

# Wayfinder – Presenting Recognizable Open Data in its Related Context

## Research Question

How should open data be presented to enhance its interpretation and sense-making?

## Methodology

Field Research: Ethnographic Observations, Contextual Interviews and Thematic Analysis.

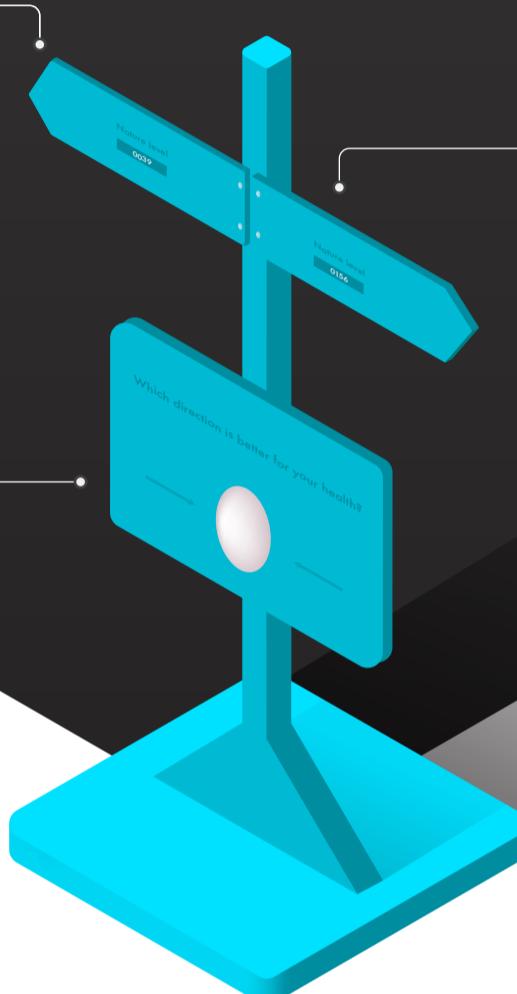
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## 01 Framing: Nature and Vitality

A feeling of connectedness to nature is commonly regarded as beneficial to the overall well-being [ 1, 5, 6 ]. However, global urbanisation has introduced a potential disconnect from nature [ 4 ]. Traditionally, humans construct their opinions based on their personal experiences rather than the factual truth. One possible strategy to re-connect urban residents with nature is by increasing their awareness of the surrounding nature.



## 02 Quantification of Nature

In this study we explore ways to increase awareness of nature by displaying open data in public spaces. Varying levels of abstraction — numerals, illustrations and semantics — are evaluated to find an effective way of quantifying nature.

## 03 The Wayfinder: a Means of Inquiry

In order to study the effect of quantifying nature, Wayfinder was designed and deployed in a public space. Its core functionality was displaying data in varying abstraction. Its effect on participants was evaluated using a combination of observations [ 3a ] and semi-structured interviews [ 3b ]. The resulting qualitative data was interpreted using a thematic analysis [ 2 ]. Three iterations of the study (A, B and C) were conducted, and a total of 26 participants were interviewed.



Figure 1 — Wayfinder, deployed in the field.

## 04 Field Research Results

Initially, participants had difficulty fully understanding the data portrayal. However, as the interviews progressed, they gained a better understanding. Quotes from the interviews alongside their clusters are displayed on the right. →

Overall, despite the fact that respondents initially had trouble in comprehending the 'nature level' and numbers, they could still associate themselves with surrounding environments after thinking for a while and were guided properly.

## Abstraction/Semantics

"I don't know what the nature level means." — Participant C1  
"Does it mean the temperature?" — Participant C3  
"I don't really understand what's the implication of the numbers." — Participant C6

## Relevance to Goals

"I would definitely choose the left way after seeing this wayfinder, because this way with higher a nature level is healthier." — Participant C8

"I want to take the more natural route based on the wayfinder" — Participant B12

## Location/Context

"This feels too much like one area. I still feel the environment when I'm on the other side." — Participant B7  
"It's difficult because it isn't really separating." — Participant B4  
"I agree with the numbers because there are more trees, and grass on the left." — Participant C6

## 05 Contribution: Best Practices

A list of best practices was compiled based on the insights derived from the thematic analysis. In order to present recognizable open data, one should consider:

- The location and context of the data;
- The relevance for its viewers' goals;
- Its abstraction vs. its concreteness;
- The novelty vs. familiarity of semantics;
- The exclusion some might experience.

## 06 Conclusion

In this research we have explored data can be presented to enhance its interpretation and sense-making. Our aim was to re-establish a feeling of connectedness with nature through the presentation of data. By designing a wayfinder platform we were able to evaluate varying levels of abstraction.

In three iterative case studies, we have generated a number of considerations for the portrayal of nature-related open data. Especially the concreteness and familiarity of vocabulary of the portrayed data impacts interpretation rates most. The context also plays an important role: participants were more willing to put in more effort to understand the data if it helps them solve their goals.

## References

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\* Interested in more? The full article can be seen at <https://arthurgeel.com/wayfinder-paper.pdf>