Technology a Dangerous Bet

by Dave Gardner, Executive Director

This issue of Balanced View features a well-written story about technology by World Population Balance research associate Alan Ware. We all need to be making significant changes in our lives to live more sustainably. Yet some of the most environmentally conscientious people we know gravitate toward technological solutions to overshoot. More energy and effort is focused on switching to wind and solar energy than on shrinking one’s footprint by living more simply or choosing to have fewer children.

Of course, there are also many prophets of growth who dismiss our sustainability concerns as problems to be solved through technological innovation. Two decades ago, the infamous growth-monger Julian Simon famously declared that through technology the Earth would be able to support “an ever-growing population for the next 7 billion years.” Simon also declared, “Copper and oil come out of our minds.” I prefer the much more realistic and rational words of Stanford biologist Paul Ehrlich, who once told me, “They’re always talking about the technological rabbit that they’re going to pull out of the hat and that’s going to solve all of our problems. The trouble is that technological rabbits often turn out to have very smelly and messy droppings.”

What did Ehrlich mean by that? Technology frequently creates as many problems as it solves. Yes, technology brought us electricity, the telephone, television and computer. But it also gave us DDT, thalidomide, asbestos and CFCs. All of these were technological solutions to other problems. The solutions ended up worse than the problems they solved. This observation by famous television news correspondent Eric Sevareid in 1970 led to Sevareid’s Law: the chief cause of problems is solutions.

Betting our children’s future that technology will solve the many problems created by overpopulation is a very risky proposition. It seems awfully foolish to me, when we know how to solve overpopulation. All we have to do is ignore the growth pushers, support family planning, educate and empower the women of the world, and don’t let men off the hook – all coupled with making sure every young person the world over knows about overpopulation and understands the implications of family size decisions. Now THAT’S an innovative solution!

Meet-up with Fellow Overpopulation Activists

Would you like to regularly meet with other people in the Twin Cities who are alarmed about the overpopulation crisis and want to better equip themselves to talk about it with confidence? Meetups can take place in someone’s house, a coffee shop, restaurant, pub, or library. Meetup groups can pursue any overpopulation-related topic they choose. World Population Balance will offer a possible format and reference materials.

We currently have plans for meetup groups in south/southwest Minneapolis and Maplewood. Watch for email updates about when the groups will be launched. Let us know if you’re interested and we’ll help you get connected. If you want to start a group in your neighborhood, we can provide tips to get started. Call the WPB office at 612-869-1640 or send an e-mail to meetups@worldpopulationbalance.org.

Listen to the Latest Overpopulation Podcasts

Dave Gardner continues his in-depth exploration of solving overpopulation with fascinating guests on the Overpopulation Podcast. Since the last newsletter Dave has added three excellent discussions to the podcast roster. The podcast has been heard by thousands of listeners in 165 countries around the world!

Episode 6: “Evil Plot to End Overpopulation”

In Benjamin Dancer’s novel, Patriarch Run, an evil mastermind attempts to solve overpopulation through the mass murder of billions. Benjamin joins host Dave Gardner to discuss the issues raised in the novel.

Episode 7: “Our Moral Obligation to Conceive Just One Child”

Host Dave Gardner talks with Travis Rieder, bioethicist and author of Toward a Small Family Ethic: How Overpopulation and Climate Change are Affecting the Morality of Procreation. Appearing on NPR and other national news outlets, Travis is encouraging everyone to consider the ethics of having children on an overpopulated, climate-disrupted planet.

Episode 8: “Small Family Campaigns and Incentives”

Are there ethical and moral ways for governments to accelerate the move to smaller families in order to contract population? Ethicists Colin Hickey and Jake Earl weigh in on why this should be done, and how we might do it fairly, in order to shrink our carbon footprint.
Today, much of the media and our most influential thought leaders have a blind faith that as-yet-undiscovered technologies can save us from overpopulation and ecological overshoot. With the likes of Elon Musk and other giants of Silicon Valley leading the way, belief in technological progress has assumed the contours of a civic religion. Plans for colonizing Mars, mining asteroids, and conducting planet-wide geo-engineering to combat climate change are all on the drawing board for dealing with our ecological overshoot. And their dreams and technological visions unfortunately garner more serious media attention than in-depth stories about overpopulation and our very real and down-to-earth ecological predicament.

But there is now mounting evidence — and hugely underreported evidence — that technological progress has actually been slowing in recent decades compared to earlier decades and centuries. That statement may seem wholly counter-intuitive to many readers, but I ask you to consider some of the building evidence supplied from technology reporters, economists, and scientists. As overpopulation activists, we need to marshal the evidence and push back against those who believe that technology can save us from ecological overshoot and collapse.

**Low-Hanging Fruit of Innovation**

We all know about the “low-hanging fruit” principle as it applies to resource use: like any species, we humans take the easiest, best resources first. Early European American settlers sod-busted 3-foot thick Iowa topsoil, felled the towering white pines of northern Minnesota and New England, fished the teeming fisheries of North Atlantic cod, tapped the gushing oil of Pennsylvania and Texas, and mined the richest ores. Now we’re left with Iowa topsoil reduced to half what it was 150 years ago, forests reduced to monocrop tree plantations, fisheries depleted or collapsed, and land and water ravaged and abused in the search for harder-to-get oil and coal.

As economist Tyler Cowen notes in his 2011 book, The Great Stagnation, evidence is mounting that the “low-hanging fruit” principle also applies in the realm of human technical innovation. We first solve the easiest technical problems that deliver the greatest benefit at the lowest cost. Penicillin was discovered in 1928. It’s estimated to have saved 200 million lives, and it formed the basis for all modern antibiotics. The basic research cost less than $300,000 in today’s dollars! In contrast, the “war on cancer” has received over $105 billion from the U.S. government alone and the death rate, adjusted for the size and age of the population, has decreased by only 5 percent since 1950 (Kolata,2009).

Huge innovations that transformed daily life were carried out by Edison’s small group of researchers at Menlo Park. Life-changing technologies such as the incandescent light bulb, phonograph, movie camera, and electricity distribution came from this small team of researchers. Now, scientific and technological progress requires ever-larger teams of researchers working in interdisciplinary fashion with huge budgets. And, as the problems they’re attempting to solve become increasingly and incredibly complex, the resources required grow ever-larger.

**Innovation in Bits, Not Atoms**

The fact is that technological advancement of the past 40 years or so has occurred primarily in the realm of electronic bits. We’ve seen amazing advancements in all kinds of digital communications technologies. And yet in the world of matter — of atoms — we’ve seen precious little.

In transportation, we abandoned supersonic passenger airplane travel in the 1970’s, and if you’d told people in the late 1960’s that we’d no longer have human space missions they’d think you were crazy. Blockbuster drug discoveries are fewer and farther between and the cost of biomedical research and development continues to soar. Renewable energy technologies have increased at a rapid rate in recent years, but they supply only a small fraction of the world’s total power.
needs. Fossil fuels still supply over 80% of all global energy.

Global industrial civilization relies on massive amounts of renewable and non-renewable resources. Many “bright-green” believers in technology have faith that increased efficiency will translate into less consumption of resources. And yet a recent MIT study found the opposite. With nearly all the major 57 materials the researchers studied – from aluminum to silicon chips to solar panels – they found that more efficiency in production led to lower costs which, in turn, led to greater consumption.

The End of Moore’s Law

Most of the current dreams of the “internet of things”, driverless cars, widespread robotization and artificial intelligence are based on expectations of the silicon chip revolution continuing. In the world of silicon chips we’ve enjoyed a half century of nearly uninterrupted operation of Moore’s law – the tendency for the number of transistors on a silicon chip to double every two or so years with a dramatic decrease in cost. John Markoff, decades-long technology reporter with the New York Times, notes that “It is hard to overstate the importance of Moore’s Law to the entire world.”

Now, even in the realm of digital technologies, we are seeing diminishing returns in innovation. Over the past year many under-reported stories have appeared about the recent and rapid slowing of Moore’s law. As Markoff notes, “If you begin to pick it apart, the fundamental argument of Silicon Valley, it’s all about this exponential acceleration that comes out of the semiconductor industry. I suddenly discovered it was over…In fact, things are slowing down. In 2045, it’s going to look more like it looks today than you think.”

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Joan Phillips Joins WPB as Office Manager

Joan started working in the World Population Balance office in the summer of 2016. She can recall being concerned about overpopulation as a young child, when world population was only 3 billion. She was taught by her Catholic parents to care about others and help the needy. It became readily apparent to her that we would never be able to help all of the needy if population continued to grow. Before going into semi-retirement in 2013, she worked as a programmer and in tech support. She is very excited to be part of the WPB team and working on this vital cause.

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Alan Ware, Editor
Fred Waltz, Design & Layout
www.WorldPopulationBalance.org
info@worldpopulationbalance.org

Our Mission

We alert and educate that overpopulation is the root cause of resource depletion, species extinction, and poverty. Our mission is to chart a path for human civilization that – rather than causing greater misery - enables good lives on a healthy planet. We advocate and support a smaller, truly sustainable human population - through dramatic and voluntary reduction in birth rates.

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Joan Phillips, Office Manager

We’re delighted to have former long-time office manager Carolyn VandenDolder continuing to help WPB in various capacities. Carolyn helps with special projects, writing, and speaking, and she’s glad to remain a part of this important work.

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Are Ideas Getting Harder to Find?

That’s the question put by a team of Stanford and MIT economists when looking at the U.S. economy across a broad range of industries (Bloom, Jones, Van Reenen, and Webb, 2017). Their answer is yes: “We find that ideas – and in particular the exponential growth they imply – are getting harder and harder to find.” In areas where exponential growth is observed they find that this growth “results from large increases in research effort.” For example, in the silicon chip industry, the number of researchers required to achieve the doubling of chip density today is more than 75 times larger than the number of researchers required in the early 1970s.

The authors find that across many different industries research effort is rising substantially while research productivity is declining sharply. The researchers conclude that “just to sustain constant growth in GDP per person, the U.S. must double the amount of research effort searching for new ideas every 13 years to offset the increased difficulty of finding new ideas.”

We can’t afford doubling the resources given to research efforts every 13 years for the simple fact that we can’t all be researchers. Someone has to grow the food, tend the sick, teach the children and do all the thousands of other jobs necessary for life in modern societies. And, on top of that, much of the developed world is faced with a maintenance crisis of crumbling infrastructure that requires enormous resources just to maintain what we already have. We simply won’t be able to afford the ever-increasing amount of resources required to push the technology frontier forward.

We need Social Innovation, not Technical Innovation

As overpopulation activists we need to question the dominant narrative of the broader culture that seems to worship a lazy technological “optimism” – an almost child-like faith that technological miracles can deliver us from ecological overshoot and collapse.

If technological innovation is slowing, as much evidence suggests, then we must rely more than ever on social innovation to create a sustainable future.

Technology can’t save us. Solving overpopulation can. Smaller families and a smaller global human population are essential if we want to create a future worth inheriting.

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SOLVE OVERPOPULATION
1-CHILD FAMILIES CAN SAVE HUMANITY!

One Planet, One Child Video Gets an Update

The best short video on solving overpopulation, Bruce Phillips’ One Planet, One Child, has been at the top of the World Population Balance home page for years. Now, thanks to a spark from WPB fan Liz Todd and a grant from the Briarwood Family Farm Foundation, the video has been updated. It also sports a new, original music score, composed specifically for the video. Please take a look at the new video, on our home page, and share it with others.