Kelly, Dr, Patricia (FSEDA)
Consultant: Higher Education
Email: pakelly@westnet.com.au

Title: Embedding Sustainability*:* *'painless is just delay'*

Theme: Embedding Sustainability

Abstract

I engage with Sustainability in Higher Education context, based on my experiences working in transformative education with undergraduate engineers and in academic staff development at several Australian universities. Not belonging to a particular discipline offers opportunities to see gaps and try to find effective ways of bridging them. Working in academic development means thinking about what teachers need to know, do and be in order to face the increasing challenges of teaching in the 21st century. Futures thinking offers a meta-dimension to the resulting insights.

This paper is based on rejecting business-as-usual futures based on growth. The introduction argues that this means giving up old patterns and replacing growth as our guiding metaphor, with alternatives such as health, healing and sustainability. Embedding sustainability in Higher Education depends on support from the top and the need to understand the 'resistings' to what some see as sustainability's proselytising "boy- have- I -got –an- idea- for- you" zeal. These include recent aggressive arguments that sustainability is "eco-corruption" and "corroding the curriculum". Concerned universities are already working on new visions, while many others are just beginning to tinker with curricula.

Transformative responses need suitably skilled leaders to support them. This paper offers Dervin's Sense-Making Methodology as a useful approach to understand the process of transformation and to gather the evidence we need for credibility. Finally, this is a global undertaking. Whether we are working towards graduates who are 'critical beings' or *Globo sapiens,* we will need wisdom, the humility to seek it from any cultural tradition and the personal and professional skills to apply it.

1. Introduction

Embedding sustainability in Higher Education is not an end product but a work in progress that involves us all. This paper combines my varied perspectives accumulated from academic staff development, futures studies and research into transformative education. I aim to offer insights into some challenges involved in embedding sustainability in education, as well as strategies to meet them. I begin with my reasons for wanting to contribute.

The way we are living is not sustainable and there is no easy solution, "painless is just delay" (McKibben, in Fischetti, 2010, p.67). Almost twenty years ago Posch (1993, p.448) warned about the "growing 'death potential'" of economic/technological development confronting its 'life potential' to the point where human activity was threatening our survival. I accept that climate change is a symptom of accumulating, unsustainable human practices with cascading and multidimensional effects. It is estimated that annually climate change is already responsible for over 300,000 deaths and severely affects over 300 million people. Another 500 million are living at extreme risk and there are some 20 million displaced persons, while the annual economic costs are estimated at around 125 billion US dollars (GHF, 2009, p.1). We are in what UK futurist Ziauddin Sardar calls "post-normal times", a risky period of transition in which we face increasing challenges of "complexity, chaos and contradictions" (2010, p.16).

Our current, business-as-usual approaches are based on "Growthmania…the paradigm or mindset that always puts growth in first place, the attitude that there is no such thing as enough, that cannot conceive of too much of a good thing" (Daly, 2004, p. 1). This is hard to contest because "every force in our society is trained to want more growth" (McKibben, 2010a, p.65). Yet continuing without change could result in abrupt environmental changes such as forest die-back and melting ice sheets. Even the World Economic Forum has called for mindset shifts to create a "moral economy", warning that "where there is no moral values framework, the market ends up devouring itself" (2010, p.76). Unfortunately, it will take us with it.

Any solutions will depend on decision makers able and willing to think and act beyond national and transnational interests, as well as global citizens ready to support them. The Global Scenario Group's Great Transition calls for a New Sustainability Paradigm "that would challenge both the viability and desirability of conventional values, economic structures and social arrangements" (Raskin et al, 2002, p.*x*). Sardar (2010) suggests we need to develop an ethical imagination based on the virtues of humility, modesty and accountability, which all cultures and traditions exercise and through which they contribute diverse solutions. Higher Education has to be involved so what does sustainability in Higher Education mean? The following sections consider some implications for tertiary educators, including transformative learning; the need to evaluate; and the challenge of 'resistance' at various levels. I then suggest Sense Making Methodology as a useful tool in designing and evaluating curricula and their impact on

students, before considering leadership, the idea of global citizenship and what might be involved in a sustainability-based university, a *Gaiademia*.

2. Sustainability in Higher Education

Tarah Wright (2010) identifies Sustainability in Higher Education as an emerging field needing more research into what university stakeholders know about it and how they view the university's role in relation to it. Dobson (1996) in Jickling and Wals (2008, p. 12) found over 300 definitions for sustainability and sustainable development, many of which had been developed by private enterprise. Unfortunately, sustainable development can be used as a "diversionary concept…incapable of imposing sanctions on government or industry" (ibid. p. 15). I use the following, international engineering team's definition, because it centres on responsibility and equity and includes all other species, on which our survival depends (Ehrenfeld et al., 1999, p. 12).

> Sustainability is a possible way of living or being in which individuals, firms, governments, and other institutions act responsibly in taking care of the future as if it belonged to them today, in equitably sharing the ecological resources on which the survival of human and other species depends, and in assuring that all who live today and in the future will be able to satisfy their needs and human aspirations.

UK educator Stephen Sterling clarified three levels of educational response and their associated problems. Level one is "Education about sustainability," by which he means First Order change/learning or "learning as maintenance of current paradigm" (2001, p. 15). Sustainability here functions as an important, but controllable "add-on" in which learning means transmitting knowable, uncontested sustainability as a separate content area. The second, more progressive level is "Education for sustainability". This involves "learning for change" and includes examining values (Ibid., p. 60). It challenges the assumptions of "first-order thinking" and engages with the metacognitive dimension of learning about learning. Its underlying myth is that with policy reform, humans can 'manage' the world's complex eco-systems in the same way as a business. Third Order change is the challenging "education as sustainability" or "learning as change which engages the whole person and institutions" (Ibid., p. 61). This kind of education would develop graduates who will be open to evolving alternative ideas in their personal and professional lives. They would be *Globo sapiens* or wise global citizens (Kelly, 2008).

Wals and Jickling view the complexity and multiple perspectives of sustainability as positive opportunities to grapple with its meanings and impacts on every aspect of universities: "their core values, their practices, their entrenched pedagogies, the way they program for student learning, the way they think about resources and allocate these resources and their relationships with the broader community" (2002, p.129).

2.1 Implications for tertiary educators

Universities and their staff serious about contributing to a sustainable world would think "not merely *about* the world but on *behalf* of the world" (Rappaport 1994, p.292, in Barlett, 2008, p.1079). This raises the issue of what skills and qualities teachers in Higher Education need to do this and how they acquire, challenge and or extend them. Graham

Badley (2000) suggests a useful framework. Globally competent practitioners in Higher Education need "academic competence" in a content area, (knowing what). Even in terms of knowing 'what', climate change means that we need to understand and integrate new areas of substantive knowledge into our respective areas of expertise. This keeps us up to date and able to work in transdisciplinary contexts. We also need "operational competence" (knowing how), which increasingly involves "knowing how in different socio-cultural conditions" (ibid., p.245). This leads to increased pressure for academic staff to acquire formal teaching qualifications, just as teachers at every other level must have. Badley adds to this a "transformatory and democratic approach to one's own teaching" (ibid., p. 245) which would help to create the supportive conditions for active learning. This aspect makes some educators nervous, but public institutions that empower individuals, reap the rewards in the collective transformative effects on society, since empowered individuals are "more public spirited, more tolerant, more knowledgeable, more attentive to the interests of others and more probing of their own interests" (Warren, 1992, p. 8, cited in Mezirow, 2000, p. 28).

2.2 Transformative learning
Changing worldviews involves the risky process of personal transformation as we unlearn and relearn how to reconnect with our roots, nature and each other. Transformation is complex and deeply personal, so educators need an ethical commitment not to indoctrinate students by trying to convert them to our views. They also need to be aware of the legitimate opportunity to "foster learner awareness of the need for change through transformative learning" (Mezirow, 2000, p.231). Dutch educator Karel Mulder (2010) also argues against preaching but *for* active learning, which he admits calls for new teaching capabilities that lecturers may not have. A democratic educator's role is helping learners become more aware of the context of what they understand and believe; more critically reflective on their own and others' assumptions; more engaged in discourse and more effective in taking action on any reflective judgements they make (Mezirow, 2000, p.31). This needs appropriate professional development programs to support new approaches, as well as time to attend and do the professional and *personal* work involved. Simply adding another expectation to academics' roles will not help.

2.3 Evaluate or perish
Leading and sustaining change needs supporting evidence. Innovators are often so busy doing something new that they forget to document successes and failures. Evaluating is also problematic because negative evaluations can impact more on those who teach innovative and challenging subjects. Students may take longer than one semester to absorb or appreciate new content and processes and may evaluate harshly as a consequence (McDonald & Mills, 2007, p.26). Negative responses and evaluations can be particularly disheartening for early career or casual staff, who often teach large first year cohorts. Consequently they may avoid or dread evaluations. They need senior staff support as well as access to varied informal and formal evaluation methods. Informal methods such as the One Minute Evaluation are easy to administer and collate and provide early, positive and constructive feedback (Angelo & Cross, 1993). The One

Minute Evaluation is anonymous and consists of a sheet with two open-ended sentences for students to complete and hand in at the end of a session:

One thing I learned or am taking away from today's session is… ; and;
One unanswered question or unclear area I am leaving with is….

I have varied this by asking students to discuss their evaluations in small groups and then answering some of the groups' unanswered questions in class, before the sheets are collected. This is non-threatening, interactive and participatory. Students realise that not everyone responds the same; that they are not alone, and that their responses are a valued and valuable part of their learning. The collated responses provide their teachers with information to improve *before* formal evaluations take place. Analysing student evaluations for example, reassured our team that far from 'everyone' hating the unit content and process, as a small group maintained, 65% accepted it willingly or grudgingly, 25% hated it at the beginning but changed their minds, often dramatically, by the end of the unit, and around 10% remained steadfast in hating it (Kelly, 2008). This accords with other literature on attitude change (George, 2002, Taylor, 2005). The issue of 'resistance' is significant in sustainability education. I explore some of the issues below including include recent aggressive arguments that sustainability is "eco-corruption" and "corroding the curriculum" in Higher Education.

2.4 Resistance
Like our students, we and our institutions are sites of a values struggle between marketised or corporatised futures and sustainable futures. Mulder acknowledges that "neglecting norms and values means in fact that the implicit norms of our society are taken for granted" (2010, p.82). My research with large cohorts of first year engineering students from diverse backgrounds gave me greater understanding of the issues of transformative pedagogy and resistance (Kelly, 2006, 2008). In terms of transformative pedagogy, we may begin with great enthusiasm, often as an individual curriculum effort, assuming others will welcome it: *Boy, have I got an idea for you*! However, without support and careful preparation, there may be an equally strong negative response: *No one asked me if I wanted sustainability!*

It is important to acknowledge the strength and impact of negative reactions from students or staff because they can seem so overwhelming and intimidating. The main problem is that 'Resisters' usually claim to speak for everybody else, and are often loud and aggressive in their criticisms. Sense Making Methodology moved me beyond labeling resisters to seeing their behaviours or resistings. In the sustainability in Higher Education area, for example, the work of Wood (2010), Williams (2010) and others illustrates the tenor of resistings that may be met at any level when working for attitude change. Wood (2010, p.11) is one of the vocal critics who welcomed what they call "Climategate" because in his words, it "has made global warming skepticism respectable". He regards "global warmingism" as "quasi-religious", "cultic" and having produced "close-minded (sic) zealots" (Ibid., p.15) whom he labels 'sustainatopians' (Ibid., p.16) or 'sustainabullies' (Ibid., p.19). He finds the idea of 'reenchantment' particularly threatening, damning an article by anthropologist Peggy Barlett (2008) as a

"manifesto" which promotes pushing aside rational scientific approaches to nature (Ibid., p.15).

I read Barlett with interest. She does not reject or 'push aside' scientific views. She argues for a "reenchanted" relationship, by which she means a "personal reconnection" to "other species and to the earth's living systems" (2008, p.1077) as part of a new contemporary worldview. She suggests that "expanding" and "complementing" current scientific thinking as part of a new "stereoscopic vision" would result in increased awareness and willingness to take the actions we need (Ibid., p.1078). This might also nurture the imagination and creativity which Sardar (2010, p.16) sees as essential to developing alternatives to business-as-usual. In terms of disconnection, my enduring image is that of an international student who was being shown the Brisbane Botanical Gardens as part of a student induction tour. His response was not admiration for this beautiful space in the centre of a large city but puzzlement as to why such prime land was not being 'developed'.

Seeing past attitudes to behaviours and trying to understand what lies behind resistings can avoid some of the more aggressive responses to change, many of which are based on fear. We can then encourage "respectful dissensus" (Smyth, 2002, in Jickling & Wals, 2008, p.16) and "mindful learning". A mindful transformative learning experience involves not just using reflection to reassess our beliefs and the presuppositions behind them but going further to act on the insights (Mezirow, 2000, pp 23-4). I looked for a methodology to support this approach.

3. Sense-Making Methodology

Further research and individual interviews using Brenda Dervin's Sense-Making Methodology (SMM) (2003) gave me deeper understandings of what lay behind the anger and contempt of the 10% student 'resisters' as well as the transformation of the 25% who changed their minds. I cannot do justice to Dervin's SMM here but it works at all levels, in framing questions, collecting data and analysing data. SMM aims to create spaces in which "people hear themselves and each other and express themselves in ways that make hearing possible" (2003, p. 345). This is particularly important in multicultural settings, now the norm in most universities. One example of a space-creating teaching strategy is the Peer Interview, which involves each student interviewing another student, preferably from a background/gender different to their own. From a Sense–Making perspective, the Peer Interview enabled students to ascertain how others saw them and their work and how others saw *themselves*. The greatest lesson for many students was becoming aware of how misleading stereotypes can be. The example below is from an Australian from an English Speaking Background (ESB) who interviewed an Australian from an Asian background.

> *What was most surprising about interviewing "F" was how wrong my first*
> *perception was of him. It was also inspiring to see someone who has*
> *different priorities to me can think so similar in the respect that he would*
> *like to see everyone in the world showing respect to each other.* (Male,
> ESB)

Students from NESBs received similar surprises, as is evident from the use of the qualifying word "however" in the next example.

> *He is a born and bred Australian, however he still enjoys the interesting aspects of other cultures* (Male, NESB)

The interviews provided "authentic experiences…'memorable' events that engage that person in an individual way, so that they determine and guide transformations" (Ehrenfeld et al., 1999, p. 34).

My research interviews with 26 students, after they had completed the unit, were based on the fundamental Sense–Making Triangle – "how the respondent sees the situation, what gaps the respondent sees self as facing and/or bridging, and what ways the respondent saw self as helped by the bridge he or she built" (Dervin, 2003, p. 224). My aims were:

- *to identify how these students saw their situation – their emotions and feelings*
- *to describe the gaps they identified and had to bridge as part of their learning through the Reflective Journal process*
- *to describe the helps and hindrances in this process; document the outcomes and use this to improve the curriculum.*

I had used Reflective Journals as a core learning strategy. SMM-guided interviews illuminated the gaps and where they occurred in the journal process (Kelly, 2006, 2008). Knowing this helped me to provide more appropriate support in order to avoid the frustration and fear that fuel many resistings. The gaps were represented by the questions that interviewees had as they revisited their learning in the unit. "Relevance", "Writing", "Getting Started", Peer Interview, "Assessment" and "the Future" comprised two thirds of the 208 questions they asked. Here, I summarise some findings about writing because journalling is often used without building on previous research, or understanding that it can be particularly threatening to vocational students.

There were many fears around writing. Some mature entry students had not written assignments for many years and feared poor performance compared with school leavers. Some were anxious about writing in their second or third language. Some had low self esteem because their writing had been savaged as "no good" at school. Some (male and female) found it difficult to express feelings at all. Some felt the set topics, such as ethics, personal growth, or socially responsible technology, had nothing to do with their constrained ideas of engineering and their image of the profession. Some were challenged simply by being asked to *have* an opinion since they had not thought about important global issues, or their implications on them and the planet. This is not unique. Nearly three-quarters of students in a UK-based study "felt they'd learned little or nothing about global issues at school", even though 98 percent thought it was important (in Hicks, 2002, p. 37). Teaching strategies to address these fears include careful (online) scaffolding of the journal process; identifying fears and acknowledging them as 'normal'; prompt, non-judgemental, formative feedback on early journals; and industry role models who can assure students that communicating effectively and emotional intelligence are essential to

their professionalism. This is particularly true for engineers, many of whom will be managing others after only a few years in the workforce.

3.1 What does it add?

Transformative education is a complex process which assumes high level skills and a scholarly approach to teaching and learning. Seeing beyond resisters to what causes resistings can improve curriculum and teaching. Acknowledging negative emotions is an important part of the critical reflection that marks a transformative journey (Morgan, 1987, in Taylor, 2000). It is equally important in group work to "embrace" rather than avoid conflict (Saavedra, 1995, in Taylor, 2000, p.314). All of the processes which encourage transformative learning take time. This is limited in universities suffering from 'hurry sickness' (Gleick, 1999) with crowded curricula and pressured work-loads. There is no transformative recipe you can quickly pick up, 'apply' and then tick the 'done' box. However, previous research can save us from rediscovering wheels or making already identified mistakes. This applies equally to changing institutions.

4. Nurturing a Gaiademia

A meme is an idea that transforms, as opposed to informing (the educational perspective) or empowering (such as a strategy, or capacity building) (Inayatullah, 2003, p. 3). Since Growth is not proving a sustainable 'meme', what might nurture a sustainability-based academy, a *Gaia*demia? Rorty in Princen, (2008, p.1093) argues that fundamental changes are more likely to come when we hear people "*speak differently*", offering a new language to create a different consciousness. Speaking differently is evident in the growing challenges to growth (McKibben, 2010b; Gleeson, 2010; Gittins, 2010; Hamilton, 2010). Critical futurist Sohail Inayatullah suggests Healing, of ourselves and the planet, as an alternative meme to growth (2002, p. 142). Healing is already challenging the current, destructive, no-limit growth and adversarial meme that underpins our present. This kind of cultural struggle is clear in the recent US film *Avatar,* which, although still wedded to a violent solution, flirts with the alternative world of the planet *Pandora,* whose indigenous inhabitants use a science based in their collective, powerful electro-chemical interconnections with Nature, to heal the Earthlings damaged in mind and body by their own denaturalised and violent world (Kelly, forthcoming).

4.1 Signs of hope

To varying degrees, many universities are engaging with the challenges of the 21st century (Barlett, 2008). Australia's Monash University recently advertised for a Professor and Convenor, Education for Sustainability, to work with faculties on planning and processes to "enable sustainability initiatives to be embedded into the curriculum". This is one action towards the university's stated vision of "making significant improvements to the human condition" (The Australian, 28 April, 2010, p.26) and implies an awareness of equity for humans, if not other species. Going further, the Universiti Sains Malaysia (USM) with leadership from the Vice-Chancellor and workshops run by Australian-based futurist Sohail Inayatullah, used scenarios to develop an alternative preferred vision of "the University In a Garden" (Sayer, 2010). This provides a healthy environment which nurtures the "flowering of minds", with the university as a 'tree of knowledge' whose

roots are nourished by academics and whose branches "represent the holistic development of young minds without abandoning their interconnectedness with nature in a sustainable way" (USM, 2007, p.69, in Sayer, 2010, p.63). Sense-Making Methodology could extend this by changing the noun knowledge to 'knowings'. This 'verbing' opens up the concept and reduces the risk of knowledge becoming one group's non-negotiable Knowledge.

USM's nurturing language is a poor fit with the dominant higher education discourse of preparing graduates fit for the 'real world', which means the Market. Elsewhere, I have critiqued the way two recent Australian engineering-related reports maintain this discourse (Kelly, 2010). So, at the same time as USM is developing its healthy vision, their Bulletin of Higher Education advertised a USM publication intended to help the Ministry of Education and university authorities to devise university curricula to "meet employability needs"(Pandian, 2009). Consulting industry is not the same as regarding it as the arbiter of curricula, which can then only produce globally portable Mcgraduates. We will know change is happening when we talk about markets fit for our graduates.

The Vice-Chancellor of USM, Professor Razak, has accepted that tinkering around the edges won't be sufficient, that its vision involves transformation, and that this involves challenging comfortable myths, exploring alternatives and 'unlearning' (in Sayer, 2010, p. 2). In May, 2010, Taiwan's Tamkang University held an international conference to begin considering the implications of climate change for that university. Informed, supportive leadership plays a pivotal role in supporting or hindering sustainability moves in Higher Education at every level.

4.2 Leadership
Indian scholar P.R. Sarkar developed the Sanskrit leadership concept *Sadvipra,* an ideal leader who integrates the qualities of courage to protect the weak; intellect in order to advise; practical knowledge to manage finance; and devotion to duty. A *Sadvipra* not only supports change for the better but creates opportunities for others to do the same (in Inayatullah, n.d. n.p.). It is interesting to compare this ideal with Wright's research into the complex reality for one group of university leaders.

Wright (2010) surveyed twenty one university presidents and vice-presidents from sustainability-aware Canadian universities. Most of her leaders welcomed the opportunity to define their understanding of sustainability. However, when they later used her checklist of potential concepts associated with sustainable development, it brought previously unmentioned concepts to the surface. For example, none included gender equity in their initial sustainability definitions but 76.5% identified it as an essential component of sustainability on the checklist. Similarly, 70.6% considered "giving inherent value to the non-human world" essential, but had not considered it before seeing the checklist (Wright, 2010, p.65). Her research makes clear that all stakeholders in the university need the time and opportunities to develop their understandings of sustainability. She identified three main barriers to universities implementing sustainability on campus; financial barriers, lack of awareness of the issues and resistance to change. There was a slight but interesting difference in this research. While lack of

awareness was acknowledged, the participants in her study thought that university stakeholders knew about the problem and the need to change but that "the structure of the university and people's attitudes to change…served to maintain and perpetuate the status quo" (Wright, 2010, p.69.). A *Gaia*demia would involve deep stakeholder involvement, redesign and a willingness to learn from other places and other cultures. The concept of global citizenship is one example.

4.3 Global citizenship
David Orr regards equipping a generation able to "respond with energy, moral stamina, enthusiasm, and ecological competence" as "the challenge of education" (in Sterling, 2001, p. 9). Global citizenship is an ancient idea, given new capacities by communication technologies (Attfield, 2005, p.43). A deep interpretation of global citizenship goes beyond a commitment to some kind of "global ethic" and inter-human responsibilities, to our responsibilities to all "non-human members of the biotic community" (Ibid. p.44). This includes the communal natural resources known as the global commons. In the non-anthropocentric view, these are not just resources for humans to exploit. We hold them in trust for future generations of humans and other species.

Attfield's work is heartening since he challenges the power of the "domination over nature" myth which has led us into this mess. He reminds us of an alternative Western tradition of stewardship, in which healthier attitudes can flourish and be nourished by similar traditions from very different cultures. Here are two of the limitless potential sources. The Pacific-based educator Konai Thaman argues passionately for education that recognises and responds to the knowings embedded in indigenous worldviews. For Thaman, "Indigenous wisdom offers an "inclusive, holistic, and interdisciplinary way of thinking that champions stewarding nature, participating in community and valuing inter-personal relationships" (2002, n.p.) This provides a healthy alternative to the mainly Anglo-American form of globalisation and current, associated values of privatisation and commercialisation which have had such destructive impacts on Pacific nations among others.

Confucian heritage offers another example. This is important because China's cooperation and leadership are critical to resolving major global problems. Harris (2005, p.134) argues that "wealth creation usually trumps environmental protection in China" despite awareness at government and elite levels and a raft of environment laws. General awareness is low, there is a legitimate desire for higher standards of living and consumerism, as elsewhere, is a convenient distraction. He suggests combining the best of the West and the best of China's traditions to develop "new *Chinese* environmental values" (2005, p.136). Julia Tao suggests a source of sustainability wisdom from the Chinese Confucian moral tradition. "*Relational resonance with nature*" is based on the duties of "care and reciprocity" (Tucker and Berthrong, 1988, xxxviii, in Tao, 2005, p.69). Reciprocity here means "returning good for good" and seeing oneself "as part of a larger overlapping network of reciprocal relationships" (Tao, 2005, p.76).

5. Conclusion: From WIFM to WITT

I have argued that growing global crises impose new and extra expectations on educators and students. In this context, embedding sustainability in Higher Education is not a product but a conversation-in-progress that involves us all. There are powerful critics who reject the conversation, as well as teachers and students who resent or fear its challenges to the status quo. If we take embedding sustainability seriously, we will engage in massive values change as we struggle to move from a What's In It For Me? (WIIFM) world to a We're In This Together (WITT) world. This means envisioning better alternatives and creating them together, using methodologies and strategies that support transformative education.

There is no easy way. Changing to healthier visions will need informed leaders prepared to support the work. They will make sure there is time and money for professional development for staff since sustainability education involves inner, personal work as well as outer, professional work. There are diverse, possible paths to developing the responsibility and wisdom that are key attributes of the 'critical beings' we need, who can go beyond critical thinking to critical action. They will be *Globo sapiens*, whose qualities include empathy, global consciousness, transgenerational thinking, the ability to contemplate changes to their current way of life, courage, and being able to work for healthier futures. The work has barely begun.

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