
Humanitarian Futures: Getting Elephants to Dance

PETER WALKER

*“If you want to rule the whole world
does it follow that everyone else welcomes enslavement?
To robbery, slaughter and plunder they give the lying name freedom.
They make a wilderness, and call it peace.”*

– Tacitus, Roman historian,
writing of Rome’s invasion of Britain

That history repeats itself is a well-worn cliché, for good reason. Consider the quote above. Written 1,500 years ago, those words could easily flow from the pen of someone living in any one of a number of modern nations—Afghanistan, Georgia, Iraq, or Colombia. Reading “The Last of the Name,” in which Charles McGlinchey recounts the hardship of the Great Famine in mid-nineteenth century Ireland, is a grim reminder of the repetitive nightmares of starvation.¹ His description of destitution and death—the normalcy of emaciated corpses in roadside ditches and families scouring the countryside for edible herbs—could, with a few name changes, paint an accurate image of almost any famine in Africa in recent decades.

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But while the patterns of past events repeat themselves again and again, only charlatans, bookies, and Wall Street fund managers claim to predict the future. Complexity and human ingenuity combine to make the future inherently unpredictable. We can make projections, we can make educated guesses, but we can make few true predictions.

The future is the past, with new wares and bits replaced. The problem is in predicting which parts will stay and what the innovations will be. The biggest mistake of organizations is making a binary either/or assessment of the future: no change and business as usual, or, all change and a brave new world. Neither will ever be entirely true.

Why is it so difficult to predict the future, particularly when it comes to major crises? How can studying trends and drivers of change lead to unexpected conclusions about the future? This paper will address these questions and assess the implications for humanitarians and how they plan for future events.

COMPLEXITY

The future we are interested in—that of human society—is unpredictable because it is complex. Complexity theory is a branch of mathematics that deals with the evolution of systems comprised of multiple interlocking components. Complexity theory has shown that once systems reach a certain level of complexity it is impossible to predict how they will evolve. It is not a matter of needing more data or a bigger computer. It cannot be done. Human society is certainly well past the complexity threshold for prediction. Projections of what might happen in the future, “all other things being equal,” (which of course they never are), are as far as we can go. With hindsight, we can see how today’s global financial crisis came about, but no one could have predicted it unfolding as it did, even if some had projected oncoming financial calamity in more general forms.

The essence of complexity theory is that when enough systems are networked together—with flows of resources, power, and information running between them—the resulting interlinked system takes on a life of its own. The complex reactions and interactions that occur can generate simple patterns and predictors, but only if we study the system as a whole. The normal reductionist approach of science will tell us little.² Complex systems do, however, exhibit a number of traits that can help us understand how to envisage the future.

They contain runaway processes. Positive feedback in a system causes something to “suddenly” increase. This is the sort of curve we see for global

temperature rise, for population growth, and in reverse, for financial and stock market crashes. Suddenly things get out of hand, but the seeds of the crisis lie way back in history as positive feedbacks that turn into exponential change. Many of the systems we think will shape the future have such power laws, or exponential positive feedback loops, in them.

Phase changes happen at tipping points.³ Systems flip from one state to another or from stable to unstable. In physics, this is what happens when water turns to ice—there is no viscous state in between as one has with a molten metal cooling to solid. A military coup in a country may trigger a phase change in society. More commonly, governments transition through an electoral process, this is also a phase change process. Usually the cause of the phase change remains hidden. We really do not know what triggered the phase change in Rwanda from low levels of killing to genocide. Phase changes can massively affect our future but are notoriously difficult to predict.

Bifurcation acknowledges the accumulative effect of small changes. A local leader, for instance, has to decide: do I take political path A or B? She then has another similar decision, and so on. The accumulative effect can lead to a number of very
 different end states depending on
 the sequence of decisions. What this
 tells us is that individuals and their
 choices—and small organizations and
 their choices—matter. Over time the
 accumulative decisions of individuals
 can move large systems, as Gandhi showed in India, Mao in China, and
 Mandela in South Africa.

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Accumulation is a positive message from complexity theory. It tells us that individuals and small organizations can make a difference in big systems if they persevere and have a clear sense of purpose and goal.

Finally, highly connected networks can be good at absorbing shock; they can dissipate it through their many nodes and connections. This is why a mangrove swamp—with many trees, roots, and small channels—is much better at absorbing the shock of a storm surge than a less complex shrimp farm on reclaimed tidal water. It helps explain why Wal-Mart outperformed the federal aid system in weathering Hurricane Katrina and responding to the resulting humanitarian crisis with an impressive food distribution effort.⁴

Having a clear understanding of the conceptual model that best describes the future is vital for any organization that wants to break away

from the straightjacket of linear predictions (we have always done it that way) and anecdote-driven actions (Bob tells me it worked in Indonesia, so I will try it here).

Complexity models urge us to look at the system as a whole. Linear predictions and anecdote-driven decisions will not serve us well. Coping with the future is not about trying to make accurate predictions, but about being nimble enough to react quickly to what we can see coming down the line, without losing our sense of purpose. Purpose and goal in this model are far more important than strategic plans.

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KEY TRENDS

The key to understanding future trends is to see them as part of a complex system, not as standalone linear projections. There are many subsets of humanity’s future that we have good reason to make projections about—some of them are external to the humanitarian system, some are internal. Three trends and their collective implication for aid agencies are addressed below.

Globalization

The drive for profit and efficiency, harnessed to the ability to construct closely monitored global systems of information exchange, supply, and distribution, have locked us into an economic system that generates wealth, but is intrinsically more vulnerable to stress than just about any previous economic system we have used.

The globalization of information technology, initiated by the dot-com boom in broadband cabling around the world and fueled by cut-rate access to that network once the dot-coms went bust, has provided a massive boost to the economies of India and other South East Asian countries.

The spread of cell phone technology has also brought unexpected rewards to the poor, who now use cell phones to cheaply transfer cash and to warn of impending attacks. In Kenya the Safaricom service M-PESA allows users to transfer money using a mobile phone. No banks or infrastructure are needed. In early 2009, transfers totaled approximately \$50 million per month.⁵

The same revolution in technology, coupled with the tearing down of tariff barriers, has allowed retail chains to source supplies in south-east China. Today at Wal-Mart, when you make a purchase of a product manufactured in China, the record of that purchase goes instantly from the check-out to the company's supply chain computers. There, an algorithm uses your purchase, and millions of other real-time events, to adjust Wal-Mart's wholesale purchases, their truck and shipping fleet routes, the packing order on the trucks, and the routing the trucks will take to deliver the goods. It allows management to decide when and where to display goods within the store. It also allows the companies producing goods in China to adjust production instantly to ensure that output is matched exactly to predicted consumption.

One consequence of this global push for efficiency is that there is very little slack in the system. Just-in-time supply is the name of the game. The system works as long as all the components work all the time and at the right speed. It is inherently fragile and when it breaks down, as it will do if avian flu becomes human flu, it will plunge societies into crisis.

It is increasingly difficult to escape being part of this global system. In southern Ethiopia, the Borana pastoralist tribe presently sells its cattle to a middleman, who in turn sells some to the abattoir in Addis Ababa and the bulk, via yet another middleman, for export to Saudi Arabia. The trade to Saudi Arabia is largely illegal because Ethiopia cannot comply with the WTO regulations on animal diseases, particularly rinderpest. These non-tariff barriers mean that the Borana cattle people see virtually nothing of the profits made from the sale of their cattle. But, by lobbying the WTO for slight changes in the interpretation of meat product export rules, the non-tariff barriers can be circumvented. By increasing Ethiopia's ability to export frozen processed meat, they can take advantage in this change in regime—one does not need a vaccination certificate for meat products. By cutting out the middleman and enabling the Borana to trade directly with the abattoir, they in turn can get a better price for their cattle. Thus, building a better livelihood for the Borana is no longer just an issue of local context, it is one of global context.

But we need to be cautious. As Raj Patel shows in his new book *Stuffed and Starved*⁶, we have allowed a world food system to develop in which a large number of food producers are connected to a large number of food consumers by a minuscule number of middle traders. In his analysis of six major European countries, Patel shows how over three million producers connect to 160 million consumers via just 110 corporate buying desks. Food has become a globalized commodity. For most people in the world it

is now a processed consumer product, no different, economically, from a soft drink, an iPod, or running shoes. The profit appetite of corporations and commodity trading markets drives its availability and price. We have allowed a system vital to the survival of everyone to become dependent upon a few corporate middlemen. None of the discussion over the global food crisis seems to question whether this rush to globalize and grow the food trading system is right and ethical. Perhaps our future food security is best served by moving from a macro-level global system linked through few central nodes to a distributed system that links local production to local consumption through a much more diverse web of markets.

Globalization, left to its own devices—that is, free of state and interstate regulation—generates wealth but accumulates it in the hands of a few at the expense of many. Economies of scale favor ever larger and more pervasive transnational cooperates and cartels, which link tens of millions of producers to tens of millions of consumers through only a handful of corporate gatekeepers. The system empowers the gatekeepers, but disempowers the producers and consumers.

In addition, the globalization of financial markets, in the absence of any real regulation, has led to excesses in speculation and the creation of exotic and unstable financial commodities on an unprecedented scale. The inherent instability of the system has resulted in the present global financial crisis—a crisis that some predicted in nature, but not in timing.

As the past year has starkly reminded us, globalization is ours to shape, for better or worse. In the short term—the next five years—it is unlikely that global institutions will be crafted to regulate the financial market. It is also unlikely that WTO negotiations will move forward substantially on safeguarding food supply systems or do much to close the increasing gap between rich and poor.

For humanitarian aid agencies this means that the profile of those who are vulnerable may change radically. Those who work full-time but are underpaid, in the cities and on the corporate farms, will be increasingly vulnerable to fluctuating incomes and increasingly expensive food supplies and medical service. Societies' traditional service-driven responses may need to be supplemented by greater advocacy with state authorities to regulate the market and provide safety nets for the poor.

Climate Change

Our climate is changing faster now than at any other point in human history. Climatologists are making projections of how much the world will

warm up and what the higher level consequences of this will be, but the specifics, for this or that country, in this or that year, are beyond prediction. In a recent report⁷, researchers at the Feinstein International Center tried to predict the likely increase in humanitarian spending resulting from increased climate change-induced disasters. The research underlined just how poorly we understand the linkages between climate, hazards, disasters, and response. It also highlighted how poor our present data gathering systems are, particularly in humanitarian action, and thus how ill-equipped we are to make any sort of accurate predictions.

Looking forward 20 years, the research concluded that, with equal probability from equally good models, the change in humanitarian spending could be anything ranging from a 300 percent increase down to a slight reduction.

Given the uncertainty over modeling the future, many researchers examining the linkages between climate and society have delved into the past, looking at what happened in previous periods of extreme climate change. One line of research, exploring the linkages between violence and climate change, is particularly illuminating.

Archaeologists working in southern Libya have shown that the shift from hunter-gatherer communities to urban communities five thousand years ago is associated with a period of rapid drying out of the climate. In essence, people retreated to the remaining desert oases and had to reorganize society to survive. In comparing this new society with the old, the researchers describe it as more structured, less healthy with a lower life expectancy, harder working, and more violent.⁸ Moving forward to the Great Famine in Northern Europe (1315 to 1317), we see that it was preceded by a threefold drop in crop yields caused by a disastrous run of wet cold summers. Up to 25 percent of Northern Europe's urban population died.⁹ Researchers in Singapore have shown that for the whole of the "little ice age" (1550 to 1750) there was an associated massive social change correlated with increased conflict.¹⁰

In the modern era, economists looking at crop yields and violence in the Sahel over the past fifty years have shown a direct correlation between bad weather, crop yields, GDP, and violence.¹¹ Essentially, in a year of bad rainfall, reduced yields from rain-fed-agriculture lead directly to an average drop in GDP of five percent. They have also shown that, on average, for every percent drop in GDP the probability of the state suffering major violence goes up by two percent. This means that a five percent drop in GDP increases the probability of major violence that year by 10 percent. Projecting that forward to 2080 they argue that the expected 3.5° Celsius

rise in average annual temperatures will cause a drop in annual rainfall of 24 percent which, via lower yields and lower GDP, will lead to a 15 percent increase in the probability of violence. At present, in any one year, Chad has a 10 percent probability of major violence. With this projection, that goes up to 25 percent, making violence two and a half times as likely to occur.

The point of this line of reasoning is twofold. First, to understand how complex systems (our society) react to major stresses (climate change), we can look back at what has already happened and try to understand it. Second, the research highlights that all too often people react to stress through fear, control, and coercion—often leading to violence. There is no reason to suppose that societies in the near future will be any different.

Climate change is not just about changes in disaster frequency, food security, and disease patterns; it is also about confronting the very real possibility of substantially increased levels in intra-state violence.

Coping with climate change is about coping with risk and uncertainty. Aid agencies can begin working now with beneficiary groups and

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with states to develop the flexible planning and response mechanisms that will be needed to survive the white-water of uncertainty and risk that lies ahead. Agencies need to work with earth and social scientists in their countries to understand and project the

direct effects of climate change on patterns of hydro-meteorological disasters and changing disease-vector geography, as well as the indirect effects as changing ecological patterns impact economic activity and demographic profiles.

Spirituality

It is a much-avoided fact that in most of the communities where outside agencies practice humanitarianism, spirituality is a very real and important part of people's lives. There is also evidence that, when faced with increasing uncertainty and seeming chaos, people search for meaning in the forces that shape their lives. They may find this in science, in family, in revolution, or in religion, from its most benign to its most violent manifestations. Aid agencies, aware and embarrassed by their history of Christian missionary zeal, have largely ignored this facet of human society. Likewise, those who research aid have felt uncomfortable stepping outside their secular, logical framework.

There is evidence that spirituality, and its various attendants, can aid recovery from crisis. Recent research in the United States has sought to understand whether church attendance impacts the classroom performance of adolescents in high-risk, low-income communities. The answer, it seems, is yes; the discipline of attending church and going through the formal ceremonies helped adolescents deal with the discipline of school.¹² Other researchers have shown that those who regularly frequent religious meetings have mortality risk rates that are 30 percent less than those in the same society who do not attend a mosque, church, or Buddhist temple. More research has demonstrated a strong correlation between spirituality and healthy lifestyle. With specific regard for cardiovascular disease and cancer, research shows that the social support provided in religious communities reduces distress and feelings of loneliness, and thus directly contributes to a reduction in cardiovascular disease.¹³

Inevitably there is also a dark side. One of the most consistent findings regarding the social effects of religion is that low to moderate levels of religious practice are a strong predictor of high levels of social prejudice.¹⁴ Research has also shown that in religions where personal or group-crisis is attributed to divine punishment, recovery is slower and less sustainable. In one study of cardiac patients, 13 percent of those surveyed believed their illness was a divine punishment. This group took significantly longer to recover than did the other 87 percent of the patients.¹⁵

In a different twist on the relationship between globalization and spirituality, we are beginning to see the inevitable backlash against corporate growth, against the urban elite, the glossy and unattainable world of television advertisements, and the championing of what, in another time, we would have called bourgeois values. Ian Buruma and Avishai Margalit, in *Occidentalism, the West in the Eyes of its Enemies*¹⁶, do an excellent job unpacking the history, the nature, and the rather frightening possibilities for this backlash in the future. As they show, this is not just a rant against capitalism. It is about the dehumanizing nature of poverty-stricken city slums, the perceived mediocrity of Western life and its lack of heroism, the ability of scientific thought to reduce everything to numbers and erase spirituality from the picture, the replacement of Gods and faith with prosperity and cynicism. This backlash, which we now see manifest in the explicit and tacit support for al Qaeda and in the more extreme fringes of the anti-globalization movement, is violent and at times nihilist.

The West's reaction, whether it is the Global War on Terror or democratization and nation-building, just reinforces the notion of an imposing ideology.

These reactions are fundamental challenges to humanitarian agencies. Humanitarianism is cast in the mold of the West. It may hold that its values are universal, but funding, staffing, and its modus operandi, are predominantly Western. The challenge is to unhitch humanitarianism from the Western juggernaut and to demonstrate, through consistent, independent, impartial, and neutral action, that it seeks to serve the victim and the victim only.

There is good reason, therefore, to believe that spirituality and religion will play an increasingly important role in shaping our future. We may all be children of the Enlightenment but that means we must seek to understand, not dismiss, this trend.

Traditionally, humanitarian agencies' stance of neutrality has placed such discussions off limits, but as these drivers of change become increasingly important to the individuals who make up societies that are served, such an approach of denial may become impossible to maintain.

ORGANIZING FOR THE FUTURE

I hope I have shown, in the examples above, how speculative any thinking about the future must be. Yet aid agencies, like many institutions, have no choice but to attempt to build today the attitudes and institutions that will govern the future. Consider that the median age for most leaders in the world, political, religious, corporate, is 50. That means the people who will shape the world 40 years from now are today's fourth graders. What they learn in school now will shape the realities of my grandchildren's lives. This is the paradox of long-term policy making. The future is typified by complexity, uncertainty, and unpredictable change, yet somehow we have to make those speculative decisions that will shape the long term. How does an organization plan and shape itself to meet these challenges? Again, history has some lessons, and analogies.

Standards, context, and feedback

Organizational learning research suggests that there are commonalities across organizations that succeed in rapidly changing and unpredictable environments.¹⁷ Four commonalities are particularly important.

First, all organizations adept at managing uncertain environments build up a strong base of knowledge, standards, codes, rules, and doctrine that allow them to run effectively with little supervision. These are often organized into the knowledge base of a profession—military doctrine, medical standards, or legal codes.

Second, doctrine is not enough. Reality is the ever-changing, highly-nuanced environment in which the organization and its actors must operate: the street corner skirmish for the Marine or the patient profile for the doctor. Having the systems and the financial and human resources that allow standards to adapt to meet the specific demands of each environment is the hallmark of successful organizations today. In this respect, the aid business gets low marks. Funding contracts tend to lock agencies into standard solutions and must-do deliverables. Career promotion is too often away from, rather than toward, the theater of action. Bucking this trend is not easy. Organizational research has shown that there are strong forces at work in almost every profession that, left to their own devices, force organizations toward conformity.¹⁸

Third, organizations can only contain the schizophrenia of the first two necessities if they have excellent monitoring and feedback systems that allow for authority and responsibility to move dynamically in the organization to meet the needs of the moment. Feedback also allows the organization to be evidence-driven and answer important questions like: Are we having impact? Why are we having impact? How can we have more impact?

Fourth, successful organizations know where they are going, even if they cannot clearly see the path ahead. The RAND Corporation has built a whole science of long-term policy analysis on this principle, dubbed Robust Decision Making (RDM).¹⁹ The basic tenant is that if you have a clear goal, then every little step can be judged against the question: Does this bring me nearer to, or further from, my goal? The path evolves rather than being planned. The principle works if there is a clear, well-articulated, and believed goal.

If humanitarian agencies are to provide quality service for those in need in future crises, whether fueled by globalization, climate change, or any other major trend, or to support spirituality as a recovery force, or to harness the latest technology to empower victims, then these same agencies must embrace the four principals outlined above. This means radical change in how aid agencies spend their money; investment in knowledge and quality staff; promotion toward the field, not away from it; decentralization of power and authority coupled with the development of clear agency goals and doctrine; and, above all, an obsession with learning. ■

ENDNOTES

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