 21st century.

Technology – Enabler of a Better World

Technology is creating completely new and intelligent utilities, media, communication, instruments and networking. As a result, new dimensions of activities, learning, working, transacting, innovating, designing, inventing, imagining, feeling, and so forth, are emerging on a global scale. This new environment based on a mixture of the computerised and the physical offers completely new places to undertake human and planetary activities and interactions.

This new environment will embrace everything, and everything will be its content: life and death, memories and dreams, space and time. This environment will encompass messages of the planet and space in a universe of new awareness, knowledge and, above all, new relationships, governance, behaviours and actions. The beginnings of this new universe are emerging and the 21st century is likely to witness its growth and global expansion. The seeds are in the rudiments of imaginative concepts, inventions and trials, as well as in that which people can be, but cannot yet become.

To place in perspective the socio-technical environments of the 21st century, three historical developments can be distinguished. These are deeply interrelated in their potential to enable increasingly significant societal transformations.

The first is the emergence and continued development of digital components, subsystems and systems. This started in earnest in the 20th century and will continue for a long time, feeding into the future.

The second is rise to predominance of networking of these components, subsystems and systems, primarily through the internet, leading to the emergence of new forms of economic, social, political, cultural expressions. This development is characterised by the migration of activities into a world of computerised data, referred to as cyberspace, and the discovery and learning of the most effective ways to exploit the new environments for a great variety of purposes. It is the beginning of a network environment, based on the internet, for such things as electronic commerce, electronic business, collaborative networking environments, electronic learning, etc. This is accompanied by new forms and expressions of community interactions, polling, advocacy and protest, and to a lesser extent, participatory politics. People can use the internet for communicating, discussing, debating, mobilising across the globe, and rapidly joining forces around crucial issues. People can participate in areas from which they have previously been excluded.

The experiences of protest and direct action web sites demonstrate the potential of networking and relationship environments in the world of computerised data. These not only bring people together with common interests, but beyond this, they provide a basis for monitoring, communicating, protesting, and stimulating actions that may stop or make it difficult for the established world order to continue unchallenged with its developments.

Most importantly, this networking has witnessed towards the end of the 1990s the birth of new forms of technological developments fundamentally based in changes of governance. These changes affect the ownership of intellectual property and, consequently, the established way in which business and profit are pursued.

This innovative and radical development is the *free and open-source software movement*, abbreviated to the term *open-source software movement* for ease of further reference. This has given rise to new electronic governance of creation, development, distribution, and diffusion of software. These developments point firmly towards ecological humanism.

The radical idea of the *open-source software movement* originated in the 1980s, and started with the development of computer operating system software. This type of computer program is what operates a computer, and enables other software such as word-processing to function. The most well known computer operating system is Microsoft Windows, but there are others.

The word *free* does not mean that the software is free in the sense that no fee is payable. *Free* means that there is freedom to do whatever people want to do with the software. This is not normally feasible. When people buy something like Microsoft Word, they do not buy the computer programming code on which it is based, nor are they allowed access to this

code. They just acquire a license to use the programme. In contrast, the *open-source software movement* provides access to the original computer program code, and making modifications becomes possible.

This approach fundamentally challenges the *proprietary* way of doing business. The 1990s saw the full blossoming of the *open-source software movement*, particularly with the development of a new open-source computer operating system called Linux. This technical development enabled a great pulling together of many ingredients already available and truly released the energies of the *open-source software movement* to the point of threatening to alter profoundly the socio-economics of the software industry and with it all dimensions of the knowledge society.

The *open-source software movement* opens the possibility for the development of software capacities by many more individuals, organisations and regions, and consequently promises a much more widespread reach of benefits of the knowledge society than will ever be possible based on the predominant power-maximising governance. Most importantly, the *open-source software movement* has opened an avenue for a huge number of technologists, developers, and others to come together to release their creative social energies. These people are not driven by unbridled profit-maximisation, but by a much fuller set of human motives much more akin to the spirit of ecological humanism. These developments will be multiplied by many millions of people, as the third wave of technology-enabled purposive action-oriented environments begins to spread to all of society creating the tangible and intangible conditions for people to increasingly shape the 21st century.

Finally, the third historical development will take everything the component and networking developments have achieved and will shift this into an unprecedented scale of societal creation and trials, spreading the structured action-oriented environments and mixing computerised and physical ingredients and processes. This experimentation and societal learning will go well beyond the confines of business and other purposive organisations, for example, educational institutions. It will embrace the thus-far largely fragmented domains of the public and customers, creating, as never before, structured places for learning, innovating and changing the world with mixes of positive programmes of action, protest, cultural manifestations, etc. In these places people will create and find the instruments, processes, action and aggregate force to influence and change behaviour away from the established order towards ecological humanism.

This will be the essence of many *global movements* conceived as loosely co-ordinated social forces helping with innovations and transformations in targeted areas directly fostering the realisation of a knowledge society for all. There can be many such global movements and they can interact to form larger forces for innovation and change for a better

world. These targeted movements can all be seen as expressions of a general ecological humanism movement focused on people and the planet. They all work towards the eradication of poverty and associated evils, the flourishing of justice and peace, and the sustainable development of human capacities for the benefit of all people and the environment.

One such movement can be focused on the human and ecologically centred development and implementation of information and communication technologies for all. It would make an important contribution to halving poverty by year 2015, and to eradicating it by year 2030. Ultimately it would advance the *knowledge society for all*, a society in which democracy, cultural diversity and achievement, transparency, inclusiveness, and justice and peace constitute the driving force of sustainable development.

Many new elements, concepts, tools, products and systems are emerging that will facilitate the rise, spread and synergies of different movements' action-oriented environments, particularly in the form of writing, publishing and communication tools, which are available to all through the *open-source software movement*. Witness for instance the rise of web logs, wireless internet access locations, community media, electronic advocacy web sites, and public community information and discussion web sites offering facilities for personal and community interaction with public authorities. These are all part of new technology-enabled processes and tendencies. They point towards the spread the accountability and transparency of decision-making and hence into new forms of democracy, even within environments dominated by the maximisation of power.

The 21st century will see the flourishing of these tendencies and developments, along with and enabled by, constantly increasing *intelligent interactivity* within and among the realms of devices, systems, people, life, the planet and space. It will see intelligent interactivity evolve to become increasingly powerful, with greater integration. This will happen as a direct result of the interaction among imaginative concepts, inventions and trials and the agonies of the crippled opportunities and developments of what people could be but are yet not able to be. And the worse circumstances become, as a result of the pursuit of maximising power, the stronger and more extensive will be the transforming force of the qualitative leap.

Clearly the direction and content of technological development will not remain untouched by this process. Just as governance that seeks the maximisation of power drives technological development in directions that support this goal, so it will be with new governance for purposive action-oriented physical and computerised environments for human and planetary development.

The new electronic governance of the *open-source software movement* provides a clear indication of this. The same dynamics will apply to technology, or technologists, developers, scientists, and others, driven by

the need to generate solutions consistent with human and planetary development. These may include, new mass-customisable components such as highly accessible and affordable multilingual, terminals and screens that understand meaning; new ultra-low energy consumption devices accompanied by ultra-long-term energy batteries and systems; combined digital and genetic (*diginetics*) products for preventive vaccination or elimination of diseases; nanotechnology, involving the manipulation of individual atoms and molecules, for eliminating or reducing disability-based exclusion; new technologies for enhanced understanding of animal language and *knowledge* with a view to respecting their rights to the planet; new preventive *diginetic* anti-disaster packages to anticipate and deal with natural and human-made disasters such as droughts, earthquakes, pollution, etc.; new learning technologies and contents for multicultural communication, understanding and ultimately peace; new technologies and structured environments to facilitate enhanced democratic knowledge and opinion formation and participation in decision-making at all levels of the global society.

These types of technologies are all consistent with the drive by ecological and humanist governance. This governance itself however is likely to be both cause and effect of the structured action-oriented purposive physical and computerised environments with their enabling flows of activities, learning, working, transacting, innovating, designing, inventing, imagining, feeling, and so forth, on a global scale. For this reason, technologically enabled action-oriented environments will have a role as fundamental to the rise of ecological humanism as they do for the evils of maximisation of power.

Conclusions

The changes from seeking dominion over the earth and its inhabitants to ecology and humanism, supported by technology, may be the most dramatic socio-technical innovation of the 21st century. Everything else can be easily seen as part of this great play unfolding in the theatre of history. Thus far the music of this play, the leading lyrics of its singing, has been maximisation of power. The foundations of this world are changing, and it is largely in the hands of people to compose the new music and lyrics of a better world: the music and singing of ecological humanism in the 21st century!