

Tacological: A Sustainable Food Truck Simulator

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Problem

Consumers are often unaware of their ecological impact when making food purchasing decisions, or what choices they can make to be more sustainable. There are often hidden costs associated with seemingly simple purchasing decisions.

Related Work

According to a study done by Forbes, almost 90% of respondents were more likely to positively view, be more loyal towards, and trust a company that was more environmentally friendly.

A study found that through the use of immersive VR, people experienced deeper learning about complex social and environmental issues (Markowitz, et al., 2018).

Approach

Virtual reality is an untapped medium for educating consumers on their purchasing decisions. Our VR environment simulates a food service environment to connect players to the real-world social, monetary, and environmental impacts of businesses. In-game customers were given profiles to simulate consumer reactions to ingredient choices, communicating awareness of decision impact.

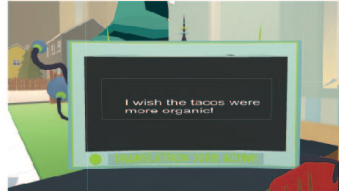
References

Butler, A. (2018, November 21). Do Customers Really Care About Your Environmental Impact? Retrieved from Forbes website: <https://www.forbes.com/sites/forbesnycouncil/2018/11/21/-do-customers-really-care-about-your-environmental-impact/#73b7146c240d>

Markowitz, D. M., Laha, R., Perone, B. P., Pea, R. D., Bailenson, J. M. (2018, November 30). Immersive Virtual Reality Field Trips Facilitate Learning About Climate Change. *Frontiers in Psychology*, 17.

Method

By bringing players face to face with purchasing decisions, they learn how to make informed and meaningful decisions. Surveys were conducted before and after the experience to gauge efficacy.



The translator, through which customers communicate their satisfaction or dissatisfaction with the product based on the ingredients chosen. This message is from a dissatisfied customer.



Satisfied customers dance upon receiving their taco, in addition to the appearance of a message on the translator.

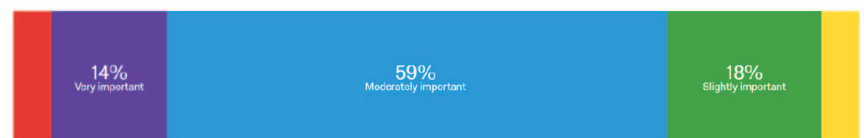


Shows sustainability facts that appear upon interacting with each ingredient.

Results

The percent of players who valued food's environmental impact as extremely or very important rose after playing Tacological from 18.14% to 59.09%. Additionally, the percent of players extremely or very willing to pay more for environmentally friendly food products increased from 13.64% to 27.27%. Together, these results suggest that Tacological has the ability to impact food purchasing decisions of players and educate about environmental issues through the gameplay.

Importance of Environmental Impact



Before



After

Extremely important Very important Moderately important Slightly important Not at all important