

# Beyond the Global Emergency: Integral Futures and the Search for Clarity

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## Abstract

This paper argues that external, technology-led views of futures tend to be one-sided and overlook significant interior aspects of reality. As everything is socially constructed, it follows that no technology stands alone. They arise from social processes that are, in many cases, centuries old. Human beings also enact their own individual and shared interior worlds. An integral perspective and the four-quadrant model give equal attention to interior/exterior and individual/collective phenomena. It also helps us to embrace and respect the contributions of many different disciplines. Part One uses these distinctions to raise questions about the views of prominent Silicon Valley figures and their particular framing of the “Digital revolution.” Part Two suggests how integral methods help us to “see with fresh eyes” and open up new and renewed strategies or “proto-solutions” to pressing global issues.

## Keywords

integral futures, social construction, limits to growth, the new Panopticon, interior development, proto-solutions to world problems

## Introduction

How people respond to integral futures—or more correctly integrally informed approaches to futures—depends very much upon where they are coming from. That is, what they value, what they perceive, and how they construct their own unique interior world. Most people get the point of the integral four-quadrant model (see Figure 2 below), and many find the developmental perspectives within each of particular value (see Esbjorn-Hargens 2009). I have always liked the way that these four “windows on reality” honor and integrate the work of so many workers and scholars from different cultures and knowledge traditions who would otherwise be overlooked. An integral perspective is certainly not for everyone. Some find the language not entirely to their liking and the deeper theoretical debates can appear obscure. How, then, does Spiral

Dynamics fit into the model and what is all that color coding of value levels about? Overall, what is the point? Well, that is the easy part.

If one stands back and considers conventional approaches to futures, we usually find that the main focus is on exteriors—cities, infrastructures, and new technologies—*especially* new technologies. To oversimplify somewhat, there is an implicit view among many that the future is predominantly “created” by technology. This view may or may not be explicit in all cases but the assumption is influential. The problem for futures, however, is that approaches based on such a view are vulnerable to the criticism that they overlook

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“half of reality.” That is, they foreground science, technology, infrastructures, and the like but convey thin and unhelpful views of the very people, cultures, and societies from which these objects (and obsessions) spring. They obscure the fact that *everything around us is socially constructed*. No “thing” ever made by human beings stands by itself. It arises from a long period of gestation and development that often reaches back centuries. Each and every technology, therefore, has as much to do with changing worldviews and values as it does with, for example, mining and metallurgy. So, a primary consequence of applying integrally informed approaches to futures and applied foresight is that they help both to reveal, and then counter, this embedded structural bias. Furthermore, they enrich and enlarge the conceptual and operational spaces available to us. Put simply, this means that richer and more dynamic views of reality can emerge. These become shared resources that help to clarify world issues and provide renewed grounds for lasting solutions.

This paper attempts to illustrate the above through two broad themes. The first considers how integral approaches help us to gain a deeper understanding of some challenging aspects of the present. The second looks at how this approach helps us to “see with fresh eyes” and, in so doing, opens up new and renewed strategies or “proto-solutions” (solutions in embryo) for a world in greater peril than it yet allows itself to know.

## Aspects of the Integral Method

Three aspects of integral methodology are useful here: the four quadrants, levels of worldview complexity, and value levels (see Figure 1). The quadrants are, as noted, best understood as providing four “windows” on reality: the Upper Left (individual interior), the Upper Right (individual exterior), the Lower Left (collective interior), and the Lower Right (collective exterior). These intersect with over 20 “developmental lines” or stages. Two of the most important are used here—that of worldview complexity and that of values. It must be stressed that to

1. The four quadrants (or ‘windows’ on reality)
  - a. The upper left quadrant (the interior ‘world’ of human identity and self-reference);
  - b. The lower left quadrant (the interior ‘world’ of cultural identity and knowledge);
  - c. The upper right quadrant (the exterior ‘world’ of individual existence and behavior);
  - d. The lower right quadrant (the exterior world and physical universe).
2. Four levels of worldview complexity
  - a. Pre-conventional (survival and self-protection);
  - b. Conventional (socialized, passive, adherence to status quo);
  - c. Post-conventional (reflexive, open to complexity and change);
  - d. Integral (holistic, systemic, values all contributions, works across boundaries, disciplines and cultures).
3. Six value levels
  - a. Red (egocentric and exploitative);
  - b. Amber (absolutist and authoritarian);
  - c. Orange (multiplistic and strategic);
  - d. Green (relativistic and consensual);
  - e. Teal (systemic and integral);
  - f. Turquoise (holistic and ecological).

**Figure 1.** Summary of quadrants, worldviews, and values.

understand and use these concepts successfully, it is vital to consult original sources and to become familiar with their uses *and* limitations (Beck and Cowan 1996; Esbjorn-Hargens 2009; Wilber 2000).

The careful and discriminating use of such concepts brings clarity to our own “fractured” present and also to priority tasks for the future. The rest of the paper considers two examples of each. We begin with the Limits to Growth (LtG) project in relation to the global emergency and then consider how Silicon Valley’s current version of the “digital revolution” casts a long shadow over our shared futures.

## The Global Emergency and Responses to the LtG

The “global emergency” is not (yet) a term that has penetrated the mass media. Indeed, at first sight, it may appear provocative or overstated. Yet, the evidence suggests otherwise. The challenges facing humanity are truly monumental and many who have considered them have found it hard to avoid despair. An alternative view stresses the need for humanity to grow, to evolve, to “wake up,” and in so doing, to see itself and its world with “fresh eyes” (Slaughter 2012). Currently, and in spite of mounting evidence from so many different sources, business-as-usual assumptions continue to permeate everything from business to town planning and from science policy to some of the most refined scenarios. But “business-as-usual” lacks validity, meaning, and substance because we are faced with Earth changes, human and cultural shifts, and technical and biological revolutions that are shaking the very foundations of our existence. Consequently, nearly everything about this overheated, disaster-prone civilization needs to be revised.

The LtG project provides a highly relevant example. It began in the early 1970s and ran for nearly four decades. The project is summarized and framed by four key works:

- *The Limits to Growth* (Meadows et al. 1972)
- *Beyond the Limits* (Meadows et al. 1992)
- *Limits to Growth—the 30-Year Update* (Meadows et al. 2005)
- *2052—A Global Forecast for the Next Forty Years* (Randers 2012)

Our focus here is less on the content of the work itself than on *the reception* accorded to it over time. Some of its key proposals for adapting to a rapidly changing and increasingly threatened world include the following:

- Slowing and eventually stopping population and capital growth
- In preference to harsh experience employing the tools of anticipation in decision making

- Reducing the throughputs of energy and materials, in part, through using capital more efficiently
- Conserving the sources and sinks of materials used by humans
- Slowing down and eventually reversing soil erosion
- Detecting, understanding, and responding more quickly to signals of change
- Overall, looking further ahead so that actions and decisions can be made on the basis of informed views of long-term costs and benefits (Meadows et al. 2005)

The interesting thing about these suggestions is that, with the exception of resource conservation, most have so far failed to gain any significant mainstream traction whatsoever. That this turns out to have been a classic set of “missed opportunities” has since been confirmed by a number of qualified observers who have carefully reviewed the entire project. The most thorough and detailed treatment is undoubtedly that by Italian scholar Ugo Bardi (Bardi 2011). He shows how, from the outset, reactions were distinctly polarized. For example, observers from within the scientific community were “impressed by the width and depth of the studies, by the innovative approach, and by the use of computers; at that time a novelty” (Bardi 2011, 49.) Many others, however, were hostile and dismissive. Economists appeared to have taken particular offense. One group simply considered it “too pessimistic.” Others went further and labeled it a “brazen, impudent piece of nonsense” and “irresponsible nonsense.” Then, under the heading of “Models of doom,” a group of academics at a British university critiqued the project not only for its “pessimism” but also for “fundamental faults” in the model that the researchers had used (Bardi 2011, 49–62).

Similar points have been made by a variety of critics over time. Yet, one of the key features that most failed to appreciate was that, as the project evolved, the researchers showed every sign of listening, learning and adapting their methodology and approach. This “capacity to learn” is clearly visible in each of the later books. But by then the weight of negative publicity meant that, by and large, few mainstream

actors were listening. The “message” had been “tuned out,” set aside, and largely forgotten. We cannot be sure of the extent to which an organized campaign of subversion occurred at that time. What is clear, however, is that the dominant “growthist” worldview had enormous influence—and still does. Virtually no one holding that view wanted to know about limits, reducing growth, thinking long term, or establishing high-quality Institutions of Foresight (IoFs). Instead, as had happened before, those driving the economic machine only wanted to know how to keep it tethered to the dictates of “faster, further away, bigger, and more.” No one wanted to face up to the contradictions inevitably created by infinite growth within a finite system.

As time went on, the character of denial and evasion became more extreme and counter-productive. The story has been told in a number of places but perhaps most clearly and cogently in a well-researched book called *Merchants of Doubt* (Oreskes and Conway 2011). It provides a detailed account of how organized opposition to Rachael Carson’s work on the effects of DDT in *Silent Spring* morphed into a full-on attack not only against her but also subsequently against others who were involved in researching a range of environmental issues. Within the United States, a number of powerful individuals and corporations sought to protect their own limited interests by underwriting a series of initiatives designed to propagate an enterprise of unparalleled negativity.

One of many egregious examples is that of ExxonMobil which “initiated forty-three different front organizations to create the illusion of widespread doubt about whether global warming was really occurring” (Urry 2013, 85). The defining proposition throughout was, and remains, one of quite staggering cynicism—the notion that “doubt is our product.” Using every means at its disposal, this alliance of conservative institutes, think tanks, media agencies, and well-off individuals sought to delay, deny, confuse, dilute, and, where possible, destroy the work and reputations of those who had attempted to understand and deal with emerging issues that concern everyone, or

should do so. There can be few prior initiatives that are more self-defeating and damaging to our species than this. For they have had, and continue to have, pervasive effects around the world. (In fact, they are among the direct antecedents of the present global emergency itself.) It is therefore not by chance that in the United States, public opinion in support of environmental protection has been declining for a couple of decades (Miller and Hopkins 2013).

Half a century after the attacks on Carson and other scientists, the denial machine is more powerful and better resourced than ever. Suzanne Goldenberg (2013) writes,

Conservative billionaires used a secretive funding route to channel nearly \$120m (£77m) to more than 100 groups casting doubt about the science behind climate change, the *Guardian* has learned. The funds, doled out between 2002 and 2010, helped build a vast network of think tanks and activist groups working to a single purpose: to redefine climate change from neutral scientific fact to a highly polarising “wedge issue” for hardcore conservatives.

Then, regarding consequences, she adds,

By 2010, the dark money amounted to \$118m distributed to 102 think tanks or action groups which have a record of denying the existence of a human factor in climate change, or opposing environmental regulations. The money flowed to Washington think tanks embedded in Republican party politics, obscure policy forums in Alaska and Tennessee, contrarian scientists at Harvard and lesser institutions, even to buy up DVDs of a film attacking Al Gore. *The ready stream of cash set off a conservative backlash against Barack Obama’s environmental agenda that wrecked any chance of Congress taking action on climate change. Those same groups are now mobilising against Obama’s efforts to act on climate change in his second term.* (Goldenberg 2013; emphasis added)

The conclusion here is unambiguous. Set against those who, such as Gore himself, Bill Gates, and other philanthropists, devote much of their time, energy, and wealth to useful causes, there are other equally well-endowed people and organizations that have, for reasons of their own,

opted to do exactly the opposite. Where clarity and collective purpose are needed, they sow confusion and division. Where action and political courage are required, they sow doubt and fear. By elevating its own immediate short-term interests above all others, the “denial machine” has rendered an already difficult situation that is much more intractable. Before bringing an integral lens to bear, it is useful to consider a second very contemporary concern that hinges on the information technology (IT) revolution and the seemingly unstoppable rise of “Internet oligarchs.”

### Silicon Valley and the New Panopticon

The term *Silicon Valley* is a collective term for a growing number of the world’s largest and richest corporations, most of which are based near San Francisco in California. They include Microsoft, Google, Apple, Facebook, Twitter, Instagram, Spotify, YouTube, and many others. While in some respects competitors these corporations also have one powerful feature in common. They are all out to change the world and re-shape it in their own highly technocratic image. So far, it must be admitted, their soaring bank balances suggest that they have been spectacularly successful. That success, however, has come at a cost. Moreover, there is good reason to believe the latter will increase dramatically if governments and populations remain as passive as they are now. Although most people and the vast majority of civil and commercial organizations around the world certainly appear to have benefitted in the short term from the vast expansion of online options and capabilities, a much darker picture is emerging. It concerns not only the extraordinary cultural and economic power being wielded but also the nature of the underlying worldview and values—which are the main foci here—and where these appear to lead.

Among the features that are widely shared by Silicon Valley entrepreneurs are an extraordinary level of self-confidence accompanied by an unapologetic, almost iconoclastic, desire to replace existing social and economic structures with others closer to their liking. As an

example of the former, one such entrepreneur was quoted as saying that “everyone here wants to change the world with technology and isn’t afraid of doing something wrong.” Then, similarly, “rules are made to cement existing structures . . . but we are trying to circumvent them.” After speaking to several such individuals, the interviewer summarized his experiences in the following way. He stated that

the tech elite have created a world view, a political philosophy that corresponds with their goals. They seek to create prosperity and satisfaction by way of the greatest amount of autonomy and the least amount of government possible. It holds that all authority should be viewed skeptically. Indeed, there is little room in this world for regulations or government guidelines. (Schultz 2015)

This is, however, merely the “tip of the iceberg” so to speak. The digital revolution was supposed to usher in a new age of access, equality, and openness but it has in fact already done quite the opposite. For example, “access” is compromised by the near-universal appropriation of information generated moment-by-moment by nearly everyone. It is swept away, consolidated, processed and monetized, and sold to advertisers who then fine tune their continuing assault on the public through every possible public and private channel. Similarly, instead of being a liberating and equalizing force, the same revolution is creating two parallel universes—the digital “haves” and “have-nots”—and the gap between them is constantly widening. Finally, “openness” is being transformed in a context of near-universal surveillance. As one observer wrote,

There’s something distasteful about the whole business: a global campaign . . . to convert literally everybody into data consumers, to make sure no eyeballs anywhere go unexposed to their ads. Everybody must be integrated into the vast cultural homogeneity that is the Internet. (Grossman 2014, 39)

A careful reading of the evidence suggests that, far from a liberated and idealized future, humanity is being invited into something



closer to a digital prison, a hugely augmented version of the Panopticon proposed by Jeremy Bentham in the eighteenth century.<sup>1</sup> The widely promoted notion of an Internet of Things (IoT) is already being promoted as an inevitable “next step” in the process. Yet, according to Goodman, universal connectivity between most or all of our utilities and devices has “colossal downsides.” We are likely, for example, to find ourselves

interacting with thousands of little objects around us on a daily basis, each collecting seemingly innocuous bits of data 24/7, information these things will report to the cloud, where it will be processed, correlated and reviewed. Your smart watch will reveal your lack of exercise to your health insurance company, your car will tell your insurer of your frequent speeding, and your dustbin will tell your local council that you are not following local recycling regulations . . . The IoT will also provide vast new options for advertisers to reach out and touch you on every one of your new smart connected devices . . . (Goodman 2015)

These brief comments are snapshots from a much bigger picture that includes the decline of entire professions, the penetration of serious criminality into even the formerly most private spaces and, perhaps most seriously, the hollowing out of the social structures of entire societies.

There are, of course, countervailing voices and opinions that need to be heard. Yegevny Morozov is certainly one of these. His works are essential reading in that they provide deep insight into what is going on and to some extent why (Morozov 2011, 2014). Similarly, cogent fictional warnings of the kind of world being assembled around us are also beginning to emerge. One of these is Dave Eggers’s evocation of the “digital prison” in his perceptive and well-judged Dystopian work *The Circle* (Eggers 2014). Yet, there is something missing from most of even the very clearest and most penetrating accounts of this phenomenon—the role of values and worldviews. That is exactly what an integrally informed perspective brings to the table. This becomes clearer if we take a closer look at a couple of the individuals who

have played prominent roles in the digital revolution: Mark Zuckerberg and Ray Kurzweil.

Zuckerberg is famous for being the primary creator of Facebook. The latter is described as “a global service with 8,000 employees and 1.35 billion users, on whose unprotesting backs (he) has built an advertising engine that generated US\$7.87 billion (in 2013) and half of it profit” (Grossman 2014, 36). In the film *The Social Network* (Fincher 2010), Zuckerberg was perhaps unfairly portrayed as socially inept and perhaps somewhat autistic. Grossman’s profile in *Time Magazine* is both more critical and more respectful. He gives his interviewee the chance to speak for himself and does not overinterpret his responses. Yet, hidden in the latter are some important clues as the nature of the person and the organization he leads. These, let us briefly note, correspond to the upper left and lower left integral quadrants, that is, the very ones that are omitted in most mainstream accounts.

When Goodman poses a question about how Facebook, as well as facilitating a kind of connection between people, also stands accused of “stripping out some of the essential elements of human contact,” Zuckerberg responds by simply avoiding the point: “I actually don’t read most of the coverage about Facebook.” He then adds, “whenever any technology or innovation comes along and it changes the nature of something, there are always people who lament the change and wish to go back to the previous time” (Grossman 2014, 42). Critique, in this view, is dismissively equated with “turning back the clock” and vain wishes for a vanished reality. Goodman then puts a point attributed to Tim Cook, CEO of Apple, to him that “when on online service is free, you’re not the customer. You’re the product.” It is a shrewd summation of a view that has progressively gained wider currency among those who reflect upon such things. But Zuckerberg is irritated and responds, “a frustration I have is that a lot of people seem to equate an advertising business model with somehow being out of alignment with your customers.” He adds, “it is the most ridiculous concept” (Goodman, 2014, 42). In reality, of course, any so-called “business

model” that is based on mass advertising and consumerism has almost incalculable costs and drawbacks (Greer 2013; Hamilton and Denniss 2005).

A little later in the piece, Goodman comments that while Zuckerberg is, in his view, “healthy” and “smart,” he may be somewhat lacking in other areas. Specifically, “he’s concerned with nuance and subtle shades of meaning only to the extent to which they are useful to him, which means not at all.” He adds that

his faith in himself and what he is doing is total. [Furthermore] one might argue that somebody who shapes the social lives of a billion people and counting ought to have a more finely wrought sense of human nature, a deeper appreciation for what is lost when a new technology becomes part of our lives as well as what is gained. (Grossman 2014)

Once again, as in so many other cases, “human nature,” and what may lie beneath the term *social*, both have little meaning in this context. The interiors of people and cultures are deemed insignificant in the presence of new ideas and powerful new globe-spanning technologies.

Much the same can be said of Ray Kurzweil who is currently head of engineering at Google and well known both for his inventions and for his long-standing promotion of what he calls the “singularity.” By this, he means the merging of human biology with “artificial intelligence” and the creation of a new world that transcends the present one entirely. In this new state, humanity—or what may be left of it—will transform energy and matter in any way it wishes. Immortality is part of the package, as is travel to distant stars and beyond. There are, in this view, essentially no limits anywhere that cannot be removed or transcended. What all of this actually means once again necessarily depends on the upper left qualities and capabilities that are brought to bear and, indeed, this is again where a perspective characterized in about equal parts by high technology and hubris begins to fall apart.

As there is insufficient space here to go into greater detail, a review by Nathan Pensky of

several informed objections to Kurzweil’s perspective provides a useful way into this controversial debate. One notices almost at once that it is again permeated by reductionism and category errors. For example, Pensky quotes McGinn to the effect that Kurzweil’s “theory of mind” reduces the vast complexity of the latter to “pattern recognition.” The latter is apparently something that machines are particularly good at. To achieve this, Kurzweil is said to have “switched from patterns as *stimuli* in the external environment to patterns as *mental entities* (but) without acknowledging the switch” (Pensky 2015; emphasis in original). Similarly, well-known and respected author Douglas Hofstadter suggests that Kurzweil’s ideas are a “bizarre mixture” of notions “that are solid and good with ideas that are crazy.” He also critiques Kurzweil for failing to ask where the whole process is really going and also for “failing to ask the right questions.”

For Pensky, however, the biggest concern is Kurzweil’s “constant conflation of biological evolution with his particular take on social and technical ‘evolution.’” In his view,

Kurzweil has set up a narrative in which biological evolution, cultural development, and the advancement of computing technology are all part of the same immutable force, never mind that the will of human beings factors into the creation of both culture and technology. For Kurzweil, the advance of technology is as inevitable as biological evolution and can be plotted on the same graph. Central to his singularity thesis is the concept that the technology and culture that humans *make* are part of the same process that as the bodies they *evolved*. (Pensky 2015; emphasis in original)

What is both interesting and significant about these two influential figures from Silicon Valley is that their perspectives—and hence their worldviews and associated values—are so similar. Both attribute what they see as the drivers of history largely to advancing technologies and both seem to be driven by what in Spiral Dynamics language are termed *red* to *orange* values. Both are, to some extent, drawing on conventional to post-conventional worldviews. But these are greatly diminished by failing to recognize

powerful left-hand quadrant constraints and potentials (see below).

## Building the Future or Undermining It?

Attempting to “build the future” on the basis of structurally deficient and reductive right-hand quadrant views of reality is very unwise and a certain recipe for disaster. Moreover, it papers over and obscures one of the central dynamics of our time that arguably stands at the heart of the global emergency, that is, the structural distinctions between the way technologies evolve and the way humanity evolves. To begin with, new technologies do not spring fully formed from nothing. Rather, they are mostly built up stage-by-stage on a series of “platforms,” each of which provides a foundation for the next. It is as much a process of *accumulation* as of evolution per se and, as in our own times, it can occur very rapidly. Biological evolution, which obviously includes humanity, is a very different matter indeed. We do not stand on our parents’ shoulders and grow from there. Rather, each individual starts at the very beginning (the act of being born), moves through the same stages, and reaches whatever level of complexity and achievement that is within his or her capabilities.

Social evolution is different again. In some views, not a great deal has changed since the time of the Greeks (which is why “moderns” can still understand Greek plays and read ancient Greek literature). In others, a great deal has changed and, in some cases (such as standards of living for the rich), for the better. But there is always the risk of falling back into what, in some obvious ways, were more primitive times. We are certainly seeing that on the world stage today. The point here is that to say much about “evolution” in general, we need to acknowledge the very different processes that are operating in each of the domains identified by the four quadrants. Human evolution is slow and uncertain. Hence, far from being able to make easy comparisons between these fundamentally different processes, they are greatly “out of sync.” That is, technical evolution, being limited only by human imagination and

the laws of physics can, as now, race ahead. Human and social evolution is slow, uncertain, and takes place over vast periods of time. These two processes could not be more different. It follows that Kurzweil’s conflation of the two is misguided and the “singularity” is largely a product of his own self-created and unique upper left-hand quadrant reality.

Given the more in-depth understandings that are, indeed, available, it is difficult to see how anyone could hope to “build a better future” on the basis of the catalogue of oversights and errors that characterize Silicon Valley and those who adopt its radically diminished view of reality. It does not help that some of these players are, as noted above, among the richest and the most powerful in the world. Despite their wealth and power, their underlying instrumental worldviews and associated ego-based and aggressively mercantile values are inadequate, as are the dominant frameworks of understanding and knowledge. This paper now turns to consider some of the more positive options that flow from recognizing some of these distinctions.

## Gaining Clarity

At the very end of their book *The Burning Question*, the authors write that “the key question of our era is which complex system will tip first, the climate or the human response. It’s the ultimate high-stakes race” (Berners-Lee and Clark 2013, 199). This implies that we need insights from human and social systems every much as from ecological and planetary systems. In other words, phenomena from each quadrant domain need to be taken into account. Yet, scanning and sampling a wide range of materials on different aspects of the global emergency reveal that the upper left, or interior individual, quadrant domain receives the least attention of all. Although some observers have acknowledged that human psychology in general has a role, remarkably, few in a futures context appear to have taken the next steps.<sup>2</sup> Responses to the global emergency arise from within the personal and social life worlds of people, the specific traits, worldviews, contexts, and values that serve to motivate or inhibit them. Regardless of the specific method or approach



being used—and there are many—it is vital that these key factors are drawn more fully into the picture.

The hostile and dismissive responses outlined above to progressive initiatives such as the LtG over the last fifty years have seriously impeded humanity's overall ability to resolve the global emergency. So, it is useful to ask what those responses have in common and contrast them with other, more promising, options. Here is a summary of some of these negative counter forces and factors.

- The cynicism and privileging of self in promoting “doubt is our product”
- The “denial machine” that also places self, money, and its own small part of the human economy above all other considerations
- The attempt to “take down” those working to understand global change and to destroy or marginalize projects including the *LtG*
- The imperatives of “carbon interests” (Urry 2013) that continue to encourage an entirely unsustainable and increasingly risky process of global addiction to fossil fuels that we now know are becoming too dangerous to use beyond strict limits
- The continued widespread recourse to future-discounting and the prevalence of short-term thinking and valuation when short-, medium-, and long-term issues clearly require serious and sustained attention
- The mocking dismissal of forward thinking per se and the lack of concern for the destruction of ecosystems shown by conservative politics and news media
- The continued pursuit of economic growth as a universal panacea when several global limits have already been exceeded (Rockstrom 2009)

Such phenomena are so prevalent that they may well appear “normal.” Yet, they also suggest a default collective profile. Simply using the criteria outlined in Figure 1, these attributes and practices appear to

- arise from ego- and socio-centric outlooks that serve to privilege “me, us and now”
- proceed from a conventional level of complexity (with forays into post-conventional when it comes to, for example, financial innovation and marketing), which also means that “the present” (however understood) is seen as more monolithic and, in a sense, authoritative than it actually is
- express a range of values from “red” to “orange,” none of which provides a substantive basis from which to resolve the global emergency
- mainly address the lower right (exterior collective) domain of reality, with some instrumental focus in the lower left (for social influence) and upper right (to persuade and control)

A brief overview in a short paper can only provide a sample of a much wider social and cultural malaise. Yet, as it stands, it reveals core elements of an instrumentalist, denialist, and self-aggrandizing syndrome that, even now, remains embedded at the highest levels of corporate, financial, and political life. Clarity is vital here as this combination of human and cultural traits arguably constitutes *the* most significant threat to our collective futures. To make real progress, we will need to find ways to bring people and organizations forward and out of these diminished states of being. Social support is needed not only to finance solar panels and re-localize economic structures—vital as these may be—but also to help many people face up to the reality we have collectively created. Part of that is to regard the global emergency less as a cause for depression and disengagement, than as a reason to aspire to more comprehensive worldviews and more sustaining values (Slaughter 2014).

## Interior Development and Human Futures

In previous work, I considered how certain individuals provide “worked examples” of how the great challenges of our time can be

approached and perhaps resolved. Three human exemplars were chosen to illustrate the point. They are Muhammad Yunus (creator of the Grameen Bank), James Hansen (former NASA climatologist), and Joanna Macy (inspiration for the Great Turning movement). The contrasts between the nature of their responses and those outlined above are not merely dramatic but instructive and, I would argue, profoundly inspiring. So, let me be clear about why this is so.

In each case, the exclusive focus on one or two reality domains has disappeared. Gone, too, is the focus on self and the diminishing of others, both present and future. Absent also is the reliance on limited value sets. Gone finally, is the drive for power, material wealth, and domination. Instead, what emerges is clear evidence of the personal and practical power of more encompassing values, post-conventional worldviews, and overall, broader views of reality that acknowledge phenomena in all the quadrant domains. Three brief conclusions follow:

- The seeds of many solutions appear to be grounded in the left-hand quadrant domains. That is, in enhanced human capacities, more encompassing worldviews and values that support world-centric outlooks.
- One of the most powerful and significant shifts that, in principle, is available to virtually anyone is that from conventional thinking (taking perceived reality as more “real” and “finished” than it actually is) to post-conventional thinking (seeing things as constructed, that is, more “open” and subject to revision and change).
- Although low-energy, more local and self-sufficient, lifestyles are becoming default necessities, the viability of such arrangements will depend very much on *the developmental capacities of the individuals within them* and the necessary *social validation and support* that these require. It is therefore, precisely, these factors that need to be brought more clearly into focus and supported

by purposeful mainstream social and institutional strategies.

This is not to suggest that “a rising tide raises all boats.” The fact that more advanced states and stages of human functioning are available in principle does not mean that they will be readily taken up by sufficient numbers of people to change the current downward trajectory of human civilization. What they do offer, however, is a kind of metaphorical doorway that opens to the human, cultural, and, yes, technical territory where positively compelling futures can be found. These are already visible in a vast number of “proto-solutions” in the present (Figure 2). They can also be thought of as social innovations and as works in progress.<sup>3</sup>

At this point, we need to pause and recall that, in a pluralistic world, there can never be a single way to understand or describe the global emergency. That said, there are more and less productive ways of attempting to do so. Shopping lists of symptoms abound and they may be useful to the extent that they identify areas of concern and forewarn that various actions and responses may be necessary. But Einstein’s insight that problems cannot be resolved at the level on which they’re first understood or described is widely overlooked. In other words, while accurate problem description is a valid and useful first step, it is merely that. A second step requires a meta-level overview, and a third seeks to develop relevant responses that can be refined and applied at a number of levels and in a variety of contexts.

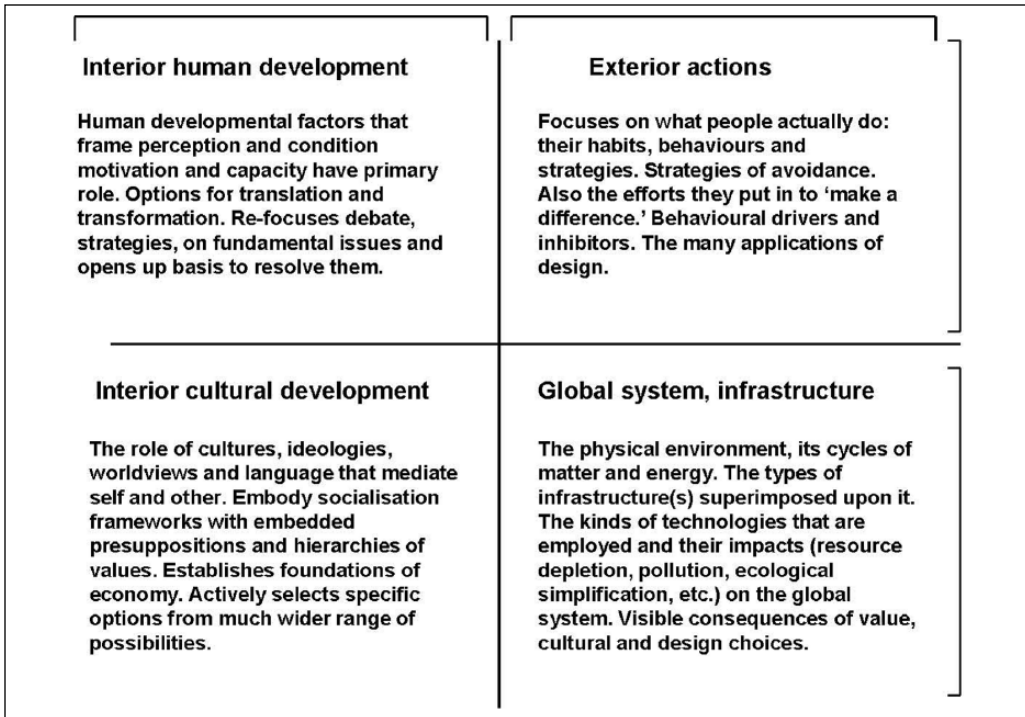
The beginning of this paper provided a brief account of the first through considering responses to the LtG project and also through a critique of Silicon Valley’s dangerously diminished views of an over-technologized future. Meta-level overviews emerge from the thoughtful and considered use of integral perspectives and others with the same depth and reach.<sup>4</sup> This occurs because they draw into a consistent (but not overbearing) pattern coherent accounts of ways of knowing, evolutionary processes, through which to understand ourselves and our world. There follows an outline of some of the “proto-solutions” that emerge from work of the kind outlined above.

## Proto-solutions

When confronted by the issues explored here, it is not unusual for people to feel disempowered or fatalistic. Indeed, it is surely understandable that if individuals are operating within conventional worldviews within which reality *appears* cut and dried, they may well feel that they have few options beyond business-as-usual. Yet, as suggested at the outset, *what any individual perceives depends upon the internal resources that he or she brings to the task*. By understanding what this means in a little depth, we open up a truly vast arena of possibilities and real-world options.<sup>5</sup>

This is not a new idea. For example, it was beautifully summed up by E. F. Schumacher (1977, 48) some years ago when he wrote that “at the level of man, there is no discernible limit or ceiling. Self-awareness . . . is a power of unlimited potential.” So here, in no particular order, are some examples of what might be called “emerging imperatives” or “requisite actions” that constitute a sample of effective responses to the global dilemma.

- We need to shift from viewing the Earth as merely a set of resources for human use (a utilitarian view) and to begin to see it as a complex web of living and nonliving components of which we are a part (that is, an ecological view).
- We need to stop ignoring the most significant signals that are being generated by the global system and begin listening to them, taking them seriously, and working out what they mean both for personal behavior and public policy. Environmental scanning and strategic analysis are tools that have been mainly used in limited ways—mainly economic and technical applications—by corporations and governments. Environmental scanning in the public interest is long overdue.
- The widespread dismissal of the LtG perspective and its later manifestations needs to be re-assessed and thoroughly revised. Although systems modeling is by no means immune to criticism, the deeper understanding of the global system that arises from this and related Earth science needs henceforth to be factored into all major decision-making processes.
- We need to recognize that the extremes of the growth-addicted (cornucopian) outlook were based on assumptions about the capacity of the global system to absorb impacts without serious damage that have since been invalidated. Equally, the consumerist dream that was constructed upon this basis urgently needs to be retired in favor of a more encompassing and durable ethic that accords with the new realities.
- Similarly, since what right wing apologists everywhere like to call “free enterprise” leads directly to the collapse of the global system, we need to recognize that the ascendancy of the neo-cons and their model of so-called “economic rationalism” is finally over. Both need to be superseded by what E. F. Schumacher called an “economics of permanence.” Such shifting toward steady-state economies will not be easy and will take time and effort. Yet, the sooner the process is engaged, the better.
- The best way of responding to the great issues of global warming, peak oil, and the like is to understand them as unambiguous indicators of our collective need to change course and re-establish human civilization on a different, more enduring, basis. Picking holes in the latest International Panel on Climate Change (IPCC) report or seeking temporary prominence through, for example, climate change denial, are poor substitutes for action and, over time will be seen as such.
- Currently notions of “collapse” and “descent” (i.e., from the dangerous peak of industrial over-demand) are beyond the pale of political discourse nearly everywhere. Yet, the sooner our elected



**Figure 2.** Four-quadrant view of proto-solutions.

representatives and major institutions seriously engage with the real prospects of “collapse/descent,” the better are our chances of moderating both (Floyd and Slaughter 2014).

- Equally, the longer we choose to ignore these concerns, the more widespread, damaging, and uncontrollable this process will be. For example, every year that passes means that less oil remains to energize the necessary transitions and the greater will be the impacts on global ecosystems and other species. Facts of this kind also constitute social driving forces that will encourage the development of social foresight.
- We need to recognize that proposed transition strategies may all be worthy of consideration but they are also expressive of rather small and nonrepresentative constituencies, mainly derived from the currently rich nations. The relative absence of voices from the non-West and the nonaffluent constitutes a

striking imbalance that urgently needs to be corrected. This must be a global conversation that accommodates differences of every kind.

- In such a conversation, developmental factors from the upper left and the lower left need to be brought into focus and used to clarify interactions that, otherwise, remain confused such that different viewpoints are difficult or impossible to reconcile. This is one of the reasons for the failure of so many United Nations events in which a great deal of hope has been invested. Without much greater clarity here, future initiatives will also prove fruitless or will under-deliver.
- In particular, we need to recognize that dynamic factors within the upper left have been almost universally overlooked in the search for solutions and strategies. In the process, a vast amount of human capability has been overlooked and undervalued. To correct this, we should be seeking to develop a

spectrum of responses within which each person and social grouping can find their own truth and, from this, their own mode(s) of response.

## Conclusion

Overall, what emerges from the above is a clearer picture of where concerned individuals, groups, and organizations can re-direct their attention. Solutions will not emerge from new technology and associated infrastructures, no matter how apparently “advanced,” “green,” or “sustainable” they are considered to be. They will begin to emerge only when people look more honestly and clearly upon their own interior selves and understand that the most potent sources of innovation and “progress” lie within agents of knowing themselves.

The central proposition put forward here is that it is the very sense of self in all its complexity and potential depth that determines what capacities are brought to bear on the global emergency—and hence the character and usefulness of solutions that can emerge.<sup>6</sup> The cultural environment that newly aware selves emerge into and operate within also dictates how well or poorly these capacities are nurtured, whether they are fully developed or extinguished. This is a vital and profoundly empowering prospect that, properly understood, changes everything.

We are, indeed, in the early stages of a global emergency. So, the time to wake up to accelerate human and cultural evolution is not tomorrow or next week but right now.

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## Notes

1. The Panopticon is a type of institutional building designed by the English philosopher and

social theorist Jeremy Bentham in the late eighteenth century. The concept of the design is to allow a single watchman to observe (-*opticon*) all (*pan-*) inmates of an institution without the inmates being able to tell whether they are being watched. Although it is physically impossible for the single watchman to observe all cells at once, the fact that the inmates cannot know when they are being watched means that all inmates must act as though they are watched at all times, effectively controlling their own behavior constantly. The name is also a reference to Panoptes from Greek mythology; he was a giant with a 100 eyes and thus was known to be a very effective watchman. <http://en.wikipedia.org/wiki/Panopticon> (accessed March 31, 2015).

2. Exceptions include Joseph Voros, Peter Hayward, Duane Elgin, Jennifer Gidley, and Natalie Dian. Although perhaps not widely known, these futurists have extensively explored the implications of Left-Hand Quadrant domains in their work.
3. A fine example is Polly Higgins’s campaign to create a “Law of Ecocide” (see Higgins 2012).
4. Alastair McIntosh (2008) provides a cogent overview of climate change that covers all four-quadrant domains without mentioning integral methods at all.
5. I explore some of these in Part Two of *Slaughter* (2010).
6. The emphasis here is not only on cognitive development but also on a wider range of factors including values, self-sense, moral reasoning, worldview, and so on (see *Slaughter* 2012).

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