

COCOA, an Ethical Vending Machine

M. H. M. Vermeeren (0859541)

Showroom group (Y. Verstraeten, C. A. F. Rodríguez, G. Corpaccioli)

AIM

Our aim is to raise awareness and criticize child labor in the cocoa production chain. The project seeks to make consumers from developed countries reflect on their shopping habits, which could contribute to a shift to more sustainable consumer behavior.

This research contributes to the field of critical design and affecting user behavior. It provides an impression of people's behavior and motivations when confronted with this aspect of the cacao industry, as well as possible influences this has on their behavior as consumers in the long and short term.



The experience is brought to users through a vending machine test that initiates direct confrontation during a normal purchase, provides the opportunity to reflect on the information, and the opportunity to change one's behavior if desired.

CHARITY & GREED

Since the sixties, capitalist business models have shaped the global market and consumer behavior by lowering expenditures on raw materials and production costs. This has come at the great cost of worker rights in developing countries, where people's labor and resources are systematically exploited by the same global industry that relies on them. [1,2,3]. There is a growing movement of manufacturers, consumers and organizations that want to take action against this exploitation, leading to concepts such as Fairtrade and organized charity projects.

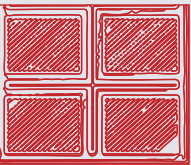
Most major European and American chocolate brands deny responsibility of child labor and trafficking in cocoa fields due to the complexity of the cocoa supply chain [17], but this attitude is slowly changing. Recently, several chocolate producers have tried to affront the problem to offer a product free of slavery and child labor. A well-known player in this is Tony's Chocolonely in the Netherlands, a company founded on this very principle, although this brand states that it is not possible to guarantee a 100% slavery and child-labor free product [18].

Charitable organizations rely a lot on donations, which means the public's trust in this organization is critical [22]. A proven effective marketing strategy to gain donations is evoking feelings of guilt, and appealing to the social norm to help less fortunate people [13,15]. Such feelings come from a sense of personal responsibility for an action (or inaction), as well as an understanding of its harm [14]. Even charitable organizations that do not rely on donations have a need for public trust and marketing strategy, although they tend to appeal more to positive feelings connected to personal responsibility.

CHILD LABOR & TRAFFICKING IN THE CACAO INDUSTRY

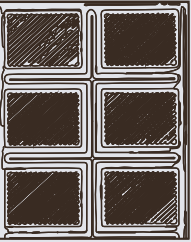
200 thousand children are estimated to be trafficked annually through west and central Africa [4,5,8]. In many cases, trafficking is voluntarily done by parents for a third party for a set price and set amount of time. **Child trafficking is driven by poverty, lack of education and weak punishment for the traffickers.**

GLOBAL CACAO PRODUCTION:



Ivory Coast 40%

- Exported **1.4 million tons of cocoa beans** in 2001, employing more than **7 million people**



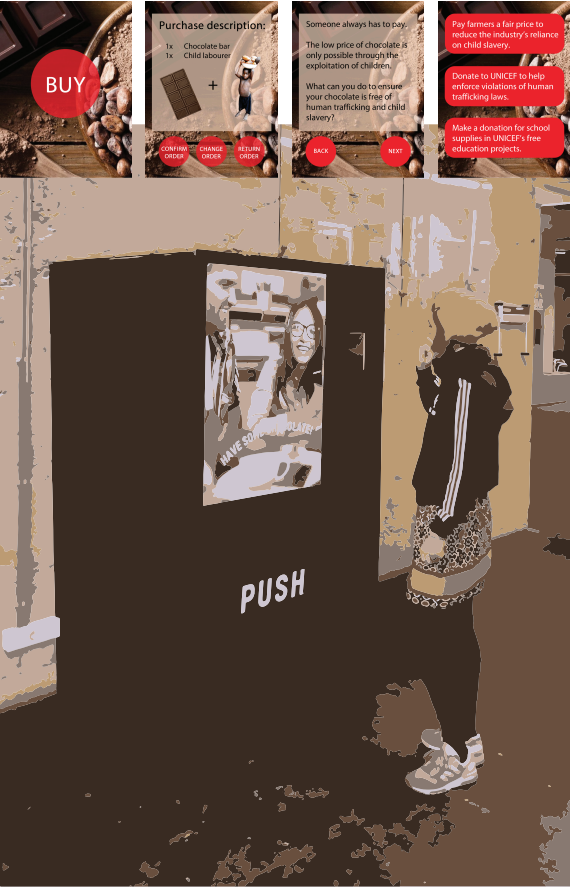
All other countries 60%

- Minimum working age is 14, but only **12 years old for agricultural work**, if the job is safe and the child's parents consent

- Cocoa is mostly grown on **small, family run farms** of 6 hectares or less.

Working on a cocoa farm involves long hours in the sun performing very physically demanding tasks. Furthermore, people often have to use primitive tools, and are exposed to pesticides and disease-carrying insects and reptiles [7].

The International Labor Organization estimates that **out of a total of 378 thousand working children in Ivory Coast, 109 thousand children are working in dangerous conditions on cocoa farms**, both who are forced and those who work on the family farm with their parents. [4,5,8,16]



PROTOTYPE

The prototype was designed around the purpose of confrontation, evaluation, and opportunity to change behavior.

1. Users are confronted with the problem by symbolically purchasing a child laborer with their order. A small card resembling a passport is added to the purchased chocolate bar, containing a picture of a child laborer producing cacao, some personal information, and a question to the user if they are interested in buying this product. This is further supported by information on screen.

2. Users are invited to think about their contribution to this problem and reflect on their actions by giving them time to evaluate and verify this information after the confrontation.

3. Users then have the opportunity to change their behavior through the options menu, where they can choose to confirm, change, or return their purchase. When choosing to change their purchase, the prototype provokes further evaluation about how to solve this issue.

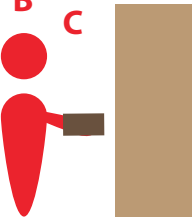
Regular interaction: making purchase



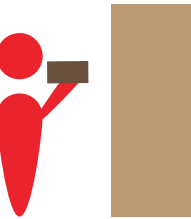
Confrontation: Passport added to chocolate



Evaluation: Considering courses of action



Evaluated behavior: Chosen course of action



TEST

The aim of the user test was capturing reactions and opinions about users' own experiences when confronted with child labor in the chocolate industry. This study fits the "showroom approach" to design research [21], in which the main aim is the execution of an idea and an open attitude to the reactions of participants, rather than validating a hypothesis.

The test took place in a cafeteria hallway, chosen for its normal lack of conducted user tests, as well as the abundance of vending machines in the building. This is intended to increase the unexpectedness of intervention amongst participants, the

likelihood of familiar interaction, and the prototype's ability to blend into the surroundings.

The user test did not call for a verified homogeneous test group, because its intent was to provoke and measure any kind of reactions from any kind of people. Participants were mostly students who regularly visited this area.

Users would sign a consent form, after which they received money and were instructed to use the machine. After observing their interactions, they were interviewed about their awareness of the problem, their thoughts and feelings during the test, and their motivation behind the choices made.

To give an impression of the impact of the test, they were also asked about their regular chocolate consumption behavior and possible changes to this in the future.

The interviews were designed to give insight in the user's experiences, and give them the opportunity to elaborate on the project freely. They were also asked to about the current method of confrontation and choose their preferred one out of four presented options.

RESULTS

During this user-test 35 participants used the prototype, most of whom confirmed familiarity with the interface.

About **70% of the participants described the situation as 'uncomfortable'**, and stated they didn't know what to do with the child-passport. Most of them would try to get rid of it as quickly as possible, and made the choice to donate money or return the chocolate bar.

A smaller group had a more skeptical attitude, they appeared more comfortable reading the passport card and mostly stated they didn't think it was their responsibility to solve this problem.

"I intended to buy chocolate so I kept it"

"I donated to UNICEF because they know best what to do with the money, if it goes to the farmers it might not be used to help the child"

"I gave it back because I don't want child labor with my chocolate"

"My dad is a farmer, and I think paying farmers is more important and efficient than UNICEF donations"



31 from 35 participants, almost **90%, choose to donate money or return their order**. This means, provided that all participants intended to buy chocolate, that almost all of them were willing to change their consumer behavior.

According to 80% of users, the best method to confront people with this problem is a label on chocolate bars, similar to a warning on a pack of cigarettes.

When asked if this experience will influence their decision making in the future, almost all answers started with the word 'no', but their motivations on the other hand differed a lot from one another:

- "No, normally I already choose Tony Chocolonely"
- "No, but I would be more aware of the problem in the future"
- "No, I have no idea how to change this problem I just discovered"
- "Tony chocolonely isn't child labor free either, and I will still buy chocolate because I like it."

Therefore, it is unclear if it has had long-term effects on their behavior besides its effective informative value.

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