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17. INTEGRAL APPROACHES TO SCHOOL EDUCATIONAL FUTURES[i]

INTRODUCTION

Regarding school education, research to date arising from the transdisciplinary field of futures studies includes three major areas:

- research with young people (mostly in school settings) which explores their views and visions of the future;
- the teaching of futures concepts, tools and processes in school settings;
- speculative research into transformative educational models and approaches facilitated by futures/foresight thinking.

The first area provides a context for how young people see themselves in regard to 'the future' and why 'futures' processes are so valuable for them. The global scope of this area—more typically called 'youth futures'—has been well documented in the book, *Youth Futures: Comparative Research and Transformative Futures* (Gidley & Inayatullah, 2002). The second area includes an analysis of the current 'state of play' in futures education *in* schools. A comprehensive literature review has recently been undertaken on this area, including examples of 'good practice' at the primary and secondary levels (Gidley 2004). The third area points to a possible future of 'futures education' which goes beyond the teaching of 'futures' as isolated lessons or subjects to where foresight is an integral part of the conceptual schema rather than an 'add-on'.

This chapter will initially explore some issues relating to the latter—more transformative—area, futures *of* school education, in particular from the perspective of the term 'integral' as used by Ken Wilber. Secondly, there will be an exemplary case study of how the four quadrants component of Wilber's integral framework has been used to analyse the present state of play of futures education *in* schools.

THE INTEGRITY OF 'INTEGRAL'

> 'Integral' means 'inclusive, balanced, comprehensive' … The integral approach does not advocate one particular value system over another, but simply helps leaders assemble the most comprehensive overview available, so that they can more adequately and sanely address the pressing issues now facing all of us. (Wilber, 2003)

Let us take a brief look at 'integral'. From a historical perspective, 'the spirit of integral' or 'integral intent' can be seen to have formed part of the leading edge of human consciousness for over 2000 years. Whilst the 'deep structure' of 'integral intent' can be seen to have maintained 'integrity' through time, its 'surfacing' at any given time can be seen to have required adaptability of form—in particular, in

relation to socio-cultural conditions. Moreover, as collective human consciousness has generally evolved, new understandings can be seen to have been taken on board. In this way, we can identify, so to speak, the evolution of 'the integral avant garde' (Wilber 2003).

The use of the term 'integral' or 'integrative' has become increasingly common in leading edge approaches to many disciplines. Some significant twentieth century and contemporary writers—other than Wilber—who were working from a substantially integral perspective include Rudolf Steiner, Michael Polanyi, Jean Gebser, Sri Aurobindo Ghose, Ervin László, Ashok Gangadean, and William Irwin Thompson. An important basis of the idea in its varied forms is that the complexity of the present times requires higher-order forms of thinking that go beyond the narrow specialisations of instrumental rationality. Integral approaches include multiples ways of knowing, being and acting in the world.

Wilber's own use of the term, 'integral' can be traced back to usage by both Sri Aurobindo Ghose and Jean Gebser. The first—and largest—integral tertiary institution in the US is the California Institute of Integral Studies (CIIS), founded in 1968, based on the Integral approach developed by Sri Aurobindo Ghose. Several other centres of integral studies have emerged in the last decade in the US, including Ken Wilber's Integral Institute (www.integralinstitute.org).

Wilber's framework provides a broad conceptual territory in which an integral analysis might take place. At the same time, due consideration should be given to domains of 'integral' other than *analysis per se* in which other 'contenders' can be seen to be of value.

Several other educational approaches have used the term 'integral education', such as:

- Michael Bakunin, a Russian Marxist, who coined 'integral education' in 1869 as an attempt to overcome classism in society.
- Dr Karan Singh (Indian Integral Education).
- Rey Juan Carlos University in Madrid, Spain.
- The Catholic Church in Africa and Sri Lanka.

or 'integrative learning', such as:

- Community of Integrative Learning and Action (CILA).
- American Association of Colleges and Universities' (AACU) 2005 conference on Integrative Learning: Creating Opportunities to Connect.

It is beyond the scope of this chapter to discuss all of the above interpretations of 'integral education'. However, with regard to school education, an 'integrally aware' perspective such as Steiner's (discussed below) can be seen to provide rich rewards regarding possible research from the domain of an *already-established approach with integral intent*. This should not be taken to imply, however, that such already-established approaches can not be critiqued in relation to a possible imbalance or neglect of certain integral dimensions (with additional understanding that there can be a dissonance between educational theory and its implementation in educational practice). Indeed, such a critique of educational approaches should form a significant part of the process of conceptual mapping needed to understand what a well-formed 'integral education' might look like.

This process can be seen to form part of 'preferred future' scenarios for school (and non-school) education. Through integral understanding, it can be seen that an important feature of these preferred scenarios is the move away from the overarching quality of fragmentation to that of integration.

FUTURES *OF* SCHOOL EDUCATION—FROM FRAGMENTATION TO INTEGRATION

> Perhaps we ought to consider the notion that the purpose of education be reconceptualized as the facilitation of people's search for meaning, wholeness, transcendence and an understanding of our individual roles in the human evolutionary journey. (Rogers, 1998)

Critical Speculation about Education for the Future

Over the past decade a number of educational futurists have developed a critical approach to what they see as the pedagogical implications of the disturbing responses of Western youth to their futures. Critical speculation about alternative forms of education makes some clear recommendations about better preparing youth for a rapidly changing and uncertain future, while also considering the needs of future generations. These futures researchers recommend more holistic, integrated teaching methods using imagination, visualisation, pro-social skills and specific futures methodologies (Bjerstedt, 1982; Galtung, 1982; Slaughter, 1989; Beare & Slaughter, 1993; Tough, 1993; Slaughter, 1994; Hicks & Holden, 1995; Hutchinson, 1996).

In a comprehensive conceptual review of current global dimensions of change and consciousness shifts required to prepare young people for the twenty-first century, Australian educational futures researchers Hedley Beare and Richard Slaughter list a number of educational features (see Table 1) that they recommend schools incorporate to better prepare young people for the future (Beare & Slaughter 1993).

As yet, the suggestions and guidelines put forward by Beare and Slaughter have not been applied by educational futures researchers in an integrated fashion in an educational setting that could then be studied. However, these ten educational features listed in Table 1 are remarkably consistent with the Rudolf Steiner approach, with at least eight of the ten points being key features of Steiner education. So, in effect, the guidelines suggested by Beare and Slaughter, with the exception of the specific futures methods and tools, are already being implemented in Steiner schools around the world. Not surprisingly, this speculation of futures researchers was born out in research with Steiner-educated students, where it was found that this 'integrally aware', artistic, imaginative approach to education did facilitate a more confident, proactive and hopeful futures outlook in young people (Gidley, 1998, 1998, 2002). More detailed findings are discussed in the next section.

Table 1. Educational futures research—Guidelines for teaching and preparing young people for the twenty-first century

* 1. Appropriate Imagery—choosing metaphors with care and imagination
* 2. Teach for Wholeness and Balance—holistic paradigm
* 3. Teach Identification, Connectedness, Integration—epistemological interconnectedness
* 4. Develop Individual Values—value the individual
* 5. Teach Visualisation—development of the picturing imagination
6. Cultivate Visions of the Future—cultivate images and visions of futures
* 7. Empowerment through active hope—distinguish between faith and hope
* 8. Tell Stories—use story telling and mythology as powerful teaching tool
* 9. Teach and Learn how to Celebrate—celebrate festivals
10. Teach Futures Tools—encourage and use futures tools and methods

Source: Beare & Slaughter (1993)

* The asterisked points all refer to important features of Rudolf Steiner Education (Gidley, 1997)

Integral Approaches to Education

In parallel with the growing concerns of educational futurists about the need to transform school education in the ways discussed above, there is the emergence of the movement towards contemporised integral understanding mentioned earlier.

We believe the integral movement with its various currents and facets has the potential to facilitate transformative development in human consciousness. Its implications for educational futures should not be overlooked. With regard to the application of Wilber's integral theories to school education, conceptual development has begun at the Integral Education Centre—a branch of the emerging Integral University. In terms of existing school educational approaches, the importance of going beyond the factory model of schooling to more integral, artistic and spiritually-based approaches was already foreseen a century ago by Rudolf Steiner (and others) in Europe (Steiner, 1965, 1982) and by Sri Aurobindo Ghose in India, who actually coined the term 'integral education' (1930, 1990 (1914)). Furthermore, the wisdom-based theories of these two leading edge educationist have been being implemented around the globe for between 50 (in the case of Aurobindo's system) and 80 years (in the case of Steiner education). While it is beyond the scope of this paper to further investigate the educational approach

of Sri Aurobindo, the research with Steiner-educated students discussed below is the only known research demonstrating how an apparently more integral approach to education actually fosters foresight and personal empowerment towards creating one's own preferred future.

Research Findings from Steiner Education

Since Steiner education is arguably one of the few educational approaches in the Western educational arena that points towards an integral model, research findings can throw light on what a more integral approach to mainstream education can hope to achieve. Steiner education provides an integrated balance of intellectual/cognitive, artistic/imaginative and practical/life skills education, grounded in a dialectical epistemology, ontology and cosmology. Although Steiner did not use the specific term 'integral', the educational approach he initiated can be seen to closely resemble the meaning of 'integral' in the sense that Wilber uses it. As well as consciously emphasising Plato's Goodness (ethics), Beauty (aesthetics) and Truth (science)—across all levels of schooling—these three aspects are constantly interwoven through the 'head, heart and hands' approach to all the teaching and learning. Also, reflecting a convergence between Steiner's and Wilber's approaches, Steiner pedagogy works from a deep understanding of the levels of development of the human being as they unfold both developmentally within an individual's life (ontogenetically) and also for humanity as a whole (phylogenetically) through the evolution of culture and consciousness. Although it is beyond the scope of this chapter to go into this in detail, the 'levels' that Steiner describes include several 'higher dimensions' similar to those described by Wilber, Aurobindo and others. Correspondences and divergences between these two approaches are being elucidated elsewhere by Gidley (2006).

Steiner was a polymath—scientist, philosopher and artist—who contributed significantly to a multiplicity of fields. He had a macrocosmic perspective on time in relation to the evolution of human culture and consciousness and with considerable foresight he initiated the educational approach discussed here in 1919 (in Germany).

In a study of senior secondary students in the three largest Steiner schools in Australia, it was found that Steiner students were able to develop richer and more detailed images of their 'preferred futures' than mainstream students (Gidley, 2002). About three-quarters of the Steiner students were able to envision positive changes with regard to the environment and human development and almost two-thirds were able to imagine positive changes in the socio-economic area. In much of the other research young people had general ideas about positive things they would like to see happen, but were unable to translate them into concrete detail (Hutchinson, 1992) It was also found that the Steiner educated students were not disempowered, like many young people, by their realistically negative views of the 'probable' future, but rather had a strong sense of activism that they could change things for the better (Gidley, 1998).

In addition, when the Steiner students came to envisioning futures without war, the content of their visions primarily related to improvements in human

relationships and communication, through dialogue and conflict resolution, rather than a 'passive peace' image. Furthermore, 75 per cent of the Steiner students came up with many ideas on what aspects of human development (including their own personal development) needed to be changed so that their aspirations for the future could be fulfilled. These included more activism, changes in values, spirituality, future care and better education (Gidley, 1998). Finally, this study appears to be the only one with young people where social futures has emerged so strongly as a way to solve problems, as compared with the more commonly occurring 'technofix' solutions.

Additional 'Integrally Aware' Educational Approaches

In addition to the educational approaches of Sri Aurobindo Ghose in India (more recently spreading to other countries) and Rudolf Steiner (with several hundred schools operating globally), numerous other 'integrally aware' educational approaches have arisen. Most have been in response to the increasing fragmentation and commoditisation of education found in the 'factory model' promoted in the West. Although beyond the scope of this paper, attributes of alternative approaches to education—as well as mainstream perspectives—could be conceptually mapped according to various dimensions of integral understanding. This clearer picture would facilitate an integrating dialogue between educational approaches. An attempt to elucidate the territory that might need to be covered in such an integral mapping exercise has been developed elsewhere (Hampson, 2004). The approaches briefly discussed below also need to be considered.

Neohumanist education stems from the understandings of P. R. Sarkar (b. 1921), and the science of Tantra Yoga. In 1935, Sarkar developed the multi-faceted organisation Ananda Marga—"the Path of Bliss"—dedicated to 'uplifting' humanity. In addition to education, the organisation includes such domains as: humanistic economy and collective welfare, women's emancipation, the arts, ecology, and intellectual renaissance. The Centre for Neohumanist Studies comments:

> Neohumanist education pedagogy applies the philosophy and principles of Neohumanism. Educators aspire to exemplify these values in their personal lives, in the classroom, and in their interactions with the students, colleagues, parents and the community. These principles include:
>
> - Holistic Personal Development
> - Cardinal Human Values and Universalism
> - Neohumanism and Universal Love
> - Astaunga Yoga
> - Applied Learning—Knowledge of Self and the World
> - Individual Evolution, Movement and Motivation.
>
> (http://www.cns.hr/e_philo.htm)

Another educational pioneer—Maria Montessori (b. 1870)—has left a very influential and growing legacy to the world: Montessori's is a comprehensive

educational approach based on the observation of children's needs in a variety of cultures. It specifically includes an understanding of children's natural learning tendencies as they unfold in "prepared environments" (www.montessori-namta.org/NAMTA/geninfo/concepts1.html). Specially prepared materials are seen to help facilitate the cultivation of concentration, motivation, self-discipline, and a love of learning. There are now thousands of Montessori schools worldwide (http://www.montessori-namta.org/NAMTA/geninfo/whatismont.html).

Ron Miller has conceptually brought together the alternative approaches of Steiner, Montessori, Krishnamurti and others under the more general banner of 'Holistic Education', drawing out commonalities such as the importance of considering the moral, emotional, physical, psychological and spiritual dimensions of the developing child as well as the intellectual. Direct engagement with the environment and the development of a sense of wonder are also seen by Miller as important common attributes (Miller, 1999).

Another youth and futures-positive educational approach has been developed by Riane Eisler, called partnership education (Eisler, 2001). It is an integrated framework for primary and secondary education, which has three interconnected components:

- Partnership process (how we teach and learn).
- Partnership structure (the kind of learning environment).
- Partnership content (the actual educational curriculum).

In addition, an important movement that has gathered momentum over the past decade is the 'Education for Sustainability' or 'Sustainable Education' movement (Fien, 2002). Related to this and often incorporated under its banner is the 'citizenship education' focus. The 'sustainability in education' movement was primarily initiated as a response by educators to the Earth Summit—the UN Conference on Environment and Development held in Rio de Janeiro, Brazil in June 1992. Although it is a new evolving concept, it is also embedded in an understanding of indigenous approaches to education. Many of the key features of the sustainable education approach have been incorporated into the work of futurists David Hicks and Cathie Holden. They have extended the sustainable education territory and their futures work into the citizenship education focus in the national curriculum of the UK (Hicks, 2001; Holden, 2002).

FUTURES *IN* SCHOOL EDUCATION—PAST, PRESENT AND FUTURE

> Part of the soul-work of learning is the development of images of desired futures; images that may be expressed in music, art, words or other aesthetic venues. (Rogers, 1998)

As a 'subset' of 'futures *of* school education', many educational futurists like to focus on the specific role of futures concepts and methods *in* school education. There are a number of ways in which we could analyse the progress of futures *in* education over the past four decades. Based on Slaughter's emerging integral futures model (Slaughter, 2003), this paper presents a case study of how an integral analysis can be undertaken. It attempts to analyse the state of play in futures in

education today according to a four quadrants analysis that is part of the integral scheme developed by Ken Wilber (Wilber, 2000; Wilber, 2003; Wilber, 2004).

Since much of the early 'futures in education' work was concerned with survey studies of young people's probable views of the future, it sits within the empirical tradition which was strongly developed in the US. The next wave of futures in education work incorporates the bulk of the work to this day. Much of the teaching about futures (concepts, methodologies and tools) included in futures courses and syllabi is related to moving beyond the idea of the 'probable future' to include consideration of the 'possible' (imaginative, creative, alternative) and the 'preferred' (critical, ideological, values-based). The latter relates to the second phase of the futures field, originating in Europe and evolving into the critical futures tradition. Hicks' work is strongly grounded in this approach (Hicks, 2002).

However, one of the limitations of this aspect of futures in education is that most of the futures in education work has been undertaken in the US, the UK and Australia, and is thereby very biased by its 'Anglo-Saxon Western' orientation. Even though much of the discourse around 'possible futures' concerns open, creative, imaginative, flexible processes, much of the work as yet is limited by Western paradigm metaphors. However, Ivana Milojević's research makes a major contribution here, particularly in its consideration of indigenous educational futures (Milojević, 2002). This relates to what Slaughter calls the third wave of futures work, which he describes as still developing and as being "more diffuse, international, and multicultural" (Slaughter, 2003). An attempt has been made to address the gap in the literature on this multicultural area of futures in education, in the book *Youth Futures* (Gidley & Inayatullah, 2002). However, this was mainly focused on the youth views and visions aspect of futures with less focus on teaching futures. Some of Inayatullah's work begins to touch on this area of how to teach futures in education using concepts and tools and metaphors which are viable in a range of alternative cultural settings (Inayatullah, 1995, 2002). Much more research needs to be done in this area.

The empowerment-oriented educational futures work (prospective futures) is the fourth area in our typology. In mainstream futures literature it is rarely considered an area in its own right. While Slaughter's voice was one of the strongest in developing the futures field beyond the empirical—to include the critical—Inayatullah's voice is probably one of the strongest in developing the futures field into its third iteration which he calls the cultural (Inayatullah, 1990; Ramos, 2003). Although empowerment-oriented (prospective) futures studies was pioneered in Europe by Berger, Bjerstedt and Boulding, it seems that emphasis on this aspect may be the special contribution of Australia to the futures in education field. Wildman's coining of the term 'futuring' to represent this more engaged, activist approach, is a case in point. In our view this is the area where futures in education and youth futures research overlap, particularly if they are undertaken by empowerment oriented teachers/researchers. It is interesting to note that Inayatullah's most recent work also includes a fourth 'action research' dimension to his futures framework (Inayatullah, 2004).

In the framework presented here, the empowerment/action research futures would be the fourth iteration and integral futures would be the fifth. It is vital that

the futures studies field keeps abreast of rapid new developments in all fields of knowledge when constructing its own frameworks.

A Four Quadrants Analysis of Futures in *Education*

Despite the apparent complexity of Wilber's framework, useful understanding may arise from consideration of one aspect, such as the four quadrants (Figure 1). In its simplest form the four quadrants represent the inner and outer dimensions of individual and collective perspectives:

- Upper Left—Inner aspect of individual (intentional, psychological).
- Upper Right—Outer aspect of individual (behavioural, physical).
- Lower Left—Inner aspect of collective (meaning systems, culture).
- Lower Right—Outer aspect of collective (social systems, society).

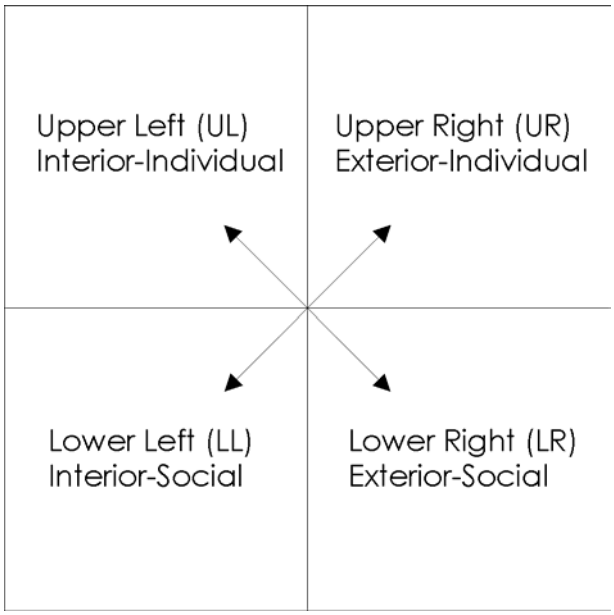

Figure 1. Wilber's four quadrant model

Other Integral Considerations

In addition to four quadrants, brief mention will be made here of other aspects of the integral approach. Firstly, the integral approach carries an injunction to 'practice' (as a complement to theory) (Wilber, 2000). An example here would be the empowerment-oriented methodologies already mentioned. Secondly, a 'four quadrants' analysis should be seen as one part of a 'full spectrum' analysis, which would require us to also look at "all types, all states, all streams, and all waves" (Wilber, 2000, 2004).

"Types" refers in this instance to different personality types. It may also be seen to refer to gender. "States" of consciousness include waking, dreaming, sleeping, altered, and meditative. "Streams" or "lines" refer to the different aspects of our being such as the cognitive, ethical, empathic, creative, socio-emotional, communicative, spiritual, kinaesthetic, mathematical, sexual and musical.

Taking the upper left (UL) quadrant, the emphasis in school education and in futures in school education has been with developing cognition. "Streams" support developments in psychology that indicate there are multiple ways of knowing (artistic, contemplative, practical etc.) and that all are important for a balanced education (Gardner, 1996). In the lower left (LL) quadrant, streams can represent different cultures and sub-cultures as discussed below.

"Waves" refers to the different 'levels' of development occurring within an individual or society. For example, an important "stream" to consider in an analysis of the education process would be the different value-systems and worldviews that may be held by pupils, teachers and administrators. This particular developmental aspect may be investigated through the Spiral Dynamics model based on Clare Graves' pioneering work and developed by Don Beck and Christopher Cohen (Wilber, 2000). Although consideration of the waves of development is essential for a full integral analysis, space does not permit a due elaboration in this present article.

It is, also important to recognise that these developmental levels exist within each of these quadrants (i.e., in the UL there is individual psychological development; in the LL there is cultural evolution; in the UR there is the more scientific view of physical evolution, and in the LR there is the development of society and civilisational history). Wilber argues that there is a need to harmonise all aspects if the whole system is to remain in balance: "An increase in exterior or social development can only be sustained with a corresponding increase in interior development of consciousness and culture" (Slaughter, 2003). Wilber also claims (along with many other integral theorists) that at the present time there is emerging a major transition in culture and consciousness (related to what has been referred to as the emergence of an integral age, as discussed earlier). Yet many key social institutions such as schools and many workplaces (and the key stakeholders in them) are not changing sufficiently or appropriately in relation to this potential cultural transformation, to keep a balance within the system as a whole.

The question remains for this paper—How can a four quadrant analysis assist the futures studies field in framing issues regarding 'futures *in* schools'?

The Upper Right (UR)—Individual Exterior ('Behaviour')

The most obvious thing that emerges when examining the futures in education work to date is that most of it has been working within the upper two quadrants. It is primarily about introducing concepts and tools that will increase an individual's knowledge base (UL) and ideally their behaviour as well (UR). Although much of the work is done in classes and small groups, it is still primarily focussed on the development of the individual. Indeed, the ongoing problems with getting sufficient support from school systems to keep initiatives going may stem primarily

from the lack of work to date within the collective quadrants—cultural (LL) and social (LR) systems. How this could be done will be part of the research focus below. In particular, the upper left quadrant (inner and developmental aspect of individual) lends itself to much greater extension by the futures in education field.

The Upper Left (UL)—Individual Interior ('Psychology')

Psychological processes. Although much of the work in teaching futures is concerned with the upper left quadrant—the domain of the psychological—little research has been done into what psychological processes we are dealing with when we are teaching futures. Apart from Martha Rogers drawing our attention to the fact that futures work involves the heart and soul (Rogers, 1998), and a small pilot study which looked at the impact of futures visioning on clinical hopelessness and depression (Gidley, 2001), little has been done that has consciously linked futures processes and psychological processes. Yet the two are obviously intimately related. In this sense even the best futures work has been largely unconscious of its own processes and thereby ignores the development of its own UL quadrant. Peter Hayward's research is crucial in beginning to explore this terrain (Hayward, 2002, 2003).

And while the empowerment-oriented research is clearly involved in bringing what is learned from futures lessons (UL) into some unity with the individual's outer behaviour and actions (UR), we have not really studied how this comes about.

Ways of knowing. Still in the upper left quadrant, one of the streams is different ways of knowing. The emphasis in all school education (and also to a large degree in 'futures in education') has been with developing the cognitive faculties. This is only one way of knowing. Current developments in psychology indicate that there are multiple ways of knowing and that all are important to a balanced education (Gardner, 1996). So, more attention to different lines or ways of knowing (artistic, contemplative, practical, etc.) will be another area of potential development for futures in education.

Individual development. There is also a need to consider developmental aspects within the upper left quadrant. Over the last two decades several researchers from within developmental psychology have been exploring notions of developmental stages beyond Piaget's formal operations. Such stages are variously referred to as "postformal", "postconventional", "postrational", "fifth order", "unitive" (Commons, Richards et al., 1982; Commons, Armon et al., 1990; Kohlberg, 1990; Kegan, 1994; Yan & Arlin, 1995; Arlin, 1999; Baltes, Staudinger et al., 1999; Cook-Greuter, 2000). The implications of this are enormous for education as a whole and futures in education specifically.

The Lower Left (LL)—Collective Interior ('Culture')

Cultural development. One could also consider the possibility of an integral vision for the future of humanity.

Evolution of consciousness research points to the idea that human nature as a whole is currently mirroring what developmental psychology is uncovering in individual development. This research explores the emergence of a broader cultural movement beyond the intellectual, rational, mental mode of operating into postformal, post-conventional, 'second-tier', integral (and more spiritual) ways of thinking and being (Aurobindo Ghose, 1930; Steiner, 1966; Gebser, 1991; Wilber, 1996; Thompson, 1998; Wilber, 2000; Combs, 2002; Gidley, 2006a). Within this developmental aspect—as applied to the evolution of culture and consciousness—it is also interesting to distinguish between what Wilber calls the 'leading edge' of humanity and the 'centre of gravity' of humanity. "With less than two per cent of the population at second-tier thinking, second-tier consciousness is relatively rare because it is now the 'leading edge' of collective human evolution" (Wilber, 2000). Reflection on such a framework would be very valuable for futurists.

Expressing futures. Looking at the cultural quadrant (LL), we can see a lack of development of futures' cultural resources and artefacts. How many movies, songs, plays and art shows have arisen from the futures field? Although there are plenty of science fiction movies and books, most of these are dystopian. Rather than 'futures' as 'just another social science lesson', we need to enter youth culture through music and film—and to inspire young people to help with this. The computer game model may be an ideal way of introducing futures concepts.

Cultures. Also in respect of the cultural quadrant, streams can represent different cultures and sub-cultures. This is an under-represented area in educational futures. For example, what do educational futurists in Australia know about how our indigenous children and youth frame the future? What metaphors would they use? Are the materials we use suitable or do we need new ones? Apart from Milojević's and Inayatullah's work and a few other studies which look at young people's future visions in a range of countries, there is very limited futures in education work that has been recorded in non-Western settings (Inayatullah, 1995, 2000, 2002; Milojević, 2002, 2003).

Social futures. Still examining the lower left quadrant, another area that has been largely ignored in futures research is social futures. This is really the more inner, culturally-based aspect of social futures, concerned with how people relate to each other, how we connect with each other (LL). Galtung pointed out some years ago that when we hear the term future we seem only able to think of technological futures. There is much scope for development in this quadrant. This could go hand in hand also with more emphasis on developing an ethically-based, values-focused cultural component to education.

Lower Right (LR)—Collective Exterior ('Social Systems')

School systems. In addition, there is the lower right (LR) quadrant that again has been largely overlooked in much of the futures in education work. To what extent have educational futurists working in schools attempted to work with "the nature and dynamics of the relevant societal structure and systems?"(Slaughter, 2003), including the school and education system itself (e.g., analysis of classroom dynamics, school internal politics, etc.).
And if we keep the four quadrants in mind, this will also include as Slaughter points out:

- the specific ways that the various stakeholders construct meaning and significance (UL)
- culturally derived perspectives, rules and systems of meaning (LL)
- people's concrete skills, behaviours and actions (UR)

Perhaps it has not been for want of trying that this has not occurred. However, the beauty of an integral model such as this is that it makes the gaps more obvious. If this latter omission could be addressed, it may become possible to encourage schools and education departments to make use of existing futures resources (knowledge base, personnel) to enrich their current 'fashion-statement' futures interests.

Technology. In the LR we may also question the increasing use of technology—notably computers—in schools. Such is the prevalence of this issue, the term 'futuristic schools' is often limited to mean 'high-tech schools'. The increased usage of technology is not without its potential problems, however. A number of studies have begun to explore potential psychological and physical damage to children from long exposure to television screens and computer monitors (Healy, 1998; Grossman, Degaetano et al., 1999; Benoit, 2000; Grossman, 2000; Large, 2000). Initial findings suggest a link, for example, between screen viewing and myopia ('short-sightedness').

'Integration'

Finally, even in the most innovative of areas of educational change and transformation on the planet today, there is a tendency toward division and fragmentation rather than inclusion and integration. There are different schools of 'progressive' educational thought that are not necessarily even informed about each other let alone joining forces. This indicates that a very deep philosophical bridging needs to occur in our contemporary world. The importance of Wilber's valorisation of the process of "transcending *and* including" can help facilitate such a bridging.

What is it that holds us to the divisiveness of the fragmented view? Jean Gebser would see it as being the deficient part of the mental mode of thinking (Gebser, 1991). Good analysis does not necessarily produce good synthesis. Until we have fully conceptualised and then developed integral consciousness we will be forever limiting our own (individual and cultural—inner and outer) 'forward views'. The challenge for us all is how do we move beyond this conundrum? What is meant by

'integral consciousness', in all its possible domains and dimensions, is still at an early stage of human understanding but is certainly something with which futures educators need to concern themselves (Hampson, 2004). From the struggle of futurists to stretch our own foresighting capacities to understand where human consciousness is going in the future, will arise insights into how to transform education so it better prepares youth to create an authentic integral future.

WHERE TO FROM HERE? POSSIBLE RESEARCH AREAS

As demonstrated in the integral analysis above, a number of gaps have been identified in the research and practice of educational futures. Subsequently, a number of research focus areas and some specific questions have been formulated which, if undertaken, would greatly broaden and deepen the potential impact of this work.

A sample of these is given below.

1. Psychological dimensions.
   - Further psychological research is needed into futures thinking/foresight.
   - Psychological implications of futures processes on clinical depression and hopelessness in young people need to be more fully explored.
   - Further research is needed on the implications of the correlation between age and increasing pessimism.
   - Why are boys more passive and technologically oriented in their preferred futures images? And why are they more susceptible than girls to clinical levels of hopelessness? Can positive futures visioning help to reverse this?
   - Why are Steiner students more empowered towards creating their preferred futures than mainstream youth and does this apply to students from non-Steiner alternative schools?
2. Diverse ways of knowing.
   - How can futures in education help to keep 'non-cognitive streams' open?
   - How could music be used as a futures tool?
   - Is there a place for more poetry, dance and theatre in futures in school education?
   - Is there a place for contemplative practices?
   - How could Integral Transformative Practices be more fully integrated into school education?
3. Socio-cultural diversity.
   - What kind of research could inform futures in education processes so that they could be more inclusive of non-Western cultural values?
   - How can futures in education foster the co-existence of a tapestry of different cultures on a global scale?
   - How can we best explore alternatives to hegemonic conceptions of education (Milojević, 2003)?
   - How can the Western mono-cultural model be more enriched by indigenous, Indian, Chinese, etc., educational models?

4. Cultural resources.
   - There is a need to develop a resource bank of what cultural material (movies, literature, music, computer games) already exists which presents *positive* futures.
   - Who will write the futures fiction of the future? Need it be 'science fiction'?
   - How can young people be encouraged to write their own 'alternative futures fiction'?
   - Is it possible to explore a popular form of expression of futures that appeals to student populations?
5. Human/social futures.
   - What images of future humans are the media presenting?
   - Why do technology futures figure so strongly in youth futures research?
   - What are the emerging issues relating to over-use of technology in education?
   - How can the various stage theories of moral development throw light on our framing of social futures?
   - Why do Steiner students have such a strong emphasis on social futures?
   - What might widen and deepen young people's capacity to imagine better social futures?
6. Tackling the social systems.
   - How are futures approaches currently being used in school systems and how could they be improved?
   - Given that the 'future' is a current fashion in education, how can education systems be informed of the knowledge base of futures studies as a resource?
   - Can the futures field provide strategies to better support teachers who wish to use innovative approaches?
   - Who are the key power brokers in national curriculum initiatives? How can they be informed of futures studies resources?
   - How might futures best evaluate alternatives regarding educational administrative structures in education?
   - How can futures in education contribute to better communication and a re-evaluation of roles and expectations in teacher–teacher/teacher–pupil/ pupil–pupil relationships? How might we regard the prevailing internal politics in schools?
7. Developing integral consciousness.
   - What is the significance of Ken Wilber's integral framework for educational transformation globally?
   - How might a Spiral Dynamics analysis inform futures in school education?
   - How can alternative approaches to education such as Steiner schooling (Steiner, 1981) or Aurobindo's integral education (Aurobindo Ghose, 1930) best inform futures in education?
   - Is imagination one of the qualities necessary to develop an integral consciousness? If so, how can imagination be fostered by futures in

education? What existing research is available on the cultivation of imagination in education?

- What other existing organisations or networks are working towards an integral education approach with or without a futures perspective?
- Are there any existing cross-cultural visionary worldviews based in an integral paradigm?

CONCLUSION

Our preferred futures *of* school education include the ongoing development and strengthening of futures *in* school education. It also includes an imperative to develop more integral approaches.

Futures research indicates that Steiner-educated students display significant differences to mainstream students both in having more positive visions of the future and also in feeling more empowered. Pertinently, it is suggested that this difference is because Steiner education is more *integral* than mainstream education. It is also suggested that substantive research into other non-mainstream educational approaches may well prove similarly insightful.

A use of Wilber's four quadrant analysis is also demonstrated with regard to futures in school education. New—potentially fruitful—avenues of research have now become apparent, many of which carry within them seeds of educational transformation.

[i] A number of voices could be adopted in writing about this area. For the purposes of this paper, we have chosen to 'locally embody' an interpretation of Thomas Berry's (1988) *post-critical naïvité*.

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