

The Politics of Digital Infrastructure
—
Sustaining the Unsustainable by Google's Design

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Googles Quest for Sustainability

“We unify our practices, partnerships, and products around a single mission — to foster sustainability at scale. [...] We do everything with the Earth in mind.” (Google 2022a)



Googles Quest for Sustainability

We strive to build sustainability into everything we do



<p>Accelerate carbon-free and circular</p> <p>Decouple business growth from the growth of carbon intensity and material use</p>	<p>Empower with technology</p> <p>Tackle major sustainability problems and drive net-positive impact using Google technologies, platforms, products, and services</p>	<p>Benefit people and places</p> <p>Share benefits with the communities of our facilities, users, partners, and suppliers</p>
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(Google 2022b, p. 2)

Research Interest

Sustainability by Googles Design:

- Mobilization of notions of sustainability (discursive)
- Inscription of sustainability in devices and services (socio-technological)
- Shaping of user practices (practical)

Trade-Offs?

Theoretical Background: Economics of Conventions (Boltanski/Thévenot 2007); STS infrastructure studies (Star/Ruhleder 1996); Theories of choice architectures (e.g. Thaler et al. 2013)



Google Maps & Google Flights

"From how you get around, to the flight you take, or when at home – our goal is to help make the sustainable choice an easier choice for billions of people, everyday."
(Google 2022a)

Travel → One-way 1 Economy

Berlin ↔ Zürich Wed, 7 Sept

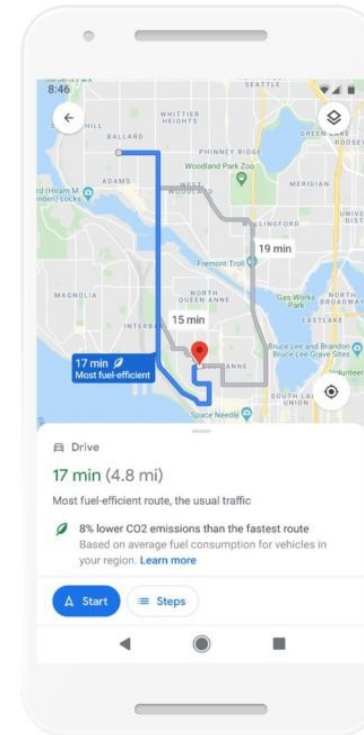
All filters Stops Airlines Bags Price Times Emissions Connecting airports Duration

Track prices 7 Sept Any dates

Best options
Ranked based on price and convenience Prices include required taxes + fees for 1 adult.

Carrier	Time	Duration	Stops	Emissions	Price
DB Deutsche Bahn	09:41 – 18:00	8 hrs 19 min	1 stop	51 kg CO ₂	€72
SWISS · Lufthansa	09:30 – 11:00	1 hr 30 min	Non-stop	62 kg CO ₂	€160
SWISS · Lufthansa	10:50 – 12:20	1 hr 30 min	Non-stop	51 kg CO ₂ -17% emissions	€160
SWISS · Lufthansa	14:55 – 16:20	1 hr 25 min	Non-stop	55 kg CO ₂ -11% emissions	€160

Lower emissions tooltip:
This flight: 51 kg CO₂
Typical for this route: 62 kg CO₂
17% lower: -11 kg CO₂



<https://www.gim-radar.de/google-maps-mit-neuen-ki-gestuetzten-features/>

Research Results

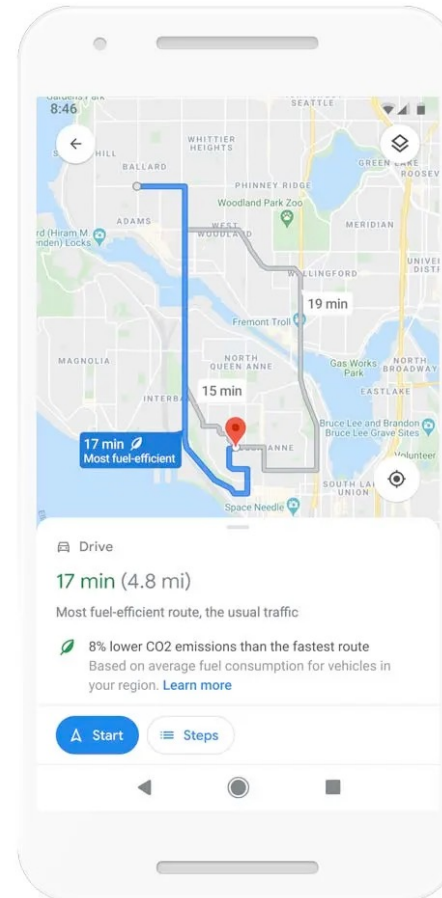
Mobilization of notions of sustainability

- Google frames sustainability as a value that can be harmoniously aligned with economic profitability, technical efficiency or lifestyle values
- "(...) eco-friendly routing utilizes an entirely new routing model that enables people to navigate to their destination as quickly as possible, while also optimizing for lower fuel consumption. This reduces CO2 emissions, saves users money on fuel, and even helps reduce air pollution – with nearly no trade-off in terms of travel time." (Google 2021, p. 2)

Research Results

Inscription and mediation of sustainability

- Sustainability as a number
- Sustainability as a relation
- Sustainability as a default
- Sustainability as an individual decision



Zürich Wed, 7 Sept

Price Times Emissions Connecting airports Duration

Lower emissions

This flight 51 kg CO₂

Typical for this route 62 kg CO₂

17% lower -11 kg CO₂

Emissions are calculated for 1 passenger in your selected seating class. [Learn more](#)

Select flight

8 hrs 19 min	1 s		€72
1 hr 30 min	Non-stop	51 kg CO ₂ -17% emissions	€160
1 hr 30 min	Non-stop	55 kg CO ₂ -11% emissions	€160

Critical Discussion: Harmonization and concealment of value conflicts by Google's design

- Google's harmonization of values conceals deeper conflicts:
- Google Maps can establish deceptive nudges (Wagner et al. 2021)
- Objectification of sustainability can frame rather unsustainable forms of transport as sustainable
- "Solutionism" (Nachtwey/Seidl 2020) conceals conflicts regarding an efficiency-enhancing paradigm of sustainability (Lenz 2021)



Sustaining the Unsustainable by Google's design?

- The harmonization of potential conflicting values is also part of everyday practices.
- Google provides an arena to do justice to an increased ecological awareness that can be mediated with broadly lived travel activities
- Google's sustainability agenda corresponds to a constellation of a “collaborative management of sustained unsustainability.” (Blühdorn/Deflorian 2019)

Thank you for your attention!



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