TECHNOLOGY

Your Tech Is My Tech

It was supposed to be different. Technology was supposed to empower and liberate us. It was supposed to be a path to the future, the key that unlocked the full range of human potential—and an escape hatch from the problems that have limited it. Instead, it's become a tool for trolls, a get rich quick scheme for millions.

Ever since the Steves (Jobs and Wozniak) set up shop in a Los Altos garage, the dream of every Silicon Valley geek-gineer has been not only to change the world, but to make a billion doing so. To some, such naked self-interest is an essential ingredient in the push to bring new ideas to life. To others, the amoral nature of hypercompetitive, "there can be only one" development culture is the root cause of scandals at companies such as Facebook, Google, and the like.

Earlier this year, a group of 21 prominent universities—among them STEM heavyweights such as Harvard, MIT, Stanford, and Berkeley—united to form the Public Interest Technology University Network. They were joined by some of America's largest private foundations and wealthiest philanthropists (including the $13.7-billion Ford Foundation and the $10-billion Hewlett Foundation) in proposing a different path: tech by the public, for the public. Instead of a ravenous drive to create the next gazillion-dollar tech IPO, the group is putting forward a collaborative, open-source approach that views high tech through the lens of social, ethical, legal, and public policy implications.

By clarifying the connection between technology and various public interest issues, the group hopes to help the high-tech industry think beyond the algorithm and design technologies that support organizations making the world a better place. Perhaps most importantly, it hopes to nurture a new generation of engineers, programmers, and entrepreneurs, and imbue them with a vision of what Silicon Valley could be: a place where naked self-interest takes a back seat to the desire to leave the world a better place than you found it.

The daunting list of topics they intend to take on includes some of the most important ones facing the world: civil rights, justice reform, environmental degradation, the rise of the surveillance state, and more. In the coming years, members will create curricula and degree programs that address the role of technology in serving the public good. Call it Silicon Valley 2.0: a place where high tech drives a higher purpose. **James Dolan**

FOOD MATTERS

The Science of Flavour

"My fridge used to contain more weird chemicals than food, which was funny when friends came over for dinner," says critical food designer Alexandra Genis. While she was studying in the Netherlands at Design Academy Eindhoven, groceries shared shelf space with concrete or plaster powder, wax, and modelling clay.

Genis' Atoma collection of "spices", each consisting of a single flavour molecule, was the Saint Petersburg–born designer's 2018 graduation project. It began when she was eating strawberry yogurt and read its packaging, which said it "contains no artificial flavouring." This made Genis wonder if there are enough strawberries in the world to flavour all our yogurt naturally, and enough energy and resources to ship the yogurt around the globe.

Atoma takes advantage of the fact that a strawberry contains more than 200 flavour molecules, but 24 are enough to convey its taste. Genis plucks individual flavour molecules out of the 11,000 that exist and 3-D prints a mould in the shape of that molecule's chemical compound. She then casts cocoa butter infused with one molecule to make a bouillon, or single-flavour "spice" (coloured according to its flavour family: fruity, green, floral, ethereal, etc.), that can be rasped over food alone or in combination with other "spices" to create complex flavours. By manifesting each molecule as a tactile object, Genis tailors it to domestic cooking, freeing it from the industrial food arena.

During an internship at the Edinburgh Food Studio in Scotland, Genis—the daughter of two chemists—realized that working in the restaurant industry wouldn't satisfy her drive to explore. "It wasn't pushing me to ask uncomfortable questions," she recalls.

Atoma is the calling card of her design studio, called TAS2R after the bitter taste receptors on the human tongue, which she launched in Berlin in early 2019, another cross between chemistry lab and kitchen. "My interest is to find out what food is exactly, and how humans interact with it. Why are some things edible and others aren't? What is 'natural'? Can we use food to become better humans?" She designs speculative food products as a means of framing problems—obesity, biodiversity, climate change—in radically new ways. One project explores edible bioplastics, while another resulted in a bird food that allows humans to distribute seeds along flight routes.

Atoma suggests that if flavouring were used widely, we could make salads that would satisfy us the way a burger does, which "sounds scary and fascinating at the same time," Genis says. "But shouldn't we embrace the possibilities we've discovered through science, instead of romantically looking backwards to 'nature', whatever this term might mean?" **Shonquis Moreno**