# Dissecting the quick fix: Analysing tech-solutionist solutions

2022-03-24

Preliminary note: This is a first write-up of the main idea. To be expanded on and put into adequate form.

## Where I'm coming from

## Alvin Weinberg, techno-fix evangelist

(Quotes taken from: S. F. Johnston, Techno-fixers, 2020. (https://www.mgup.ca/techno-fixers-products-9780228001324.php))

### On eliminating race riots

I am increasingly impressed with what I call the 'Cheap Technological Fix' as a means of circumventing social problems.

Someone showed me Huntington's correlation between the incidence of hot weather and race riots in India, and this immediately suggested that providing air conditioners ... might considerably reduce the probability of race rioting. Admittedly this is a superficial and possibly heartless approach to the problem; yet it has the advantage that it just might work.

### On eliminating war

Before the H-bomb, the problem of war was largely viewed as being insoluble unless we changed "human nature", but by exploiting the crassest notion of self-preservation, the H-bomb offers a quite different "solution" to the problem of war than the whole Judaeo-Christian tradition teaches is possible.

So to speak, to push the theme to its illogical end, one can ask "will technology make social science obsolete?" – i.e. "can a cheap technological fix be developed for every social problem that short-cuts and makes irrelevant the issues of human conflict that underlie the problem as traditionally viewed?

It is easy to be hating that kind of stuff

or, put differently,

Among like-minded people, it is easy to despise tech solutionism.

But there is a problem.

What if those like-minded people, who despise tech solutionism, work in the tech industry themselves – an thus, might do something that does have positive impact?

Here's a dilemma. Now, I was looking for a way to reduce that type of cognitive dissonance.

Can we analyse, "document" a "solution" analogously to how we [should] document models and datasets?

## A structured way to analyse "solutions"

For such a structured-analysis approach, what are the sine qua nons?

There's at least one:

## An analysis may NOT be restricted to the purely technical.

Suggestion: For maximum openness and generality, follow the W-questions (plus how).

How to weight those will depend on the individual "solution", and will require deliberation as well.

In general, to counter-balance established ways of thinking, we'll want to re-distribute focus from the WHAT to the WHO and WHY.

## Not just WHAT, but WHO, WHY, and HOW (and WHERE and WHEN and to WHOM)

### **WHAT**

What does the "solution" do?

This is to be understood as comprising the complete technical workflow, starting from what datasets were used, how a model was trained, etc. up to and including how it was evaluated.

### WHERE and WHEN and to WHOM

Where, when, and to whom will the "solution" be applied?

This is meant to designate elaboration of the complete (geographical, social, political) context.

#### **WHO**

Who developed, implements, has control over the "solution"? Who has access to its data?

A primary type of distinction (though it too has to be seen in context!): company vs. public institution



Why was this solution developed? Complementing the publicly stated motivation, motivations could include

- extracting data (maybe to be employed for other purposes)
- polishing the company's public image (whitewashing)
- ambition

## [Very] Contemporary examples

1: Where I'd like to stress the HOW and the WHY: https://www.ukrainetakeshelter.com/ (https://www.ukrainetakeshelter.com/)

Twitter thread (https://twitter.com/chojecka\_kasia/status/1501477732533874688) by Kasia Chojecka (excerpt 1)



Twitter thread (https://twitter.com/chojecka\_kasia/status/1501477732533874688) by Kasia Chojecka (excerpt 2)



Twitter thread (https://twitter.com/chojecka\_kasia/status/1501477732533874688) by Kasia Chojecka (excerpt 3)



First-person (https://twitter.com/AviSchiffmann/status/1498189889614979073) view of the WHY



### a cool idea would be to set up a website to match Ukrainian refugees to hosts in neighboring countries

7:54 AM · Feb 28, 2022 · Twitter Web App

7:54 AM · Feb 28, 2022 · Twitter Web App					
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2: Where I'd like to stress the WHO and the WHY and the HOW: Google Classroom "Magic (https://blog.google/outreach-initiatives/education/adaptive-learning-technology/)"

Blog post (https://codeactsineducation.wordpress.com/) by Ben Williamson (excerpt 1: business model)

And it's a controversial business model to apply to education. Dan Krutka, Ryan Smits and Troy Willhelm (https://doi.org/10.1007/s11528-021-00609-5) argue that 'Google extracts personal data from students, skirts laws intended to protect them, targets them for profits, obfuscates the company's intent in their Terms of Service, recommends harmful information, and distorts students' knowledge.'

Blog post (https://codeactsineducation.wordpress.com/) by Ben Williamson (excerpt 2: power)

Invoking Google magic places out of sight any debate about the social or collective purposes of education, assuming that individualized tuition and efficient knowledge acquisition supported by automation (https://journals.oslomet.no/index.php/seminar/article/download/4268/4078/20334) is the ideal pedagogic mode. It also forecloses the possibility of other forms of information retrieval and discovery, and asserts Google as an authoritative cultural gatekeeper of knowledge.

Blog post (https://codeactsineducation.wordpress.com/) by Ben Williamson (excerpt 3: privacy)

Google magic distracts attention from the complex privacy policies and user agreements (https://journals.sagepub.com/doi/full/10.1177/1474904116654917) that determine how Google can extract and use the vast troves of user data generated from every click on the interface. It disguises the complex thickets of algorithms that make decisions about individual students, characterizing them simply as innocent and objective ways of delivering 'factuality' to students.