

BANG

Bit Atome Neurone Gène

From What Next? to What If?

toward a global CSO response to structural and technological convergence

A Brief Report from a global civil society strategy meeting to the World Social Forum and invitation to join the What Next? Process

The What Next? Process

In November last year, 40 people from 20 countries met for four days in Montpellier France to discuss the alarming pace of technological change and the 'business as usual' trendline that might drive humanity forward the next 30 years. The meeting was jointly convened by BEDE and Fondation Sciences Citoyennes of France with the What Next? initiative of Sweden (building further on the prior work of Dag Hammarskjöld Foundation) and the Canadian-based ETC Group.

It was a sobering dialogue. The 40 people who came together share long experience in global political advocacy. Many have worked closely on technology issues ranging from biotechnology to nanotechnology and geoenvironment. Many have a background in human rights, the peace movement, indigenous issues, environment, food and agriculture, the women's movement and other areas of social justice. We came across a broad range of backgrounds and themes to tackle new issues and challenges that cut across all sectors of society. We met to openly share our ideas and concerns, and begin collective strategising. There was no attempt to reach collective decisions – only to share information and discuss further areas of dialogue and action.

BANG? What's the problem?

The Little (triple) BANG Theory

The business-as-usual trendline over the coming three decades will likely merge three powerful shocks. The confluence of global crises and environmental meltdown being created by old industries, new climate chaos, and biodiversity loss (the first BANG) will create demand for a massive techno-fix (BANG N°2) that can best be characterized as technological convergence at the nanoscale – the scale of atoms and molecules (BANG also stands for Bits, Atoms, Neurons and Genes.) However, this set of nanoscale technologies demands massive industrial control and corporations will look for a closer convergence with government to implement their 'techno rescue' (BANG N°3).

Corporations will argue that BANG is our only hope and that this convergence requires an unprecedented partnership with vast industrial consortia suspending competition policies, strengthening patent monopolies and regulating societies. Panicked and confused, most governments will surrender to this shock treatment. Civil society organizations – sector focused and funder-limited – will neither see the dimensions of the BANG threat nor display the creativity and long-term strategic thinking necessary to address the multi-faceted challenge.

BANG breaks down into a number of problems. Here are a few examples discussed at our Montpellier meeting.

BANG - you're led! Geoenvironment Gaia

Governments don't have the courage – or corporate permission – to do what they have to do to survive climate chaos. Climate change will render our already fragile food system more vulnerable and a giant majority of the world's 450 million farms will be abandoned or merged. Corporations will move from Peak Oil to Peak Soil in an attempt to capture that

76% of the world's biomass that has yet to be commodified. As synthetic biology replaces biotechnology in transforming living materials, consortia will propose enormous geoenvironment schemes to deflect heat and sequester greenhouse gases. Already this January, despite CSOs' victory in establishing a UN moratorium against ocean fertilization, both Germany and Australia are threatening to conduct potentially dangerous iron particle experiments on the high seas. Confronted with the reality of dramatic environmental damage, CSOs and society will accept nuclear power as well as geoenvironment as their only options.

BANG - you're dead!

The Massively-Destructive Individual

In the nano-world of quantum effects – where standard dental compounds can ignite bombs and carbon soot can blow up airplanes and children can build self-replicating species the way their parents used to build lego – bio-error is a greater threat than bioterror and anyone might use almost anything to become a massively-destructive individual. The threats posed by the new technologies give governments the opportunity to impose new social controls. The potential offered by molecular self-assembly will be a tremendously attractive response to raw materials and energy shortages and allow a focus away from tackling root causes – and impose new risks .

BANG - your head! The Death of Dissent

The potency and peril of geoengineering the environment and the threat of even accidental MDIs (massively-destructive individuals) could demand a level of commercial and societal control that will turn the Democratic ballot into a paper tiger and make dissent impossible. It already seems that every privacy law is circumvented by a new surveillance technology (or a bandit bureaucracy). Perhaps more significantly, new technologies are seducing societies into surrendering their friends and families. A quarter of a million people paid \$100 each to give away their DNA to IBM and social networking sites and GPS cellphones are making it cheap and easy for others to map our moves and motivations. While some governments and scientists talk about mapping cultural memes and redirecting social attitudes through medicines or neural implants, the conventional media and the unconventional Internet are already marshalling the parameters of "acceptable" dissent very nicely – and have been doing so for a long time.

BANG - you're fed! Technology Trumps Trade

Life is under control. The top 10 global corporations already control two-thirds or more of proprietary seeds and the same proportion of biotech products; 89% of agrochemicals; 63% of animal pharmaceuticals and 55% of human pharmaceuticals. Downstream along the food chain, 10 companies control 26% of commercial food and beverage sales and 40% of retail groceries (of the top 100 companies only). This dominance, however, only addresses that 24% of the world's annual biomass that has been commodified. A new configuration of the world's largest chemical, energy and agro/biotech companies are moving to synthetic biology to commodify the other 76% of global biomass that has remained beyond the global marketplace. Behind all these are a handful of genome and data-management companies (including Microsoft and IBM) that believes that the final control of nature will go to those who manage its data and manipulate its genomes. Cutting across many of these economic sectors are just six companies that already control almost all of the world's identified "climate-ready" plant DNA, seeds, agrochemicals and biotechnology. Technological convergence at the nano-scale renders the future of all raw materials – mineral and living – uncertain. At least in theory, nickel and cobalt could replace platinum, sand might replace copper, and switchgrass could replace Saudi oil. The world's \$1.8 trillion plastics industry could be grown in Africa – or not.

BANG - you're bred! Human performance enhancement

Drugs for well people are much more profitable than drugs for sick people. Well people, for example, never get better; never stop earning; don't attract sympathy; and can be moved

onto other drug regimes that promise even more. In a world of financial crisis, employment competition, and ever expanding climatic and chemical threats, the market for HyPEs (human-performance enhancement) is enormous. Millions of people already undergo cosmetic surgery every year. Millions more are anxious to overcome real or imagined mental (including emotional) limitations. Genome mapping is already becoming big business as everyone strives to maximize their potential. The implications for those who don't want – or can't afford – enhancement are daunting. Will those who "stay behind" be considered human? How do families adjust to a firstborn who is version 2.0 when the second born is version 2.3? How do children grow up with "inferior" parents? Will we accept upgrades through cogular implants? Who has access to the send/receive toggle on the implant? Will HyPEs enable the disabled or dismember them from society?

BANG - oops! Techno-failures are no barrier to profits

At least the first generations of GM crops haven't worked. Some will argue that they were rushed into the marketplace too quickly to satisfy venture capitalists. Others argue that shooting genes from one species into another will always be sloppy science. Similarly, synthetic biology – treating life as lego – might also be a failure. Self-replicating human-made life forms could be accident-prone on a global scale. Nano-scale desktop manufacturing might prove much more difficult, energy-intensive, or otherwise expensive than industry now suspects. Nanoparticles too small to be seen by the immune system – that can pass through the blood/brain barrier and the placenta – could lead to a major health risk. History shows that it takes at least a generation for a major new technology to overcome its original defects. So what? The \$78 billion biotech industry is now turning a profit. Sloppy science and bad technologies can still be profitable if governments have regulated an enabling environment and the competition has been cowed into submission or extinction. Once the technology has created a new oligopoly, the technology is no longer needed. All the technologies debated in Montpellier could ultimately be failures. This would not necessarily stop them from being used and abused.

These are just some of the worrisome issues we discussed at our Montpellier meeting.

The challenges are very real. They are bound to become some of the major concerns and areas of debate and be of concern to us all, regardless of what areas we work in.

We will discuss, strategize and act intensively over the next couple of years. We will formulate constructive responses, strategies for change and more equity, social justice and environmentally sound alternative trajectories.

Future plans

Participants in the BANG meeting saw the World Social Forum 2009 in Brazil and the Science and Democracy Forum taking place in Belem immediately before as important events to reach out and engage activists across all social movements. While a full report on the Montpellier meeting and also a book describing alternative scenarios toward the year 2035 will be circulated on the Internet shortly, we want to summarize some of the challenges we discussed right away.

With a focus on strategy and action, a number of steps towards global mobilisation around the BANG issues were identified:

- We are proposing to organize a series of regional What Next? BANG conferences at least in Africa, Asia, and Latin America over the next 18 months (by mid-2010);
- To the extent that there is interest from potential partners in each region, we would also propose to organize a number of national seminars in each region before or after regional events;

- Depending on the outcome of the regional and national discussions, we propose to convene a major global conference on the What Next? BANG theme later in 2010 with the hope of developing strategic plans for civil society responses to what we see as major political/technology challenges.

We hope you and/or your organization will be interested in working with us in developing these national, regional, and global processes and to keep informed. Please contact us at info@whatnext.org and check the website www.bangseminar.org

We hope to engage further with you in national and regional gatherings over the next couple of years. If you would like a copy of the Montpellier report – and the trendline book behind it – please send us your e-mail address. If you would like to work with us in exploring these issues in your own country or region, please let us know.