



ANEMELO HANDBOOK SUMMARY

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SUMMARY

Over the last forty years food and drinks producers have started to produce ever more processed junk food: many of them have replaced whole grains in their products by state-sponsored refined carbohydrates while adding sugar, salt and fat to extend product shelf life and boost product customer appeal. The producers then heavily pushed their new cheap, tasty, and calorie-rich food and drinks that are poor on nutrients to consumers. As a result, processed food and drinks sidelined traditional, healthy products that are not designed to please the consumer palate, are more pricy, and are more complicated to prepare.

The changes in the food and drinks industry have created the “perfect obesity storm”. While forty years ago overweight and obesity were rare, they are now omnipresent, both among adults and among children. Overweight and obesity are linked to a broad range of physical and mental diseases and to genetic alterations. Junk food diet currently even is the leading risk factor for early death in developed countries.

Fighting childhood overweight and obesity is a high priority within the European Union. A first step in the right direction is to promote at schools understanding of how the food and drinks industry is manipulating consumer behavior and food choices.

Food and drinks are important to youngsters. Junk food has become integrated in their identities. Therefore, youngsters can be very defensive when it comes to receiving information critical on junk food. In addition, during adolescence the main drivers of their behavior are not rational but are predominantly social and emotional. Thus, a simple transfer of knowledge on the subject will not do the trick.

The ANEMELO project offers a game to teach students about the main mechanisms that Big Food uses to manipulate them. The visual Augmented Reality technology that is used by the game entices students to play, while them being asked to play cynical villains motivates them to engage. The central message of the game is the only message that has proven effective in youngster campaigns against smoking: adults are brainwashing you to get to your money.

Nir Eyal’s book *Hooked* presents a frame to understand how companies try to hook consumers. According to Eyal, the first step in this process is to expose consumers to branded messages by means of marketing. This exposure encompasses more than just displaying products: it also concerns f.i. pricing, packaging and the size of the servings. The industry provides product narratives that link positive and agreeable emotions and experiences to junk food and drinks and stress the product’s healthy qualities. Youngsters are very vulnerable to these types of narratives because they are more interested in food and drinks advertisings than in any other type of ads, and they grossly overestimate their marketing and media literacy. The aim of marketing is to prompt both immediate consumption and repeat consumption that leads to consumer loyalty to the products.



The narratives by food and drinks producers in traditional media are amplified by online marketing. Youngsters are attracted to immersive online experiences, often in the form of branded games. In the games they experience the brand narratives, so that not only immediate consumption is prompted but also brand narratives are becoming internalized.

While according to Eyal exposure presents an external trigger for action, internal consumer triggers are as important, if not more important. Internal triggers are negative emotions such as boredom, loneliness, frustration, confusion, and indecisiveness. These negative emotions prompt consumers to action, to try and lessen their unpleasant impact. Adolescence is a period in which these negative emotions are prominently present. The online brand experiences present youngsters with an easy way to quell their negative emotions: they provide entertainment to take the adolescent mind off its internal troubles. By means of repeat actions, the impulse to engage in branded games whenever a negative emotion pops up becomes ever more automated.

While offline marketing presents Big Food with the means to reach a mass audience with their narratives, online marketing allows for microtargeting: reaching small, specific audiences with highly personalized messages that are to influence consumer attitudes and choices. To be able to microtarget a lot of information on potential online customers needs to be harvested. The digital trail of anyone online is thus recorded in legal, semi-legal and illegal ways. This digital trail consists of online user activities such as clicking, opening websites, searching, and buying products. It is assumed that based on these online user profiles consumer preferences and interests can be distilled that predict and influence future consumer behavior.

Online profiling is capable of measuring the short-term and long-term internal states that youngsters experience. According WHO junk food and drinks producers probably use this information to target youngsters when they are at their most vulnerable and then prompt them to action, either to consume or to experience a branded game. Big Food most certainly uses other data harvested by profiling methods to target youngsters.

While external and internal prompting form the first step in Eyal's process of getting consumers hooked, the follow-up action (consuming or engaging oneself) is step two. And this action is to lead to step three: rewards. The most effective type of rewards is variable rewards. Whenever the outcome of an action is unpredictable, the action gets boring less quickly. The gambling industry is based on this principle.

The first type of rewards junk food and drinks producers offer youngsters for their actions is a very pleasant taste during the consumption of their products. Food and drinks engineers are non-stop experimenting to find the ideal pleasing combination of sugar, fat and salt in products.

The second type of rewards is prompted by sugar: dopamine. Dopamine is a hormone and a neurotransmitter that is released by undertaking rewarding activities and by taking in specific chemicals that prompt the release of dopamine without any effort. Sugar is one of these chemicals that cues dopamine release.



Dopamine is much more than just a pleasure hormone. It plays a role in controlling body movements and constitutes an important element in the process of human learning. Dopamine is produced when a pleasurable activity is expected, and thus rather is linked to craving for something than to actually liking something. Dopamine is important in establishing whether a situation, experience or potential outcome is worth noticing. The chemicals that automatically prompt dopamine, such as sugar, therefore automatically are interpreted as important.

Online branded games evoke the third type of rewards. As all effective games, junk food games cause a state called “fiero” every few minutes: a release of dopamine cued by an event that is worth noticing, such as a gift, a win or a kill. Just as in gambling the precise form the game events take is unknown to players before encountering them. This unpredictability makes the game attractive to players for a prolonged time.

The fourth type of rewards is triggered by the use of social media by junk food and drinks producers. Social media are constructed to trigger dopamine feedback loops in users, and addict them, just as games do. The rewards linked to the use of social media also are variable by design: no one ever knows how many likes or reactions one will get when publishing.

Social media enable junk food and drinks producers not only to offer rewards and thus amplify the effects of consumption and immersion in branded games, but also open up the intimate online world of adolescents to them. Social media enable Big Food to microtarget youngsters in an environment in which youngsters are more open and trusting.

All mechanisms used by junk food and drinks producers to influence adolescent consumers thus are aimed at more than just immediate sales. To them, it is as important to stimulate brand loyalty and repeat consumption – step four in Eyal’s model. The goal of Big Food is to nudge customers, including youngsters, to eat and drink their products binge-like as an automated behavior on cue.

The hooked-cycle is supported by the human body. Junk food provides consumers with a lot of calories but with little nutrients. This means that people on a diet of mere junk food get fat but are left hungry at the same time. Junk food also kills off large amounts of our gut species. The ones that remain have a preference for junk food and communicate this to the brain thus causing repeat consumption. The gut preference for junk food is hereditary. In addition, the palate of youngsters is being narrowed by junk food and drinks producers already from birth. The natural preference for sweetness in babies is reinforced by junk baby products.

The metabolic changes in the bodies of youngsters that are caused by overconsumption of junk food and drinks are associated with more negative emotions, with changes in adolescent reactions to their negative internal triggers leading to more impulsivity, anxiety, ADHD and addiction, and with an enlarged adolescent sensitivity to external triggers like images of junk food and drinks. It is therefore tempting to blame the victim by fat shaming: those who are



obese are more prone to crave for junk food and consume more of it while it seems that they especially should know better.

Fat shaming is supported by the dominant Big Food paradigm that getting fatter is the outcome of a simple process: more calories go into a body than go out of that body. According to this paradigm overweight and obese youngsters either eat too much or exercise too little. In the end their condition is their own fault: they apparently have too little willpower to limit their consumption or to work out sufficiently.

Our thinking of food and drinks consumption and its consequences has been dominated by Big Food narratives, supported by research sponsored by Big Food. Non-industry funded research on the other hand supports the insights shared here: the real culprit is the changes in the food system, with increases in the quantity of available food, and especially of industrialized foods with added fats, sugars, salt and flavors – all designed to make us want more of them.

Youngsters are surrounded by cheap and omnipresent junk food. The General Secretariat of the European Council states that this obesogenic environment is the most important cause of childhood overweight and obesity.

If Big Food's paradigm is not to be believed and the ANEMELO game shows youngsters the workings of industry's manipulation mechanisms, how are adolescents to approach the subject from this moment on? It is clearly not enough to just state that their food environment is to blame and that they are being brainwashed by adults who are out to get to their money.

Unfortunately, advice on better diets and more exercise often come from incompetent self-proclaimed experts like food and sports vloggers or from misinformed medical professionals and government diet recommendations. More often than not these voices either ignore or misinterpret scientific research outcomes or simplify matters, f.i. by not taking into account that individual organisms react differently to different foods as a result of differences in nature and nurture, and that our reactions to food and drinks cannot be reduced to reactions to single ingredients present in food and drinks products.

Regarding exercising it is safe to say that working out makes people healthier but it does not undo the effects of bad diets. Only by exercising for longer periods it is possible to burn fat.

Regarding diets scientists like Tim Spector and Felice Jacka have started to make their voices heard. Spector summarizes his findings: "there are certain facts about diet that are unarguable: diets that are high in sugar and processed foods are bad for our microbes, and by extension for our health, and diets that are high in vegetables and fruits are good for both." He advises to take in prebiotics, fibre, nutrients and probiotics, to try out new foods, to fast occasionally, and to avoid preservatives, antiseptic mouthwashes, antibiotics, junk food and sugar.

