

Food Carbon Footprint Index (FCFI)

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ABSTRACT

Imagine a dystopian future wherein late capitalism requires that individuals are solely responsible for the climate crisis. Imagine a future where government surveillance of individuals becomes the popular standard for curbing carbon emissions and non-compliance results in serious penalties. The *Food Carbon Footprint Index (FCFI)* imagines just that. *FCFI*, a design provocation based on this design fiction, requires participants to log their meals via a “government controlled web application” meant to audit individual consumption. The app will calculate the meal’s carbon footprint and index this “score” against other participants. Scores will be broadcasted for public scrutiny and collective shaming.

Author Keywords

Discursive design; design fiction; participatory installation; climate change; futures

CSS Concepts

• **Human-centered computing~Human computer interaction (HCI); Haptic devices;** User studies; Please use the 2012 Classifiers and see this link to embed them in the text: https://dl.acm.org/ccs/ccs_flat.cfm

INTRODUCTION

Climate change poses one of the biggest existential threats to the future of our species and our planet. Despite scientific consensus on the matter, governments around the world have largely failed to coordinate a global response to the growing crisis. That changed in December of 2015, when parties of the United Nations Framework Convention on Climate Change reached a historic agreement to combat climate change and to accelerate and intensify the actions and investments needed to stave off disaster [2]. Its aim was to strengthen the global response to fight climate change and adapt to its effects. However by 2017, concurrent with

the election of President Donald J. Trump, the U.S., the world’s second largest global greenhouse emitter, announced its intention to withdraw from the landmark agreement [3]. Trump’s decision signaled a concerning trend of “America First” policies, U.S. exceptionalism and scientific denial [4].

Amidst this storm of reckless decision-making, global confusion and, deep concern for our future, the authors of this paper conceived of the *Food Carbon Footprint Index (FCFI)*. Ruminating on neoliberal ideas of governance, efficiency and authoritarianism, *FCFI*’s authors imagine a future, not so different from our current reality, wherein our government requires that individuals are solely responsible for the climate crisis. In this world, the climate crisis is reduced to the fine print on the refrigerator shelf in the supermarket and citizens are paralyzed by consumer choice, purposely prevented from realizing the scale of the political change that needs to happen.

Design fiction

In 2013, the Chinese government established a nationwide scheme for tracking the trustworthiness of everyday citizens, corporations, and government officials [5]. Government officials and state media said the project was designed to combat corruption, business fraud and boost public confidence in state activity. This national program manages the rewards, and punishments, of individuals based on their personal and economic behavior and was intended to standardize the assessment of social reputations. The program proved to be so successful in curbing disorder and encouraging socially responsible behavior that soon thereafter European countries and the Americas adopted systems comparable to those of China. Starting in 2024, the US National Department of Defense started piloting programs to surveil and assign US citizens a social trustworthiness score based on their financial and social behavior. While initially successful in encouraging civic responsibility and curbing public dissent, by 2030 concerns about climate catastrophe reached epic proportions and the state decided to intervene.

Piggy-backing on the Social Credit System, the U.S. government implemented a Food Carbon Footprint Index whereby the state started tracking every citizen's carbon footprint. Later the state set emission caps on individual contributors based on this data. The state purported that citizen compliance with scientifically determined standards for carbon emissions could be captured, systemized and incentivized to produce lower overall emissions. What follows is a description of just one of the surveillance opportunities the state pursued.

Using an algorithm, the state determined the unique dietary and caloric needs of every US citizen. Each and every US citizen was allotted a carbon score based on their needs. The carbon score would determine how much of and which foods the individual was allowed to consume daily. Those who exceeded their predetermined score would be fined.

Concept

FCFI, a participatory installation based on the preceding design fiction, invites participants to take part in a social experiment that imagines a future where government surveillance of individuals' food choices becomes the only standard for curbing greenhouse gas emissions. *FCFI* has some familiar foundations in the Chinese Social Credit System (SCS). The SCS motivates people not only to judge one another, but to enjoy the power that the rating entails [6]. Building on this, *FCFI*'s "citizen" participants are required to log food choices via a web application that monitors and systematizes citizen scores based on calculations of carbon footprint. This score is indexed against other participants and graded publicly via a leaderboard projected at the festival.

Broadcasting participant scores to public scrutiny is intended to complicate feelings of civic responsibility, consumer choice and, perhaps too, raise issues of class, power, the quantitative governance of culture and the neoliberal state. Ultimately, the provocation seeks to complicate our relationship with the "power of individual choice" in the face of a global looming environmental devastation. Since capitalism, by its very nature, requires that the individual bear the burden of responsibility in making smart, moral decisions with the low-burning hope of a share in the prosperity we know to exist, we wonder who ultimately benefits and who loses? Are efforts like these actually encouraging self-development for the collective good, or are they doing something else? Is there a better way forward?

Technical description

Participants will select their meal choice via a web application at the conference. This ensures that attendees can access and participate in the provocation from near and far. The web application will be designed and developed in a way that adheres to W3C accessibility standards. The foods included on the application should appeal to a broad, diverse public and the carbon scores these food choices carry are universal standards based on data from the United Nations' International Civil Aviation Organization. Participants will confront questions that know no borders, including issues related to increasing state surveillance, government intervention, food access, class and individual responsibility. This dystopian machination isn't intended to be a prediction but a point of pause, reflection and perhaps a cautionary tale.

Relationship to 'participation otherwise'

In congruence with PDC2020's theme of 'Participation Otherwise', *FCFI* seeks to engage the community in a participatory experiment that addresses the global issue of climate change and facilitates deep questioning, public debate and existential fear. The situated action is not possible without participation from the community, and in effect, the project seeks to invite participants to engage in offline, communal critique by way of publicizing entries. This project specifically addresses three of the conference themes: *Local/global - place/territory*, *Economies* and *Representation, resistance and governance otherwise*.

The project addresses the first theme of *Local/global - Place/Territory* by the very nature of the design fiction it seeks to address—defining the scope of the climate change debate to one of individual responsibility. Even assuming this dystopian dream came true, does it do enough to encourage socially responsible behavior? Who wins and who loses? Can you purchase your way out of ethical behavior? How do we define ethical behavior within such parameters? Is individual responsibility a misnomer? Do individual contributors even make a dent in curbing emissions?

The project addresses the second theme of *Economies* in the sense that participants are invited to engage in a system of rewards and punishments. Issues of class and power have been woven into the project throughout. For example, individuals in the *FCFI* design fiction can circumvent civic responsibility by literally purchasing the ability to opt out.

Lastly, *FCFI* embraces the theme of *Representation, resistance and governance otherwise* by way of story-telling and its' not-so-subtle critique of neoliberal and authoritarian solutions to existential crises. Is there a better way to incentivize civic responsibility? That aside, is civic responsibility really the right metric of success when faced with a global disaster?

CONCLUSION

Imagining dystopian futures can challenge participants and observers to think differently about current social and political climates and, in some cases, can even inspire positive change. And, *FCFI* is hoping to do just that. Is the future imagined here desirable? Does it even address the problem at hand? Is individual actor participation the most effective way to curtail issues of climate change? Or, is there a better way forward?

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