



Steering Our Powers of Persuasion Toward Our Human Future

Hazel Henderson

Founder, Ethical Markets Media;
Fellow, World Academy of Art & Science

Abstract

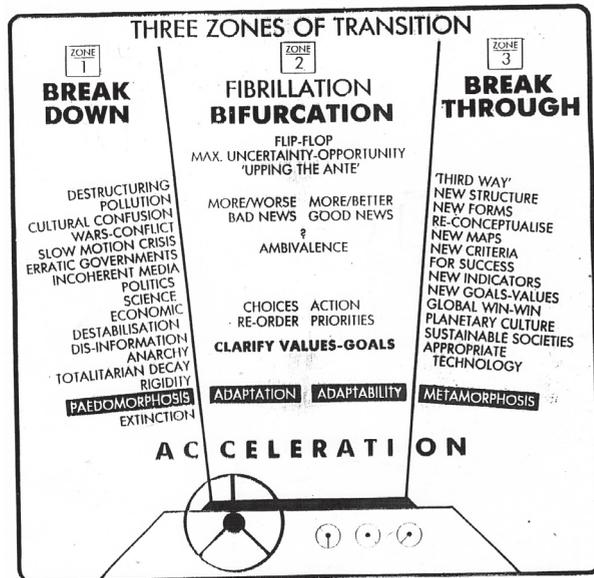
Traces human societies' organizing and leadership modalities, from early nomadic tribes to settled agricultural villages, towns, companies and today's mega-cities, multi-national alliances and the United Nations (UN). Scaling these human organizational processes involved leadership, persuasion, coercion and violence. Initially these processes were steered by warlords, conquerors, religious authorities, secular autocrats, monarchs and emperors. Leadership styles evolved from these earlier often violent means toward loyalty, ideologies, myth-making, communication skills harnessing technological innovation: from printing to today's radio, television, social media, advertising, marketing, computers, big data, algorithmic decision-making and the rise of surveillance in both public spheres and monetizing personal information by private, for-profit corporations. Economic theories see money and prices as behavioral incentives, assuming their social benefits expanding into unpaid, voluntary social communities, as in Arrow-Debreu's model of "market completion", with progress measured in money-based macro-statistics, such as GDP. These market models are too narrow, leading to ecosystem and societal destruction. Expanding economic models and metrics include scientific understanding of dependence of all life on Earth on the sun. New chaos theories and mathematical models expanding our awareness map how human organizations are evolving through global interconnectedness. Diagrams of "Three Zones of Transition" and "Two Major Types of Cybernetic Systems" expand human cognition to help navigate the existential threats to our future survival, based on new ethics, beliefs and behavior, including the UN's Sustainable Development Goals (SDGs) and the traditional Golden Rule..

The 18th century enclosure of our planet's common natural resources that fueled the rise of capitalism began in Britain and was described by Karl Polanyi in the *Great Transformation* (1946). I explored in depth all the issues of human development and our positive opportunities for more sustainable, equitable, cooperative development in *Building A Win-Win-World: Life Beyond Global Economic Warfare* (1996, now an e-book). Proliferating global crises have brought human societies to accept the necessities of transitioning to new forms of culture and behavior if we are to survive, envisioned as Three Zones of Transition. (See Fig.1). A group of international experts report in *Science Daily* that "Pervasive human-driven decline of life on Earth points to the need for transformative change".*

* See <https://www.sciencedaily.com/releases/2019/12/191212142628.htm>

Human societies have always involved the power games of various groups and individuals able to capture resources formerly used freely in common by all, as further documented in many books I cited, as well as Acemoglu and Robinson in “Why Nations Fail.” (2013)* Historically, such power and domination have involved violence, conquering of land and subjugation of others by invading hoards, capture, enslavement, torture and murder. Such early power-wielding patriarchal domination has engendered eventual backlashes against tyrants and dominant elites have been overthrown in revolutions.

Fig 1: Three Zones of Transition



“Powers of persuasion evolved with the invention of printing and ever wider reaches of communications technologies, from books, pamphlets, newspapers to radio, television, advertising, the internet, satellites, Wi-Fi and today’s social media.”

As humanity’s technological prowess evolved along with the physically destructive power of weapons, ever more sophisticated psychological means of subterfuge emerged beyond instilling fear and terror. Powers of persuasion evolved with the invention of printing and ever wider reaches of communications technologies, from books, pamphlets, newspapers to radio, television, advertising, the internet, satellites, Wi-Fi and today’s social media. Control spread via attention economies, mass media and influence industries based on psychological methods of behavior modification, as described in “Mediocracies And Their Attention Economies”.† I began opining in the 1990s about the need for global governance in the emerging Information Age. I became worried that the infant internet was already being overtaken by commercial values and Silicon Valley’s focus on Wall Street’s short-term interest in greed, making money out of money and maximizing shareholders’ returns. All this consumerism catering to advertising-stoked demand for ever more material

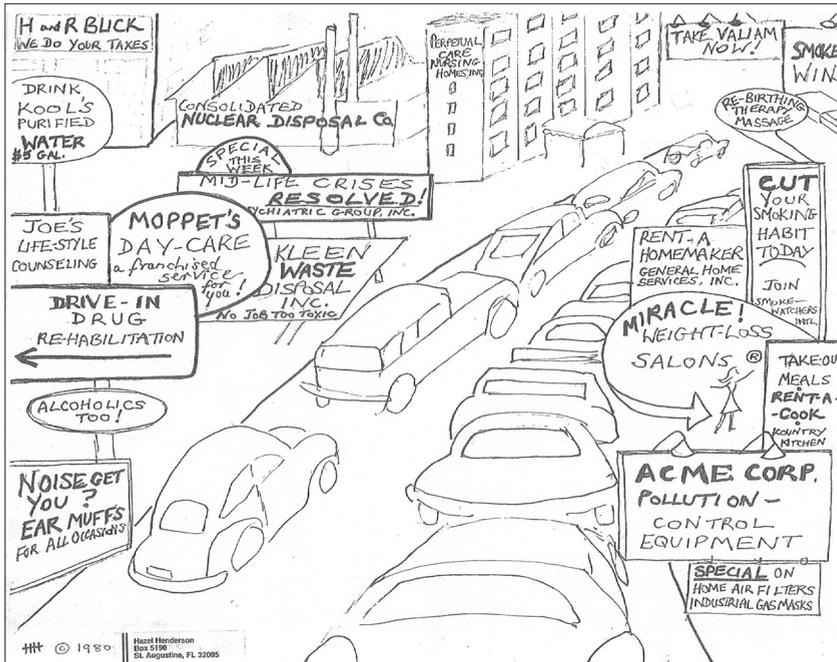
* See <http://www.ethicalmarkets.com/book-review-why-nations-fail/>

† See <http://www.ethicalmarkets.com/mediocracies-and-their-attention-economism/>

goods and desires, was leading to a dystopian “Social Cost Market” of companies trying to clean up the mess. (See Fig. 2). As markets continually evolved, they became dominant. Economic textbooks taught the Arrow-Debreu model assuming progress via “market completion” (i.e. expanding markets and prices taking over traditional social norms of reciprocity, barter, unpaid mutual aid and volunteerism I describe as the “love economy”). In the USA markets spread, and exacerbated hyper-individualism where families and communities began to dissolve. Economic textbooks see markets as steered by individuals with money used to intermediate ever more individual, personal and community relationships. This focus on money-mediated individualism helped create today’s craving for community and clans. This in turn, potentiated the effects of social media in fostering networks of “likes” and false communities based on shared beliefs and competing conspiracy theories. Historian Yuval Harari in “Homo deus” also describes human skills in creating large organizations, religions and nations as based on story-telling and myth-creation.*

“All currencies are physical or virtual tokens of trust, social protocols on various platforms with network effects, where their prices reflect their users’ trust.”

Fig 2: Social Cost Markets



* See <https://www.com/review-of-3-books-homo-deus-the-undoing-project-reinventing-prosperity/>

Power games shifted from realms of physical domination to propaganda, ideologies, censorship, mind-bending and control of human cognitive functions. The rise of totalitarianism was chillingly described by George Orwell in “1984”, (1949) and “Animal Farm”, (1945), and by Hannah Arendt in “The Banality of Evil”, (1963) and others. I documented how markets expanded from mutual aid, reciprocity and barter in village squares to token and money transactions and ever-larger companies, while financial capital accumulated. Money is not wealth. All currencies are physical or virtual tokens of trust, social protocols on various platforms with network effects, where their prices reflect their users’ trust. Surplus finance capitalism exploded national boundaries and grew by enclosing commonly-used planetary resources for mining, manufacturing and energy. Trading expanded into global stock markets and daily electronic currency trading I termed “the global casino” which reformers in the European Union and even the USA advocate curbing with a 1% or smaller financial transactions tax (FTT). Meanwhile, psychology and its weaponizing of persuasion tactics spread to international diplomacy, as described by Turkish scientists in “Political Psychology: Contributions to the Discipline of International Relations”, World Affairs, Vol. 23, Number 3, July-Sept 2019, Delhi, India. Similar examples of how domestic populations are surveilled and persuaded are documented by political scientists in “The Digital Dictators”, Foreign Affairs, March-April 2020.

“Marketing courses in business schools and colleges are now forced to teach courses on “Reputation Risk” to include how bad corporate behavior can rapidly destroy brands on social media.”

Today’s monetized GDP-driven economic globalization grew based largely on unacknowledged national taxpayers’ investments in undersea communications cables, satellites, transport for goods and people in shipping, airlines—all trading on the internet. GDP lacks an asset account valuing taxpayer investments in infrastructure—recording these only as debt. While current debt burdens in many countries are unsustainable, much is leveraged finance, corporate and consumer debt, while public debt continues to be overstated.

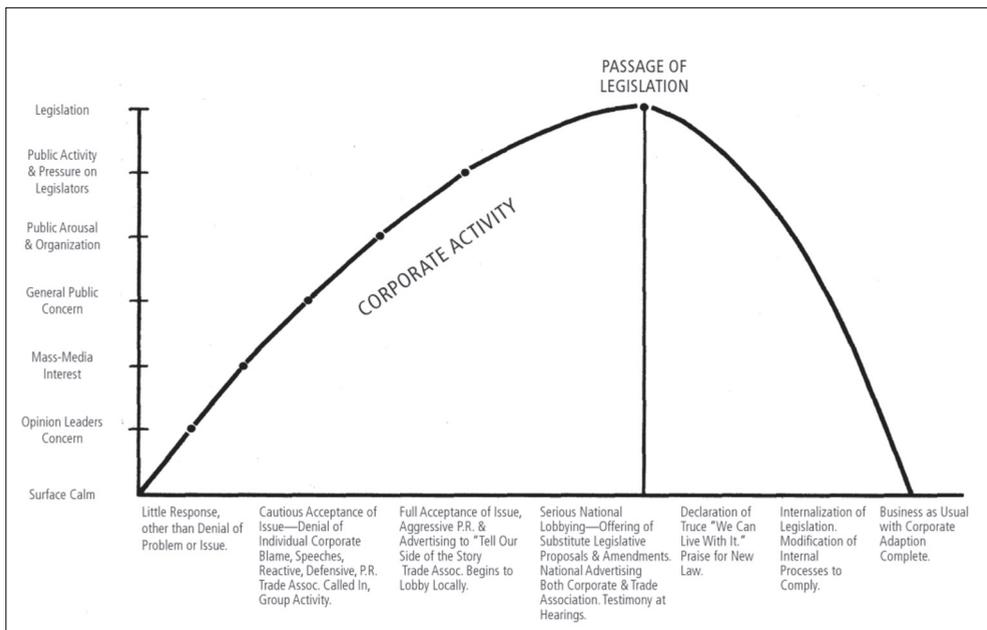
Meanwhile, advertising and brands proliferated, using many forms of mind-bending for selling of products, as described by Vance Packard in “The Hidden Persuaders” (1957), and contemporary critics within this marketing industry, including Phillip Kotler and Christian Sarkar in “Brand Activism” (2019).^{*} Marketing courses in business schools and colleges are now forced to teach courses on “Reputation Risk” to include how bad corporate behavior can rapidly destroy brands on social media. Social and regulatory pressures can effectively change corporate behavior, provided they experience sustained efforts by protest movements. (See Fig. 3).

Today’s forms of persuasion go beyond propaganda, brain-washing and widened social monetization. They are again being extended back into the physical world. No violence is

^{*} See <http://www.ethicalmarkets.com/book-review-by-hazel-henderson-brand-activism-new-critics-of-finance/>

needed. Persuasion is now concealed in millions of devices, sensors, wearable paraphernalia: iPhones, watches, fitness monitors, implanted chips, often installed in jewelry, clothing, as I describe in the “Idiocy of Things” (2016). Prosthetic devices and sensors are often usefully prescribed and installed. Others are surreptitiously operating as well, in our bodies, in our digital assistants, “smart” homes, appliances and vehicles in the so-called Internet of Things. All these digitally powered forms of human behavior-control are advertised and sold, even as gifts to unsuspecting children. Silicon Valley executives withhold from their own children these devices they sell to others, and many, including Twitter CEO Jack Dorsey, practice fasting from social media, devices and even food.* The devices are offered “free” or “for your greater convenience” by the new generation of profitable, monopolistic social media companies displacing earlier industries. Often such apps and devices to “assist” us cause de-skilling, as has occurred in automated airplane cockpits. Investigations found that pilots were unable to over-ride malfunctions of sensors or in computer code—leading to several well-documented crashes. The promotion of faster 5G data transmission so viewers can download video faster, also opens new opportunities for hackers to invade homes, cars and control even more aspects of our lives. The recent laws in Europe and the USA to protect personal data and privacy need to be based securely on centuries of legal doctrine and precedent, buttressed by for example, The Magna Carta since 1215, and its rule of habeas corpus—updated to include ownership of our minds and information: an information habeas corpus.†

Fig 3: Typical Curve of Corporate Response to Global Issues



* See “Silicon Valley’s Latest Fad is Dopamine Fasting” <https://theconversation.com/silicon-valleys-latest-fad-is-dopamine-fasting-and-that-may-not-be-as-crazy-as-it-sounds-128849>

† See www.i-habeascorpus.com

Clearly, it is more important to train humans before we train machines, since there is nothing artificial about so-called “artificial intelligence” which is more accurately described as “human-trained machine-learning”.* These trained computer programs encode whatever the biases and misinformation of their trainers, into the algorithms now controlling decisions that affect our lives, health and finances, as mathematician Cathy O’Neal describes in “Weapons of Math Destruction” (2018).† Britain’s data watchdog, the Information Commissioner’s Office (ICO) now has rules to require unpacking algorithms and explaining the assumptions they use to make decisions and to justify these results. Failure to be accountable results in large fines.‡ We might remember the sensible advice of a 1965 NASA report: “Man is the lowest-cost, 150 pound, non-linear, all-purpose computer system which can be mass-produced with unskilled labor.” §

Today’s Information Age is informally governed by computer code, 24/7 electronic monitoring, with algorithms engineering our consent by attraction. These psychological methods are taught at Stanford University’s Persuasive Technology Lab, MIT, Harvard, the University of Chicago and other colleges, including nudging and psychological steering of our engagement and cognitive biases as well as in today’s so-called “behavioral economics”, as described by Shoshana Zuboff in, “The Age of Surveillance Capitalism”, (2019) and Rana Foroohar in “Don’t Be Evil, How Big Tech Betrayed Its Founding Principles-And All of Us.” (2019)¶ Our personal information is treated as an economic commodity to be monetized and traded, rather than essential in mediating our social relationships and trust, as discussed in “Privacy, People and Markets” (Volume 33, Issue 4, Winter 2019, p. 499-509).** Efforts by computer scientists are belatedly trying to redesign all these socially-harmful decision-making algorithms: described in “The Ethical Algorithm” by Michael Kearns and Aaron Roth (2020) and “Human Compatible” by Stuart Russell (2019).

Clearly, those practicing psychology also need to demand higher ethical codes of conduct for this profession. For example, a 2019 study in *Nature* questions the thousands of experiments on people to ascertain their suggestibility to various words and other cues in a field so-called “social behavior priming”.†† Results are now suspect and rarely replicated. All this apparent waste of psychologists’ time appears to be merely for the purposes of selling and marketing.‡‡ Psychologists can learn from marketing guru, Philip Kotler in his “Advancing the Common Good” (2019). Similarly, economists and financiers can join the many signers of our 2010 statement, “Transforming Finance”.§§

Today’s new enclosures, of our minds and personal autonomy are the new business models, following the pattern of the industrial revolution’s colonization of every part of

* See Let’s Train Humans Before We Train Machines, 2018 <http://www.ethicalmarkets.com/lets-train-humans-first-before-we-train-machines-2/>

† See <http://www.ethicalmarkets.com/book-review-weapons-of-math-destruction-by-cathy-oneil/>

‡ See *New Scientist*, Dec. 7, 2019

§ See *Foreign Affairs*, July-August, 2016.

¶ See <http://www.ethicalmarkets.com/mapping-the-global-digital-revolution-book-review-by-hazel-henderson/> and <http://www.ethicalmarkets.com/mapping-the-global-digital-revolution-book-review-by-hazel-henderson/>

** See <https://www.cambridge.org/core/journals/ethics-and-international-affairs/article/privacy-people-and-markets/E9A907AF7D18775A3AE339DDB4120C89>

†† See <https://www.nature.com/articles/d41586-019-03755-2>

‡‡ See www.nature.com “What’s next for Psychology’s embattled field of social priming”

§§ See <http://www.ethicalmarkets.com/transforming-finance-groups-call-recognizes-finance-as-a-global-commons/>

planet Earth's land and oceans. Giant electronic platform-based companies are now enclosing human choices and democratic freedoms of agency and volition in ever more subtle means of persuasion, influence and control. For example, London-based Privacy International looked at 136 websites offering information on mental health conditions and found that 76% of them contained 3rd party marketing trackers.* Many researchers, including NYU Stern School professor Jonathan Haidt examine how social media—driven by advertising and selling users' personal data—have created polarization by design as “outrage machines”.†

Law professors Anne Toomey McKenna, Amy C. Gaudion and Jenni L Evans at Penn State Dickinson Law, address the problems of lawless use of fitness apps and how the information they gather, using satellite-based GPS threatened national security by creating a global “heatmap” on the social media site Strava. Their landmark paper, “The Role of Satellites and Smart Devices: Data Surprises and Security, Privacy and Regulatory Challenges” (2019) covers many recommendations on the urgent need to legislate such uses of commercial devices and regulate cyberspace with international security treaties. The Atlantic Council's Cyber Statecraft Initiative explores the issues.‡ A new battle in orbit is over global positioning, between the US GPS system, now outflanked by Russia's GLONASS, the EU's Galileo and China's BeiDou.§ Growing fears of warfare in space are leading to a new kind of arms race between the USA and China, now competing to launch the soonest and largest number of satellites, as reported in *The Economist*, Dec. 7, 2019, pp. 75. Efforts to curb additional multiple launches by SpaceX, OneWeb and other companies are now arising, especially by astronomical scientists.¶

In the 1960s, the advertising industry demonstrated to reporters in New York City the power of subliminal advertising and persuasion. In a cinema setting, the gathered journalists were shown a film, the contents of which appeared as an entertaining story. Hidden interspersed sequences beneath cognitive detection were ads for a familiar soft drink. At the end of the film, as the journalist filed out, they encountered racks of bottles of this soft drink offered freely. Even journalists who disliked this soft drink reported that they were shocked to find themselves drinking anyway! This demonstration of the power of subliminal advertising led to it being banned. Today, children are put through magnetic resonance (MRI) machines by marketers to see which candy products light up which parts of their brains. The EthicMark® Awards for advertising and communications uplifting the human spirit and society raises an ethical bar, rejecting such uses and other kinds of psychological manipulation. The decades of annual winners, mostly from non-OECD countries, demonstrate how advertising can be used to inform people of wiser choices and the global environmental concerns over careless consumerism.**

The new enclosures are not only of our minds, imagination, and willpower but of cyberspace—alongside the conquest of Earth's outer space by satellites and the resulting

* See *New Scientist*, Dec, 7, 2019

† *The Coddling of the American Mind*, G. Lukinoff and J. Haidt, 2019

‡ See www.atlanticcouncil.org

§ See *New Scientist*, Feb. 15, 2020.

¶ See *New Scientist*, Feb. 22, 2020

** See www.ethicmark.org

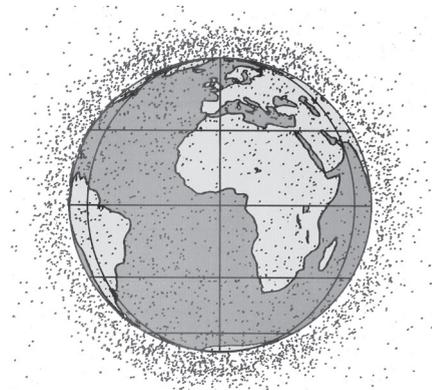
“prison” of increasing space-junk, (Henderson, 1991,1995). (See Fig. 4). By what kind of fanciful illusion of human mental abstraction is it deemed possible to capture and enclose the limitlessness of cyberspace? The lawless developments of cybercrime and info wars described in “The Darkening Web” (Klimburg, 2018), attest to the need for ethical norms and treaties.* Proliferating malware, such as Stuxnet and the new

digital weapons described in “Sandworm” (Greenberg, 2019) can now destroy physical equipment and infrastructure, as in Russia’s second take down of the Ukrainian electricity grid in 2016, threatening millions of civilians. Ransomware and spyware that snoops on any smartphone are sold by several companies in booming new businesses, as reported in *The Economist*, on Dec. 14, 2019. The emerging global data economy, its promises and pitfalls, governance and structures in the public sectors and private monopolies are reviewed in a special report: “Mirror Worlds”, of the data economy, *The Economist*, Feb. 22, 2020.†

The internet, developed by the US military agency DARPA, created the first “real estate” boom designed in cyberspace, with the apportioning of imaginary code domains. These code domains were actualized legislatively by the US Congress through empowering of the early volunteer coders who created ICANN, the Internet Company for Assigning Names and Numbers. Today, ICANN has ballooned into a powerful bureaucracy, spawning millions of profitable companies, powerful government agencies and charitable organizations. In typical amplification allowed by lack of oversight, ICANN itself now needs watchdogs, such as Jacob Malthouse, who is exposing power grabs and the recent privatization allowed by ICANN of the .org domain, used by non-profits and charities, to be sold to a private equity firm, “The Nonprofit Community is about to lose \$90+ Million Dollars a Year”, (2019).‡ Today, large corporations overseeing registration and sale of domain names are cornering the internet market for top-level .com domain names, driving up prices to multi-million dollar levels.

The history of how human processes in societies evolve and diverge into clans, movements, factions and competing markets has been a subject of study, for centuries, as described in *Politics of Connectivity*, 2019.§ The founders of the USA and its Constitution focused on these tendencies for evolving competing clans and warned that “factions” could divide and polarize citizens within various political parties. Systems theorists describe such

Fig 4: Satellites, Boosters and Debris



* See <http://www.ethicalmarkets.com/book-reviews-the-darkening-web-the-war-for-cyberspace-and-the-plot-to-hack-america/>

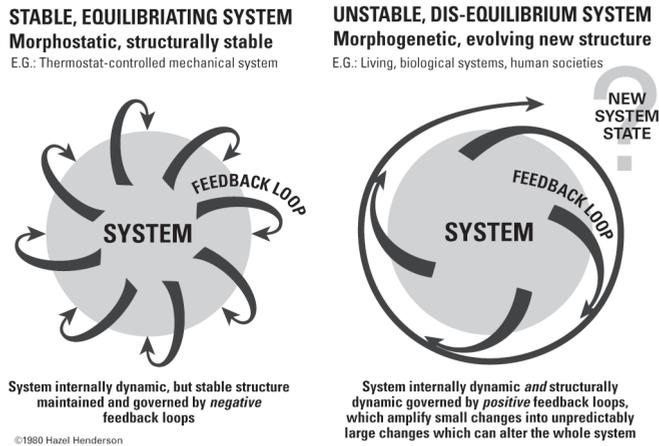
† See <https://www.economist.com/special-report/2020/02/20/a-deluge-of-data-is-giving-rise-to-a-new-economy>

‡ See <https://medium.com/savedotorg/the-progressive-movement-just-waved-goodbye-to-180-million-dollars-a-year-b497b4153c07>

§ See <http://www.ethicalmarkets.com/the-politics-of-connectivity-by-hazel-henderson/>

social, cultural and material dynamics, as non-linear change processes in chaos theory models of deviation-amplifying systems (as described in “Mapping the Global Transition to the Solar Age: From Economism to Earth Systems Science”, 2014).^{*} These computer models show how small initial conditions can amplify unexpectedly, bifurcating and spilling into new domains through feedback and the power of negative and positive “attractors”. (See Fig. 5).

Fig 5: Two Major Types of Cybernetic Systems



Today we see these system-level uncertainty dynamics operating in politics, social media, cyber domains, global markets and in the feedback effects now observed by the latest IPCC Report at COP 25 in Madrid, 2019, as accelerating global climate change.[†] Chaos models also clearly describe the unexpectedly rapid shifts to renewably-based energy, materials and the circular economy, as tracked annually in Ethical Markets’ Green Transition Scoreboard (GTS)[®] reports from 2009-2020 and forthcoming textbook.[‡]

Traditional models of slower, orderly linear-change rates are based on stable equilibrium systems of earlier times. Today, our evolving technologies and markets have created interlinked connections, transportation, accelerating global connectivity now driving disequilibrating changes, which are now disrupting all older industries, societies and ecosystems. These processes were described by Alvin and Heidi Toffler in “Future Shock” (1970) and its 50th anniversary “AfterShock” (2020).[§] These chaos models also show how most human social groups, policies and goals tend to “over-shoot” into runaway systems, such as today’s enormous growth of Silicon Valley’s social media monopolies, which even their young founders admit they cannot understand or control. We see similar massive

^{*} See <http://4a5qvh23tbek30e0mg42uq87.wpengine.netdna-cdn.com/wp-content/uploads/2017/02/mapping-global-transition-to-Solar-Age-we-download.docx.pdf>

[†] See <https://www.ipcc.ch/sr15/>

[‡] See <http://www.ethicalmarkets.com/gts-reports-and-press-releases/>

[§] See https://www.amazon.com/gp/product/0999736442/ref=dbs_a_def_rwt_bibl_vppi_i1

burgeoning of the human population, through medical achievements in life-extension along with continued domination of women and lack of family-planning services. The 21st century is now recognized as the Anthropocene Age, as the human species now dominates—colonizing all regions of planet Earth, changing the climate with emissions of CO₂ and other pollutants into the atmosphere.

As humans, we face the biggest challenge ever to our own survival, and our best hope is our demonstrated ability to expand our own cognition into full planetary awareness. Today, we are forced to realistically learn how our planet functions in relation to our mother star, the Sun. This deeper scientific knowledge may enable us to map our options as we accept our fundamental interdependence on each other and all species in Earth's fragile biosphere. This deeply existential, moral crisis can and must lead us to redesign all our technologies, infrastructure, politics, culture and societies toward mutual survival and our shared common future. These epochal changes are beginning for example, as we gradually learn to shift beyond steering our societies using such flawed, money-based metrics as GDP (incentivizing our 7 deadly sins) to the 17 Sustainable Development Goals (SDGs), ratified by all members of the United Nations in 2015, which systemically embrace our broader values and traditional human ethics of the Golden Rule.

Author Contact Information

Email: hazel.henderson@ethicalmarkets.com