

# Individual Reflection

## DBM160 — Data-Enabled Design

**Arthur Geel**

Eindhoven University of Technology  
Department of Industrial Design  
Eindhoven, the Netherlands  
a.j.geel@student.tue.nl

### REFLECTION

In this elective I acquired my first experience with the *Data-Enabled Design* approach [1]. I look back on a high-paced course where I developed in both skills and attitude. I've learnt that a high working speed is crucial within this approach — our first data probe was logging measurements at the end of the first week.

I was afraid our data probe did not contain the right sensors, although this proved to be a non-issue. The highly iterative nature of *Data-Enabled Design* allows for quick adjustments to be made to the prototype, and interview sessions with the participant provided us with plenty of insights to use within design synthesis.

My contribution to the project were two-fold. Firstly, I designed- and developed the front-end (GUI) and the back-end (collecting- and storing user presence and -ratings) of the iPad prototypes ('*Kitchen Presence Visualisation*' and '*Volcano*'). Secondly, I took a leading role in the participant interviews following every design iteration.

This course has given me the tools to approach design projects differently. For me, the Data-Enabled Design approach revolves around two things, the first being the collection- and analysis of data to locate design opportunities. In this course, I have gained practical skills in creating prototypes that measure- and store data, whilst also acquiring more insights in how to process the resulting data, and intuition in how to spot patterns using data visualisations.

The second part of the Data-Enabled Design approach is about presenting insights to the participants to extract nuanced stories. I've learnt to use data visualisations as a tool to make participants reflect on their past behaviour.

In conclusion, I look back on a challenging yet very interesting course that made me become acquainted with the Data-Enabled Design approach, whilst simultaneously allowing me to develop the practical skills required to operate the approach.

### REFERENCES

1. van Kollenburg, J., & Bogers, S. J. A. (2019). *Data-enabled design : a situated design approach that uses data as creative material when designing for intelligent ecosystems*. Eindhoven: Technische Universiteit Eindhoven