

HEART AGAINST MOLOCH

Change Strategies on succeeding
in the age of AI with game theory.



CONTENT

- 01 Summary
- 02 Intro: Predicting the future
- 03 Game theory: Know your moves
- 04 Moloch – the multipolar trap
- 05 Change Strategies on avoiding AI-Moloch

01 SUMMARY

TL;DR

HEART AGAINST MOLOCH

Predicting the future of the advertising industry [p. 5]:

The advent of more and more powerful AI has our heads spinning. Progress is being made at such a rapid pace, it's very hard to foresee what even the near future of the advertising industry will look like.

In this paper, we'll assume that advertisers will make heavy use of AI and explore why they'll choose their course of action – all based on basic game theory.

Introducing the “Prisoner’s Dilemma” [p. 8]:

We'll build our case upon the Prisoner's Dilemma, a game theory model that illustrates how two actors that are competing for the same prize would rather betray each other for individual reward, than cooperate for mutual benefit.

We learn why this is the common behavior of brands and organizations in free markets.

The players are trapped: they must compete against each other in order to avoid being exploited, which leaves everyone in a less than ideal position.

AI is likely to trap the advertising industry [p. 12]:

In the Prisoner's Dilemma, every player is incentivized to apply the same strategy to receive a short-term gain. But in the long-term all players are off worse than they needed to be. This phenomenon is called the “multipolar trap” or “Moloch”.

The advertising industry is steering towards AI-Moloch. All advertisers are incentivized to apply AI for their campaigns. Since all players follow the same strategy, the competitors have no advantage over each other.

Change Strategies on avoiding AI-Moloch [p. 18]:

1. **Cooperate more:** Explore ways to compete less often with other brands.
2. **Change the game:** The consumer is important, the competition is not.
3. **Play with heart:** Humans love humans, thus will enjoy “organic advertising”.

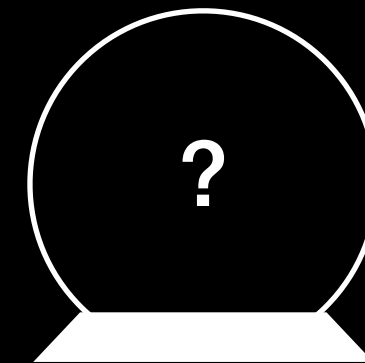
02 **INTRO:** **PREDICTING THE FUTURE**

AI and the future of the advertising industry:

UNCERTAIN TIMES

What is marketing strategy other than the ability to predict the future? A strategy predicts that we can overcome our obstacles and achieve our goals by applying certain behaviors and actions.

Apparently, our job just got a whole lot more difficult. With the emergence of the recent Large Language Models (LLMs) and their AI Agents, the environment seems to change at such a rapid pace... who can really say what's going to happen in a few months? Let alone what strategies to apply?



Wouldn't it be nice to have a magic crystal ball that simply allows us to see into the future?

There is only limited use to magic crystal balls.

If magic crystal balls were real, would I want one? Yes! :D
Then we would be able to know **what** will happen.

But how helpful is that really? We'd realize very quickly, that the much more valuable information is **why** the things will happen.

In fact, once we understand why things are happening, it almost doesn't matter anymore, what the coming events exactly look like.

Maybe even better than knowing the future:

MAKING SENSE OF THE WORLD

I don't want to pretend to be a great fortune teller, but simply based on past developments, I feel confident in making the following educated guess:



***In the short-term future,
advertisers will make heavy use of AI.***

It's a very likely and unsurprising scenario. For as long as advertising exists, advertisers have been among the first movers, when new tech became available. Why would they not adopt AI?

So, there it is: the future. And now what?

We'll weigh our options within this future scenario.

In this paper, we want to explore why players in a market are generally motivated to take a certain course of action – and specifically why AI will most certainly find rapid adoption and what that means. We'll also see how that allows us to come up with actionable strategies.

To get there, we'll learn about some very basic principles of game theory: The Prisoner's Dilemma and how it leads players into a multipolar trap. And then we think about how to get out of all of that.

03 GAME THEORY: KNOW YOUR MOVES

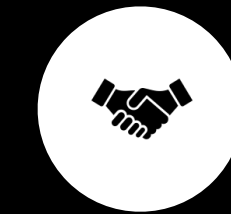
PREDICTING BEHAVIOR

The game theory approach:

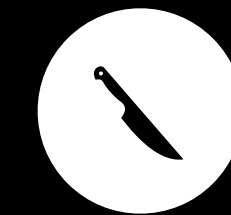
Game theory allows us to model and analyze the behavior of multiple parties, who have conflicting interests – like advertisers in the same market or category. By understanding the goals and incentives of the parties involved, we can make predictions about how different scenarios would turn out for each of them.

If that sounds complicated, don't worry. It'll be easy to understand, once we actually turned the theory into a game. Our general set up will work like this:

There are two players. Each of them tries to win the game by achieving the best possible result. They can only choose one of the two options:



*to work together with the other player
(being loyal to the other party / cooperating)*



*to work against the other player
(betraying the other party / competing)*

The task is to predict, which behavior each player will choose.

Now let's play!

Additional note:

To make game theory models work, it is usually implied that the games' players behave purely rational (like computers). This is seen as one of the main flaws of game theory. But we'll see that humans are often not far off from machine-like decision-making. And then we're actually adding more and more AI-players to our game, which makes the model be closer to reality than ever before.

Entering our first game:

PRISONER'S DILEMMA

Alice and Bob are guilty of a major crime and the District Attorney knows it, but is unable to convict either of them, unless one betrays the other by confessing.

He separately offers each of them the following deal:


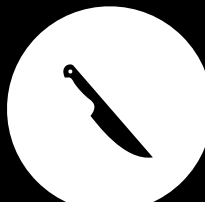


- If you confess and your accomplice doesn't, you go free
- If your accomplice confesses and you don't, you get the maximum sentence
- If you both confess, you both go to prison but on a slightly reduced sentence
- If neither of you confess, you'll still go to prison for tax evasion, but on a short sentence

Rationally, there is only one optimal answer:

They must betray each other. Going free is the strongest incentive and being betrayed while staying loyal is catastrophic. **They had the option to get away with two years and will serve five instead.**

"Prisoner's Dilemma" thought experiment

Two completely rational agents fail at achieving ideal results: they could cooperate for mutual benefit, but they will rather betray each other for individual reward.

		Alice	
		 LOYAL	 CONFESSION
Bob	Prison time  LOYAL	2 years	0 years
	 CONFESSION	10 years	5 years

GAME THEORY OPTIMAL

Taking the game into the real world:

CIGARETTE ADVERTISING

Prisoner's Dilemmas are typical for free economies. Here is an example from the tobacco industry:

The players are competing cigarette brands. All of them have no choice but to run advertising all the time. If one brand stopped its ads, it would be overtaken by its competitor who still runs ads.

Everybody is in the same trap: continuously sacrificing profits for advertising, to keep the opposition at bay.

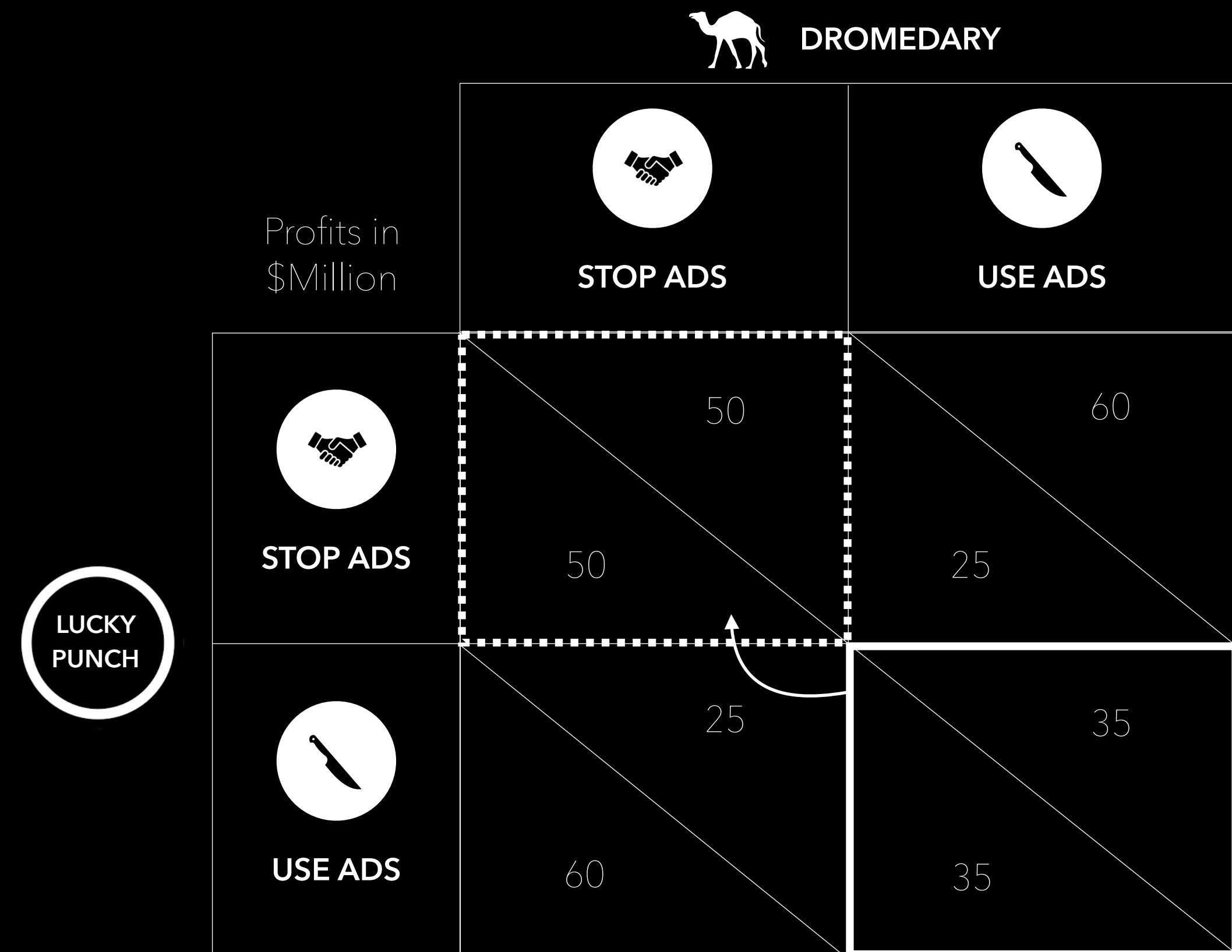
In 1971, the players' situation suddenly improved. The American government banned cigarette companies from advertising on TV. Little surprising, people still kept smoking and the tobacco companies registered much higher profits than before.

In terms of game theory, the government helped the players to overcome a phenomenon called "Moloch" or "multipolar trap".

Let's go further down this rabbit hole.

"Prisoners' Dilemma" in a free market environment

The two tobacco brands had to compete away a portion of their profits to avoid the risk of being exploited by the opposition. The ad-ban coordinated the players in their favor.



04 MOLOCH — THE MULTIPOLAR TRAP

Why we don't cooperate:

DRIVEN BY MOLOCH

Sources: ¹Wikipedia on "Moloch"; ²Liv Boeree on "Moloch"; s.a. multipolar trap

A long time ago, "Moloch" was a god, worshipped by ancient middle-eastern cultures. He was often depicted as a bronze statue with the head of a bull and outstretched arms. To please him, children had to be sacrificed by fire.¹ Pretty dark stuff...

In game theory, "Moloch" is a force of very tempting bad incentives.

The Prisoners' Dilemma is a typical example for Moloch, also known as "multipolar trap": Multiple players are incentivized not to cooperate, since the individual reward holds major value and the other players also can't be trusted not to betray their opponents.

Liv Boeree, a popular evangelist for game theory, explains Moloch like this: "Everybody is aware how sh*tty the strategy is they are about to apply, but because of its short-term advantage, everyone ends up doing it."²

Although Moloch is a theoretical concept, unfortunately it is also a real-world problem, which comes at all scales.

Large scale — **MOLOCH EXAMPLES** — Small scale

nuclear arms race

global financial debts

exploitation of natural resources



social media algorithms

cheap animal products

bank run

AI and the advertising industry:

DECEIVING BENEFITS

We play the following "fictional" situation, involving AI in our day-to-day work:

A group of advertisers need to run their marketing campaigns. They can choose to give the work to either an AI agent or to a human team. The AI will be much quicker and much more knowledgeable than the humans. The human team is... just human. All advertisers must decide now who they give the work to.

What would be your pick?

AI is likely to take over many human jobs.
But will it lead to better overall results?

Let's recap real quick what we just learned about Moloch: It's a strategy that provides short-term gains, but eventually, it will worsen the position for all players. So, why would that happen when the AI agent is doing so well?

Because every player applies the same strategy. A single AI agent may have an advantage over a human team, but it lacks a true advantage over all the other AI agents that also entered the game through competing advertisers. All AI agents are basically the same. The playing field has been leveled again, and for one AI agent to win over another AI agent, the deciding factor goes back to available resources (higher budgets, larger capacities, etc.).

Playing the Prisoner's Dilemma with the use of AI in advertising leads us straight into a typical Moloch situation.

A race to the bottom: Which player will be able to outspend the rest?

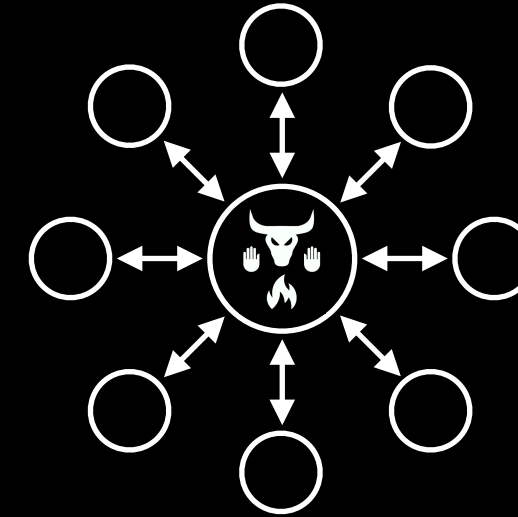
So what do we do? How can we escape the AI-Moloch?

One potential solution to Moloch:

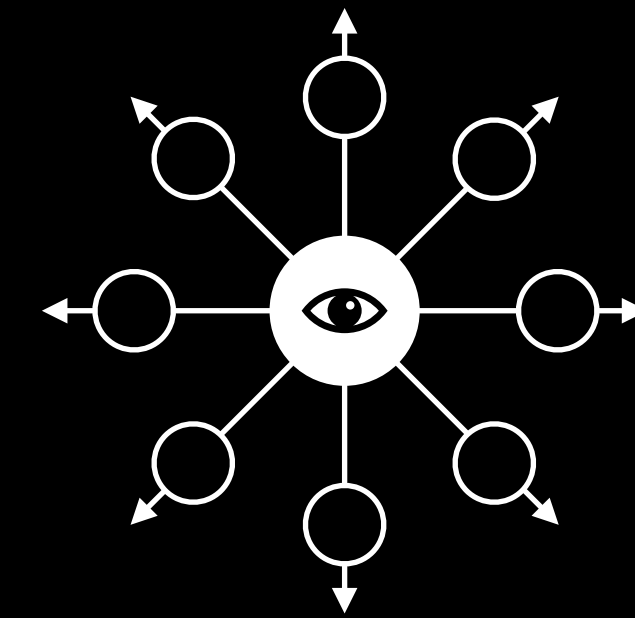
FORCING COORDINATION

Sources: ¹Meditations on Moloch by Scott Alexander

In game theory, Moloch is easily overcome by applying centralized control.¹



Libertarian approach (Moloch)
Competing for the best solution



Authoritarian approach
Coordinating for efficient outcome

So game theory basically says we can play this two ways:
Either, everybody freely applies their AI-Strategy, leading us into Moloch. Or, the government or another central authority will regulate the development and use of AI – which is basically the equivalent to our “cigarette advertising” example.

These two pathways also seem to be the current narratives in (social) media:

- Storyline example 1: “Five amazing new things you must try now with AI-xyz”
- Storyline example 2: “AI can harm the public and needs oversight.”

So is this it? We are at the mercy of either Moloch or the policy makers...?

No. Game theory allows us to uncover market dynamics, but for developing individual strategies we’ll look beyond its rigid frameworks.

05 CHANGE STRATEGIES ON AVOIDING AI-MOLOCH

Avoiding AI-Moloch (1/3)

~~COMPETE~~
COOPERATE

In the original Prisoner's Dilemma, Alice and Bob were two perfectly rational agents (we could also say AIs) and would betray each other. But when researchers ran the experiment with real people, players actually did choose to cooperate quite often.

Cooperating with each other is something that's deeply engrained in us humans, probably because it had tremendous impact on our success as a species. So even if we can't always provide a rational explanation, why we choose to cooperate with someone else, we generally assume some sort of net positive outcome.

Another limitation in the Prisoner's Dilemma was, that Alice and Bob couldn't talk to each other. Whereas in the real world, humans are usually rather good at communicating with each other. Not to mention that we are working in advertising – as communications experts. So why not try to cooperate more?

Competition comes at a cost.

It might be worthwhile to at least think about alternative options. More profitable options.

The search for synergies is nothing new. With the collapse of the Soviet Union in 1989 and the end of the Cold War in 1991, the ensuing globalization led some of the biggest competing companies in the world to enter strategic alliances of all sorts: joint ventures, outsourcing agreements, product licensing, cooperative research.¹ More recently brand collaborations have become a major trend and have crossed over from fashion into many other industries.² Thinking forward, coordinated campaigns between competing brands are not that unimaginable.

At least we could do one thing that an AI can't: Talk about it irrationally.

Sources:

¹Harvard Business Review, Jan-Feb 1989, Collaborate with Your Competitors—and Win

²The CEO Magazine, Sep. 2022, Cross-brand collaborations are on trend everywhere, from fashion and beauty, to travel, hospitality and tech

Avoiding AI-Moloch (2/3)

CHANGE THE GAME

In game theory, to make things work we'll usually play zero-sum-games, which means: "You must lose, so I can win."

I guess, many of us would naturally think of this as a rather questionable marketing approach. And still, we're obsessing over our competitors. We're trying to steal their market share, trying to become the top brand of the category, monitoring the other brands closely...

Sometimes I need to remind myself: Beating the competition is not the name of the game. Winning the hearts of the target audiences is.

Let's be essential to the world.

Bringing value to our clients and consumers remains our first priority. With or without AI.

An AI will do an excellent job at adapting to all the competitors' moves in real-time – pushing relentlessly.

But (at least for now), a human will still be much better at winning another human's heart.

Avoiding AI-Moloch (3/3)

PLAY WITH HEART

It seems like it has never been more important to be human than right now. I mean, it has always been important to show human qualities like compassion and kindness. But now is a time, when being human as a whole becomes its own asset class.

AI will become the table stakes of our industry. I'm saying this without feeling any doubts, because why wouldn't it? But that doesn't mean, that'll be all there is.

The industrial revolution didn't stop people from selling hand-made products. In fact the whole "artisanal products" category seems to be absolutely unstoppable. There is just something about us humans and machine-made things. Machines may make products, perfect in design, but they are also lifeless. Whereas a human-made product, that has been created with heart, has this inert warmth or even seems to have its own soul.

Human creativity is about to make a comeback.

Next to all the campaigns that are run by self-learning algorithms, there is a new playing field opening up: Ideas that come from a human heart. Potentially wrapped into organic campaigns, that have never been touched by an AI. The accompanying marketing activities might not be fully rational, even flawed... and there will be audiences, yearning for just that, because they want to experience "real" authenticity and connectedness.

That's a little naive, you think? Maybe. But if we really believe the future is so uncertain, we should focus on building the things we think will contribute to the future we want. ♡

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THANK YOU!

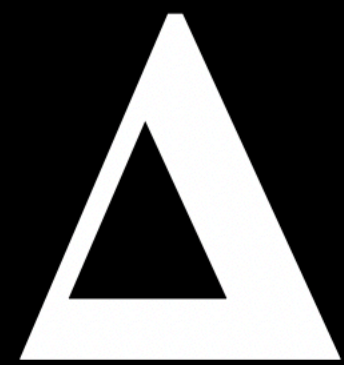
About Change Strategies and Fabian Menzel

• BRAND STRATEGY • CAMPAIGN PLANNING • MARKETING CONSULTING

Since 2010, Fabian has worked with some of the most successful national and international brands from all industries.

Change Strategies is based in Germany, but Fabian manages all his accounts remotely.





CHANGE