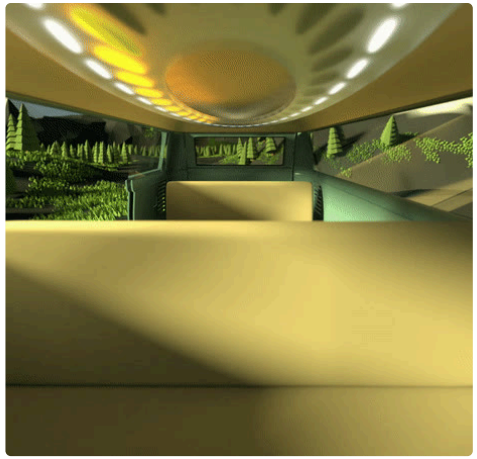
Hauke Sandhaus

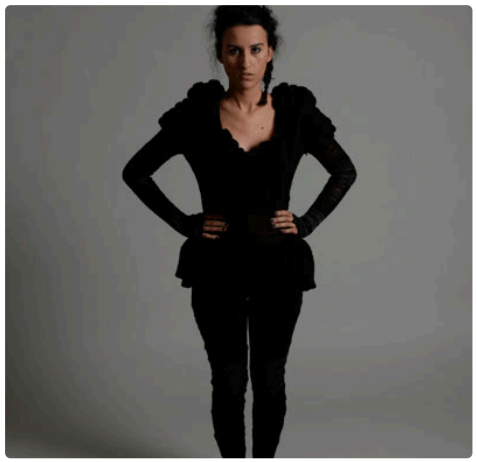
Portfolio of creative work

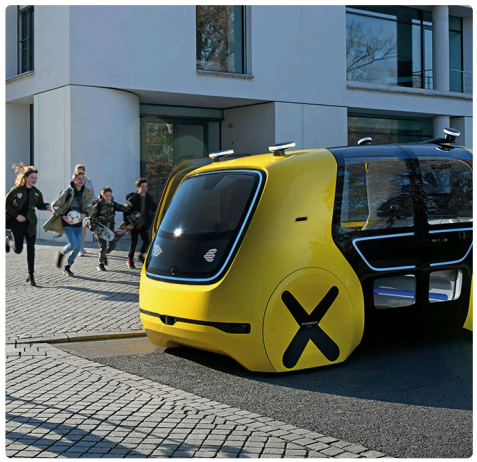
Installations, physical prototypes, and public tools for honest design. 2015 to 2026.

hauke.haus · sandhaus@duck.com · November 2026

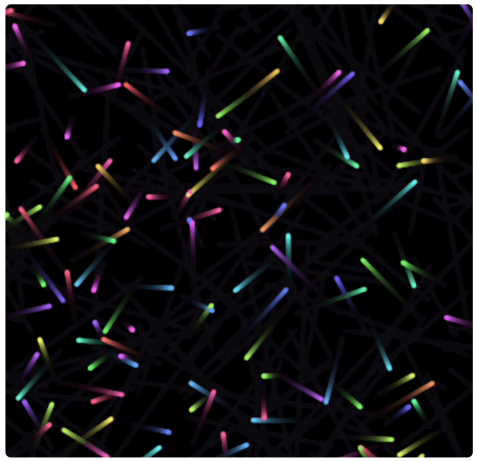












ABOUT THIS PORTFOLIO

I make things that take a position. A fake autonomous car that calms its passengers with a light bar. A receipt printer that sells AI-made apps for a quarter. A questionnaire that asks users whether a design was honest with them.

I trained as a creative technologist at the University of Twente, did a master's in human-computer interaction at the Bauhaus-Universität Weimar, and spent three years prototyping the user experience of autonomous vehicles at the Volkswagen Group Future Center. I am now finishing a Ph.D. at Cornell Tech on how interfaces respect or undermine people's autonomy, advised by Helen Nissenbaum and Wendy Ju.

Most of the recent work is public and in use: websites, repositories, templates, a curriculum. The older work lives in photographs and renders. Links point to the live pieces where they exist.

Projects	hauke.haus/projects
Archive 2014–2021	hauke.haus/sandhaus.de
Code	github.com/HaukeCornell
Papers	Google Scholar

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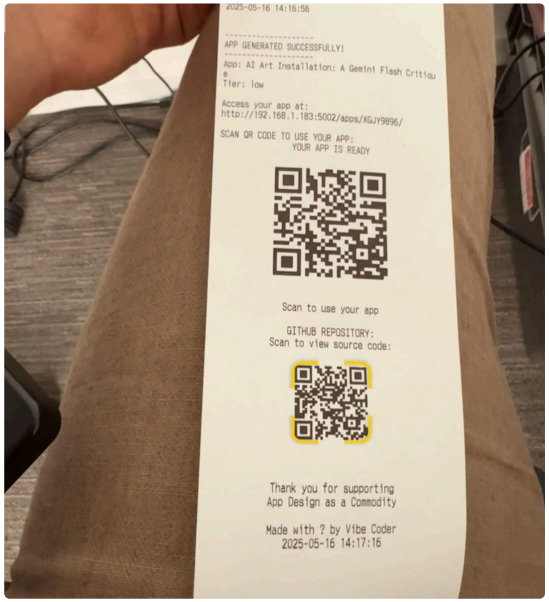
INSTALLATION · BACKSLASH, CORNELL TECH

App Design as a Commodity

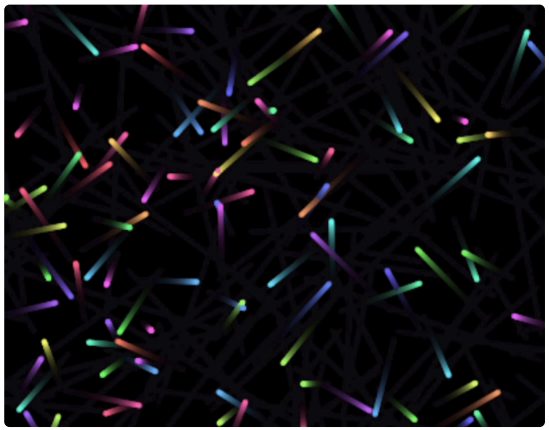
2025



The receipt printer hands over the app. Still from the documentation video.



The receipt: order, payment, the link to the hosted app, and the repository with its source.



One of the purchased apps: an AI art installation, bought for $0.25.

A thermal receipt printer sits on a table next to a Venmo QR code. You scan it, send 25 cents or a dollar, and write in the payment note what app you want. A few minutes later the printer hums and hands you a receipt with a QR code. Behind it is your app: generated, pushed to a public GitHub repository, and hosted on the web.

The amount you pay sets the budget. A quarter buys a quick build, a dollar a stronger model and more effort. A Flask backend watches the Venmo confirmation emails, hands the description to a coding agent, deploys the result, and prints the receipt with the transaction details, the link, and the build log.

The piece asks what you are buying when software costs less than a coffee and takes less time to make than drinking one. The receipt is the only physical trace of a process that is otherwise invisible.

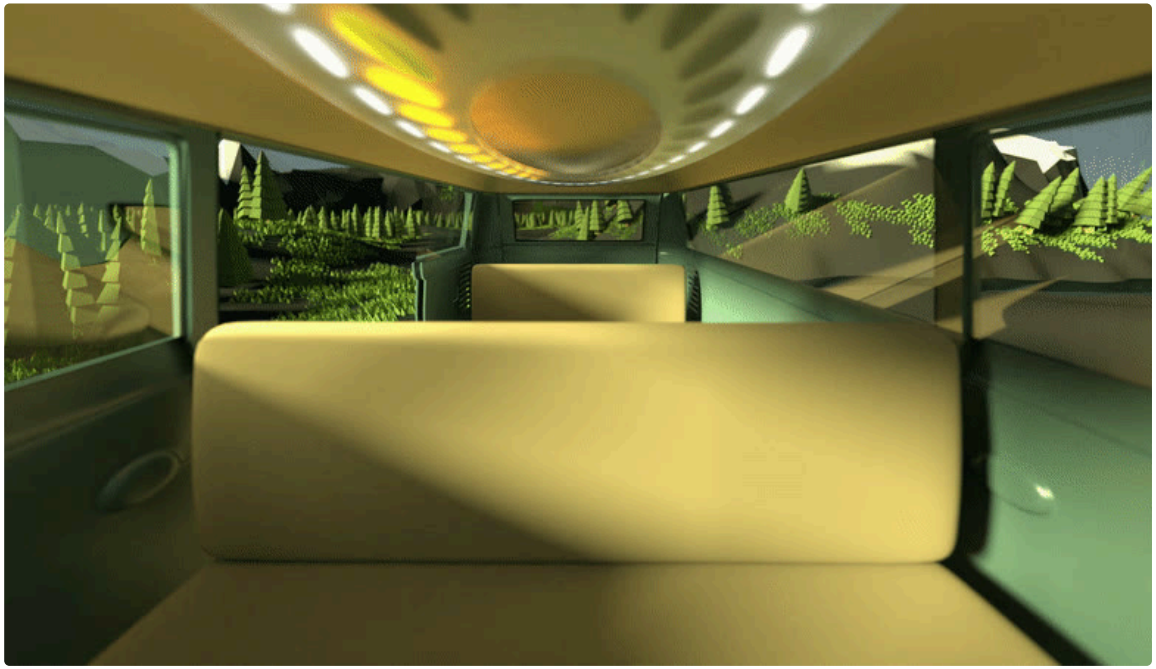
Shown	May 6, 2025, Cornell Tech
Funding	Backslash art and technology microgrant
Stack	Thermal printer, Venmo, Flask, Gemini, GitHub API

Video (60 s) · Code · All generated apps

FAKE AUTONOMOUS VEHICLE · MASTER'S THESIS

Wizard Cab

2017–2018



Arrived at destination, shown on the ambient light bar.



Swerve left, announced before the maneuver.



Accelerating hard. Renderings: Robert Bosch NA, 2018.

The Wizard Cab is a fake autonomous vehicle. One researcher drives, another operates the output, and the passengers believe the car is driving itself. I built it for my master's thesis to test an ambient light bar that tells passengers what the car is about to do: brake hard, swerve, turn left, arrived. The question was whether this kind of feedforward information calms people, and how much of it they want.

The light bar is a quiet way to show driving decisions. It does not demand attention the way a screen does, and passengers can ignore it. Several signals were designed and animated, among them brake hard, swerve, turn left, and arrived at destination.

The work was done during an internship at Robert Bosch Car Multimedia, where I also built vehicle-to-everything interfaces as HTML5 animations and researched interfaces for older adults and passengers with disabilities.

Where Bauhaus-Universität Weimar with Eva Hornecker; Robert Bosch

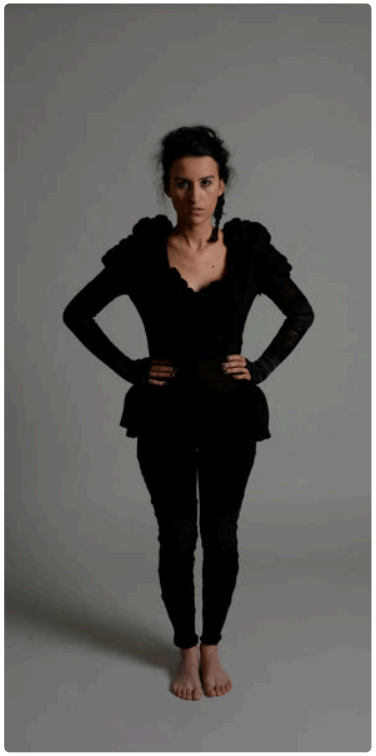
Paper A WOZ Study of Feedforward Information on an Ambient Display in Autonomous Cars. UIST '18 Adjunct

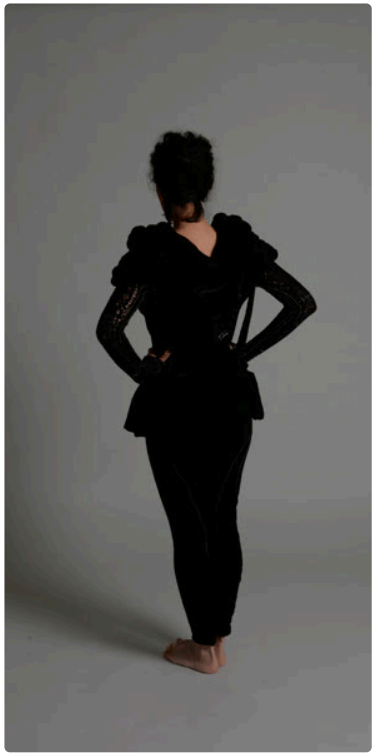
Light bar animations

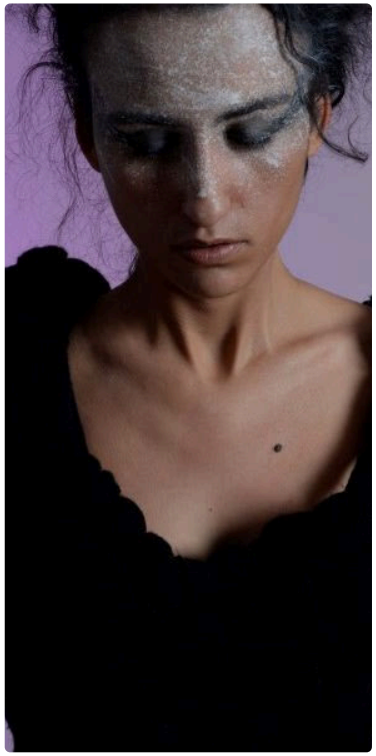
INTERACTIVE COSTUME · WITH ALINE MARTINEZ

Sonification

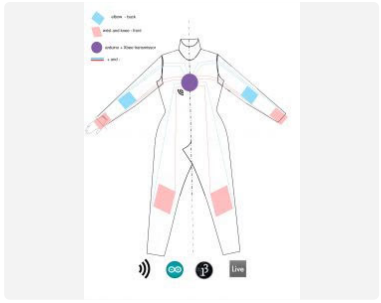
2017–2018







The costume on a ballet dancer: front, back, and detail. Each sensor is woven into the garment and sends its reading to the sequencer.



Six handwoven sensors at the joints, wireless to a sequencer.

Sonification is a costume for professional dancers that turns their movement into sound. Fashion designer Aline Martinez and I made it with ballet dancers from Altenburg. Six handwoven textile sensors sit at the joints and communicate wirelessly with a software sequencer, so the dancer plays the score while dancing it.

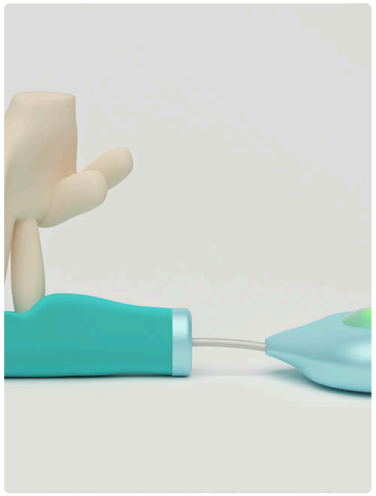
The sensors are part of the garment rather than attached to it, which is what makes the costume wearable on stage. The costume itself and the findings from our research with the dancers were published alongside the D_TEX conference in Portugal.

Where Bauhaus-Universität Weimar

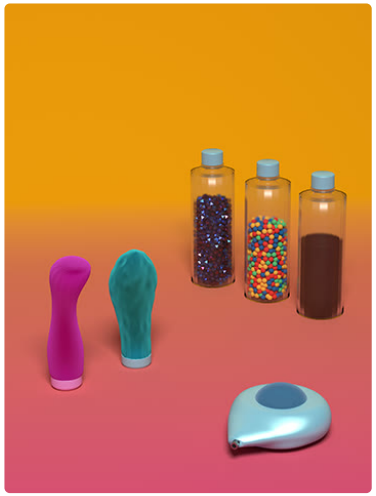
Paper Smart Textiles in the Performing Arts, with Aline Martinez, Michaela Honauer, and Eva Hornecker. Textiles, Identity and Innovation: Design the Future, 2018

Filli and Luft-Raum-Volumen

2016



Filli. The silicone sleeve, filled and hardened.



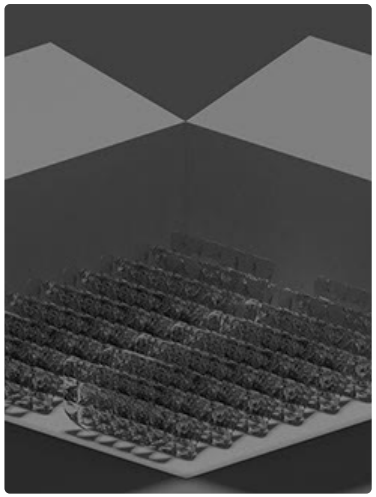
Product rendering with the grain fillings.



Packaging.



Luftregelklappe: a pneumatic ventilation appliance for living rooms.



Luftzelle: transport packaging for exporting fresh air to China.



Luftbrücke: a landing platform for drone deliveries to high-rises.

Luft-Raum-Volumen (air, space, volume) was a product design course at the Bauhaus-Universität Weimar. Filli, my main piece, is a sex toy whose shape, texture, and volume the user can change. A silicone sleeve is filled with grains of different sizes and hardened by negative pressure, the granular jamming principle also used in soft robotics. The project covered the object, its packaging, and the product photography and renderings. Three speculative renderings came out of the same course. Luftregelklappe, a light-giving, pneumatically driven ventilation appliance for living rooms. Luftzelle, transport packaging for the export of fresh breathing air to China. Luftbrücke, a landing platform for drone deliveries to high-rise buildings.

Archive hauke.haus/sandhaus.de

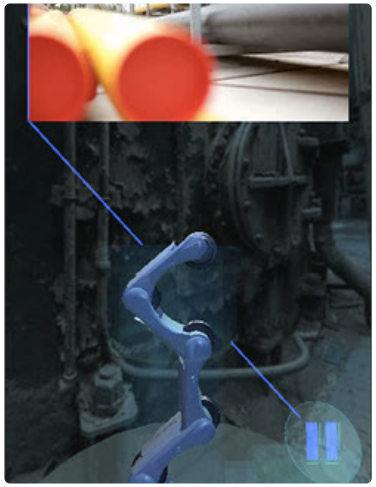
STUDENT PROTOTYPES · UNIVERSITY OF TWENTE AND BAUHAUS-UNIVERSITÄT WEIMAR

Gestures, games, and parallel realities

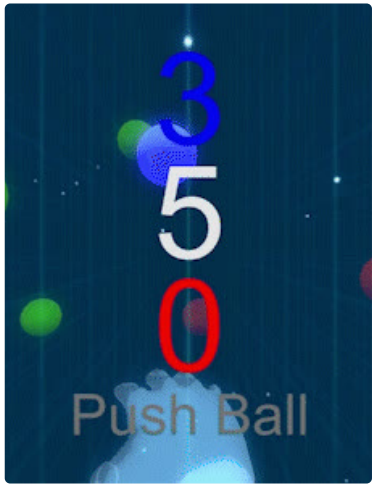
2015–2016



Touchless showcases by 100%FAT in the DesignLab, University of Twente.



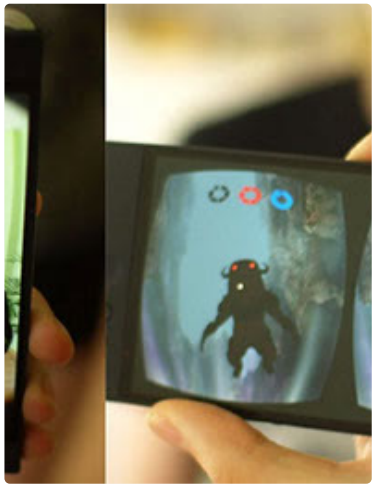
The showcase screen, controlled by hand gestures above a Leap Motion sensor.



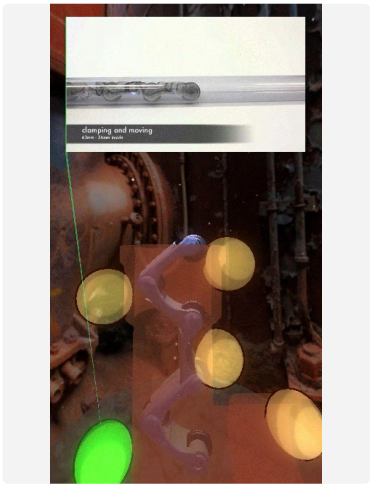
The study game: hover, push, squeeze, and aim as selection methods.



Test setup for the gesture study.



Parallel Realities: a virtual cave mapped onto the real room.



Ask Me Anonymously, an icebreaker over Wi-Fi Direct.

Touchless showcase. Bachelor thesis in Creative Technology, 2015. 100%FAT builds glass showcases that visitors control with a Leap Motion sensor. I gave them a 3D gesture interface on a flat vertical screen. Users struggled to build a mental model of that displaced space, so I ran a study with a game that compared selection methods before building the final prototype. It was installed permanently in the DesignLab and received the Thesis of the Year award at the University of Twente.

Parallel Realities. A mix of augmented and virtual reality: the whole environment is rendered, but the virtual objects stay in relation to the real room. Built with Unity and Vuforia; players track their surroundings with a phone and explore a virtual cave.

Ask Me Anonymously. An Android icebreaker game over Wi-Fi Direct, with no router in between. Players vote on uncomfortable questions and one randomly chosen player answers in public. Players add their own questions and build their own database.

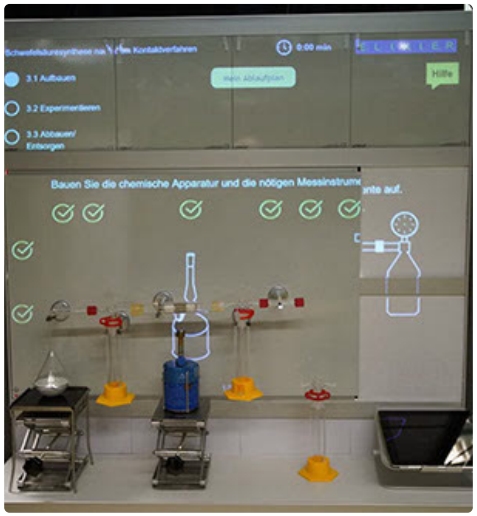
Archive hauke.haus/sandhaus.de/projects-2016

Augmented workbenches and voice

2016–2018



ELIXIER: an augmented workbench for technical training.



ELIXIER chemistry experiment board.



Searchbullet: ask a Google Home, receive the results on the device you are holding.

ELIXIER. 2016–2017. A research project funded by the German Federal Ministry of Education and Research with several university and industry partners, on technically supported training environments. As a student researcher at the Bauhaus I evaluated the interfaces and the user experience of multimodal, augmented workbenches, ran user tests, and developed an augmented-reality manual for chemistry experiments, alongside more general research on augmented reality, projection, and tangible interfaces.

Searchbullet. 2018. Search by voice on a Google Home and push the results to your other devices. Built with Jovo, Dialogflow, and Pushbullet. I also developed the voice interface for an Alexa skill of Netspeak.org, the phrase search engine from the Bauhaus.

Role Student researcher, ELIXIER, August 2016 to April 2017
Stack Jovo, Dialogflow, Pushbullet, Google Assistant, Alexa

INDUSTRY · UX TECHNOLOGIST, DIGITAL USER EXPERIENCE DESIGN

Volkswagen Group Future Center

2018–2021

From October 2018 to August 2021 I was a UX Technologist at the Volkswagen Group Future Center, the group's independent concept studio, under the vision "mobility for all, at the push of a button". I sat between the strategy, research, and software circles and turned concepts into tangible prototypes that could be tested with users. Everything here is concept work shown at a high level; the details remain unpublished.

Project page · 2021 work portfolio



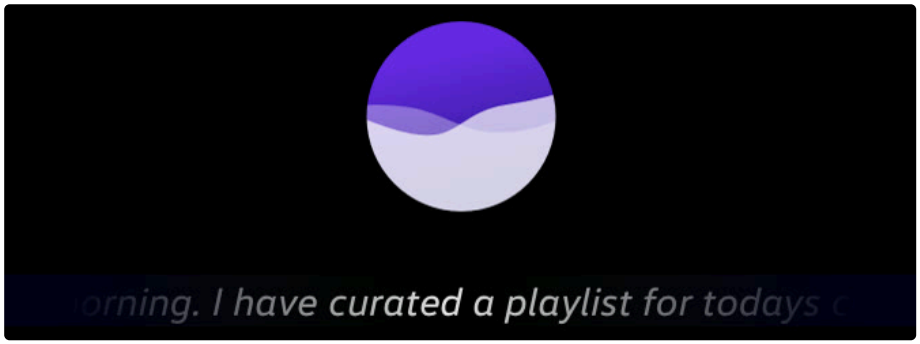
Self-driving pods inclusive design, urban transformation

The user experience of fully autonomous pods, which break with almost everything a car used to be. The relationship to passengers and to the street had to be rethought from the basics. The goal was better, more sustainable, and more accessible mobility for all. I built the tangible prototypes that verified the concepts with users and turned them into requirements.



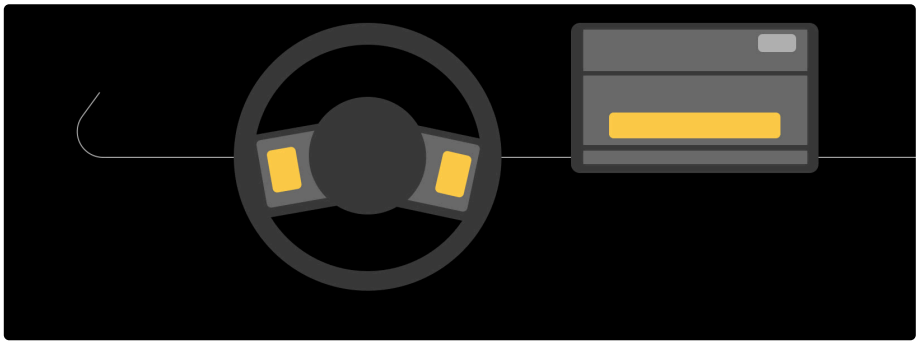
Flying cars drones, augmented reality, semi-manual flight

A lightweight interface concept for an electric vertical take-off and landing vehicle of a German luxury brand, based on interviews with ultra-high-net-worth individuals. I did the needs analysis, built the hardware for controlling the vehicle, and developed augmented-reality interactions in a flight simulator.



AI voice voice interaction, visual AI, privacy

An empathic voice assistant for fully and semi-autonomous vehicles, developed with visually impaired and older adults. I trained the models and built the embedded voice recognition (Snips), prototypes with OpenPose, YOLO, and Runway for proactive use cases, and motorized camera shutters for in-cabin privacy. I also tested the voice feedback of autonomous vehicles with visually impaired passengers.



Digital driver UI front-end development, measuring UX, ideation

Interfaces for connected cars with growing automation that make productivity and entertainment possible on the road. High-fidelity interactive prototypes, fully explorable, integrated with a driving simulator and meant for production. I did the ideation, the front-end software and hardware, and the qualitative and quantitative research.

PUBLIC RESEARCH INSTRUMENTS · CORNELL TECH

Tools for honest design

2023–2026

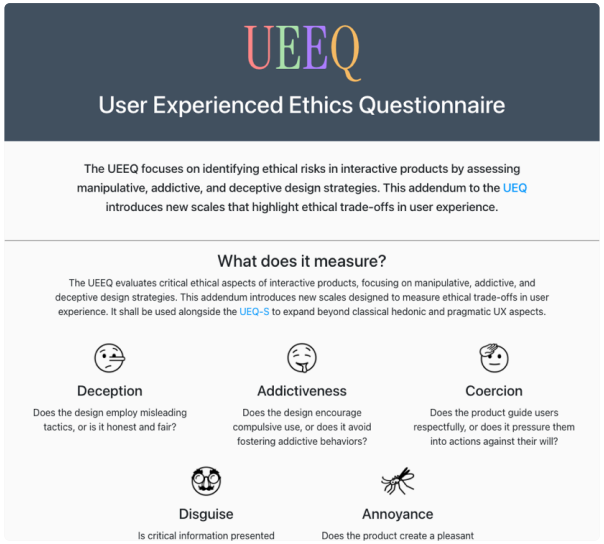
My Ph.D. work asks how designers can tell legitimate influence from manipulation, and what helps them push back. These three sites are the public, usable side of that work. Each is maintained and cited.



Bright Patterns 2023 to now

Dark patterns have a name, a taxonomy, and regulators. Their opposite did not. In a CHI ‘23 workshop paper I proposed bright patterns, benevolent design solutions that put user goals and well-being first. brightpatterns.org is the public face of the term: a Hall of Fame of fourteen named patterns with real examples, discoveries in the wild, and a submission form so the collection grows through nominations.

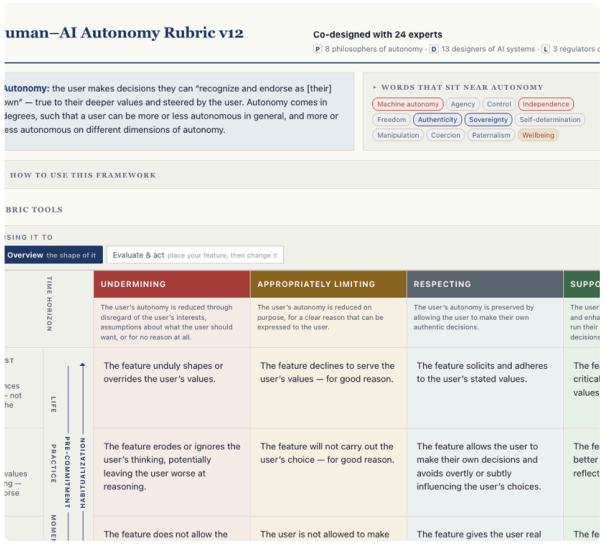
brightpatterns.org



UEEQ 2024 to now, with Doris Maria Rhomberg

Standard UX questionnaires measure whether a product is pragmatic and hedonic, not whether it is honest. The User Experienced Ethics Questionnaire adds five scales to the UEQ-S: deception, addictiveness, coercion, disguise, and annoyance. In an experiment with 141 UX professionals, putting these items on an evaluation dashboard nearly doubled the rate at which designers rejected manipulative interfaces. Best late-breaking work award, CHIWORK ‘26.

ueeq.org



Human–AI Autonomy Rubric 2025 to now

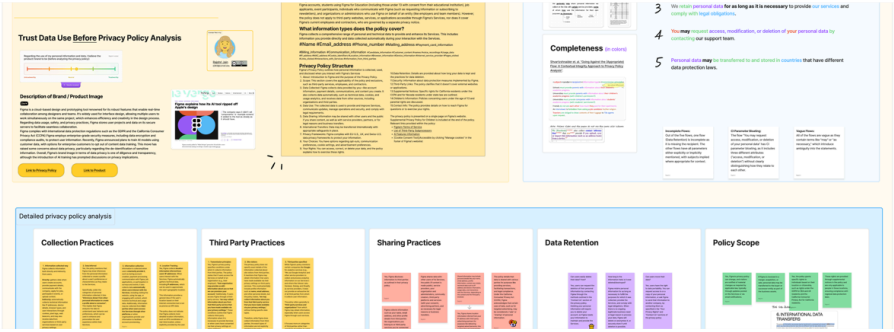
Everyone agrees AI should respect user autonomy. Few can say what that means for a specific feature. The rubric, co-designed with eight philosophers of autonomy, thirteen designers of AI systems, and three regulators, rates a feature as undermining, appropriately limiting, respecting, or supporting autonomy on each criterion. Version 12 is live with an evaluate-and-act mode and worked examples. Paper under review at CHI ‘27.

human-ai-autonomy-rubric.surge.sh

CURRICULA, CANVASES, AND AN OPEN REPOSITORY · CORNELL TECH

Teaching and public-interest design

2024–2026



The Privacy Policy Analysis Canvas 2024–2025, with Helen Nissenbaum

A FigJam canvas that gets pairs of students to take a privacy policy apart in one class period using contextual integrity: five information flows, nine practice dimensions, a trust rating before and after. 59 students analyzed 31 policies in Privacy in the Digital Age; translated into eight languages; poster at NYC Privacy Day 2025.

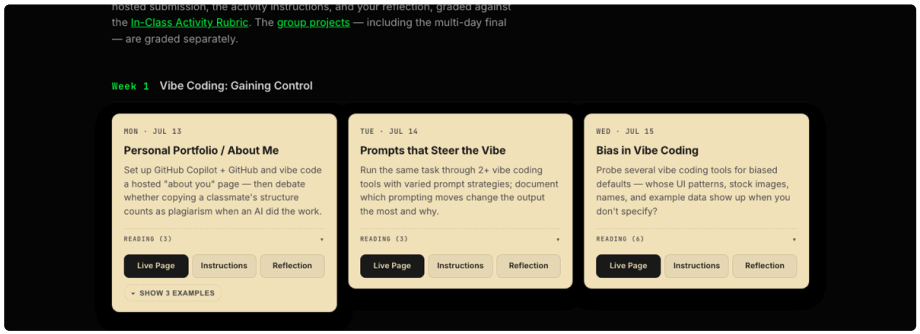
www.figma.com/community/file/1475988331450512233/the-privacy-policy-analysis-canvas



Conscientious Technology Design Workshop 2025 to now, with Jae June Lee and Helen Nissenbaum

An eight-week summer workshop for Siegel PiTech PhD Impact Fellows embedded at New York City agencies and non-profits. I turned the Values at Play framework into whiteboard activities and short assignments that fellows apply to their own placement. Two cohorts so far; funded by Cornell Tech's Public Interest Responsible Technology Fund.

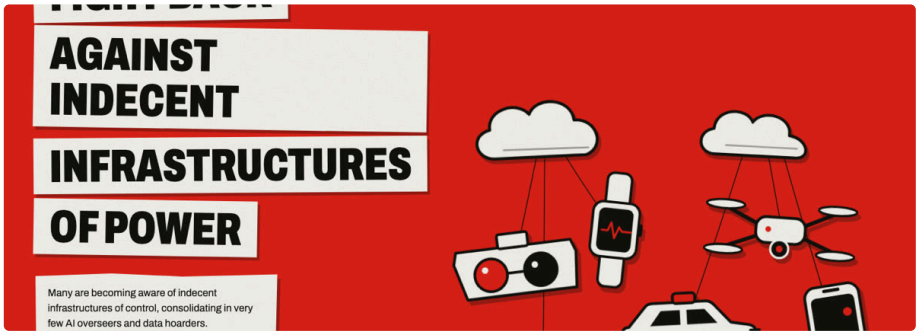
conscientious.tech.cornell.edu



Ethical Vibe Coding Summer 2026, with Jonathan Segal and Wendy Ju

TECHIE 1121, a three-week course for high school students with no programming background. Students build hosted web apps with AI coding tools from day one, probe which defaults and biases the tools produce when nobody specifies them, and build dark patterns on purpose in order to recognize them. The course site doubles as a reusable curriculum.

vibe-coding-ethics.tech.cornell.edu



Obfuscation.tech 2026 to now, with Helen Nissenbaum

An open repository of obfuscation strategies for people who are not security researchers, built on the premise that the communication channel cannot be trusted. Fonts that stay readable for humans but useless for scrapers, ways to keep workplace tools from measuring you. Every page has an edit link; contributions are welcome.

obfuscation.tech.cornell.edu

WHERE TO LOOK NEXT

Everything in this portfolio is documented online, and most of it is still running.

Projects	hauke.haus/projects
Archived portfolio, 2014–2021	hauke.haus/sandhaus.de
Video, App Design as a Commodity	hauke.haus/projects/app-design-as-a-commodity
Code	github.com/HaukeCornell
Publications	hauke.haus/publications
Curriculum vitae	hauke.haus/assets/pdf/CV_Sandhaus.pdf

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