When It Comes to Food, Technology Won't Save Us

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Introduction. Despite what Monsanto and a surprising number of science writers want you to think, GMOs aren't the only high-tech game in town when it comes to food and agriculture. In fact, there are groups out there that are marrying technology and food that aren't about inserting bacterial genes into plants and animals.

The winner was an intriguing concept called Farmstacker, which the developers describe as "an eHarmony or AirBnb" for farmers. Farmstacker was one of the few apps to come out of the hackathon that focused on producers rather than consumers. Other award winners included an app to help "cow sharing" and a Google Glass app (built by engineers from Google) that lets you "scan" meat products at the supermarket to get ratings on GMO content or use of antibiotics. But while access to land is an issue, and bringing farmers into the sharing economy is a great idea, these seem like small-bore solutions to big problems. Now to be fair, the Hack/Meat organizers never said they were going to solve the world's hunger crisis, but it raises some interesting questions about where our time and resources are best spent, and what the future of agriculture will look like.

Making fake meat involves using, most often, soy to create products that can replace meat in familiar dishes. The problem with fake meat is that it perpetuates chemical-dependent monoculture agriculture.

Synthetic meat solves this problem by creating meat in test tubes instead of on the farm. But for all the hype, synthetic meat is still more a thought experiment than it is an actual option for eaters. What these options share, however, is an assumption that the future of food is industrial products that will be made in factories and eaten out of packages. And to be honest, that's the direction we're headed now, and it won't be easy to shift.

To get a taste of this mentality, read David Freedman's recent cover story in *The Atlantic*, "How Junk Food Can End Obesity," in which he suggests that the answer to America's health woes is for more left-leaning foodie types to buy more fast food, thereby pressuring McDonald's and its ilk to make their processed meat things healthier.

If this seems like a stretch, it is, as Grist's Nathanael Johnson and Tom Philpott at *Mother Jones* have observed. But in many ways, Freedman represents the conventional wisdom: the belief that technology will fix all of our food problems.

The reality, of course, is that technologies *do* exist that can help the food system and improve productivity, but they focus on boosting the ecological synergies in agriculture (aka agroecology) or use advanced versions of plain-Jane conventional breeding (i.e. marker-assisted breeding). There are also a few good things that involve robots, but generally speaking, it's not the stuff that gets bloggers and newspaper editors excited. Yet.

Conclusions. Our hope for a technological fix to ensuring that adequate food is produced in a sustainable way for a growing population is a crutch similar to putting our hopes in geoengineering to solve the existential threat of climate change: It's a theoretical, some might say fantastical, solution to problems we know how to solve but don't really want to.

References:
1. David H. Freedman "How Junk Food Can End Obesity // The Atlantic 2013.07.19. (http://www.theatlantic.com/magazine/archive/2013/07/how-junk-food-can-end-obesity/309396/)
3. Pyth E. Myth about McDonald.