

“Save Money and Save the Planet”: The Rhetorical Appeal and Use of (Anti-)Food Waste and Rescue Apps During Covid-19

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Two contradictory events occurred during the early months of COVID-19: 1) with portrayals of food rotting in fields and in distribution centers, more public attention was drawn to reports of massive waste all along the food chain, and 2) more people were buying more food than they needed or could possibly use and wasting it (Roe et al. 404). Simultaneously, more people were working from home and, more generally, eating all their meals at home. The incredible rise in use of apps that facilitated food delivery has been a subject of media attention and academic research (e.g., Sharma et. al). Less reported or studied has been the rise during COVID-19 in the use of apps that claimed to aid in food waste reduction.

Throughout the rhetoric of government reports about food waste, media coverage of excessive food and waste amidst hunger, and the many local, state and regional, national and international food waste reduction campaigns, food waste is represented as a distribution problem, eminently solvable through donations to those in need of food (Arcuri, 264). In this article, I look at the ways food waste became more visible in mainstream US culture during COVID-19 and how the rhetoric of food waste apps mediates the relationships between food, technology and identity. The question motivating this research is about the apps’ usefulness, both in the formation of the identity and lifestyle practices of those who employ them and how those identities and practices relate to the complicated problems of food insecurity and food waste.

Specifically, my focus is on the apps that have received the most media coverage during COVID-19 and/or have the most users, namely Food Rescue US (FRUS) and Too Good to Go (TGTG). The two apps have been expanding rapidly since the start of the pandemic and are examined here to determine their discursive

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appeal as well as how their use addresses food waste reduction. My analysis of the appeal of the apps centers on their descriptions by the media, reviewers, their websites, and any user ratings or comments. Warren Belasco's triad of responsibility, identity and convenience, along with the materialist food studies of Isabel de Solier inform the theoretical framework underlying my analysis. I am interested in the ways the apps position food waste ethically in relation to consumption and the political positioning of food waste as a food justice issue exacerbated by COVID-19. I focus on the appeal of food waste apps to understand how designers, food businesses, and consumers make meaning of their identities and actions around food waste. I want to learn how people form ideas about ethical and moral behavior through the circuits of rhetoric and performance that make these technologies useful, how they relate to and identify with material objects as self-formation. I begin by broadly considering how decisions made about what to eat during COVID-19 are related to decisions made about food waste and recovery, looking to the ethical implications inherent both in the framing of food waste reduction and in findings. FRUS typifies the kind of large (regional and national) scale app that connects individual volunteer drivers with food donors (grocery stores and other food service businesses) and food banks and shelters via food rescue organizations. TGTG is an example of the larger category of apps that offer reduced pricing to consumers for (mostly prepared) food that would otherwise be thrown out.

During the early months of the COVID-19 pandemic when, in the United States, all nonessential business was shut down and/or went online, much of the food supply chain shut down as well. Unemployment skyrocketed. Farms lost labor, as did their distribution/processing outlets, restaurants and caterers had food they could not serve, and grocery store shelves were often bare for the first time in recent memory. Consumer spending declined for food eaten away from home by 51% between April 2019 and April 2020, even as it spiked as high as 70% above average for grocery purchases ("Food and Consumers"). Hoping to address the fast-growing rates of food insecurity, several consumer-based government food aid programs (through the U.S. Department of Agriculture (USDA)) were introduced under the umbrella of the American Rescue Plan: a Pandemic electronic benefit transfer (EBT) card, an expansion of the supplemental nutrition assistance program (SNAP) benefits and extension of online purchasing, expanded women, infants and children (WIC) benefits and others addressing specific populations. Still, the numbers of people going to their local food shelters and pantries increased to the point that

many agencies were unable to meet community needs. Other USDA programs, “Farms to Food Banks” and “Farmers to Food Box,” were introduced to address food not able to be distributed and sold through the supply chain (“Food and Nutrition Service Responds to Covid-19”). Both programs were reported to increase waste among clients who could not choose the food they were receiving (Roe et.al. 402). Regardless of some valiant public and private attempts to match otherwise wasted food with food insecure people, both food waste and food insecurity continue to be on the rise (Roe et al. 403-404).

Food Anti-Waste and Rescue Apps

Advertised as a way to end food waste, the purpose of food (anti-) waste apps is the facilitation of the re/distribution of otherwise wasted food for businesses (potential food donors), consumers, food banks and pantries. During the first months of the COVID-19 pandemic, media coverage of the effects of the shutdown on the food supply chain showed a tremendous amount of food waste, even as grocery store shelves were bare. Meanwhile, as restaurants, bakeries, delis, and other purveyors of prepared food had to focus their operations on takeout, delivery apps facilitated the conveyance of groceries and prepared meals under COVID-19 protocol. As producers, distributors, and consumers became increasingly comfortable with food delivery apps, the use of apps that posted food no longer available for retail sale also doubled (Baraniuk). Many food waste reduction and rescue apps expanded their outreach into urban areas around the United States (as well as other countries with industrialized food systems). The use of food (anti-) waste apps, consumer-based apps that sell leftover restaurant and other prepared food, has become especially prevalent during the COVID-19 pandemic, when information is relatively cheap and readily available and people have the flexibility to look for deals (Yoder). Once consumers select and buy the food, they can go and pick it up. Of course, in addition to technical ease of use, for the app to be convenient there must be restaurants, delis, or other prepared food outlets nearby who elect to participate. As the use of food (anti-) waste apps rose during the COVID-19 pandemic, so too did the numbers of restaurants and other smaller providers of prepared food that signed on (DiBenedetto). Likewise, the increased use of food rescue apps and platforms connecting food providers with networks of food rescuers and recipient agencies (such as shelters and food banks) has eased the logistical difficulties of food rescue. Food rescue apps encourage consumers upset

about massive food wastage to ease their moral conscience by donating or transporting post-consumer food to shelters for the food insecure (Adkisson).

Platforms and apps designed for the donation, rescue, and consumption of non or no-longer retail food mediate neoliberal self or identity formation, postindustrial lifestyles, and other im/material relationships. The idea that one can be a good person and a good citizen-consumer by buying otherwise wasted food at a reduced rate, or maybe by delivering donated food to food shelters, became attractive to many during a time when people were feeling isolated and many were looking for connection or a new experience.

Identity, Responsibility and Convenience in Food Waste Donation and Discount

In “Food: The Key Concepts,” Warren Belasco posed a triangle to describe how people in the United States and other nations with highly industrialized food systems make decisions about what to eat. At the apex is responsibility, an immediate and long-term awareness of the systemic consequences of one’s food decisions, and at the base are identity and convenience. Identity encompasses personal and cultural notions of preference, taste, and taboo, while convenience is defined by its emphasis on accessibility and affordability (11-12). Belasco notes that, “For the most part, people decide what to eat based on a rough negotiation – a pushing and tugging – between the dictates of identity and convenience, with somewhat lesser guidance from the considerations of responsibility. (The triangle is thus not quite equilateral, though the moralist might wish it were so)” (10).

While Belasco observed that the food industry is primarily focused on convenience as a selling point (11-12), in the last decades increasingly identity and responsibility have also played a stronger role in targeting products, even on a mass level. Growing popular awareness of the problems of sustainability of the food system, food insecurity, and food waste has led many corporations to position themselves as thoughtful stewards of the environment, and consumers of their products can identify themselves similarly as responsible and discretionary in the food products that they choose. In this manner, the triad of responsibility, identity and convenience shifts from decisions made about food to those made about food waste. Large food retailers’ websites and social media (e.g., Walmart) now routinely recognize the problems of food waste and food insecurity and highlight their role in reducing both through food donation. While reducing waste at the

source is the number one preference for food waste reduction, according to the Environmental Protection Agency (EPA) (“Food Recovery Hierarchy”), it is the most difficult. Food producers in a capitalist economy have little incentive to produce less, especially in markets where farmers earn estimates of 7.8 cents of every dollar from their crops (Dewey), and oversupply is necessary for food businesses to make a profit. The donation of otherwise wasted food to feed hungry people is the second most preferred option by the EPA, but it is by far the most utilized choice for waste reduction efforts (Arcuri, 264).

The triad of responsibility, identity, and convenience offers an elegant explanation for the popularity of donation as the best method of food waste reduction for consumers as well. On the consumer end of the food chain, identity, responsibility, and convenience play an equal role for many US Americans concerned about food waste reduction. Mirroring the convenience promoted by the food industry, for those with capital, most food is easy to access and often overly abundant. Food is often less valued than other goods, and therefore people find it easier to waste. However, partially as a result of the increased media coverage of food waste before and during the first months of COVID-19, along with large scale waste reduction campaigns, middle class consumers increasingly felt responsible for food waste, and guilt over wasteful habits. Combined with the pervasive characterization of people who waste food as lazy, careless, or excessive, waste could easily be seen as an issue of personal choice, and thus of identity (Nguyen). Food donation provides a way to reduce guilt over excess through conveniently giving away what is not needed through acts of charity that make the donor feel better about themselves.

Social media campaigns aimed at food waste reduction would seem to play heavily into the valences of Belasco’s triangle, especially where citizen/consumer identities around issues of sustainability and food justice are on display. In fact, the broader question of the influence of formal and informal social media campaigns on food waste reduction has spurred a good deal of research with mixed results as to the question of whether these interventions work (Young et al. 158-160). While studies have not determined the effectiveness of face to face versus social media messages about food waste reduction, certainly during COVID-19 the dearth of public face-to-face interaction may have differently impacted the credibility of face-to-face and mediated publicity about food waste. For this reason, the increasing reliance on social media as a vehicle for information and identity

expression makes the use of apps for guidance in socially and environmentally conscientious behavior important to study.

Food, Technology, Materiality and Rhetorical Appeal

Bringing ideas about identity, responsibility, and convenience together, Isabel de Solier, in “Food and the Self,” looked at humans’ relationships to material life and food media in particular. De Solier studied middle class, white, foodies (people for whom food is a primary hobby and form of leisure) to better understand how they shaped their sense of self through procuring, preparing, and consuming food (13-15). For foodies, food is not purely functional, to feed the body, but a creative act (or form) one engages in as part of productive leisure. Moreover, this productive engagement with diversion is seen as a kind of professional and moral “leisure labor” toward becoming a better self (16-18). For many people who felt disconnected during the COVID-19 pandemic, creating and posting pictures of one’s food, both synchronously and asynchronously, became productive leisure that went beyond one’s identity as a foodie; these actions were communal in ways that complicated social media’s role in neoliberal consumer culture (Chittal). Social media’s currencies are both material and immaterial but, especially during the COVID-19 pandemic, apps and social media platforms have mediated cultural identities via real and virtual food.

In another work, “Tasting the Digital,” de Solier discussed the ways businesses use social media to generate understandings of contemporary food culture (63). Rather than advertising through commercial media, food businesses rely on consumers to post in their own social media about their food or dining experience. When consumers post about their food experiences, they build both a repertoire (bodily habits of being with and using technology) and an archive (a “place” to establish a record) that tells not only their story (Taylor 16-23), but references and builds an online library of preferred food businesses. Food intersects with our narratives of who we are, what we do, and how we eat via technology. These become a “regime of practices” that have their own codes, truths and differential impacts (power) on identities (Foucault 51-75). For many Gen Zers, the saying “Food eats first” (meaning you must take a picture and post about your food before you eat), is de rigueur, part of a social etiquette that demands food perform identity on social media sites. According to the industry study, “A New Generation to Feed,” Instagram is the social media platform most often used by Gen Z to post

about food and to make decisions about what and where to eat. 75% of Gen Zers are on Instagram, as are 69% of all Millennials (5).

Via social media, food is relational, its value lying in our association with friends, influencers, and material things, as the matter through which meaning is made. Since food waste and recovery apps are a mediated technology that connect people to food and each other, analyzing the rhetorical appeals of these apps offers insight into their popularity during the COVID-19 pandemic and potential for continued use. In a moment when people seem simultaneously to be more conscious of food waste, and yet buying as much food as before the pandemic (“Food and Consumers”), food waste apps are positioned to resolve the moral dilemmas at the consumer end of the food chain resulting from overbuying (in stores and through delivery services), and at the production end through the diversion of excess supply or other pre-consumer food waste.

The data for my examination of the rhetorical appeal of two of the most popular food (anti-) waste and rescue apps consists of the organizations’ websites, app sites on the AppStore and Google Play, media coverage of the apps, and comments submitted by app users. Rhetoric describes the ways language can be used to influence others’ perceptions. My analysis of the apps’ rhetorical appeal utilizes the Aristotelian concepts of ethos (ethics, character), pathos (appeals to empathy, sympathy and compassion) and logos (logic, substance, reasoning). I then extend this analysis outward to pay attention to how moral/ethical bodies and identities are implicated in food waste apps and how they are connected in material and immaterial ways to food and waste. Belasco’s triad of identity, responsibility, and convenience (10-13) and de Solier’s (10-13, 63) and others’ focus on material culture and identity inform this analysis. In the analysis that follows, I examine each of the apps in turn, looking first at a global app that posts food to sell at a reduced rate (TGTG) and then at a popular food rescue app that solicits donors to donate and volunteers to recover otherwise wasted food (FRUS).

Too Good to Go (TGTG)

“Save Food. Help the Planet.” In the last year, TGTG quickly has become the global leader in apps that sell discounted restaurant and other prepared food. Labeling itself “The World’s #1 Anti-Waste App,” TGTG already has several awards under its belt. The app won an Editor’s choice award on the Apple App Store, a “World Changing Ideas” award from *Fast Company*, a “World Summit Award” from the

Austrian-based International Center for New Media (ICNM), in Germany it won a “Focus Innovation Award,” and in Spain it won “The Award” for the best mobile app. It is notable that at the height of COVID-19 TGTG made the decision to expand to a dozen (and counting) large cities in the United States and 13 other countries. Once established in a city, TGTG employees promote the app and ask local restaurants and grocery stores to sign on to post their leftover food for discounted sale at the end of the day. Notably, those in rural or more suburban areas will not find much use for the app. Nonetheless, TGTG’s reach has insured that it gets national and international press coverage, which has contributed to its popularity.

As of this writing, the app has been downloaded 46.3 million times in 14 different languages, and users can purchase food from 90,657 providers (restaurants, bakeries, and grocery stores) in 15 countries with 110 million meals saved globally since 2016. TGTG has 84,900 followers on Instagram, 557,200 followers on Facebook, and 692 on Twitter, with daily posts on all three platforms. Although the Copenhagen-based app came to the United States a little more than a year ago, in most cities where these discounted food/anti-waste apps are located (including NYC and Boston, where another large anti-waste app, Food for All, has its base), TGTG is the go-to app. Users are asked to view the map to “discover nearby stores,” “search, filter and find your preferred store,” and then “follow your favorite stores.” Food providers place items they can no longer sell at regular price in a “surprise bag” to go for app customers. Now that the U.S. app has partnered with the Waze app (crowdsourced GPS), drivers everywhere can easily use TGTG with Waze to select and buy “surprise bags” of food, and then locate the restaurant or other provider and pick up their food.

While TGTG’s economic appeal is prominent (e.g., “Start Saving Delicious Surplus Food at Great Prices!”), the app also emphasizes the social change aspect of food waste reduction. The majority of the website materials are devoted to the “movement” section, an educational portal handling topics like “what is food waste,” “why is food wasted?,” and “why is food waste a problem?” Users are also invited to become “food waste warriors,” who will use the app on a regular basis and follow four basic guidelines: “1. Respect the mission,” “2. Embrace the surprise,” “3. Get creative,” and “4. Plan ahead.” The guidelines ask warriors to value reducing waste over the taste of the food that they purchase. This request is somewhat contradictory in that TGTG prioritizes the good taste of the food throughout their promotional materials and general app rhetoric.

Despite, or maybe due to, the appeal of the surprise bag, another possibility, verified in user comments, is that the food in the bag will go uneaten for a variety of reasons (too much, poor quality, user is allergic or vegan/vegetarian, food goes bad) thereby contributing to food waste further down the chain. While the purchase of surprise bags adds value/profit to food that businesses would otherwise throw out, the use of the app does not reduce the food produced by these businesses. Nonetheless, TGTG's tagline, "Eat well. Fight food waste" presents an obvious win-win for business and consumer. The emphasis on great food offers taste and quality at a discount. Unlike food shelter clients who receive otherwise wasted food, the monetary transaction confers "taste" on the consumer who is also fighting food waste, as opposed to shelter clients who are not presumed to be "food waste warriors" when they eat donated food.

Mirroring much of their appeal to consumers, TGTG offers potential food providers the opportunity to divert otherwise wasted food by selling those items at a reduced (usually by two thirds) price. As their website puts it, "We love welcoming new partners to the fight against food waste, and whatever your business, we can help you recuperate costs and lower your footprint - it's 100% good for you and the planet." During the COVID-19 pandemic, however, the message has shifted to emphasize the economic support provided by the app at a time when restaurants and other food businesses are trying to compete and offer a full menu, even as the pandemic has greatly reduced patronage. To incentivize food businesses to become partners during the pandemic, at a time when food delivery apps have overtaken the market, TGTG offers home delivery in some cities and in others has partnered with Waze to facilitate pickup. As climate change and economic concerns have only increased during the pandemic, the message to providers is that they can raise public awareness of waste and increase the "green" profile of their business while increasing their bottom line.

Media coverage of the app far exceeds that of any of the other food waste apps, and many of the titles show an emphasis on economic appeal. A title from an article in *Fast Company* states, "This App Lets You Buy Whatever Food Your Favorite Restaurant has Leftover at the End of the Day." From *The Sun*, "GRUBS UP Woman Shares How She Nabbed Five Foot-long Subs, 15 Cookies, Four Oreo Cupcakes and Tonnes More for just £7." Titles from articles in *Fortune*, *Marketwatch*, the *Independent*, *The Guardian*, and others point to the ethical appeal of "fighting" food waste, and "eating sustainably" offered by the app. Finally,

there's the win-win angle, in titles such as this one from the *Thrillist*, "This App Is Tackling Food Waste By Scoring You a Better Meal."

Users gave the app an average 4.9 out of a possible 5 on the App Store (105,700 ratings) and a 4.8 on the Google Play store (646,178 Reviews). Several themes emerge from the reviews: quality of food in the "surprise bag" always a surprise (i.e., not consistent), lack of food providers, problems/glitches with the provider system, and the value of food for price. Most of the comments directly reflect an individual's experience with the app, with fewer comments about the value to people and the planet of fighting food waste and food insecurity by using TGTG. The following comment demonstrates the ambivalence found in many of the reviews:

LOVE the concept but it's very YMMV [Your Mileage May Vary]. Half my orders get cancelled but that's better than showing up and there is no food to pick up. Very annoying if you've gone out of your way. You get charged automatically if the restaurant doesn't cancel the order with the app, which means you have to go complain to customer service. Have successfully completed 3 orders. one was as expected. one was amazing. and one was laughably bad. (Teresa Lu, September 14, 2021, 3 stars).

Reviewers seemed to negotiate between their identities as savvy consumer and advocate for food waste reduction, and it seemed the latter balanced out the former when the food was disappointing. However, whether the app was used once or twice as an experiment or incorporated into one's routine food purchasing was harder to evaluate.

TGTG places a heavy emphasis on the ethical impact of food waste in their marketing. Their impact statement reads: "We dream of a planet with no food waste, and every day we're working on making that a reality. Our app is the most direct way for you to get involved - just download, log on, and get saving perfectly good, surplus food from your local stores. It's always a surprise and an instant good deed for the planet." "Instant" good deeds done conveniently from your mobile device are now familiar rhetoric in charity appeals. For TGTG, however, the surface incentive may be altruism, but the underlying attraction of the app seems to be the opportunity to purchase large amounts of "good" food at greatly reduced prices. Guilt over wasting food was especially high amongst the middle class during the early months of the COVID-19 pandemic (Sharma et al.), and this too may have worked into TGTG's massive popularity. The designers position use of the app by the individual as a starting point for collective social change. The rhetoric and

performance of the app works as a quest or game, with habits of playing and keeping score well known to the user. For each surprise bag purchased, the user scores, with badges awarded as one purchases more and more bags. The rhetoric about the app is performative in tangible and intangible ways. As the user buys more leftover food, the app provides a convenient method to reduce guilt within a neoliberal frame of individual responsibility for excessive waste.

The appeal of good deeds done for self and planet raises the question, to what end? How does the story of fighting waste and heroes rescuing food in distress connect to a body of practices that become truths? How does the discourse make meaning of/create institutionalized knowledge about food waste, food insecurity, and the larger food system? The archetypal story of heroes and warriors fighting off evil to rescue the weak and vulnerable is universally recognized and hardly new, and its appeal has only grown during the pandemic. It is especially important to consider that this narrative is used by all sides of the political spectrum and on a variety of issues. Here it is easy to substitute waste for the evil the warrior must fight to “save the planet” and to note the ways emotions and morality are foregrounded. However, users’ comments reflect practical assessments of the app for taste and economy more so than guilt reduction (pathos) or social and environmental issues (ethos). Nonetheless, during the COVID-19 pandemic the discourse seems especially to have hit its mark (to use more battle metaphors), at a time when much of the population feels helpless to manage their lives.

Food Rescue US (FRUS)

Unlike TGTG, FRUS is focused on reducing food insecurity while also reducing food waste. FRUS is the largest recovery platform and food rescue app of its type. The app connects volunteer drivers, food providers, and agencies for the donation and transport of otherwise-wasted food to agencies that can offer meals or to-go boxes for their clients. Once a person determines whether FRUS exists in their area (though they also invite you to start a chapter), they can sign up, scan their driver’s license, indicate what forms of communication they prefer, general availability, and then receive a list of potential rescue sites and recipient agencies in their area. There is a gaming aspect to the app; colored boxes indicate numbers of rescues and meals delivered and volunteer rescuers with high numbers get badges (shown in a box at the top of the page).

FRUS's website states, "Using our simple and efficient proprietary technology, food donors register available fresh food, social service agencies communicate their food needs and details for delivery, and volunteers sign up for a 'food rescue.'" As with TGTG, numbers are prominent on the FRUS website. Currently located in 40 communities, they have, as of March 2022, provided 78 million meals and saved 102 million pounds of food from landfills. More to the purpose of the app, they have registered 12,000 volunteer food rescuers, with 1,200 agency partners, and 1,700 food providers. FRUS has a site director that coordinates and oversees each community where it rescues food, and advertises itself as fulfilling a niche for food rescue by rescuing smaller quantities of food from donors like restaurants that rescue agencies tend to avoid due to lack of resources.

For potential food donors, FRUS promotes the platform and app in several ways. The community responsibility angle is a thread throughout their materials: "Donate your excess food to end hunger and food waste in your community." The donor portion of the site highlights the tax deduction advantage gained when businesses donate food, and safety from liability through the Good Samaritan act, which protects donations made in good faith. Last, the site promises the widespread promotion of donors through its "robust publicity and social media programs." As they note, "Food Rescue US has presented a solution that is timely, flexible and effective and involves whole communities in the effort to reduce food waste and feed the hungry." In the first months of the COVID-19 pandemic, the message resonated with food businesses who had not previously considered the app. Suddenly, due to a combination of pandemic-related food supply chain problems, food rescue provided an outlet for community visibility at a time when food security issues were prominent. As one donor remarked, "[FRUS] has given our local shop a tremendous and much needed boost of support and optimism during these difficult times" ("COVID-19 Response").

Most of the media coverage of FRUS is informative, explaining how the app works and its ease of use. All coverage discusses how the app reduces food insecurity and food waste, with one article explaining further that the app "addresses overconsumption, encouraging people to donate what they've already grown or purchased, rather than adding more food into a system of waste" (DiBenedetto). Another article focused on how the use of smartphone technologies and crowdsourcing has made food donation and rescue more efficient, with more donations going to more recipient agencies and, ultimately, food insecure people (Allen). FRUS's own impact report from 2020 details the unique combination of

problems caused by a global pandemic: food insecurity has grown, and methane emissions have risen due to all the food thrown out in the early months of the COVID-19 pandemic. FRUS explained that, throughout the pandemic “our locations continued to rescue excess food and pivoted to launch emergency programs, like our Restaurant Meal Programs and Community Kitchens” (“Covid-19 Response”).

I had viewed user comments on the Apple App Store prior to writing this article and was surprised to see that all comments on the App Store and Google play store were pulled as of August 2020. The “award-winning” app can now only be downloaded directly from the website. This change could be due to the decentralized nature of the organization, with local sites around the United States operating their own versions of the platform. I did find a few ratings and reviews on community news sites, Facebook, Great Nonprofits, VolunteerMatch, and Glassdoor. The reviews were all positive and referred to rescues and deliveries by local chapters of FRUS. The following, from a Miami site director, was typical, “During COVID, we added FREE meal distributions from local restaurants we funded to help feed the furloughed, unemployed and food insecure population impacted by COVID-19.”

On the app site and webpage, FRUS positions the app as a way individuals can aid in reducing hunger and make a positive impact on the environment. Their tagline reads, “Be the Rescue. Fight hunger. Help the Planet.” They describe their process on their website: “Our local volunteers pick-up excess healthy food from local food donors and deliver it directly to local social service agencies that feed the food insecure.” The use of “healthy” to modify the food donated is somewhat ambiguous as it is not a requirement for donations, nor is nutritional quality measured by food rescuers or recipient agencies. The appeal of fighting hunger by rescuing food has grown as COVID-19 and other events have made food waste and the food supply chain a headline story. Additionally, during the shutdown, people with otherwise busy schedules found themselves at home with time and (for farms and many food businesses) food on their hands. In 2020 and 2021, FRUS offered a COVID-19 relief fund (based on donations) and partnered with state and local agencies to offer increased aid through relief initiatives. Through these and other efforts since the start of the pandemic, their funding and volunteer numbers expanded greatly, and they continued to rescue food and deliver it to recipient agencies when many local shelters with increasing numbers of clients were finding it difficult to access food.

Much as with TGTG, FRUS relies on the fact that many white, middle-class consumers feel both guilty about all the food wasted in the United States and overwhelmed by the wicked problems (with no easy solutions) of climate change and hunger. The overall message presented by FRUS's website and app is one of opportunity amidst crisis. The numbers spin upward as you scroll down the home page: number of meals provided, pounds of food diverted from the landfill, number of community sites, number of volunteers. Where TGTG offers the rhetoric of warriors fighting a battle by buying up waste, the fight that FRUS promotes is one of distribution: all we need to do is take unsellable food from food businesses and transport it to where it is most needed. FRUS offers a relatively easy way to make a difference locally by reducing hunger and diverting food waste from the landfill and globally by helping to reduce methane emissions. The emphasis in the discourse on the app, as with the food rescue movement in general, is that the two problems (food insecurity and food waste) are interrelated. During the COVID-19 pandemic, as supply chain problems, unemployment, labor shortages and food insecurity have been juxtaposed against each other in the news, the argument gains logical and ethical force.

The rhetoric of food waste reduction as a moral act was presented in each of the apps discussed and mirrors their media coverage and user comments. They also reflect the discourse of national and international food waste reduction campaigns (Arcuri, 265). More to the point, though, the apps speak to middle-class behavior, attitudes and ideas about waste as cultural performance, and our identification with food as (im)material substance. People are centered or marginalized based on the semiotics and the mobility of their nearness or distance from waste, how their body is positioned or made (in)visible with regard to cultural tastes and taboos. Food waste apps activate these relationships through the circulation and repetition of discourses about food waste reduction and the practices they allow. In other words, how a body interacts with waste and waste reduction apps depends a great deal on embodiment as well as the affordances and constraints technology provides to that body.

Conclusion

Food waste apps can run the gamut from programs that track food bought and used, apps that send reminders about perishable food so that it will be eaten, to those described in this paper. The two apps examined are designed to move discounted

or nonmarketable food from food businesses to people who may or may not eat it. The discourse on the websites and app sites studied neatly distinguishes those who can have taste from those designated to eat waste. The (anti-)food waste apps' emphases in their tag lines on taste and quality ("Great food should be tasted, not wasted," "Pay less, Save more, Tastes better," and "Eat well, Fight food waste") is part of a discourse of embodied choices, of options and a say over what you want to eat. In contrast, the rhetorical appeal of the FRUS food rescue app is not at all about taste and quality, but about quantity (millions of meals served, tons of food diverted from the landfill). These distinctions are not arbitrary, but part of a system of power wherein the right to choice and autonomy (over food, over bodily freedom) is conferred upon those who can participate in the "free" market. In the United States, citizen identities are in large part shaped by people's options as consumers, even as these options multiply or recede based on intersections with a person's race, gender, ethnicity, age, ability, etc.

As well, these discourses are part of a regime of practices (Foucault 54-60) that allow people, especially progressive, white, middle-class people, to cope with guilt over the in/visibility of food waste. If one lesson of the early months of the COVID-19 pandemic was that food waste could not be hidden, the *usefulness* of food waste apps has been evident in the control they provide over seemingly intractable problems. It is notable that both apps' websites and latest impact reports quoted the rise in both food waste and food insecurity during the pandemic as further proof of the importance of their platform. The message to the potential donor, consumer or volunteer is, "use this app and you will be part of the solution."

Importantly, this use is part of a habit or practice with media and technology that is performative. The gaming aspect of both apps also speaks to productive leisure, which combines entertainment and productivity. Bourdieu might label the usefulness of the apps to some bodies over others *habitus* (165-170), while McLuhan would emphasize the extra-discursive immersion of bodies and media technologies over the rhetoric provided about the apps themselves (Cavell 10-13). More than locating meaning in the medium or the message, however, this paper has argued that food waste apps shape identities and influence behaviors in relation to their usefulness. That usefulness is heightened by our recognition of the problems of food waste and insecurity, with awareness supported by policy, media campaigns, local food drives, and trash and recycling ordinances.

The way problems are framed determines the inclusion of certain solutions at the expense of others. By selecting, frames call attention to particular facets of

reality, thus diverting attention away from others (Entman 51-5). Although the apps analyzed in this paper perhaps differ in their motives, their overall goals are similar: to make food more accessible and reduce food waste. While each has been remarkably successful, particularly during the social isolation and economic upheaval caused by COVID-19, based on user comments and media coverage there is no compelling evidence that the anti-food waste app, TGTG has made “great” food more accessible to people with limited means (Yoder). Food discount apps do allow for some experimentation that might not happen should the food be too expensive, and TGTG adds the element of “surprise.” Similarly, these “anti-waste” apps likely have reduced food waste headed for the landfill, but they have not changed the overproduction of food in the United States that allows (or demands, based on a consumer aesthetic of overabundance) restaurants and other food providers to have so much leftover at the end of the day. Likewise, the FRUS app makes it easy to volunteer and facilitates the rescue of food otherwise headed for the landfill. These are laudable goals, though subject to similar critique in that food rescue addresses neither the reasons for the overproduction of food in the United States or the deeper issues underlying the growing problem of food insecurity.

Sabrina Arcuri argues that redistribution of otherwise wasted food is discursively positioned in public policy, media, and nonprofit campaigns as achieving perfect circularity in the food system (265). Nothing produced gets wasted, circular economists and policy makers assure, because hungry people can eat the waste. Diversion of food waste from the landfill in one instance may not prevent waste from happening elsewhere in the food chain. Overproducing food and then selling even perfectly delicious leftovers at a discount or donating it to a food bank or shelter may be kicking the can down the road if people do not like or cannot eat it. More importantly, excessive production and excessive consumption as core problems remain unexamined, mostly because they present difficult obstacles to the free-market system and the inequities embedded therein. Apps designed to reduce food waste and food insecurity are an important step toward awareness of problems that cannot be solved through rescuing food for the food insecure or through individual purchases of discounted food. During the COVID-19 pandemic their benefits have perhaps been as performative as material: users can be heroes and warriors fighting the good fight for food and against waste at a time when there seems to be little else people, as citizens and consumers, can control.

I remain an ambivalent food rescuer, although without the aid of food waste apps. I try to find alternatives to redistribution of excess as a solution to food waste, while recognizing its immediate appeal. I work with community food networks and on cooperative farms to learn about the cycle of food production, distribution and consumption on local levels, and my responsibility and relationship to this food system we all are a part of. None of us are singularly to blame for food waste, although our/my relative privileges of consumption in the United States are intimately connected to environmental destruction. Food waste reduction technologies provide guidelines for practices that may be useful to us in tangible and intangible ways, but we must interrogate that usefulness in relation to our embeddedness in larger cycles of over production and consumption.

Works Cited

- “A New Generation to Feed.” *American Egg Board*, https://dev.aeb-razorfish.com/wp-content/uploads/2020/09/AEB_WP-Gen-Z.pdf. Accessed 7 Apr. 2022.
- Adkisson, Tyler. “Food Rescue Apps Helping to Curb Millions of Pounds of Waste.” *Newsy*, 21 Apr. 2021, <https://www.newsy.com/stories/food-rescue-apps-helping-curb-waste/>.
- Allen, Susie. How Better Mobile Crowdsourcing Can Help Combat Food Waste and Feed the Hungry. *Yale Insights*. 8 Apr. 2021, <https://insights.som.yale.edu/insights/how-better-mobile-crowdsourcing-can-help-combat-food-waste-and-feed-the-hungry>.
- Arcuri, Sabrina. “Food Poverty, Food Waste and the Consensus Frame on Charitable Food Redistribution in Italy.” *Agriculture and Human Values* vol. 36, 2019, 263-75.
- Baraniuk, Chris. “Sharing Apps are Booming but will the Kindness Continue?” *BBC news*, 10 Aug. 2021, <https://www.bbc.com/news/business-57981598>.
- Belasco, Warren. *Food: The Key Concepts*. Bloomsbury, 2008.
- Bourdieu, Pierre. *Distinction: A Social Critique of the Judgments of Taste*. Routledge, 1984.
- Cavell, Richard. *Remediating McLuhan*. U of Amsterdam P, 2016.
- Chittal, Nisha. “Quarantine Cooking Is About More Than Just Feeding Yourself.” *Vox*, 27 Mar. 2020, <https://www.vox.com/the->

- [goods/2020/3/27/21195361/quarantine-recipes-cooking-baking-coronavirus-bread](https://www.thespruce.com/goods/2020/3/27/21195361/quarantine-recipes-cooking-baking-coronavirus-bread).
- “Covid-19 Response.” *Food Rescue US 2020 Impact Report*, https://issuu.com/foodrescueus/docs/frus_2020_impact_report_issuu. Accessed 7 Apr. 2022.
- DiBenedetto, Chase. “How to use leftover food to fight food insecurity.” *Mashable*, 19 Apr. 2021, <https://mashable.com/article/how-to-join-the-food-rescue-movement>.
- Dewey, Caitlin. “Why Farmers Only Get 7.8 Cents of Every Dollar Americans Spend on Food.” *Washington Post*, 2 May 2018, <https://www.washingtonpost.com/news/wonk/wp/2018/05/02/why-farmers-only-get-7-8-cents-of-every-dollar-americans-spend-on-food/>.
- Entman, R. M. “Framing: Toward clarification of a fractured paradigm.” *Journal of Communication*, vol. 43, no.4, 1993, 51-8.
- “FNS Responds to Covid-19.” Food and Nutrition Service, United States Department of Agriculture, <https://www.fns.usda.gov/coronavirus>. Accessed 7 Apr. 2022.
- “Food and Consumers.” Economic Research Service, U.S. Department of Agriculture, <https://www.ers.usda.gov/covid-19/food-and-consumers/>. Accessed 7 Apr. 2022.
- “Food Recovery Hierarchy.” Environmental Protection Agency. <https://www.epa.gov/sustainable-management-food/food-recovery-hierarchy>. Accessed 7 Apr. 2022.
- Foucault, Michel. “Truth and Power.” 1977, edited by P. Rabinov, *The Foucault Reader*, 1984, 51-75.
- Nguyen, Jimmy. “The Psychology of Food Waste: An Interview with Brian Roe and Laura Moreno.” *USDA*, 29 July 2021, <https://www.usda.gov/media/blog/2019/09/09/psychology-food-waste-interview-brian-roe-and-laura-moreno>.
- Roe, Brian, Bender, Kathryn and Qi, Danyi. “The Impact of COVID-19 on Consumer Food Waste.” *Applied Economic Perspectives and Policy*, vol. 43, no. 1, 2021, 401-11.
- Sharma, Rajat, Dhir, Amandeep, Talwar, Shalini and Puneet Kaur. “Over-ordering and Food Waste: The Use of Food Delivery Apps During a Pandemic.” *International Journal of Hospitality Management*, vol. 96, 2021, 102977.

- de Solier, Isabelle. *Food and the Self: Consumption, Production and Material Culture*. Bloomsbury, 2013.
- de Solier, Isabelle. "Tasting the Digital: New Food Media." *Food in Popular Culture*, edited by Kathleen LeBesco and Peter Naccarato, Bloomsbury, 2018, 54-65.
- Taylor, Diana. *The Archive and the Repertoire: Performing Cultural Memory in the Americas*. Duke UP, 2003.
- Yoder, Kate. "Opinion: Can new apps really help curb food waste?" *Atlanta Journal Constitution*, 21 Jun. 2021, <https://www.ajc.com/opinion/opinion-can-new-apps-really-help-curb-food-waste/GUVY2F4PLFEPLWZYVVR5UNMJ44/>.
- Young, William, Russell, Sally V., Robinson, Cheryl A. & Ralf Barkemeyer. "Can Social Media be a Tool for Reducing Consumers' Food Waste? A Behaviour Change Experiment by a UK Retailer." *Resources, Conservation and Recycling*, vol. 117, part B, 2017, 195-203.