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A Bite of Technology – How Technologies Have Made Our Food "Transformers"

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Abstract
This poster discusses one important metaphysical question concerning food and food technologies – that is, how technologies have gradually alienated food from its natural rooting and what are the consequent philosophical concerns behind that. In order to examine this question, this poster will discuss four key sources that each exemplifies a well-known, currently ongoing technology on different levels that has altered the natural properties of food and the controversy concerning such technology.

Keywords
Philosophy of Technology, Food, Technology

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Comments
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INTRODUCTION

There are no creatures in the world that can survive without food. As the source of nutrients to support our body, food is not only a vital component we need to survive, but it is also the propelling force that encourages the progression of human civilizations. Thus, every major milestone in the evolvement of human civilizations is closely associated with the inventions or progressions of new food technologies: for example, the creation of fire or the inventions of liquors. Without food, no one would be able to survive, not to mention create civilizations.

Philosophers have had a long history of reflecting on food. However, since the technologies of food change significantly with different social contexts, the subjects of inquiries of food also vary significantly – from ancient Plato's focus on the appropriate diet to 20th century philosophers' reflections on vegetarianism, biotechnology, and agricultural ethnics – depending on philosophers' dissimilar life experience or social backgrounds. Coming into the 21st century, food industries have been evolving at the fastest speed and yet every day new food technologies have been invented and are incorporated into the production, marketing, or the consumption of food. Although some of these novel food technologies seem beneficial for humans to some extent (for example, fast food industry has dramatically saved people's time for preparing food), they could also cause many challenging problems for us (fast food also causes many health problems). Moreover, there are many food technologies, such as GMOs or artificial diets, that still remain controversial in the society. Thus, the fast evolving food technologies have undoubtedly offered philosophers more opportunities and challenges to face in the 21st century.

WHAT IS THIS PROJECT TRYING TO STUDY?

The fast evolving food technologies demand people to constantly step back and philosophize whether our relationship with our food is still healthy. Thus, we need to constantly ask ourselves questions such as: How is our relationship with food and food technologies going lately? How have our most recent technologies impacted food so far? Is the trend of food technologies nowadays making our food better or worse? Only when we are clear about where we are and how we are in terms of our relationship with the food and food technologies, can we assure a better food source for ourselves, ergo, ensuring the continuation of the humans.

Therefore, this paper will discuss one important metaphysical question concerning food and food technologies – that is, how technologies have gradually alienated food from its natural rooting and what are the consequent philosophical concerns behind that.

PHILOSOPHICAL ANALYSIS

Food Technologies Have Changed How We Treat Food

The idea of treating food as object and manipulating food has been extensively practiced with the development of food technologies. With the help of modern technologies, people are able to treat food as a composition of a series of organic compounds (carbohydrates, lipids, proteins, etc.).

The first practices of functional food came out as early as 1900s when iodine was first added to salt (Kaplan, 2007). Vitamin D has been added to milk since 1930s, extra vitamins and minerals to breakfast cereals since the 1940s, and water fluoridated shortly after (Kaplan, 2007). It is undoubtedly that these practices of functional food, thanks to technologies, have been significantly improving people's health and wellness. However, with the technologies to modify food nutrition becoming more aggressive along with the marketing strategies promote by the food industry, it is concerning that nowadays functional food industry has began to run off the track. It is concerning to witness people choose artificial protein power over natural proteins sources such as beans and meat, or choosing vitamin pills over fresh vegetables and fruits as their main nutrition sources and argue those artificial synthesized or extracted nutrition is in a "better" quality than their natural counterparts.

However, there is an increasing amount of evidence that food broken down into its component parts and then reassembling as processed food is less nutritious than conventional food (Kaplan 2007). It has been shown that ingredients isolated in laboratories do not function the same way they do in whole food. Thus, no matter what power technologies have endowed us, only when we regain gratitude and treat food as a holistic entity – be as respectful as our ancestor did – can the food start to bring us as their full nutrition values.

Food Technologies Are Challenging Our Definition of Food

In addition to modifying our food, people are also trying to develop technologies that can create "food", and these artificially created "food" starts to challenge our conception of what is food. Although the concept of food itself is vague – anything that can be eaten and provides some nutrition source can be called food, food still possesses some metaphysical values that make something qualified as food. And one of these good candidates that for a long period of time people think food should possess is nature. People believe that food, as nature is not only objective but also normative, meaning that the more natural food is, the better is. When view historically as a part of a food chain, food production and consumption are seen as belonging to interdependent ecological relationships. In other words, the more we live in accordance with natural processes, the more healthy and balanced our lives will be. Harmony with nature is good while disharmony is bad.

However, the concept of food as nature is becoming more and more challenged with food technologies that are trying to produce "food" artificially such as growing in-vitro meat (Specter, 2011). As part of the efforts to save the animals from being slaughtered, in-vitro meat technique is seeking to growing meat completely in a test tube, thus to protect animal rights, while still offering people meat to consume (Specter, 2011). Although test-tube meat can be technically called meat, however the more metaphysical question is can test-tube meat be qualified as food? To some extent, test-tube meat, just like the natural meat, can be consumed and offer nutritional values to us. However, it threatens our metaphysical value of food as nature since it does come from nature, and it disrupts the harmony of the food chain. Thus, do people really want to consume a test-tube burger or even willing to call test-tube meat as food? What about test-tube strawberries or test-tube pears? Hence, for us humans, the development of food technologies like in-vitro meat production can potentially challenge our traditional values of food.

Food Technologies Changes More Than Our Food

While technologized foods such as protein powders and test-tube meats are gradually losing their natural physical forms, we also unavoidably have to change the way in which we traditionally acquire food or consuming food.

For instance, the invention of artificial liquid nutrition and hydration has become life saving for people who are in coma or are in vegetative state (Annas, 1986). Unlike natural foods, which involve eating or drinking with mouth, artificial food can be delivered into our stomach by an implanted gastrostomy tube that permits liquid nutrients to be dripped from a plastic bag directly into the stomach (Annas, 1986). However, it is this transformed form of "eating" that has cause people to think about the metaphysical question: Can gastrostomy tube still be considered as "eating" or should they be considered part of a medical procedure? The metaphysical controversy of this question also brings moral controversy into our society. For example, in 1983, one judge rejected the appeal from a permanent vegetative patient's doctor and wife to remove the feeding tubes from the patient, even though the patient's will before the coma was to terminate any medical matiness machines (Annas, 1986). According to the judge, different from other live-maintaining machines such as the breathing machine, the feeding tube is still considered as a means of in-taking food rather than a medical procedure (Annas, 1986). Thus, the appeal to remove the feeding tube from the patient was denied. And from this controversial case, we can observe how the artificial liquid nutrients – a technologized "food" whose metaphysics essence of food has been changed by technology – can also challenge the metaphysics of eating.