

RIGHT TO FOOD AND NUTRITION WATCH



Immaterial Food: Contradictions of a Digital Era



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SUPPLEMENT

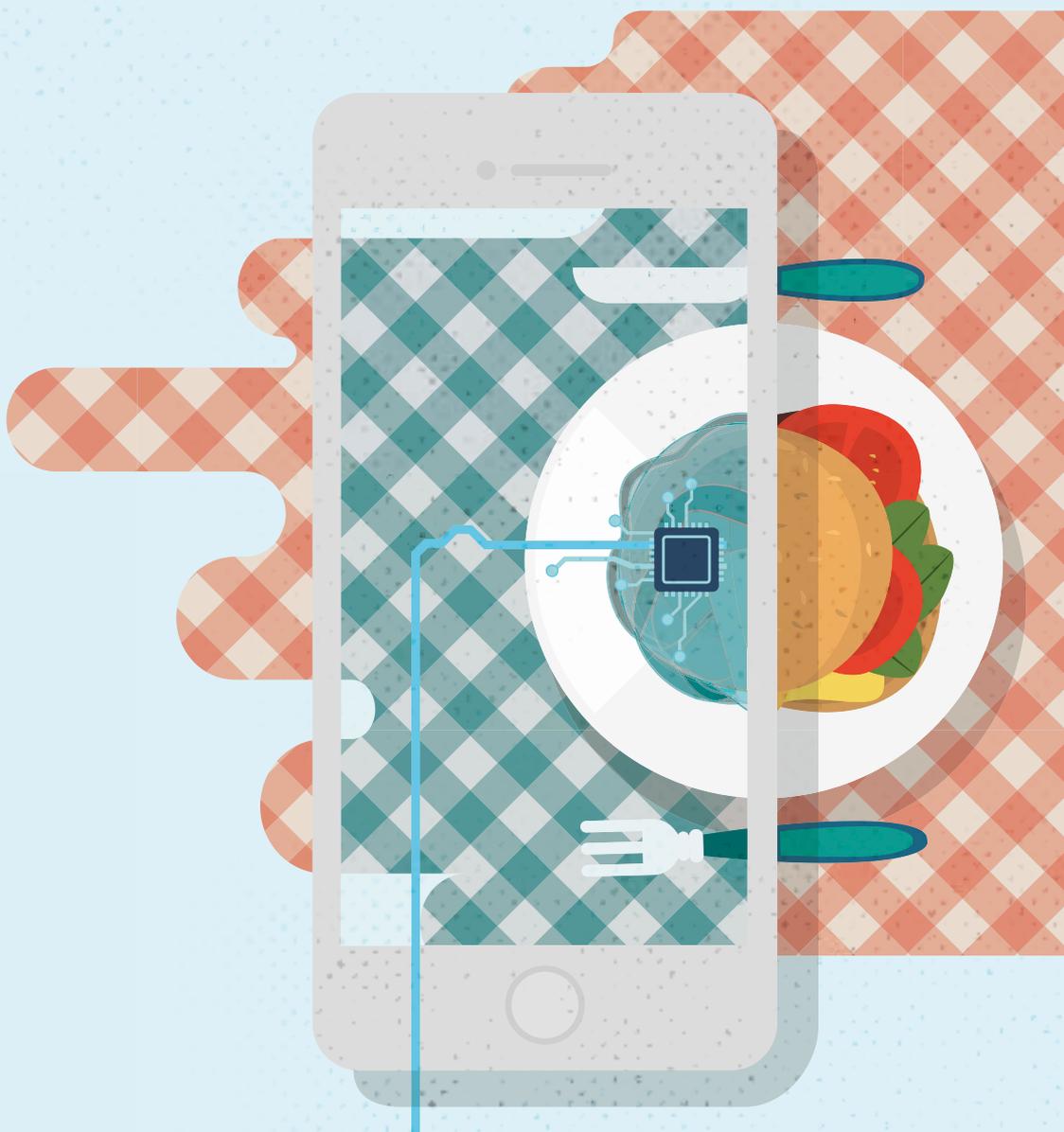
SETTING THE SCENE FOR THE TECHNOLOGICAL REVOLUTION

Over the last few years, the current technological revolution has been generating economic and social change at a rapid pace. Today, with the help of an app, a group of activists can raise awareness of a social cause in the other corner of the planet, and a farmer can activate the sprinklers to water her harvest. Yet, while it is undeniable that technological advances are culminating in unprecedented accessibility and infinite possibilities, can we claim that the digital age is truly improving our lives?

In the span of a few decades, the inequality gap between the richest and those living in utmost poverty has widened. The richest 1% of the world population has more wealth than the rest of the planet, with eight men possessing the same wealth as half of humanity. After some years of decline, the number of undernourished people in the world has risen to 815 million, 38 million more than in 2015. Food systems are increasingly concentrated in the hands of a few corporations – an unprecedented trend in the history of humankind.

Following the deep, acute crisis in world capitalism over the last decade, we are now entering what is known as the Fourth Industrial Revolution, which has generated a fusion of physical, digital, and biological technological breakthroughs that herald the transformation of entire systems of production, including the food system. Yet this new age of emerging technology has not decreased rates of hunger and malnutrition, nor has it improved the distribution of wealth. It has also not led to equal access to natural resources. Indeed, a wide range of tools and services have been created, but with what purpose? And who has benefitted from them?

There are three intertwined food-related phenomena that are marking our era: *dematerialization*, *digitalization* and *financialization*. Food – a key component of life, identity and social relations – is being transformed into an immaterial commodity, and a source of data, thereby opening a Pandora's box of profit for corporations and the mega rich.



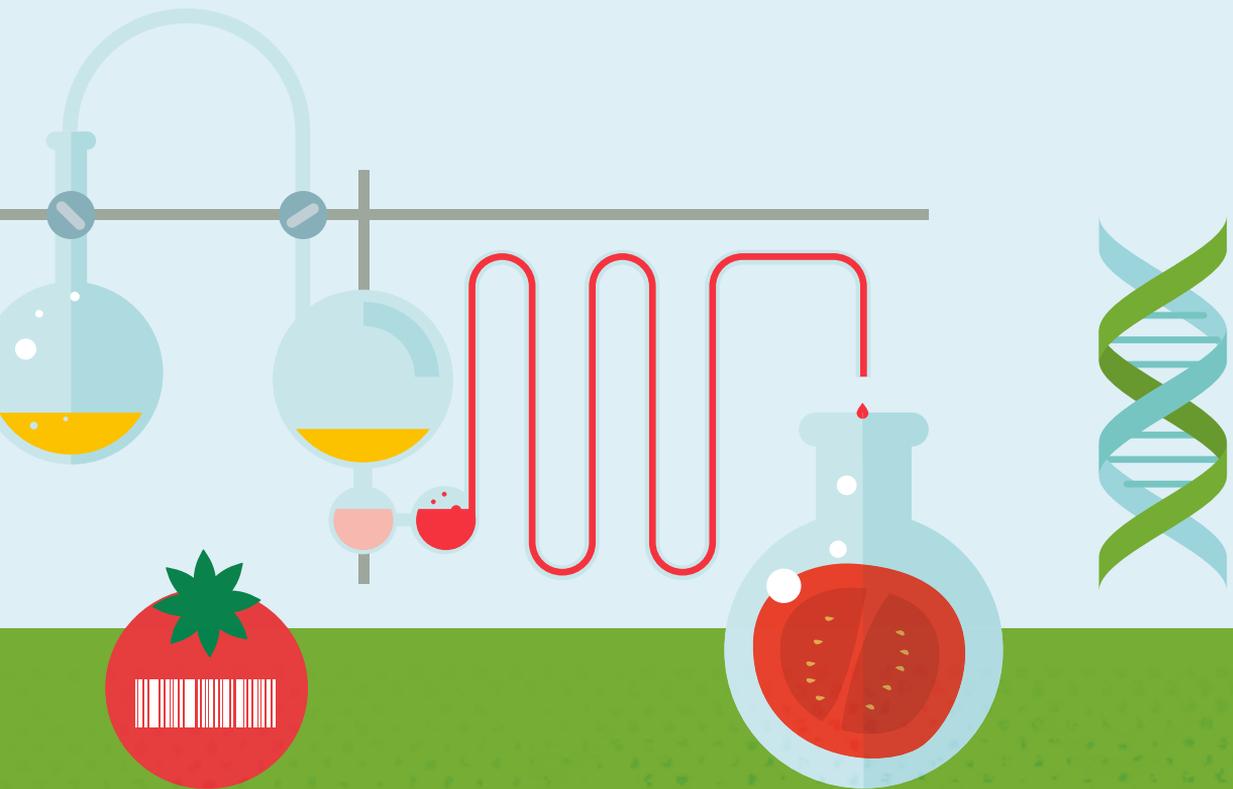
DEMATERIALIZATION

Dematerialization happens when the value of ‘material’ food itself decreases, but the market value of its so-called ‘immaterial’ dimensions rises. With the costs associated with marketing, distribution, and the technology used to collect data on customers, we may be paying 3 times more than the real cost of food. In other words, out of the 50 cents we pay for a tomato, only about 17 cents may be linked to its texture, taste and nutritional values. We should also mention the dwindling prices received by farmers for their produce.

A great ally of dematerialization is advertising. New fashionable eating habits are generating an immaterial notion of food that is often unrelated to its physical qualities. This means that we can buy a product that tastes like eggs without it containing any eggs at all. We are being conditioned to prioritize foods with artificially reproduced flavors that are manufactured by corporations, rather than fresh, healthy and sustainable food that has been grown by smallholder farmers.

Food has always included immaterial dimensions, such as identity, culture and traditions. Today we are witnessing the shift from these immaterial socio-cultural dimensions of food to market-based – and inherently private and tradable – components. So what does this all mean? It means that prices are increasingly delinked from the actual physical production of food items, and that their taste may be imitating something that is not even a real ingredient.

Furthermore, studies suggest that advertising campaigns not only favor products that are high in fat, sugar and salt, but also steer people away from healthy foods. In an assessment of 96 hours of prime time television in the US, researchers identified 775 adverts that were promoting food products that contain inadequate amounts of 12 essential nutrients. Moreover, they are laden with saturated fat, cholesterol and sodium, which can lead to an increased risk of heart disease, diabetes and stroke. Interestingly, most of these advertisements sell the idea that their products provide the magic formula to happiness, love and an enviable lifestyle.



FINANCIALIZATION

The financialization of food relates to the dominant role played by the financial markets in determining which foods are produced, and how they are produced. It manifests itself through speculation on financial products that are linked to food, such as soya beans, or capital venture investment in farming, food production, the food industry, and food logistics.

The financialization of food is also about the transformation of agricultural resources, such as land, into financial assets that can be the subject of acquisitions and re-sales for profit in international financial centers, for example Wall Street. Land becomes an abstract financial product to invest in and speculate with, i.e. to purchase, with no regard for the consequences for the local communities where food is grown.

One example is in the MATOPIBA region in Northeastern Brazil, where, between 2000 and 2014, the area planted with soy and sugarcane increased by 253% and 379% respectively. The increase in land prices and the purchase of farmland by financial corporations are linked to investments made by European and US American pension funds in monocropping of agricultural commodities, such as soy and sugarcane. Yet the target of investors in agribusiness is ultimately land speculation, independently of the production of commodities.

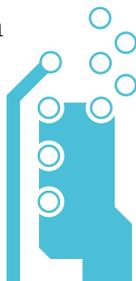
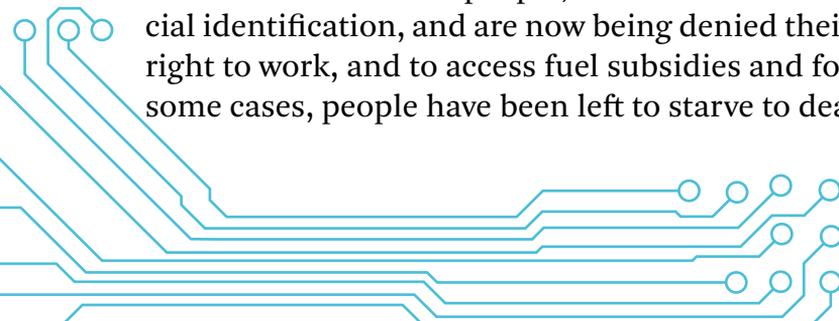


DIGITALIZATION

Digitalization occurs when the production of food is increasingly informatized (i.e. turned into digital information) and commodified (i.e. turned into a commodity). The process of digitalization starts with agricultural inputs, such as seeds, which are transformed into digitalized objects. A case in point is DivSeek, a data-gathering project that intends to sequence genetic information from seeds. The information is then patented, leading to its commodification. This new type of business is controlled by global corporations that aim to patent nature and control our diets. Suffice to note that while plant and breed varieties circulate around the globe in the form of genetic data more freely than ever, in some countries the physical exchange of real seeds by peasants is illegal.

As e-commerce and online delivery make their way into our lives, the digitalization of food continues unabated, as it starts to take over the manner in which humans obtain food. People are made to believe that the marketplace – the physical location where people gather to buy and sell food – with all its colors, traditions, and knowledges, belongs to an archaic past. Yet this vision disregards the benefits that the marketplace brings to our social relations and local economies.

In countries like India, the concentration of food retail in the hands of multinational supermarket chains is undermining territorial markets. Yet these local markets are a vital source of livelihood and wellbeing for the majority of the population, especially women. Additionally, new payment programs that force people to use identity numbers and shift to electronic payments have had a negative impact on livelihoods. They have proven to be disastrous for hundreds of thousands of rural people, who have never had any form of official identification, and are now being denied their legally recognized right to work, and to access fuel subsidies and food entitlements. In some cases, people have been left to starve to death.



FOOD FOR THOUGHT

- What is the impact of new technologies and digitalization in your life and in your community?
- Who has access to and control over technologies? For which purposes?
- What are the conditions necessary to use technologies in a way that strengthens the human right to adequate food and nutrition and human rights overall?
- What is the role for science and technology in food sovereignty?
- How to democratize science and technologies in favor of social justice?
- What should be the role of public policy?
- What alliances are needed in order to fight back the negative impacts of technology and to promote our own vision of science and technology?



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| **Editors** Alejandra M. del Rey and Felipe Bley Folly

| **Editing and proofreading** Katie Anne Whiddon

| **Design** Ian Davidson, Marcela Vidal and Jorge Muñoz

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Did you know that real estate companies and investors have put a price tag on the world: 217 trillion dollars?

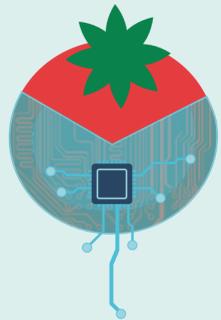


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34%

out of the 50 cents we pay for a tomato, only about 17 cents may be linked to its texture, taste and nutritional values, not to mention the dwindling farm gate prices for farmers.



66%

of the costs are associated with marketing, distribution, and the technology used to collect data on customers.

Did you know that a great deal of advertising campaigns promote products with artificial flavors that mimic the natural taste of real food, pushing people away from fresh and healthy alternatives?

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Did you know that while plant and breed varieties are now circulating around the globe in the form of genetic data more freely than ever, the physical exchange of real seeds by peasants is illegal in some countries?

1%

of richest world population has more wealth than the rest of the planet, with eight men possessing the same wealth as half of humanity.



815

million of undernourished people in the world.

CAN WE SAY THAT THE DIGITAL AGE IS TRULY IMPROVING OUR LIVES?

