



## **What About The Kids? Why Public School Policy Makers Should Be Tackling Climate Change For Our Children**

**By Denny Taylor, March 21, 2016**

<http://garnpress.com/2016/kids-public-school-policy-makers-tackling-climate-change-children>

**“DON’T PANIC”** – The white lettering is seven and a half inches tall and the background color is red. The journal is the *MIT Technical Review*<sup>1</sup> and the subtitle which overlays the huge white letters of “Don’t Panic” is **“WHAT TO DO ABOUT CLIMATE CHANGE”**. The gist of the article is: “It’s too late to stop climate change from happening. But we can begin to limit the damage and slow it down.”

The special issue of the *MIT Technical Review* includes signage to illustrate the problem – “Are we dead yet?” “Dump Nature” and “My Carbon Footprint is Bigger than Yours”. In the article **“STOP EMISSIONS!”** Ken Caldeira writes, “Public attitudes must change so that is no longer acceptable to dump carbon dioxide in the sky” (p. 41).

I agree, but would argue that if it is important that the attitudes of the public are to change, we must change the ways we educate children. It follows that if we are to change the way children are educated to prepare them for the rapid changes that are taking place to the planet, the first

thing we must do is dump corporate education reform, which is preparing children to follow in the large and dangerous carbon footsteps of the powerful elites, some of whom have deliberately misled the public with regard to climate change.

**We know our kids are in danger because** there is now indisputable scientific evidence<sup>2</sup> that Earth has left the remarkably stable 10,000 years of the Holocene, and the planet is now in transition to some other state. This is not breaking news, even if the mainstream media has duped the public and the real news is not reported.

**My research is in the interface (often a gap) between** the physical and social sciences, and includes the historical and present day writings of philosophers, novelists, poets, as well as the conceptual work of artists.

**My Key Message is:** Never doubt the power of the people to respond when they know their kids are in peril.

Because of the increase in risks to human existence, there is a tremendous urgency for us to act quickly, even if governments do not, to protect our children and make planet Earth a child safe zone.

**What is remarkable about this moment in time is that people have the capacity to determine the future of the planet.**

Martin Rees, the renowned astrophysicist, tells us that for the first time in **45 million centuries** one species – the human species – has the capacity to determine the future of the planet.<sup>3</sup>

Scientists are unequivocal – and here I am quoting:

**“Earth System has moved well outside the range of the natural variability” and “is currently operating in a non-analogue state.”**<sup>4</sup>

“The nature of changes now occurring simultaneously in the Earth System, their magnitudes and rates of change are unprecedented.”<sup>5</sup>

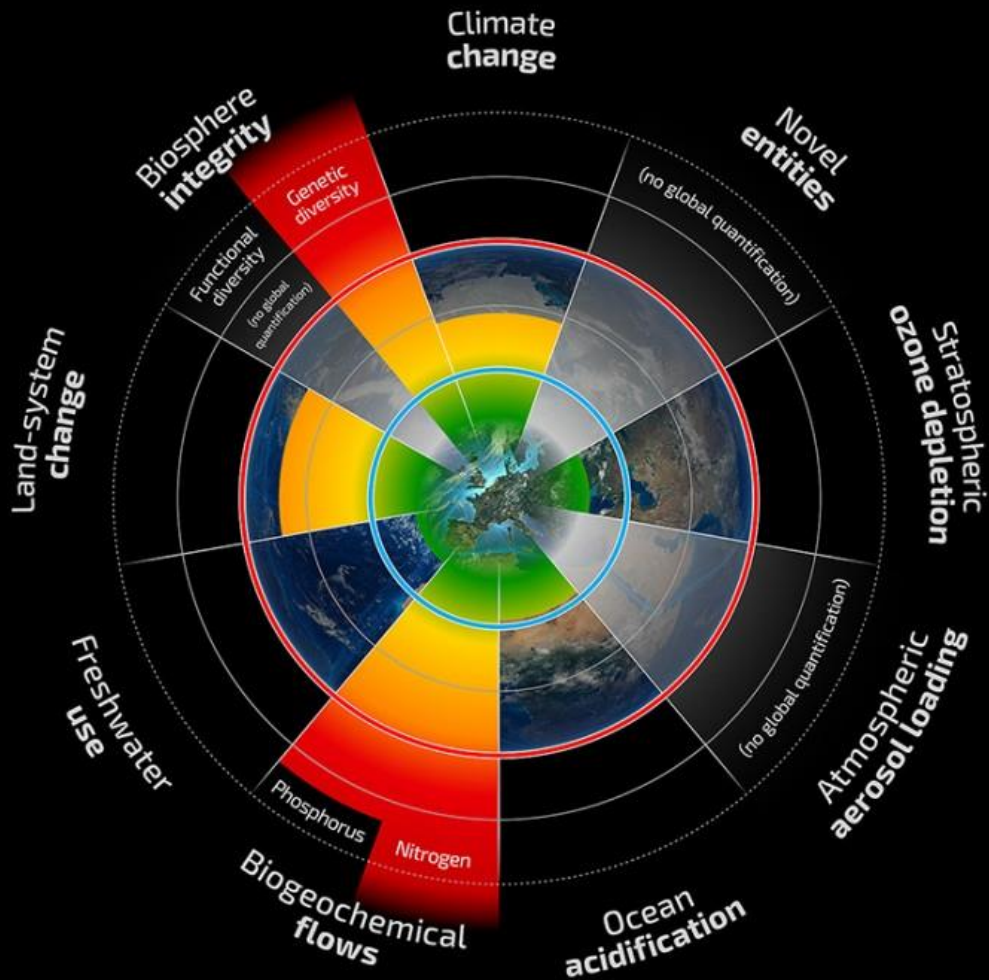
“Humanity is standing at a moment in history when a Great Transformation is needed to respond to the immense threat to the Earth.”<sup>6</sup>

In **2009** Johan Rockström and scientists working with him identified **nine planetary boundaries** essential for “a safe operating space” for human life on the planet, and provided scientific evidence that four of these planetary boundaries have been breached.<sup>7</sup>

Rockström states that these planetary boundaries, which are depicted in the graphic, are “hard-wired”, “non-negotiable”, and vulnerable to “disruptive change”.

# Planetary Boundaries

A safe operating space for humanity



Source: Steffen et al. Planetary Boundaries: Guiding human development on a changing planet, *Science*, 16 January 2015.  
Design: Globalia

Scientists have been quite clear that significantly altering two of these planetary boundaries – climate change and biosphere integrity, both of which have been breached – will “drive the Earth System into a new state”.<sup>8</sup>

“We are running blindly, head on,” to quote Bertrand Russell who was speaking of the H-bomb on December 23, 1954 when he delivered his somber message, “Man’s Peril” to the BBC.<sup>9</sup>

“The question now confronting the world,” Russell said, was: Are human beings “so destitute of wisdom, so incapable of impartial love, so blind even to the simplest dictates of self-preservation,” that they would carry out “the extermination of all life on our planet?”

Einstein, who had agitated vigorously against nuclear weapons since their inception, responded that he agreed “with every word” of Russell’s letter, and he said, “something must be done” that “will make an impression on the general public as well as on political leaders.”<sup>10</sup>

“If even a small fraction of Arctic sea floor carbon is released to the atmosphere, we’re f’d,” the glaciologist Jason Box, known as the “Ice Man”, tweeted on 29 July, 2014. There were 12,891,289 retweets, and almost 500,000 people favored it.

“We’re on a trajectory to an unmanageable heating scenario, and we need to get off it,” Box tells us. “We’re f’d at a certain point, right? It just becomes unmanageable. The climate dragon is being poked, and eventually the dragon becomes pissed enough to trash the place.”

“Small steps will no longer get us to where we need to go,” Box tweets. “So we need to leap.”

Glaciologists are tweeting warnings on an almost daily basis now;<sup>11</sup> and science writers are tweeting that the glacial lakes are ticking time bombs, and that seismic signals reveal changes in water release from glaciers.<sup>12</sup>

**Massive shifts, both north and south, are already taking place in the long established habitats of flora and fauna. Ecological shocks are causing great terrestrial migrations, and changes in both temperature and acidification are causing similar aquatic mass migrations.**

Life on the planet is on the move, but there are no safe havens for any species – and people are equally affected by this human induced exodus from the very stable period of the Holocene into the epoch of extremes now called the Anthropocene.

Great human migrations are already taking place with 60 million people stateless worldwide. Many are refugees fleeing persecution from countries in which there is armed conflict following years of drought and famine that can in part be attributed to climate stress and anthropogenic change.<sup>13</sup>

And we know that the unspeakable human suffering will undoubtedly increase if we continue on our present trajectory, perturbing the planet, standing by while species die, and producing vast dead seas of plastic, as we continue to treat the planet like a giant trash receptor and an electronic waste dumping ground.

**But, however bad the news there is also good news** – many scientists are optimistic that we have the scientific knowledge and capability to respond to the anthropogenic changes that are

occurring. They are adamant that unless the laws of physics rule something out, we have the capacity to alter course, however difficult that might be.

**And so, for the sake of our kids we cannot lose hope.** Despair paralyzes us, and we have to give it up. Hope is the essence of human existence, and what is inspiring about so many ordinary people – young people, old people, you and me – is that we are incredibly good at reaching beyond what we think we are capable of doing, and we become positively heroic when we are confronted by life threatening catastrophic events.

It is this inner strength, strength that comes from emotion as well as reason – the never doubt the power of the people to respond when they know their kids are in peril – that we must dig deep and find now. However dire the situation, we can overcome it.

**We know what is happening to the planet and we know what is going to happen to our kids if governments don't act and act quickly.**

But still the climate change deniers in the U.S. Congress and the pro-carbon lobby promulgate doubt with the intent to derail all thoughts we might have of the actions we can take when the future of our kids is at stake.

By profligating denial of climate change, and by defunding and limiting expenditures on mitigating climate change and environmental problems, the US Congress is actively engaged in protecting the corporate interests that have supported their political campaigns, while willfully ignoring the very real and very grave threat that exists to children and to all human life on the planet.

***If we are to save our kids from a bumpy ride in the 21st century it will take every last one of us working together, sharing insights, imagining ourselves differently, as we re-establish the connections – the systemic relationships – between *not only* people and the planet, *but also* people and the universe.***

“We’ve just got to think longer and harder,” Martin Rees<sup>14</sup> the renowned astrophysicist says, and that is exactly what we all must do.

“We’ve learned that we live in a solar system that is one planetary system among billions,” Rees says, “in one galaxy among billions.”

“And another thing which I think is a really great discovery,” the astrophysicist says, “... is that ... every atom in our bodies can be traced back to before the solar system was formed, and we can say that each of us has inside us atoms of hundreds of different stars which lived and died in different parts of the milky way galaxy more than five billion years ago, and so we are intimately linked to the stars ... and this is a wonderful way in which we realize the unity of the cosmos.”<sup>15</sup>

**For many of us this knowledge alone changes our conceptions of the relationships between people and the planet. It interrupts the clockwork of our mechanistic world and changes the way we think about the universe.** Imagining ourselves as being midway between atoms and stars changes the ways in which we think about the complex relationships between humanity and nature.

Intuitively it encourages us to *imagine time differently*, as we rethink our place here on Earth and the Universe, or the Multiverse, which is the way that Rees imagines it.

Rees states, “This century is a defining moment” for people and the planet. He speaks of the “human induced alterations” that are occurring to the biosphere, and when asked how long he thinks we have got, he responds that within two hundred years we could enter “a post human era” if steps are not taken to eliminate our carbon footprint on the planet.<sup>16</sup>

If we imagine ourselves as intimately connected to the dawn of time, then even a very long human life is very short indeed. If I stretch my hand back I can imagine holding my grandmother’s hand when I visited her as a child in the 19th century coalmining village in Wales. If I stretch my hand forward I can hold my granddaughter’s hand who was born in the U.S. in the 21st century.

In my imagination I can hold the hands of both my grandmother and granddaughter, and intuitively I can feel time pressing in as we experience the weight of the world upon us.

Scientists are telling us that if we are to avoid a catastrophe of cataclysmic proportions, we must decarbonize and reach zero carbon emissions by 2050. And they are almost universally pessimistic about the likelihood of this happening – not because it is an impossible task but because to minimize the rise of carbon dioxide in the atmosphere depends on the actions of politicians and parliamentarians and the growing difficulty of governance.

**So again, what can we do?** We know that this century will be a defining moment for humanity. Our children and future generations of children are in danger, and our political masters leave us without even a rudimentary attempt at governance on these great problems. So what we can and what we must do is become first responders and *act*.

**If we shake off old habits of mind – the mechanistic ranking sorting ways in which we have been taught to think – and if we study the scientific evidence** , we can work together to establish first response initiatives that will minimize the impact of anthropogenic changes on our kids. It is up to us to make provisions to safeguard the future of our children.

Our kids will have to cope with the increasing incidence of extreme weather events, human habitat destruction, population displacement, air, water, and ground pollution, crop failures, food supply depletion, public health emergencies, and other factors, which will lead to increases in global unrest and armed conflict.

If we *re-* imagine our connection to the planet and the universe, we can begin to imagine time differently, and we can become far more aware of the destruction<sup>17</sup> caused in the last two hundred years by people on Earth.

If we are to change societal thinking about our way of life, if we are to reestablish and reconnect the severed relationships between people and the planet, that work must become the bedrock of our K-12 public school system.

If we can change the way we educate our children, we can restore the social fabric of society and make equality integral to our economic system.

If we imagine ourselves differently – midway between atoms and stars – of necessity we will have to think differently quickly, because if we don't, this will be humanity's darkest hour.

“Civilization *is* in a race between education and catastrophe”, H. G. Wells advised us, and so the fastest way to change the future of the planet is to change the way we educate our children. It is the quickest and most effective way we have of making Earth a child safe zone and sustaining human life on the planet.

**We have got to reverse the damage caused by presidents and prime ministers, politicians and parliamentarians, who have set the world's children on a collision course with anthropogenic changes to the planet by turning schools into training grounds for children to become laborers in the maladaptive, profit-driven, competitive workforce of the Anthropocene.**

In U.S. public schools and U.K. primary schools children are programmed through multiple-choice exercises and tests to establish a linear mindset that rank orders things. This includes the rank ordering of people, and is a form of societal control that can be characterized as the fill-in-the-bubble standardization of political thought, which frames the fill-in-the-bubble workforce of our anthropogenic world.

**Capitalizing on these politicians' anthropogenic *acts*, corporate education reformers have now monetized public education, and companies such as Pearson are reaping the benefits in revenues and profits in the U.S. from the mandating of the maladaptive Common Core and high stakes tests.**

The policies and mandates of federal and state sanctioned corporate education reform has turned public schools into anthropogenic child labor mills, established for the sole purpose of providing anthropogenic workers for the very industries that are causing climate and ecological change.

**Policy makers are pushing our kids beyond the limits of human existence on the planet into the abyss of unprecedented uncertainty** – with the very real possibility that our children will experience cataclysmic changes to the planet in their lifetime, far worse than any previous generations have experienced before them.

Quite literally, the U.S. Congress and their business partners are preparing our kids to participate in the anthropogenic business/industrial system that is junking the planet. The same could be said about the U.K., where the exploitation of teachers is rampant and the abuse of children in the education system has become the nation's.

What has occurred is a step change in the education of children – an academic anthropogenic shock in both the U.S. and U.K. – that has well-documented deleterious effects on children's health and wellbeing, as well as on their intellectual development.

**Immediate action can be taken to make schools safe places for children to be and foster resiliency *before* there is a catastrophe.**

**In the aftermath of a catastrophic event, schools are integral to the community's survival and recovery, and must be safe places for children to foster their resiliency.**

**High-stakes test-driven school environments are unable to provide the support that children need.**

**There is a significant body of medical research which supports the proposition that to foster resiliency in children, it is important that we do everything we can to create schools as safe, joyful, playful places even *before* catastrophic events take place.**

*If* children are to have the maximum opportunity to become resilient and recover from potentially traumatizing experiences of the existential risks of anthropogenic change, every effort should be made to:

1. Establish schools as safe, joyful places for children;
2. Ensure that schools are nurturing and fun environments in which play is central to the curriculum;
3. Recognize the importance of the languages children speak and respect their heritage and national identity;
4. Promote children's health and well-being by providing them with opportunities to sing, dance and play musical instruments;
5. Enhance academic learning through literacy activities, art and science projects, and other meaning making practices;
6. Welcome families and encourage parents and caregivers to actively participate in the life of the school through events that incorporate music, theater, dance, science and literature.

Power brokers should know that the steps they are taking to dismantle U.S. public schools and privatize public education are obstructing the preparations communities need to make in response to anthropogenic change.

**Instead the focus of federal and state representatives and agencies should be on reallocating resources and establishing social and psychological support systems so that**



**schools have sufficient time to recover from the structural disadvantages that have been imposed on them.**

The enduring message is that children need schools to be safe joyful places *before* disasters occur if they are going to have the opportunity to recover when disasters occur.

In the years to come, as anthropogenic change intensifies and catastrophic events occur more frequently, as will undoubtedly happen, it is parents who will rise to the challenge to protect their children, and teachers who will invariably be first responders when disasters occur.

We might not have faith in the U.S. or the U.K. governments, but we do have faith in people, in the ability for parents and teachers to quickly morph from the ordinary to be extraordinary, to take a leadership role *and act*, when our “leaders” are bogged down in the increased polarization of the political process and are too burdened by privilege to act.

All public schools have the same potential to create learning environments in which children can live imaginatively in both the physical and virtual worlds –learning environments in which intellectual engagement of students in imaginative thinking is the foundation of a project-driven, problem-solving curriculum, and where students are not restricted by test driven lessons.

There is no reason why such intensely cognitively stimulating academic environments cannot be made available to *all* children. It is in such learning environments that our children quite possibly might, individually and collectively, grow-up to show the leadership that will be needed to tackle problems of cumulative anthropogenic dimensions that their survival will require. For they will be the ones left to make the vital decisions that the leadership of this generation has failed so abysmally to make.

**In the final analysis *we* are the greatest source of uncertainty, if we *act now* our children’s survival is more likely to be secured.**

Never has there been such a common purpose to unite people on the planet to confront the very real threat we face, if not in our lifetime then in our children’s and grandchildren’s lifetime. By establishing a common purpose for the education of children in K-12 public schools, the possibility exists that parents and teachers can create opportunities for children to form deep connections with the life forces of Earth, and also establish the conditions for a rapid rethinking of these connections that will cascade through society, uniting the people around the world who are also struggling to establish strategies for survival even if their governments are not.

There *is* no time to waste. It is of vital importance that we ditch all of the detrimental testing and test preparation that occupies our children for most of the school year. If we do the dropout rate will fall, fewer kids will be medicated, and the money being siphoned off from our educational system by large anthropogenically minded corporations will flow back into our schools.

Most importantly, our schools will become critical sites for the re-visioning of the future, in which caring for our children is the oxygen we breathe. A future in which the wisdom of teachers is recognized and their time is not spent, as it is today, being forced to participate in the commodification of their students' lives.

**Let's make our schools spill over with vitality and intellectual curiosity, where kids smile and laugh, and where they cannot get enough of discovery and learning, *knowing* that by this re-imagining the schooling of our children they will have a chance of overcoming the problems that we have heaped upon them.**

Power brokers will do well to remember that we are not just appealing to their humanity, which has been found sadly lacking. Our appeal is based on science, on empirical research on human development, on research on language and learning, on anthropological research, on sociological, psychological, medical and psychiatric research, and now, in recent decades, on research in Earth system science, all of which have brought into sharp focus the indivisible relationships between people and the planet.

If our children are to survive and thrive in this century, it is imperative that we prepare them with new forms of "worldliness".<sup>18</sup> In their backpacks and tool-kits the "worldliness" they will need is a perspective on life which values imagination, creativity, originality, and innovation, one that is deeply rooted in Earth-human history, is grounded in the present time of human dissonance with the planet, and does not flinch from addressing human conflicts that we experience with each other. In tackling climate change for our children it is imperative that we are vigilant and sensitive to the limited time that they will have to find new ways to sustain human life *on* the planet and to live more closely *with* Earth.

## References

- <sup>1</sup> Don't Panic: What To Do About Climate Change. MIT Technical Review. Vol. 119 (1), January-February 2016.
- <sup>2</sup> <http://planetsave.com/2015/06/30/effects-of-global-warming-on-humans-from-2015-ipcc-ar5-data>
- <sup>3</sup> Martin Rees & Hans Ulrich Obrist in Conversation, June 13, 2014 (at time mark 29:08). <https://www.youtube.com/watch?v=XMHZaVnvN2w>
- <sup>4</sup> The Amsterdam Declaration on Global Change, *Challenges of a Changing Earth: Global Change Open Science Conference*, Amsterdam, The Netherlands, July 13, 2001. Retrieved from <http://www.igbp.net/4.1b8ae20512db692f2a680001312.html>
- <sup>5</sup> The Amsterdam Declaration on Global Change, *Challenges of a Changing Earth: Global Change Open Science Conference*, Amsterdam, The Netherlands, July 13, 2001. Retrieved from <http://www.igbp.net/4.1b8ae20512db692f2a680001312.html>

- <sup>6</sup> Potsdam Memorandum 2007 – A Global Contract for the Great Transformation. *Symposium on Global Sustainability: A Nobel Cause*, Potsdam, Germany, October 8-10, 2007. Retrieved from <http://www.nobel-cause.de/potsdam-2007>
- <sup>7</sup> Rockström, J., Steffen, W., et al. (2009). Planetary Boundaries: Exploring the Safe Operating Space for Humanity. *Ecology and Society* 14(2): 32. <http://www.ecologyandsociety.org/vol14/iss2/art32/>
- <sup>8</sup> Steffen, W., Rockström, J., et al. 2015. Planetary Boundaries: Guiding human development on a changing planet. *Science* Vol. 347 no. 6223. <http://www.sciencemag.org/content/347/6223/1259855.abstract>
- <sup>9</sup> <http://www.washingtonpost.com/wp-srv/style/longterm/books/chap1/resistingthebomb.htm>
- <sup>10</sup> Wittner, L.S. (1997). *Resisting the Bomb: A History of the World Nuclear Disarmament Movement, 1954-1970*. Stanford: Stanford University Press. Extract retrieved from: <http://www.washingtonpost.com/wp-srv/style/longterm/books/chap1/resistingthebomb.htm>
- <sup>11</sup> Nick Golledge ( @nick\_golledge ) and Allen Pope ( @PopePolar )
- <sup>12</sup> Laura Naranjo ( @lknaranjo )
- <sup>13</sup> New Era of Migration. <https://theconversation.com/we-are-entering-a-new-era-of-migration-and-not-just-for-people-48650>
- <sup>14</sup> Rees, M (October 15, 2012). Wall Exchange (Fall 2012). A Cosmic Perspective for the 21st Century. <https://www.youtube.com/watch?v=PGq3gEWGzOM>
- <sup>15</sup> Martin Rees & Hans Ulrich Obrist in Conversation, June 13, 2014. <https://www.youtube.com/watch?v=XMHZaVnvN2w>
- <sup>16</sup> Rees, M. Is this our final century? TED January 2007. [http://www.ted.com/talks/martin\\_rees\\_asks\\_is\\_this\\_our\\_final\\_century/transcript?language=en#t-439000](http://www.ted.com/talks/martin_rees_asks_is_this_our_final_century/transcript?language=en#t-439000)
- <sup>17</sup> <https://theconversation.com/our-prosperity-is-in-peril-unless-we-shift-from-a-wasteful-world-to-a-circular-economy-47247>
- <sup>18</sup> <http://www.childrenandnature.org/>