

Viewpoint: Is Bill Gates the point man for ‘taking over’ the world’s food supply in service of Big Agriculture?



Last month, comedian Russell Brand gave his YouTube followers a [17-minute lecture](#) about Bill Gates’ plot to take over the world’s food supply and force-feed the developing world genetically engineered (GE) crops. Relying mostly on anti-GMO superstar Vandana Shiva, Brand unsurprisingly got just about everything wrong.

screen shot of the unknown

[Recently,] U.S. Right to Know’s (USRTK) co-founder and managing editor Stacy Malkan made more or less the same argument Brand did in a long story, “Bill Gates has radical plans to change our food. What’s on the menu?” posted on the anti-GMO group’s website. [1] The only difference between the two is that Malkan, a seasoned [organic industry PR expert](#), knows the subject better and told a more convincing story. Because the arguments Malkan employed circulate widely on the internet, they’re worth refuting in some detail. Let’s take a look at a few of her key points.

The “techno-food industrialists”

Much like a good thriller movie, there’s always easy-to-spot villains in USRTK’s narratives; in years past, the nemesis has been Coca Cola, Monsanto and even the entire food industry. This time it was Gates, investing his billions in technologies that can fight hunger and climate change:

To the techno-food industrialists, hunger and climate change are problems to be solved with data and engineering. The core ingredients of their revolutionary plan: genetic engineering — and patenting — of everything from seeds and food animals, to microbes in the soil, to the processes we use to make food. Local food cultures and traditional diets could fade away as food production moves indoors to labs that cultivate fake meat and ultra-processed foods.”

Data and engineering solve lots of problems. For example, Malkan wrote her article on a computer made from patent-protected technology instead of a typewriter. This allowed her to reach a mass audience with a few keystrokes. Why should we be mortified of Gates’ intellectual property (IP) claims on food technology but not Dell’s patents on its laptops?

Rhetorical questions aside, Malkan never actually explained why patents are harmful. There are some interesting arguments [against intellectual property](#), but they don’t have anything to do with USRTK’s contention that the technology IP protects is inherently harmful.

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The anti-GMO movement has alleged for decades that GE crops destroy local food cultures, but this was always a myth. Different regions of the world utilize genetic engineering to *enhance* their local cuisine.

Hawaii grows [virus-resistant papaya](#); Bangladesh produces [insect-resistant eggplant](#); Nigeria [cultivates cowpea](#) with the same trait. African researchers are using [gene editing to rescue](#) the continent's staple crops, to the benefit of millions of people.

All this work is done because farmers and consumers need solutions to practical problems. Nobody [forces developing nations](#) to use this technology.

Ginkgo Bioworks, a Gates-backed start-up that makes “custom organisms,” just went public in a \$17.5 billion deal. The company uses its “cell programming” technology to genetically engineer flavors and scents into commercial strains of engineered yeast and bacteria to create “natural” ingredients, including vitamins, amino acids, enzymes and flavors for ultra-processed foods.

This isn't a bad thing. If it weren't for synthetic biology, we'd have to use older industrial techniques to make these products or grow the plants that produce their ingredients. Either approach [takes a toll](#) on the environment. Depending on where you live, there's a good chance some organic products in your grocery store [contain one or more](#) of these fermented ingredients, by the way.

Biotech's eco-benefits

Gates believes that “genetically modified seeds and chemical herbicides, in the right doses – and not land-intensive organic farming – are crucial to curbing carbon emissions.”

He's right. [Research](#) over the last two decades has shown that GE crops and the weedkiller glyphosate—USRTK's favorite bogeyman—have substantially reduced greenhouse gas (GHG) emissions and halted the expansion of farmland globally. I stress again: these gains would not have been possible had farmers refused to utilize these products. As always, [the customer is king](#) in economics. This is why activist groups try to ban pesticides and biotech products via the court system; they can't convince growers to give up useful tools.

Recent science shows that chemical-intensive industrial agriculture is a key driver of climate change, soil erosion and the worldwide decline of insects.

[Wrong](#), [wrong](#) and wrong. Relative to energy production and transportation, [agriculture's contribution](#) to climate change is quite small. Moreover, the very technologies Malkin attacked help solve these problems, and it's easy to see why. Chemicals that reduce tillage slash carbon emissions and erosion; technologies that allow greater production [on less land](#) preserve biodiversity. These are real issues; there are no magic bullets. But demonizing modern agriculture is no solution.

“Unpredictable” gene editing

Gene-editing techniques, and especially CRISPR, are efficient but unpredictable. Studies show the CRISPR process can create unexpected mutations including DNA damage and other off-target effects.

Compared to what? Traditional plant and animal breeding are far less precise and predictable than gene editing, according to a team of geneticists [writing in Nature in 2019](#):

To put this in perspective, one study of whole genome sequence data from 2703 individual cattle in the 1000 Bull Genomes Project revealed more than 86.5 million differences (variants) between different breeds of cattle. These variants included 2.5 million insertions and deletions of one, or more, base pairs of DNA, and 84 million single nucleotide variants, where one of the four nucleotides making up DNA (A, C, G, T) had been changed to a different one.

Bottom line: every plant and animal we consume has mutated DNA. Gene editing just gives us more control over how many and where they show up in the organism's genome.

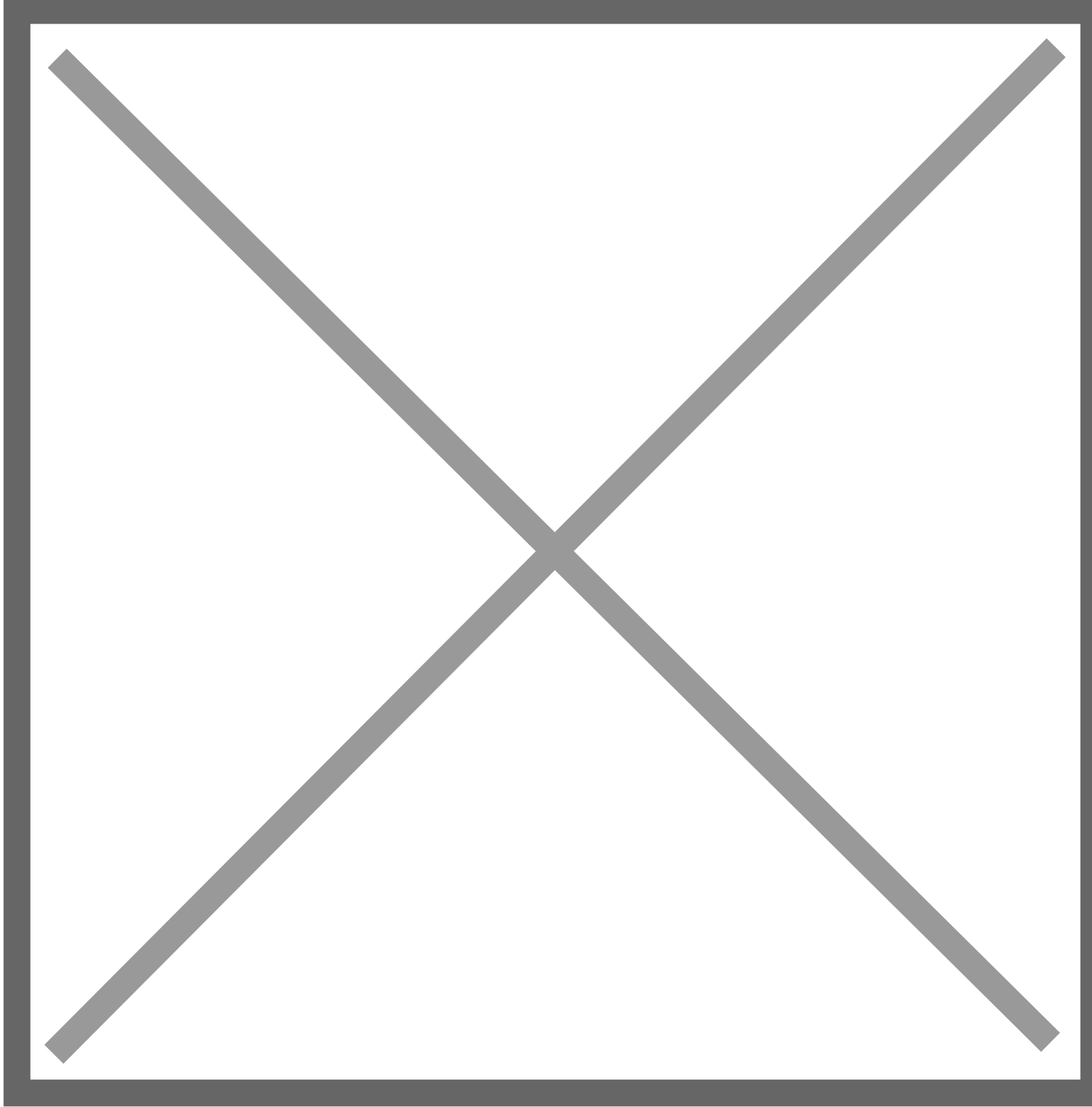
Intellectual yet idiot

The anti-GMO movement has a small roster of intellectuals that lends the appearance of credibility to its arguments. Nassim Taleb is one of the all-stars. Why does his opinion matter? According to Malkan:

One of the world's foremost experts on probability and uncertainty, Nassim Taleb, considered that question — What could go wrong with GMOs? — for a 2014 paper ... The authors analyzed GMOs in the context of what they called a “non-naive” view of the Precautionary Principle. They concluded: “GMOs represent a public risk of global harm” and should be subject to “severe limits.”

Taleb has a lot of interesting insights to offer; I highly recommend his books. But on biotechnology, he is a perfect example of his “intellectual yet idiot” (IYI) concept in action. “The IYI pathologizes others for doing things he doesn't understand without ever realizing it is his understanding that may be limited,” [he wrote](#) in *Skin In The Game*.

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Credit: Know Yourself Performance

Given his ignorance of the subject, it's no surprise that Taleb was roasted by actual experts for publishing that paper. Among their criticisms was the fact that "GMO" is a nebulous category. Trying to classify and evaluate a wide variety of products based on a meaningless definition tells us nothing about the safety of

any of them.

This is why regulators perform case-by-case risk assessments of new crop traits, as philosopher of science Giovanni Tagliabue [explained in response](#) to Taleb's "study." Malkan's unending urge to obsess over the processes that produced those traits just reveals her ignorance of the relevant science.

That's ultimately why her story about Bill Gates' "radical plans" for our food system is baseless. And it helpfully explains why USRTK and their fellow anti-GMO crusaders are [on the fast track](#) to obscurity.

Notes:

[1] I'm not linking to USRTK, sorry. Here's [a profile](#) of the group.

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