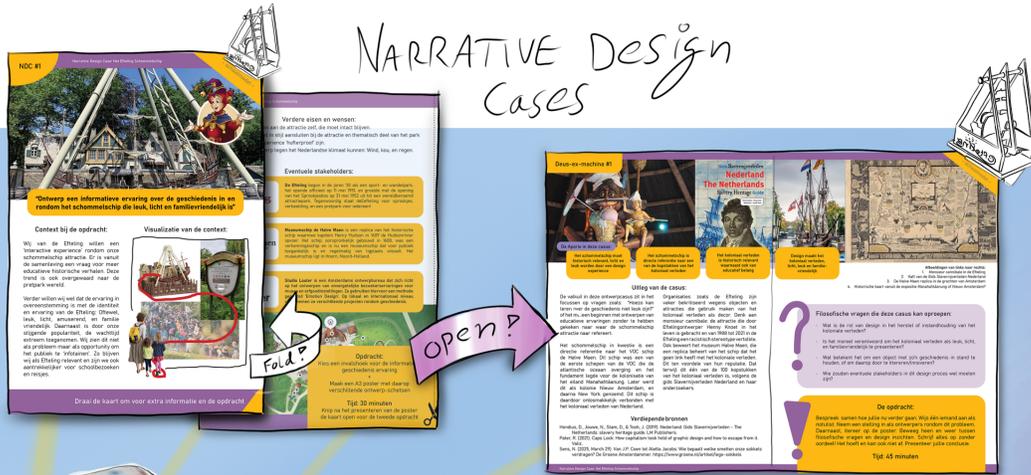


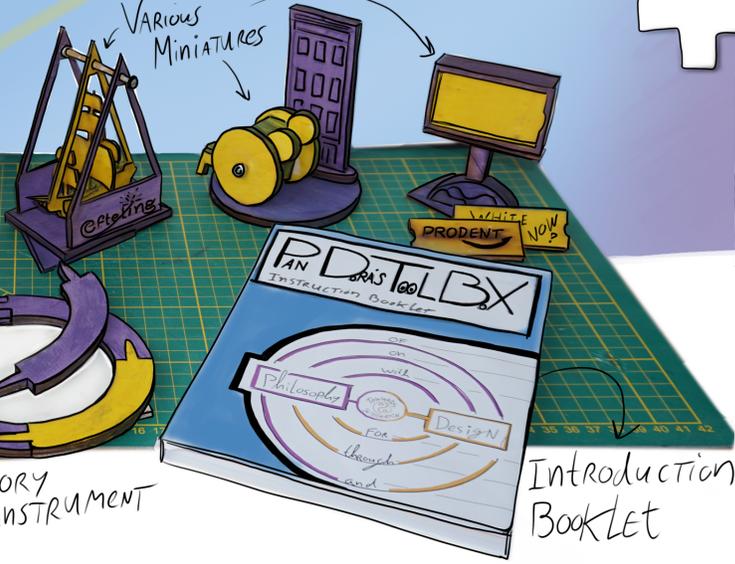
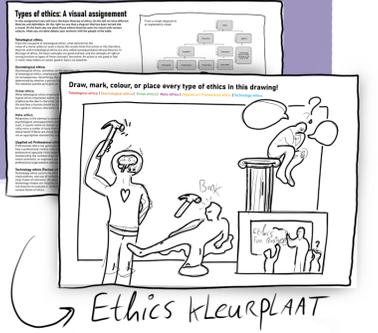
PanDora's Toolbox

Educational exercises on philosophy & design for design engineering education.

NARRATIVE Design Cases



P&D exercise cards



Impossible by Design:

This thesis explores the integration of philosophy and the humanities approach to design into contemporary design and engineering education at Industrial Design Engineering. The final design is PanDora's Toolbox: a set of multiple philosophy & design exercises in different formats based on the exploration into philosophy and design in this thesis journey.

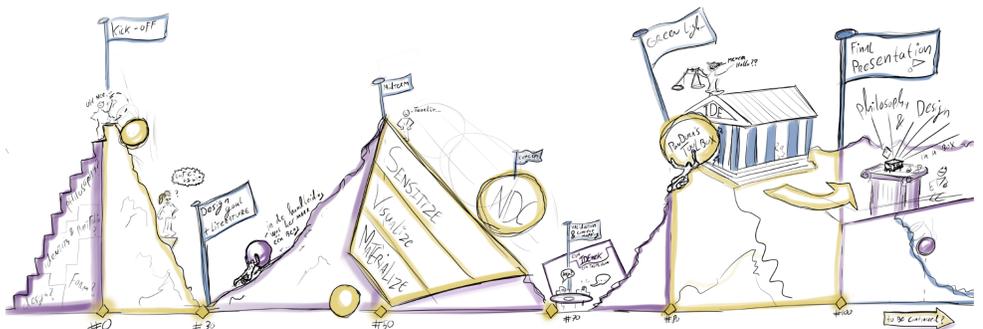
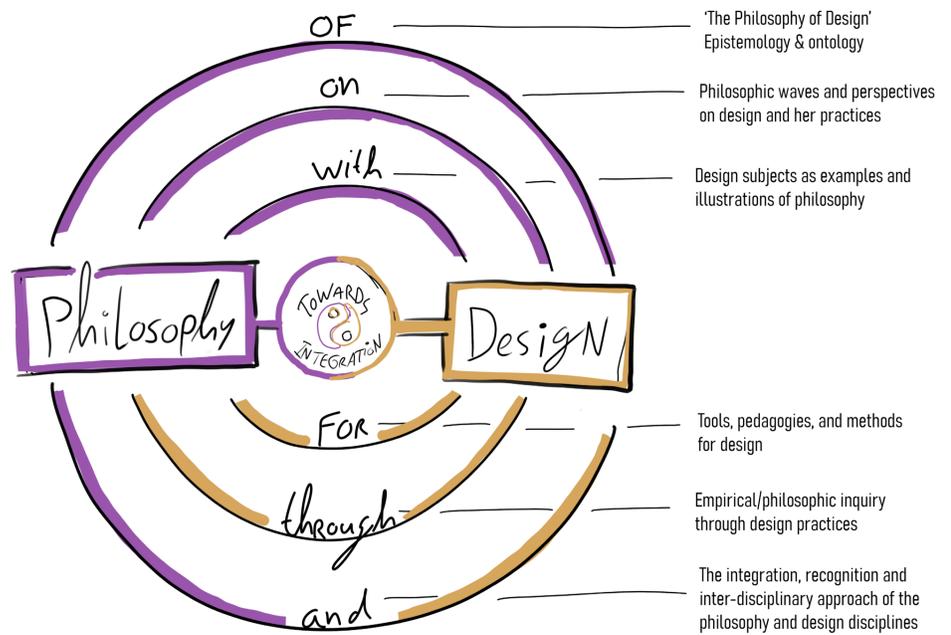
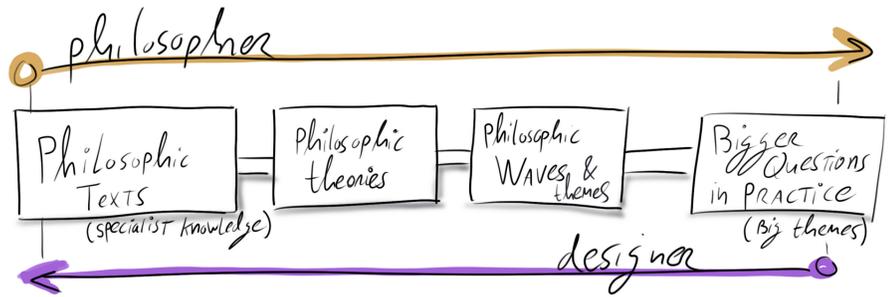
This thesis departs from the Philosophy of Technology to enhance current educational exercises and make students aware of their own normative ethics and assumptions. The research adheres to the technological viewpoint of *The Technical Condition* (as defined by Swierstra et al. 2022).

It attempts to structure the current academic discourse for a clear division for the **Philosophy of/on/with/for/through/and Design**. This thesis project is grounded in Delft and her efforts regards philosophy, technology, design, and responsible innovation: From peer-reviewing theses on design and philosophy, to highlighting current research projects. Rooting philosophy at TU Delft from an inter-faculty viewpoint.

The research approach is based on three pillars, to speak to (design) engineers 'in their own language': From **sensitizing** students for philosophic questions and disciplines, to **visualizing** philosophic waves and thought in diagrams and comics, and **materializing** philosophic theories through making and play practices.

Finally, the design part of the thesis focuses on the integration of specific philosophic cases, methods, and techniques to enhance the engineering case study. Through adopting different lenses as productive failure and pedagogy of discomfort, the design confronts students with their own normative ethics and assumptions.

The designed case studies are regarded as 'Impossible by design', because through applying their usual design/engineering skills, one will not be aware of the bigger theme hidden in plain sight. These designed case studies place the student 'inside' the systemic problems and topics they face instead of solving them from 'afar'.



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Impossible by Design: Philosophy & Design
 educational exercises for IDE education
 7 November 2025
 Design for Interaction MSc.

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