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### **Balancing act, action** (Balancing technology, economics and values)

Alan Betts

Spring is a time of new beginnings. Nature blossoms with an enthusiasm we can all see and feel. The annual cycle of growth and decay is normal for the natural world. For us, this is a time to look afresh at our lives, plant new seeds and make new choices. Let us start with the intersection of science, technology, economics and values.

Our science and technology have transformed our human world and are in the process of transforming our planet. For better or worse, we must find a way to live with technology. But remarkably we have realized only very recently that our technology must be managed, because it has led to both extraordinary achievements and catastrophic failures. The great achievements we take for granted, but most of the time we avoid connecting catastrophes to the poor management of technology. For an example of a catastrophic use of technology, consider nuclear weapons. Or take the current financial crisis – where amoral, computerized financial creativity was allowed to run amuck until it brought down our global economic system. The climate crisis is yet another impending catastrophe, one that is coming directly from a lack of foresight and constraints on our use of fossil fuel technology.

Our technological society has become vulnerable because we have failed to build in the types of safeguards and controls that every complex system needs for stability. Mostly we manage with the short-term objective of maximizing profit. More money can be made if we ignore some of the costs. The standard business strategy is to let the free market make decisions for us, based on the lowest cost – ignoring or “externalizing” as many of the environmental costs as permitted. Industry is free to move production to countries with the lowest costs, the cheapest labor and the least regulation. But of course there is no free lunch – workers and the local and global environment, our grandchildren and the Earth itself all pay for the deferred costs.

A market system can only work well if we correctly price all the consequences and risks of production. This is not easy, and most of the time our society has shirked this responsibility by deferring costs, and often waiting until pollution has become obvious, unhealthy and unavoidable before passing regulations. On a global scale, we are facing a climate crisis because we have not placed a high price on the burning of fossil fuels that add long-lasting greenhouse gases to the atmosphere and warm the planet.

Sound economics is necessary, but economics can only take us so far. It is impossible to estimate the full cost of the damage our technology is doing to the natural world. Despite extraordinary advances in research, we simply do not yet understand natural systems well enough. And the services that ecosystems provide to us and all of life on this planet are truly beyond any price. We need values to shape and restrain our choices. Consider the Native American tradition of looking ahead for the next seven generations when a decision must be made, a practice that recognizes life on the earth as both precious and slow to adapt. This is a value system rooted in deep insight rather than short-term economics.

So how much do we value the beauty of the earth and its creatures this spring? Are we willing to look ahead even two generations to our grandchildren’s time? Would we pay to better insulate our houses so we burn less fuel oil? Would we buy a smaller, more efficient car that burns less gas? Will we work with our neighbors and our government to try to create a more energy-efficient society? For electricity, will we weigh the sight of wind turbines on our hills against the intergenerational risks of making plutonium and nuclear waste? There are many choices to make that have long-term consequences, and they all need deeper reflection and public discussion.

But do not reflect inside your homes and businesses. Go out into the warm spring sun, feel the breeze on your face, listen to the birdsongs and smell the myriad scents that nature uses to communicate. Then plant those seeds, be grateful for the earth and ask what you can do.

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