

Education For Transformation: Integrated Intelligence in the Knowledge Society and Beyond

Marcus Anthony
University of the Sunshine Coast
Australia

Abstract

The purpose of this paper is to introduce several possibilities and potentials regarding the implementation of integrated intelligence into the modern public education system and the knowledge economy which it serves. There are thus two seminal questions. Firstly, what general uses might integrated intelligence have in the modern secular public education system? Secondly, what place might integrated intelligence have in the long-term development of education and society?

Introduction

Integrated intelligence is the state of awareness which infuses individualised and localised intelligence with an intelligence that comprises transpersonal and nonlocalised potentials. The purpose of this paper is to examine some potential roles of integrated intelligence in the short and long-term future of education and society. Given the relative newness of the discourse, the discussion that follows will at times be generalised, speculative and imaginative. More specific tools and applications of integrated intelligence will not be examined here.

In the first part of this paper, integrated intelligence is explicated in more detail, and this is followed by an outline of the method used in this paper – Inayatullah's Causal Layered Analysis, situating the

debate within poststructuralist discourse. Thereafter, two definitive problematics of education in the knowledge society are identified. Several possible benefits and implications of the introduction of integrated intelligence within these problematics are explored, looking at the short to medium-term. Finally, the focus moves beyond the knowledge economy to the potential use of integrated intelligence in the long term, to help induce personal and social transformation.

What Is Integrated Intelligence and Where is It Found?

Although integrated intelligence is virtually absent from contemporary secular education and mainstream intelligence and consciousness discourse within the

dominant mechanistic paradigm, it is nonetheless a widely posited conception and experience across a plethora of disciplines, discourses, civilisations and worldviews. Some of the most notable include spiritual healing and new age texts (Dobie 2002; Myss 2001; Newton 2000; Woolger 1994; Weiss 1985); UFO phenomena (Mack 1999); Taoism (Jiyu 1998); tales of the supernatural (Ritchie 1992); neo-humanism (Bussey 2000; Inayatullah 2002a); Jungian and transpersonal psychology (Groff 1985, 1995; Jung 1973, 1989; Ross 1993; Wilber 2000a, 2000b, 2000c, 2001); parapsychology (Schlitz 2001; Sheldrake & Smart 2003; Targ & Katra 1999, 2001; Tart 1993, 2001, 2002); deep ecology (Eisler 2004; Sahtouris 1999); quantum physics and systems theory (Capra 2000; Fox & Sheldrake 1996; Peat 1988; Sheldrake et al. 2001; Folger 2002); consciousness theory (Penrose 1990); cardio-psychology (Walker 1988; Pearsall 1998); the worldview of various ancient cultures such as the Greeks, Romans and Egyptians (Dossey 2002; Groff 1985); shamanism, animism and indigenous culture (Clarke 1989; Murinbata & Whitehead 2002; Wildman 1997); and in popular songs, science fiction, general literature, movies and fairy tales and fantasy of numerous kinds, and in general literature.

Depictions of integrated intelligence vary somewhat within these texts, and nowhere is it explicitly referred to by the term "integrated intelligence". Indeed innumerable terms are employed. For example, Lao Tzu's "Tao" grants one a kind of transcendent perception where: "Without stirring out of the house, one can know everything in the world". (Zhengkun 1995: 201) Sheldrake and Smart (2003) refer to "telepathy" within a more rigorous parapsychological methodology, manifesting as the ability to know who is calling before one picks up the phone. (Sheldrake and Smart 2003) Wildman (1997) refers to "The Dreaming" of the Australian Aborigines, which includes assumed telepathic potentials between individuals and perception of the spirit of places. (Wildman 1997) Futurist Slaughter (1999) touches upon concepts such as "subtle awareness", "causal insight", "ultimate identity with the source",

"psychic intuition", "superconsciousness" and "transcendent knowledge". (Slaughter 1999: 332-33) Meanwhile, physicist Peat (1988) refers to synchronicity as "the bridge between mind and matter".

Dossey (Dossey 2000A), whilst himself preferring the term "distant non-local awareness" points out that the lack of an agreed upon terminology represents a tremendous obstacle in the field of alternative healing methods. (Dossey 2000a) This is a field heavily imbued with references to integrated intelligence. His point is also relevant to research and writing which deals with notions of an integrated intelligence. Thus the discourse on integrated intelligence is by no means a clearly-defined one, scattered across history, continents, intellectual discourses, and worldviews. There are numerous discrepancies regarding method, language and religious/spiritual interpretations. Yet this disparate discourse points to an intelligence that is consistent with the original definition given above. It is an area that deserves close scrutiny, as evidenced by its increased presence in contemporary discourses.

Integrated intelligence differs from most contemporary mechanistic depictions of intelligence and consciousness in that it is non-localised (moving beyond purely brain-based models of consciousness), transcends linear conceptions of time (Dossey 2001; Targ & Katra 2001;), and acknowledges sources of inspiration and knowledge that are transpersonal. It implies that the brain is a permeable organ imbedded within a sea of consciousness. As transpersonal researcher Stan Grof (1995) states:

It has become increasingly clear that consciousness is not a product of the physiological processes in the brain, but a primary attribute of existence. The universe is imbued with creative intelligence and consciousness is inextricably woven into its fabric. (Grof 1995)

Integrated intelligence, as defined here, is comprised of two distinct domains. The first is higher order perceptions of the wholeness and integrated nature of the cosmos. This is the direct perception of the interface of cosmos and consciousness. The second is "paranormal" per-

ceptual phenomena such as ESP, clairvoyance, and transcendent visionary experience. Both these domains suggest an intelligence that transcends the individual and is integrated with the cosmos or greater environment.

Poststructuralism, Intelligence and the Knowledge Economy

If integrated intelligence is to be more formally reinstated into our discourse on the nature of intelligence, and indeed our futures, our methodology requires a corresponding shift. As we will see below, integrated intelligence is largely neglected within the western scientific paradigm, as its elusive and "paranormal" nature renders its scope outside the bounds of the measurement fixation of that worldview. It also does not gel with the overriding assumption of a mechanistic universe where human consciousness is assumed to be epiphenomena - an accidental bi-product of the material universe. (Grof 1985)

One Step back: Western Education and the Mechanistic Paradigm

Modern western education and its "mind of the ratio" (Wildman and Inayatullah 1996: 729) is a continuation of a broader civilisational paradigm - the materialistic and mechanistic worldview.

In the mechanistic/rationalist paradigm, "knowledge" is restricted to the empirical and the sensory; the masculine, the "hard" and the measurable. (Grof 1985; Hawkins 1995; Ross 1993; Sheldrake et. al 2001; Wilber 2000a) It perpetuates "the matter myth" (Davies & Gribbin 1992), that "the universe is nothing but a collection of material particles in interaction, a giant purposeless machine, of which the human body and brain are unimportant and insignificant parts." (Davies and Gribbin 1992: 2) This paradigmatic assumption can be traced back to the ancient Greeks and the influence of Newton's law of mechanics on western thinking. (ibid.) Yet such an assumption has been demolished by modern quantum and particle physics, and systems and chaos theory, includ-

ing the chemistry of self-organising systems and the interface of biology and physics. (ibid.) This represents an important challenge to essentially mechanistic and brain-based/reductionist interpretations of mind and consciousness. The recent proliferation of references to an integrated intelligence are, in part, emerging from this evolving scientific discourse, and the emergence of a post-mechanistic paradigm.

Paradigms set limits not only upon concepts, but also on methods and tools. (Grof 1985) Thus Grof, deconstructing the tenants of contemporary science, argues that research is cumulative, with scientists only selecting those problems that can be readily examined with the prevailing acceptable tools, both conceptual and instrumental. (Grof 1985: 6) The west predicates its understandings on analysis and reductionist methods in general, where "facts and figures predominate". (Wildman & Inayatullah 1996: 729)

Parapsychology and the Western Episteme

Western science's attempts to deal with subtle and "paranormal" phenomena contrasts greatly with those worldviews that acknowledge integrated intelligence, and this throws light upon our civilisational ways of knowing and their limits.

Parapsychology, which predicates its understandings on an attempt at empirical validation of many of the abilities we are referring to here - such as clairvoyance, telepathy, precognition and others - demonstrates how controversial and difficult these domains of awareness are to conclusively "prove". Despite a history dating back to the 1920's, researchers in modern scientific parapsychology have failed to conclusively demonstrate the existence of psi. Skeptics are numerous, and regularly pour scorn upon any claims for the existence of the "paranormal". (Efremov 2002; de Grasse Tyson 2001; Park 2000) These skeptics predicate their dismissal upon the evidence (or lack thereof) gleaned from parapsychology.

Many proponents of psi concede that the scientific evidence is weak and/or highly problematical, and point to the elusiveness of psi phenomena. Kennedy (2003) follows a long line

of psychic researchers who decry the "capricious, actively evasive and unsustainable" nature of psi. (Kennedy 2003) Others include James (1960), Braud (1985), Eisenbud (1992); Batchelor (1994); Beloff (1994), and Hansen. (2001)

Yet the term "paranormal" (beyond normal) is itself reflective of the western mechanistic paradigm, effectively relegating all psi-related phenomena (including integrated intelligence) to the status of an insignificant "other" within any given discourses, including those on intelligence and consciousness. The implication - and the effect - is that they are not to be taken seriously.

Parapsychology is deeply imbedded within the empirical traditions of the scientific tradition and thus the mechanistic paradigm. Varvoglis (2003) points to the limitations of parapsychology as currently practiced, arguing that it focuses too much upon the detached, rationalist and empirical tools of science, thus limiting the valuable insights and knowledge that may be gleaned from other ways of knowing, including emotional, intuitive, metacognitive and creative forms of knowledge. (Varvoglis 2003) Schlitz (2001) echoes this point, urging parapsychologists to move beyond the "physicalist, materialist model" and parapsychology's "nearly exclusive focus on statistical outcomes" (Schlitz 2001: 338), and to embrace "the rich nature of qualitative experience". (ibid: 341)

In short, parapsychology attempts to gain legitimacy via the very self-limiting methods that have initially excluded it from our discourses. This may represent a self-stultifying problematic for parapsychology. Yet post-critical thought and futures move beyond this sticking point by allowing for other ways of knowing to enter the discourse. (Inayatullah 2002a)

Postcritical Thought and Causal Layered Analysis

Futures studies has taken much influence from the postmodernist tradition and postcritical theory. Futures studies is, according to Inayatullah: "Committed to multiple interpreta-

tions of reality", and this legitimates "the role of the unconscious, of mythology, of the spiritual... instead of views of reality for which only empirical data exists." (Inayatullah 2002a: 3)

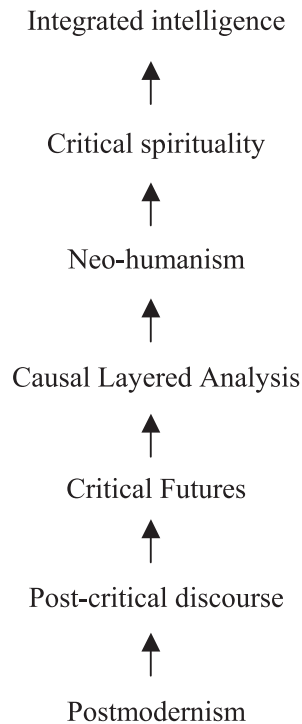
Inayatullah's Causal Layered Analysis (CLA) is the poststructuralist method that is utilised within this paper. CLA is a means to conduct inquiry into the nature of past, present and future. It problematises the present and the past, allowing the possibility of alternative futures to emerge. (Inayatullah 2002a)

The purpose of CLA is to elucidate the deeper meanings imbedded within texts via the application of four specific components, and to allow the acknowledgement of other ways of knowing. (ibid.) The first level of CLA is the "litany", which examines the rational/scientific, factual and quantitative aspects of texts. The second level - the social/systemic - deconstructs the economic, cultural, political and historical components. The third level of CLA explores the discourse/worldview of texts, identifying the deeper social, linguistic, and cultural structures. The final component of CLA is the mythical/metaphorical level. This reveals the hidden and explicit mythologies, narratives, symbols and metaphors contained in texts. This includes any emotional, unconscious and archetypal dimensions. (Inayatullah 2002a)

Once the discourse is expanded into these four levels, the way is then cleared for a movement beyond the purely critical and rational, which in turn allows for the re-introduction of the actual experience and employment of other ways of knowing, (including integrated intelligence). Integrated intelligence tools provide a means for actualizing what Slaughter (1999) calls "transformative" futures, where the transpersonal and spiritual have been re-integrated into our discourses. (Slaughter 1999: 359)

Thus if we are to diagrammatically depict the situation of integrated intelligence in contemporary discourse, the following summarises the argument posited here.

Diagram 1. Situating Integrated Intelligence within postmodern thought



If we look at this somewhat simplistically as a liner progression rather than as a dynamic system of interacting levels, we see that the insertion of spiritual and transpersonal modes of cognition occurs at the level of CLA. On all levels below this, the predominant tools are rational-empirical.

Integrated intelligence is the link that makes real Bussey's (2000) claim that neo-humanism provides the metaphysical depth to move beyond linear modes of rationality and sensory reality. While CLA and critical spirituality, by definition, predominantly employ analytical and critical cognitive modes, the employment of integrated intelligence potentially expands these discourses via a direct experiential link with a cosmic intelligence, grounding the entire framework in practical transpersonal/mystical experience. This would re-instate the missing dimension of "all the messy stuff" which has been left out of modernist science (Schlitz 2001: 341) and perpetuated by the aperspec-

tivism of postmodernism. (Bussey 2000; Wilber 2000a)

Integrated Intelligence in the Knowledge Economy

That we have now shifted from the industrial model economy to the knowledge economy is widely accepted. Peters and Humes (2003) write that in the major OECD countries more than fifty per cent of GDP is employed to produce and distribute knowledge. The catalyst for this in countries like Australia, the US, UK, Canada, Finland and Ireland has been the proliferation of the use of the internet and associated new technologies. (Peters & Humes 2003)

The purpose here is to take two salient problematics of the knowledge economy and its education system, and to identify ways in which integrated intelligence might be employed to work towards the resolution of these problematics.

a) The Rejection of Intuitive and Mystical Knowledge

Contemporary education in the knowledge economy has all but totally rejected the mystical, the intuitive and the transpersonal – the cornerstones of integrated intelligence.

Education in the Industrial and Information Ages

Beare and Slaughter (1993) suggest that modern schools are largely modeled upon the factory model that emerged from the industrialisation of society. The economic system and worldview that developed in Europe in the wake of the industrial revolution implemented a focus upon science, technology and instrumental reality. (Beare and Slaughter 1993; also in Milojevic 2003) Other ways of knowing became repressed within this industrial model of education. (Slaughter 1999)

Milojevic (2004) argues that education in the age of globalisation is a follow-on from the industrial model. Both models are part of the same positivist, instrumentalist, secular and technological worldview.(ibid.) She argues that

computer technology can be seen as a manifestation of instrumental rationality and a techno-scientific relationship with knowledge. Thus although the image – the computer – may be perceived as new world, the worldview is the same.

Moffett (1994a), a visionary educator who worked within education for approximately half a century, argues that while contemporary public education covers "the 3Rs" and vocational education adequately, it has forgotten personal and spiritual development. He states that contemporary corporate and political imperatives have sabotaged education and decimated the spiritual aspects of the system. (Moffett 1994a) Following the thinking of the mystics and transpersonalists, he argues that humanity is posited within a cosmic framework, and that it is "not politics and economics but culture and consciousness (that) should provide the dual focus for a new sort of education." (ibid: introduction, xiv) Moffett's vision is of a schooling system and society infused with transpersonal consciousness (and thus integrated intelligence).

The Valorisation of the Verbal, Linguistic and Mathematical

de Bono (1986), Beare and Slaughter (1993), Gardner (1993), Gardner et al., (1996), Moffett (1994a), and Fromberg (2001), have all pointed out that traditional schooling heavily focuses upon verbal/linguistic and mathematical/logical intelligences. The approach is linear, results are measured in linear ways, and the results are used for competitive ends. (Fromberg 2001: 110) This approach developed from the Western European tradition which emerged during the nineteenth century and is fundamentally a "maturationist, linear child development framework". (ibid.: 93) In this system teachers have lost the capacity for fluidity of teaching because they have been trained in "definitive, static models" of temporality. (Fromberg 2001: 107) The beliefs of educators reflect mechanistic conceptualisations of intelligence, with most of them believing that students learn as passive receptors of externally generated information/data, rather than seeing

learners as beings capable of actively generating their own knowledge. (Hoy & Murphy 2001: 152-153) Intuitive thinking, imagery, imagination, analogy and other such ways of knowing are thus often marginalized. (Fromberg 2001: 107)

The development of IQ tests has played a significant role here. IQ tests were originally developed to test a student's capacity to meet the demands of the industrial model of education, and particularly to control the increasingly large numbers of students who were pouring in from the countryside, by identifying at-risk students. (Gardner et al. 1996: 49-51) IQ tests predominantly measure mathematical and linguistic acuity. (Gardner et al. 1996) Thus intelligence became defined in measurable mathematical and linguistic terms. Gardner's (1993) theory of multiple intelligences heavily criticises traditional concepts of a domain general IQ for these very reasons. One of the excluded domains has been intrapersonal intelligence. Significantly this incorporates personal feelings and the intuitive domain. (Gardner 1993) Gardner's argument makes more apparent why integrated intelligence - which can be seen as a type of intrapersonal intelligence – has been largely left off the educationalists' map.

The secular state has reinforced the industrial society's reduction of the spiritual and mystical aspects of education. (Laura & Leahy 1988) Contemporary school students, though potentially highly proficient at math and highly literate (relative to children from previous eras), are able to utilise a strictly limited range of cognitive processes. (Walker 1998) The cognitive processes of language and math center upon rational/linguistic intelligence and conscious, ordinary states of awareness. Conversely, spiritual intelligence, argues Burke (2001) (following Zohar's argument), "rests in that deep part of the self that is connected to wisdom from beyond the ego, or conscious mind." (Burke 2001: 7)

Possessive Individualism and the Ego

We can further note the rampant possessive individualism of western cultures (Clark 1989), and the competitive ethos of the neo-

Darwinian mind (Loye 2004), both encouraging ego-fixated states of awareness. Nisker (1998) argues that a new degree of individuality emerged in Europe during the scientific revolution. People became more and more identified with their own minds, which was seen as the source and centre of a personal self. They became enamored with their own powers of intellect and invention, and attention moved away from spiritual concerns. A culture of narcissism was born. (Nisker 1999: 11)

Since 1784 when Kant (1784) defined enlightenment as the "inclination and vocation to think freely" and "to use one's own understanding without the guidance of another" (Kant 1784), western society has increasingly valued independent thought over spiritual and transcendent wisdom, the latter of which requires some degree of surrender to a consciousness greater than the conscious mind and ego. The ego-transcendent states of the mystics inevitably become less valued, and thus possibly less common, in such a system.

In short, both the industrial and knowledge societies' models of education perpetuate the mechanistic paradigm's analytic and reductionist mind and its rational, linear ways of knowing, and the predominance of the individual ego. In turn, the mystical and spiritual are diminished.

b) Virtual Worlds and the Stultification of the Subtle, Inner and Transcendent

A point related to the denial of the intuitive and the transcendent in the knowledge economy and modern education, is the increasing obsession with computer hardware and software, and internet technologies.

There are certainly potential benefits for spiritual education with new technologies and the internet. Markley (1981), and Elgin (1993, 2000) both see the mass media as a possibly potent force in the transformation of the species towards a more integrated and spiritual whole. Elgin (1993, 2000) sees the potential for religious and spiritual traditions to make their wisdom available to help transform the mass media "into a more enlightened, healthy expression of that collective mind". (Elgin 1993, 2000,

quoted in Phipps 2001)

Yet while the internet increases both the volume of, and access to data, in its current form it does not facilitate the non-ordinary states of consciousness that are associated with integrated intelligence in the spiritual traditions. (Grof 1985) Technological optimists also tend to fail to clearly distinguish amongst data, information, knowledge and wisdom. (Dian 2003) While access to the internet will clearly improve the volume of the former three, it is questionable whether it would do anything to improve the latter, as wisdom is usually a function of life experience. Indeed many mystical traditions clearly distinguish between intellectual knowing and deep understanding. Silent, reflective modes of consciousness tend to be preferred (especially meditation), or tools which disrupt the conscious and learned mind's rational understanding – such as with the use of Zen koans. (Jacobson 1997; Watts 1989)

Use of computerised technology and the internet require an externalised focus of attention, thus potentially stultifying the development of inner worlds for learners. It may be assumed that an estrangement from the psyche and inner life may be exacerbated by the continuing dissociation process that is inherent in focusing attention upon computer screens all day. Wilber, (2000a) has made a related point, suggesting that the proliferation of internet use has done little to foster connectedness and relationship because it lacks an inner dimension. The latter is the doorway to the transcendent in mystical tradition. (Kafatos & Kafatou 1991)

Elgin (1993, 2000), identifying a related problematic, points to the damaging effect that the misuse of television is having on society, contracting society into a narrow consumerist worldview. Television has not been used to cultivate the capacity to make critical choices or enhance equanimity, but instead fosters : "distraction and agitation". (Elgin 1993, 2000, quoted in Phipps 2001) Thus technology, including the internet and computers, can potentially be used to foster self and spiritual awareness, or to degrade it.

Pearce (quoted in Walker 1998) states that the children of today are already becoming

impaired in their ability to distinguish "subtleties," which is a result of "the failure of appropriate (emotional, nurturing) stimuli and the massive over-application of inappropriate or high level, artificial stimuli." (Walker 1998) He states that the children of the present age are "damaged past the point of educability in any real sense". (ibid.) He refers to the research done at Tunbingen University in Germany where a study carried out over twenty years, and with some four thousand people, found three significant outcomes.

Firstly the subjects of the study displayed an average of one percent per year reduction in the capacity for sensory sensitivity and the ability to acquire information from the immediate environment. Secondly, only "highly concentrated bursts of over-stimulation", such as loud sounds or intense visuals were being registered by the most recent subjects of the study. This rendered the children insensitive to subtleties. For example children at the beginning of the study were able to distinguish amongst 360 shades of red, compared with just 130 in the latter group. Thirdly, the study noted the lack of adaptation of the brains of contemporary children in being unable to cross-index the sensory systems, such that there was no synthesis occurring in the brain. For example seeing was reduced to "a radical series of brilliant impressions which do not cross index with touch, sound, smell and so forth." Thus there is an impaired capacity to contextualise sensory stimuli. Pearce (quoted in Walker 1998) states that this accounts for why modern children are so easily bored and distracted unless provided with intense stimuli.

Pearce's argument indicates that the prolonged use of computers, television and music, combined with an absence of proper nurturing, retards sensory acuity. It is reasonable to extrapolate that it may also retard intuitive capacities. The facilitation of integrated intelligence and the recognition of subtle intuitive feelings, according to the mystical traditions, requires a quiet and receptive state of mind. The study above suggests that such states are becoming increasingly rare in the computer and entertainment age.

Potential Uses of Integrated Intelligence within these Problematics

How might both the introduction of a discourse, and the practical employment and experience of integrated intelligence influence these two interrelated problematics? Here several possibilities are considered.

Renewed Meaning, Renewed Hope

The connectivity of integrated intelligence may provide hope and renewed meaning, even as it effectively re-maps our universe and world-views.

Slaughter (1989) states that we need to identify sources of inspiration and hope in the contemporary world. (Slaughter 1989: 242) The need for meaning through knowing where we stand in relation to the cosmos cannot be easily done away with, and this meaning has traditionally been provided by religion. (Clark 1989: 211) Within spiritual discourses that incorporate integrated intelligence we see repeatedly the idea of a universal guiding consciousness, albeit taking somewhat different expressions: such as Sarkar's Supreme Consciousness (Inayatullah 2002b); the Buddhist's concept of the "universal mind" (Nisker 1998: 198); and spiritual educator Moffett's "cosmic consciousness". (Moffett 1994a: 11)

A universe imbued with integrated intelligence is a deeply meaningful one, with a definite purpose. Employing the metaphors of quantum physics to back up her argument, Zohar (2000) suggests that there is an implicit covenant between the quantum vacuum (the ground state of being) and all people. This grounds all our meanings in a greater context. This is a sacred covenant because it is about the ultimate meaning of our existence. (Zohar 2000)

Bussey (2000) points out that meaning and hope go hand in hand. Futures without meaning are futures without hope. Bussey argues that Inayatullah's CLA expands the legitimacy of our academic boundaries. (Bussey 2000) It is at this juncture that integrated intelligence enters the discourse, and hope and meaning are re-

kindled. For an integrated cosmos is one where "the whole sends messages to the parts". (Broomfield 1997: 215) This situates the evolution of self within a cosmic context, an inherently meaningful scenario.

Senge (1994) sees personal mastery and the integration of the intuitive, transcendent and rational faculties as being intricately interrelated. The latter leads to the enhancement of the perception of the connectedness of the world, compassion, and commitment to the whole. (Senge 1994: 167) He sees a movement away from selfishness and towards a commitment to something greater than ourselves, including a great desire to be of service to the world. This includes the experience of the awakening of "a spiritual power". (ibid.: 167-172) Senge also sees this shift as a seminal part of the learning organisation. The encouragement of personal mastery in the terms mentioned here, will "continually reinforce the idea that personal growth is truly valued in the organisation." (ibid.: 172) This principle could apply equally to the knowledge economy in general.

Thus it is that the introduction of tools and methods that might help to facilitate integrated intelligence (and its implicit connectedness with the intelligence of the cosmos) would be a step towards transcending the isolation of "possessive individualism". (Clark 1989) The methods of insight meditation, such as that employed by the Buddhists, were specifically designed as ways to explore and experience the connection of self and the world around us. (Nisker 1998: 13) Critical futures, neo-humanism and integrated intelligence allow for the legitimating of this process. As Bussey (2000) states, critical futures is "banging on the door" of meaning via an impact on the heart and soul, not just the mind. The knowledge economy posits humans as cogs in the machine, as individuals striving to fulfill themselves through consuming material goods, and achieving personal goals. Integrated intelligence, like neo-humanism in general (Bussey 2000), inverts this metaphysic, positing the individual as deeply connected with the whole. It moves one from potential selfishness and greed, and re-instates eros and agape, both of which were largely evicted from the cosmos

after the scientific revolution. (Wilber 2000c: 419-420)

Egocentric individualism can itself be viewed as a projection of the fragmented ego state. Within the transpersonal model of psychological and cosmic evolution, the fragmented ego state is seen as a stepping-stone towards the transpersonal. (Wilber 2000c; Hawkins 1995) In this sense integrated intelligence is a tool that might help to facilitate the shift towards that evolutionary imperative. It will add a spiritual dimension to the secular and de-spiritualised education of the knowledge economy. It will add the transpersonal to the mathematical, the intuitive to the rational, the infinite to the linear. It will open the way towards an education for transformation of self and society.

It is the processes that are required to facilitate integrated intelligence which are likely to provide greatest benefit in circumventing the two problematics above. Meditative, silent and reflective states requiring awareness of inner worlds and the subtle, are required to facilitate integrated intelligence. These will inevitably take young students away from machines and entertainment, and direct their awareness inward. For the young of today, this has the potential to redefine the meaning of life from a focus upon entertainment and personal gratification, to the perception of their lives as being situated within a universal and spiritual context. One of meditative discipline's primary benefits, argues Hayward (1984) is its potential to help establish a society where human relationships and political systems might be predicated upon genuineness, compassion, gentleness, and on "truly knowing who we are". (Hayward 1984: 18)

Meditative states of mind leave the subconscious undistracted. (Senge 1994: 164) The capacity for mindfulness and equanimity is an intimate aspect of meditative traditions; and in the Buddhist tradition of *Samatha* (meaning quiescence), the process of fixing one's mind steadily upon an image is a seminal skill. Mindfulness is defined as "the faculty of sustaining the attention upon a familiar object without being distracted away from it." (Wallace 2002: 178) Indeed even sufferers of obsessive-compul-

sive disorders have been able to use meditation to gain insight, and thus to choose "new and more adaptive responses to the intrusive and intensely bothersome thoughts and urges which bombard their consciousness." In this process they also "systematically alter their own brain chemistry". (Schwartz 2002: 296) Thus the extrapolation that the so-easily-distracted youth of today might find similar benefits to the obsessive-compulsive disorder sufferers, via the use of meditative techniques, is not unreasonable.

In the Buddhist tradition, *Samatha* and *Vipassana* (insight) go hand in hand. (Schwartz 2002: 295) Thus while the focus of integrated intelligence in this paper has been upon its perceptual benefits, the benefits in terms of quiescence and mindfulness should not be lost. For if we are to employ meditative methods to help facilitate integrated intelligence, the Buddhist tradition suggests that equanimity will surely accompany it.

Beyond Knowledge to Wisdom and Transformation

Research suggests that perception of psi phenomena is enhanced when we are open-minded, when we share a common purpose and mutual trust with each other, and when we have mindful attention. (Targ & Kutra 1999) It may also require some degree of transcendence of the imperatives of the human ego. We find this potential of ego-transcendence and the expansion of consciousness within critical spirituality in general. (Bussey 2000) Thus the employment of integrated intelligence may not be compatible with the aggressive, fast-paced, competitive culture of the modern global economy and the neo-liberal vision. Its best and most suitable applications will possibly occur within a global transformation of consciousness. Yet it may be supposed that its *initial* applications within the global economy (in the ways suggested above) will also help to facilitate that shift in consciousness.

The Wisdom Society and the Role of Integrated Intelligence

It is in the transmission and development of wisdom that integrated intelligence can potentially serve as a vital cognitive modality. Various critics have argued either that the wisdom society is approaching, or that it is essential for the futures of humanity. (Bjonnes 2000; Dian 2003; Markley 1981; Elgin 1993, 2000; Slaughter 1996) Dian (2003), following the thinking of Rolf Jensen, believes that the information society will be short-lived, and that it will be replaced by the wisdom society, where "the human side of activity will be deemed more important." (Dian 2003: 7)

Slaughter (1996) also argues for a "wise culture which values wisdom above raw technical power." (Slaughter 1996: 678) Slaughter sees the need for humanity to let go of the industrial model of education, and its values, priorities and structures. Instead there is a need for an "opening to the processes of transformation available through the perennial wisdom of humankind." (ibid.) Notably, argues Slaughter, such a culture "is far-sighted and imbued throughout with transpersonal awareness." (ibid.) Both of these are vital components of an integrated intelligence.

Wisdom and spiritual experiences are closely correlated. Elgin (1993, 2000) points out that enlightenment experiences are a kind of awakening, with the individual "being bathed by a light with immense wisdom and compassion" (quoted in Phipps 2001). Elgin suggests that the term "homo sapiens sapiens," (which he interprets as meaning "to be doubly wise") epitomises the true nature of humanity. (ibid.) He points out that such a definition of humanity shifts the collective goal of the species, enabling us to:

...discover our place in this living universe. It utterly transforms the nature of the human journey. Then we can ask ourselves: Are we serving our capacity for double wisdom, for knowing that we know—in other words, for awakening? And can culture co-evolve with that awakening of consciousness?

Conclusion

The knowledge economy is embedded within the western mechanistic worldview, as are the predominant theories of intelligence and consciousness. Critical futures allows the decryption of the mythologies, power structures, and worldviews which undergird the knowledge society. In turn neo-humanism allows us to integrate the world of science and spirit, permitting opening of the discourse on the nature of consciousness and intelligence. In turn, the possible employment of integrated consciousness in the modern world may allow the development of a society which moves beyond the narrow dimensions of the knowledge economy and its technocratic hegemony, and towards a world imbued with a transpersonal wisdom.

As Wilber (2001) points out, a simple change of map will not suffice; such an approach will perpetuate fragmented consciousness, because a new intellectual framework does not go deep enough. What is required is an expansion of our ways of knowing, and of what it means to be intelligent, and to be human; and that requires inner work, inner worlds, and the incorporation of the transcendent.

Integrated intelligence may assist us in not only accessing expanded sources of knowledge, but in re-connecting us with each other and the universal intelligence that has spawned us. In that sense we may become a page within the universal story. Integrated intelligence is thus potentially an intimate part in the healing of the vast macrocosmic wound created by the enlightenment split between heart and soul.

Correspondence

Marcus Anthony
 PhD candidate
 University of the Sunshine Coast
 Maroochydore, QLD, Australia
 Email: m_a004@student.usc.edu.au

References

- Batchelder, K. J. 1994. "Notes on the Elusiveness Problem in Relation to a Radical View of paranormality." *Journal of the American Society for Psychical Research* 88: 90-115.
- Beloff, J. 1994. "Lessons of History." *Journal of the American Society for Psychical Research* 88: 7-22.
- Bjonnes, R. 2000. Opened 1/11/04. "Towards a Wisdom based Society." www.ru.org/94-wisdom-society.htm.
- Blackmore, S. 2001. "What Can the Paranormal Teach Us about Consciousness?" *The Skeptical Enquirer* 25(2): 22-27. Buffalo.
- Braud, W. 1985. "The Two Faces of PSI: PSI Revealed and PSI Obscured." In B. Shapin & L. Coly (Eds.) *The Repeatability Problem in Parapsychology*. New York: Parapsychology Foundation.
- Broomfield, J. 1997. *Other Ways of Knowing*. Rochester: Inner traditions.
- Burke, R. 2001. "Pulse of the Planet." *Foresight* 3(3): 191-203.
- Bussey, M. 2000 "Critical Spirituality." *Journal of Futures Studies* 5(2): 77-88.
- Capra, Fritjof. 2000. *The Tao of Physics*. (25th anniversary edition) Boston: Shambhala.
- Carter, L., and C. Smith. 2003. "Re Visioning Science Education from A Science Studies and Futures Perspective." *Journal of Futures Studies* 7(4): 45-54.
- Clarke, M. 1989. *Ariadne's Thread*. London: St Martin's Press.
- Davies, P. and J. Gribbin. 1992. *The Matter Myth: beyond Chaos and Complexity*. London: Penguin.
- de Bono, E. 1986. *Po: Beyond Yes and No*. Middlesex: Penguin.
- de Grasse Tyson, N. 2001. "Coming to Our Senses." *Natural History* 110(2): 84-87.
- Delanty, G. 2003. "Ideologies of the Knowledge Society and the Cultural Contradictions of Higher Education." *Policy Futures in Education* 1(1): 71.
- Dian, N. 2003. "The Future of Education in A Season of Change." *Journal of Futures Studies* 7(3): 7-14.
- Dobie, R. 2002. "Meister Eckhart's Ontological Philosophy of Religion." *The Journal of Religion* Oct.: 563.

- Dossey, L. 1999. "Healing and Modern Physics: Exploring Consciousness and the Small-is-beautiful Assumption." *Alternative Therapies in Health and Medicine* July: 102-108.
- . 2000a. "Distant Non-local Awareness: A Different Kind of DNA." *Alternative Therapies in Health and Medicine* Nov: 10-14.
- . 2000b. "The Science Blues." *Alternative Therapies in Health and Medicine* July: 12.
- . 2001. *Healing beyond the Body*. Boston: Shambhala.
- . 2002. "How Healing Happens: Exploring the Non-local Gap." *Alternative Therapies in Health and Medicine*. Mar./Apr.: 12-16.
- Dyer, W. 1999. *Manifest Your Destiny*. New York: Harper.
- Efremov, Y. 2002. "The Reliability of Scientific Knowledge and The Enemies of Science." *The Skeptical Enquirer* 26(4): 29-32.
- Eisenbud, J. 1992. *Parapsychology and the Unconscious*. Berkeley: North Atlantic Books.
- Eisler, R. 2004. A Multilinear Theory of Cultural Evolution." In Loye, D. (ed.) *The Great Adventure: Toward a Fully Human Theory of Evolution* Pp. 67-98. New York: State University of New York Press.
- Elgin, D. 1993. *Awakening Earth: Exploring the Evolution of Human Culture and Consciousness*. New York: William Morrow and Company.
- . 2000. *Promise Ahead: A Vision of Hope and Action for Humanity's Future*. New York: Harper Collins.
- Folger, T. 2002. "Does the Universe Exist if We're not Looking?" *Discover* 23(3).
- Fox, M., and R. Sheldrake. 1996. *The Physics of Angels*. New York: Harper Collins.
- Frankl, V. 1985. *Man's Search for Meaning*. New York: Washington Square Press.
- Franklin, B. 1999. "Discourse, Rationality, and Educational Research: A Historical Perspective of RER." *Review of Educational Research*. Winter: 347-363.
- Fromberg, D. 2001. "The Intuitive Mind and Early Childhood Education." In Torf, B., & Sternberg, R. (eds.) *Understanding and Teaching the Intuitive Mind* Pp.93-114. Mahwah: Lawrence Erlbaum Associates.
- Fuller, S. 2003. "Can Universities Solve the Problem of Knowledge in Society without Succumbing to the Knowledge Society?" *Policy Futures in Education* 1(1): 106.
- Gardner, H. 1993. *Frames of Mind: the Theory of Multiple Intelligences*. New York: Basic Books.
- Gardner, H., M. Kornhaber & W. Wake. 1996. *Intelligence: Multiple Perspectives*. Fort Worth: Harcourt.
- Grof, S. 1985. *Beyond the Brain*. New York: State University of New York Press.
- . 1994. "Alternative Cosmologies and Altered States." *Noetic Sciences Review*. Winter: 21-29.
- . 1995. "Consciousness Evolution and Planetary Survival: Psychological Roots of Human Violence and Greed." Paper presented at the Thirteenth International Transpersonal Conference in Killarney, Ireland.
- Guile, D. 2003. "From 'Credentialism' to the 'Practice of Learning': Reconceptualising Learning for The Knowledge Economy." *Policy Futures in Education* 1(1): 83.
- Hansen, G. 2001. *The Trickster and The Paranormal*. Philadelphia: Xlibris Corporation.
- Harrison, D. 2000. "Complimentarity and The Copenhagen Interpretation of Quantum physics." <http://www.upscale.utoronto.ca/GenerlInterest/Harrison/Complementarity/CompCopen.html>. Opened 30/06/04.
- Hayward, J. 1984. *Perceiving Ordinary Magic: Science and Intuitive Wisdom*. Boston: Shambhala.
- Hollinshead, M. 2002. "The Brain, the Mind, and Societal and Cultural Learning: the Emergence of A New Paradigm of Futures Research." *Futures* 34(6): 509-521.
- Inayatullah, S. 2002a. *Questioning The Future*. Tamsui: Tamkung University Press.
- . 2002b. *Understanding Sarkar*. Leiden: Brill.
- . (Ed.) 2004. *The Causal Layered Analysis Reader*. Tamsui: Tamkung University Press.
- Inayatullah, S., and J. Fitzgerald(eds.). 1999. *Transcending Boundaries: Prabhat Rainjan Sarkar's Theories of Individual and Social Transformation*. Maleny: Gurukala Press.
- Jacobson, L. 1999. *Bridging Heaven and Earth*. New York: Conscious Living.

- James, W. 1960. "The Final Impressions of a Psychical Researcher." In G. Murphy & R. D. Ballou (Eds.) *William James on Psychical Research*. New York: Viking.
- Jiyu, R. 1998. *The Book of Lao Zi*. Beijing: Foreign Languages Press.
- Jung, C. 1973. *Synchronicity*. New York: Bollingen.
- _____. 1989. *Memories, Dreams, Reflections*. New York: Vintage.
- Kafatos, M. and T. Kafatou. 1991. *Seeing in, Looking out*. Wheaton: Versa Press.
- Kant, I. 1784. "An Answer to The Question: 'What is Enlightenment?'" <http://eserver.org/philosophy/kant/what-is-enlightenment.txt>. Opened 4/07/04.
- Kennedy, J. 2001. "Why Is PSI so Elusive? A Review and Proposed model." *The Journal of Parapsychology* 65(3): 219-245.
- _____. 2003. "The Capricious, Actively Evasive, Unsustainable Nature of PSI: A Summary and Hypotheses." *The Journal of Parapsychology* 67(1): 53.
- Klein, G. 2004. *The power of intuition*. New York: Random House.
- Klinkenborg, V. 2004. "Trying to Measure the Amount of Information That Humans Create." *New York Times* (on-line). Nov 12, 2003.
- Lang, J. n.d.. "Meister Eckhart." www.headless.org. Opened 11/03/04.
- Loye, D. 2004. "Darwin, Maslow, an The Fully Human Theory of Evolution." In Loye, D. (ed.) *The Great Adventure: Toward a Fully Human Theory of Evolution* Pp. 20-38. New York: State University of New York Press.
- Mack, J. 1999. *Passport to The Cosmos*. New York: Three Rivers Press.
- Markley, O. 1981. *Changing Images of Man*. New York: Pergamon.
- Milojevic, I. 2003. "Hegemonic and Marginalised Education Utopias in The Contemporary Western World." *Policy Futures in Education* 1(3): 440-466.
- _____. 2004. *Futures in Education: Visions of Hope and Fear*. London: Routledge Falmer.
- Moffett, J. 1994a. *The Universal Schoolhouse*. San Francisco: Jossey-Bass.
- _____. 1994b. "On to The Past: Wrong-headed School Reform." *Phi Delta Kappan*. Apr.: 584.
- Murinbata, T., and W C. Hitehead. 2002. "Why Consciousness Conferences Are not Really Getting Us Anywhere." www.imprint.co.uk/pdf/Tjiniman.pdf. Opened 13/11/02.
- Myss, C. 2001. *Sacred Contracts*. Sydney: Bantam.
- Newton, M. 2000. *Journey of Souls*. St Paul: Llewellyn.
- Nisker, W. 1998. *Buddha's Nature*. New York: Bantam Books.
- OECD. 2000. *The Creative Society of The Twenty-first Century*. Paris: OECD publications.
- Park, R. 2000. "Magical Thinking." *Issues in Science and Technology*. Spring: 91-93.
- Pearsall, P. 1999. *The Heart's Code*. New York: Broadway Books.
- Peat, F.D. 1988. *Synchronicity: The Bridge between Mind and Matter*. New York: Doubleday.
- Peck, M. 1990. *The Road less Traveled*. London: Arrow.
- Penrose, R. 1990. *The Emperor's New Mind*. New York: Oxford Uni. Press.
- Peters, M., and W. Humes. 2003. "Editorial: Education and The Knowledge Economy." *Educational Policy Futures* 1(1): 428-440.
- Phipps, C. 2001. "The Breaking Pint: An Interview with Duane Elgin." *What is Enlightenment?* Spring-summer. www.wie.org/j19/elgin.asp?ifr=srch. Opened 18/06/04.
- Raden, D. 1997. *The Conscious Universe*. San Francisco: Harper San Francisco.
- Ramos, J. 2002. "Action Research as Foresight Methodology." *Journal of Futures Studies* 7(1): 1-24.
- Reaney, D. 1991. *The Death of Forever: A New Future for Human Consciousness*. Melbourne: Longman Cheshire.
- _____. 1994. *The Music of The Mind*. Melbourne: Hill of Content.
- Ritchie, J. 1992. *Inside The Supernatural*. London: Fontana.
- Ross, G. 1993. *The Search for The Pearl: A Personal Exploration of Science and Mysticism*. Sydney: ABC Books.
- Rowan, R. 1991. *The Intuitive Manger*. New York: Berkley.
- Rubin, A. 2002. "Futures Learning: from eLearning towards A Futures-orientated Way of Learning." *Journal of Futures*

- Studies* 7(2): 21-34.
- Sahtouris, E. 1999. "From Mechanics to Organics: An Interview with Elisabet Sahtouris." Transcript of an interview with Scott London on the radio program *Inside and Outlook*. <http://www.scottlondon.com/insight/scripts/sahtouris.html>. Opened 29/11/02.
- Schlitz, M. 2001. "Boundless Mmind: Coming of Age in Parapsychology." *The Journal of Parapsychology* 65(4): 335-351.
- Schwartz, J. 2002. "Mental Force and The Advertence of Bare Attention." In Varela, F., & Shear, J. (eds.) 2002. *The View from within* Pp. 293-295. Thorverton: Imprint academic.
- Senge, P. *The Fifth Discipline: The Art and Practice of The Learning Organisation*. New York: Doublebay Books.
- Sheldrake, S., and P. Smart. 2003. "Taped Experiments on Telephone Telepathy." *Journal of Parapsychology* 67: 187-206.
- Sheldrake, R., T. McKenna, R. Abraham. 2001. *Chaos, Creativity, and Cosmic Consciousness*. Rochester: Park Street Press.
- Slaughter, R. 1996. "Towards A Re-enchanted World." *Futures*. Aug./Sept.: 675-679.
- _____. 1999. *Futures for The Third Millennium*. St Leonards: Prospect Media.
- Stanford, R. 1977. "Conceptual Frameworks of Contemporary PSI Research." In B. Wolman (Ed.) *Handbook of parapsychology*. New York: Van Nostrand Reinhold.
- Steinkamp, F. 2002. "PSI: What It Is and How It Works: A Central Model for Parapsychology." *The Journal of Parapsychology* 66(4): 411-416.
- Storm, L. 1999. "Synchronicity, Causality, and Acausality." *The Journal of Parapsychology*. Sept: 247-269.
- Talbot, M. 1992. "Mysticism and The New Physics." London: Arkana.
- Targ, R. & J. Katra. 1999. *Miracles of Mind: Exploring Nonlocal Consciousness and Spiritual healing*. Novato: New World Library.
- _____. 2001. "The Scientific and Spiritual Implications of Psychic Abilities." *Alternative Therapies in Health and Medicine* May/Jun: 143-149.
- Tart, C. 1993. "Consciousness: A Psychological, Transpersonal and Parapsychological Approach." Paper presented at the Third International Symposium on Science and Consciousness in Ancient Olympia. 4-7 January.
- _____. 2002. "Parapsychology and Transpersonal Psychology: 'Anomalies' to Be Explained away or Spirit to Manifest?" *The Journal of Parapsychology* 66(1): 31-47.
- Tart, T. 2001. *States of Consciousness*. London: Universe.
- Varvoglis, M. 2003. "Scientists, Shamans, and Sages: Gazing through Six Hats." *The Journal of Parapsychology* 67(1).
- Walker, C. 1998. "Conversation between Joseph Chilton Pearce and Casey Walker on May 20, 1998." *Wild Duck Review* iv(2): 3.
- Wallace, B.A. 2002. "The Buddhist Tradition of Samatha: Methods for Refining and Examining Consciousness." In Varela, F., & Shear, J. (eds.) *The View from within* Pp. 175-188. Thorverton: Imprint Academic.
- Watts, A. 1989. *The Way of Zen*. New York: Vintage.
- Weiss, B. 1985. *Many Lives, Many Masters*. New York: Fireside.
- Wilber, K. 1999. *Up from Eden: The Atman Project*. Boston: Shambhala.
- _____. 2000a. *A Brief History of Everything*. Boston: Shambhala.
- _____. 2000b. *Integral Psychology*. Boston: Shambhala.
- _____. 2000c. *Sex, Ecology, Spirituality*. Boston: Shambhala.
- _____. 2001. *Eye to Eye: The Quest for The New Paradigm*. Boston: Shambhala.
- Wilde, S. 2000. *The Sixth Sense*. Carlsbad: Hay House.
- Wildman, P. 1997. "Dreamtime Myth: History as Future." *New Renaissance*. 7(1): 16-19.
- Wildman, P., and S. Inayatullah. 1996. "Ways of Knowing, Culture, Communication and the Pedagogies of the Future." *Futures* 28(8): 723-740.
- Hoy, A., & K. Murphy 2001. "Teaching Educational Psychology to the Implicit Mind." In Torf, B., & Sternberg, R. (eds.) *Understanding and Teaching the Intuitive Mind* Pp.145-186. Mahwah: Lawrence Erlbaum Associates.
- Woolger, J. 1994. *Other Lives, other Selves*. London: Aquarian.
- Zhengkun, G. (ed.) 1995. *Lao Zi: The Book of*

- Tao and Teh*. Beijing: Peking University Press.
- Zohar, D. 1994. *The Quantum Society*. London: Flamingo.
- _____. 2000. *Spiritual Intelligence*. London: Cygnus Books.

