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 Institute for Alternative Futures

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Forward Perspectives

The Unholy Trinity Scenario

By IAF Senior Futurist [Bob Olson](#) and IAF Futurist [Craig Bettles](#)

The world takes a turn for the worse over the decade ahead as an unholy trinity of peak oil, rapid climate change and global economic disarray roils governments worldwide. Few imagined the disruptions this unholy trinity would unleash. And no one imagined the positive developments that only such a disaster could trigger.

The Institute for Alternative Futures is currently developing a scenario on the triple threats mentioned above. The possibility that these three threats grow in tandem to destabilize the current global order is real. Yet, paradoxically, this seemingly disastrous scenario could contain the seeds of a better future for humanity.

The scenario forecasts that we have nearly reached the peak of global oil production and are now on an "undulating plateau" that may slightly increase production over the years ahead but is rapidly depleting existing fields. By 2015, it becomes clear that the global supply of conventional oil and natural gas cannot keep pace with fast growing demand. Oil prices skyrocket, and inflation spikes, creating disarray in a global economy still reeling from the bursting of the U.S. housing and credit bubbles.

The scenario also forecasts that the impacts of climate change come on faster and more strongly than anticipated in the conservative forecasts of the Intergovernmental Panel on Climate Change. Thawing tundra releases [large amounts of methane](#), a powerful greenhouse gas. Rising water temperatures reduce [the ability of the oceans to absorb more carbon](#). Melting ice creates lakes under the ice sheets in Antarctica and Greenland, allowing ice to slide into the ocean and cause a sudden rise in sea level.

With the possibility of catastrophic climate change looking all too real, climate concerns block the development of all but the richest deposits of oil shale and heavy tar sands in countries like Canada and Venezuela. Taking these large reserves out of production makes the energy situation all the more severe. And depressed economic conditions make it difficult to invest in new energy sources.

Circumstances like these could lead to scapegoating, ruthless pursuit of narrow self-interest, resource wars, and other pathological responses. But there is also a possibility that global disruptions this large could create the impetus for a better global system. These powerful, self-inflicted problems could force people everywhere to rethink their values and priorities and mobilize for change.

A positive outcome would be more likely to the extent that widespread positive images exist about "how the future could work out for the best" despite severe problems. The scenario IAF is developing will explore some of these positive images. Imagine, for example these problems motivating the global community to come together and take action on a scale unseen since the World Wars of the 20th century. Imagine:

- massive investments in environmentally advanced technologies that use energy more efficiently in buildings, transportation and industry - because improving energy efficiency costs less than any kind of new energy supply;
- global scale X-Prize-type competitions jointly sponsored by the U.S., China and the EU with huge rewards for achieving breakthroughs in low-cost, non-fossil fuel energy sources;
- a rapid expansion of social entrepreneurship, and strong job creation in areas like energy efficiency and renewable energy;
- a strengthening of local community as high transportation costs favor compact development over urban sprawl and act to revitalize local and regional production;
- massive Internet-driven educational campaigns on conserving, cost-saving behaviors;
- efforts by all the major world religions to counter excessive materialism and emphasize that happiness comes primarily from loving relationships, friendships, meaningful work, continuous learning, and acts of altruism and service.

We welcome your suggestions for positive ideas and initiatives to include in this scenario.

Environmental Geopolitics in a Changing World

By IAF Futurist [Devin Fidler](#)

The full spectrum of environmental concerns will become the central component of 21st Century geopolitics.

Resources have long been a key component of international politics as nations have found themselves competing for control over scarce materials. Even now, key environmental concerns such as climate change, loss of biodiversity and the threat of peak oil are taking center stage. The next step for international relations is a collective approach where nations take the lead in addressing these issues for the next generation. It is time to begin examining the geopolitics of a changing world.

While the full scope of future environmental shifts is still uncertain, new evidence reinforces the seriousness of climate change. Temperatures have increased at a faster rate than has

been predicted by most climate models over the past several years. This may indicate that new resource concerns are on the horizon.

Foremost among these is likely to be access to water. Precipitation patterns are liable to change with warming and desertification threatens to reduce arable land in many equatorial regions. Even physical topography and international boundaries could be altered if the combined effects of glacial melting, thermal expansion and accelerated ice flows sufficiently raise sea-levels.

Beyond this, Peak Oil, the point at which oil production begins to decline as supplies dwindle, is now widely expected to be reached within the next decade. This may signal very interesting geopolitical shifts over the intermediate term as scarce petroleum reserves will become even more valuable strategic resources. Over the long-term, however, it may be time for the international community to begin looking at how international relations are likely to realign themselves once oil has been effectively depleted.

The international community will need to begin to design a 21st century geopolitical framework now in order to build the infrastructure necessary for a greener economy to function on a global scale. Many of the environmental problems faced in the 21st century will be the unaccounted for byproducts of economic activity, or "economic externalities." At a minimum, international cooperation will be necessary to establish production standards and to disseminate new green technologies within emerging manufacturing centers. Even more international cooperation will be needed to form global markets to apply market mechanisms to reducing greenhouse gasses and other forms of pollution.

Indeed, the emergence of rapidly-industrializing nations, including India and China, will likely lend great urgency to this geopolitical shift. Billions of people in these nations will move toward a higher material standard of living against a backdrop of potential energy shortages, the international politics of this transition will be as delicate as any that have been faced.

All of these factors are early indicators that more innovation is likely to emerge. While geopolitics has traditionally been a field firmly rooted in history, a more forward orientation will be necessary to even broach many of these unprecedented topics, much less to solve them. We can anticipate the emergence of new cooperative models, international-level leaders, and a new generation of international institutions to address these issues.

Downloading Education

By IAF Senior Associate [Jay Herson](#)

Recently, I was asked to record a lecture for the internet that I give once a year to Master's Degree students at the Bloomberg School of Public Health of Johns Hopkins University. On my way home from this recording session I realized that this digital lecture was just an object to be downloaded and easily transferable.

This lecture could be like digital music albeit with a much smaller market. While most universities may be thinking of these lectures for use in their own courses, the larger education market may see these as objects of commercial value. This could be the dawn of a new industry.

On-campus students could benefit from internet lectures produced elsewhere as well as

those attended live on their campuses. They could even use the internet to play back the same lecture they heard live earlier in the week. Indeed the term "lecture" should be generalized here to mean "learning opportunity" because internet modules could consist of interactive computer directed learning and need not contain a human voice or image at all.

Universities can license their internet lectures to other universities to include in all or part of their courses or to individuals enrolled at other universities (possibly traditional on-campus students) for enrichment of their coursework. Distribution companies could evolve to broker lectures for universities and translating lectures into various languages. The universities would thus become content providers, and they and their contributing faculty would be in the royalty stream. This would not be a new role for universities. They have spent decades licensing logos for merchandise, television coverage for sporting events and producing programs for public television.

There will be the risk of illegal downloading, copyright violations, unauthorized translation to other languages and even counterfeit lectures (a high school teacher records a lecture and a distributor claims it was recorded by a Harvard professor). A black market could emerge such as has existed for ghost-written term papers and book reports. While litigation may seem to some as the logical way to settle these problems, eventually reasonable pricing, similar to the solution in internet music distribution, will be seen as a way to make the illegal practices unprofitable.

Distance learners, especially graduate students studying in applied areas like public health and engineering, may have the benefit of learning something Tuesday night that can be applied at the office Wednesday morning. Indeed internet lectures can be used for on-the-job training independent of any degree program. The internet lecture distribution system, if properly enforced, could be a way of educating more 21st century students with higher quality material than what the current on-campus system can provide. The resume of the future may not consist of merely a list of degrees but a printout of internet courses passed where some would have higher value in the marketplace than others due to the professor teaching, content, production format, etc.

A digital education industry is emerging because there is an increased demand for academic credentials. An employer hiring a college graduate once expected that person had dedicated four years of their life to this level of education in a community of faculty and other students. That same employer hiring a college graduate with a degree earned over the internet can only trust that the student sat before a computer and submitted perfunctory exercises and wrote exams at a schedule of his/her choosing.

An economics professor in a traditional classroom once included the phrase in many of his lectures "the market giveth and the market taketh away." In the end, individuals become educated by making the most of whatever resources are available in traditional academic settings, through online learning or some blend of both. This takes motivation and commitment to learning. These traits cannot be downloaded.

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