

# Exploration

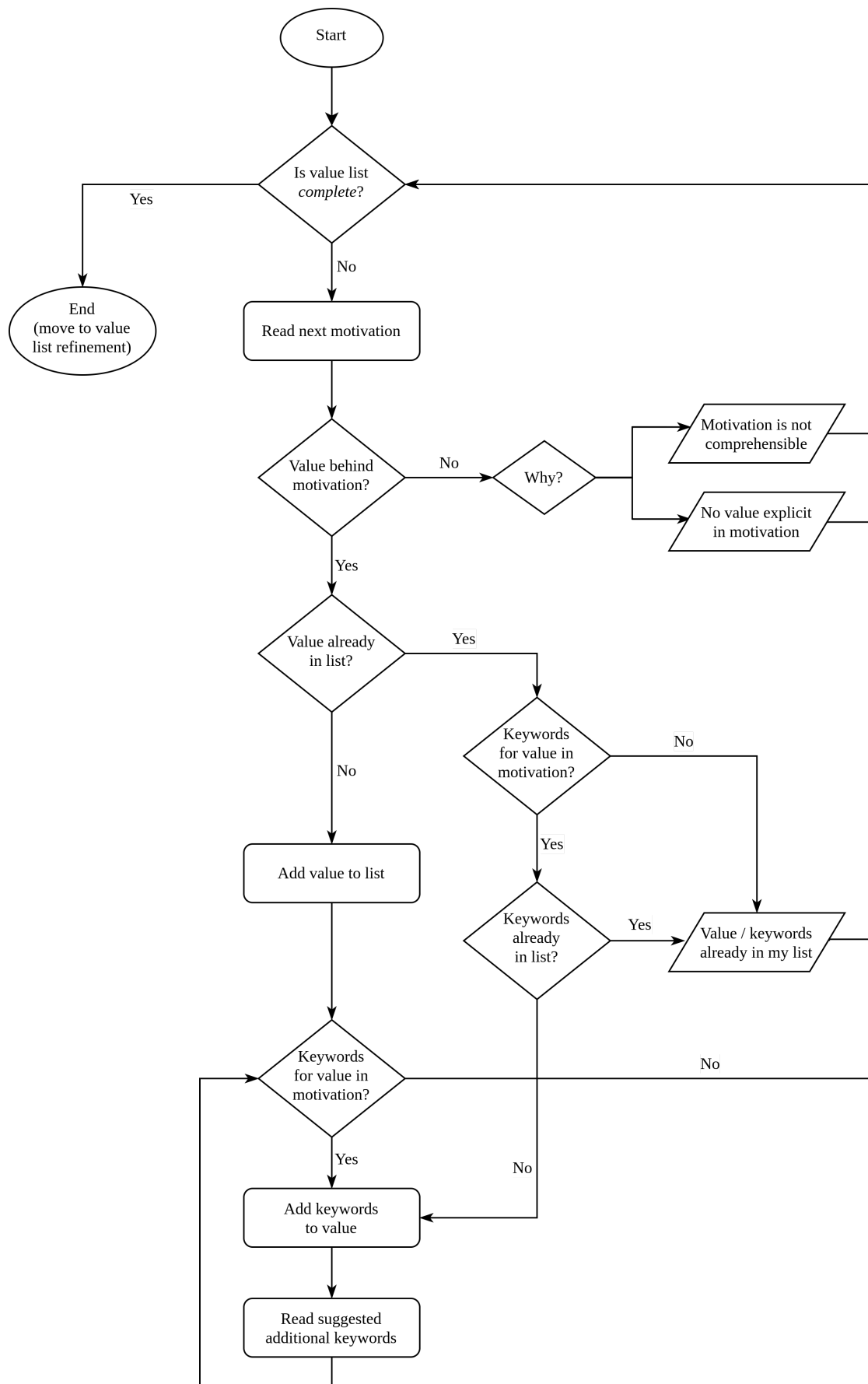
The exploration phase is to be performed by you, expert, individually. You will start with an empty list of values. You will be shown the choices participants made and, importantly, the motivations they provided for making those choices, sequentially. We ask you to annotate values as described below.

## Exploration pipeline

Please follow the flowchart depicted in Figure 1. Here additional details are provided for the components outlined in the flowchart:

- **Is the value list complete?** You start with an empty list, which you populate over time. Please refer to the section “When to stop?” to verify whether your list is complete.
- **Read new motivation:** Click on “*Next (Farther) Motivation*” to read a new participant’s motivation; you see the original Dutch text, the translated English version and the choice for which it was written. You can click on a “*Next Motivation*” button only after having annotated the motivation you are currently shown. You can either annotate with an action (value / keyword addition / deletion), or by indicating why no action is taken on the motivation, by clicking on one of the three red buttons (as explained below).
- **Value behind motivation?** Is there a value related to the motivation? While trying to identify a value, please answer these questions:
  - Can you complete the following sentence: “The participant chose <option> in this PVE because <value> is important to her.”?
  - Can the value be compared to other values in order of importance?If you answered ‘yes’ to both questions, please add the identified value to the values list (if not already present).
- **Why no value behind motivation?** it is possible that no value is related to the motivation, or that the motivation is incomprehensible (either due to a bad translation or to unclear original text). In such cases, click on the corresponding red button before clicking on “*Next Motivation*”.
- **Keywords for value in motivation?** By reading the motivation, can you think of keywords for the value behind the motivation? Keywords may or may not appear in the motivation, but should be directly inspired by the motivation.
- **Add value / keywords to the list:** add the desired value and/or keywords by simply entering them in the indicated slots and then clicking the “*Add*” button on the side. Both value and keywords may be composed of multiple words or expressions, such as ‘third-party cookies’.
- **Read suggested additional keywords:** upon adding a value and/or keywords, the algorithm will show additional words similar to the value and/or keywords: you may then decide to add one of such words to the value keywords.
- **Value / keywords already in my list:** a new motivation may not contain any new information with respect to your list of values and keywords. In such a case, click on the “*Value already annotated*” red button before clicking on “*Next Motivation*”.

Please write value and keywords in the *value list* below the motivations, which will always be visible and editable. At any moment, you can add or remove a value or a keyword.



**Figure 1:** Annotation pipeline during the exploration phase.

Here are two guiding examples of value annotation:

- Next motivation:
  - Read motivation: “I don’t want to be spied by cameras while I walk in the streets of my city. I want to be by myself.” for choice: “All public cameras should be easily identifiable.”
  - Add value ‘privacy’?
  - Insert in sentence: “The participant chose the project ‘All public cameras should be visibly identifiable’ because ‘privacy’ is important to her.”
  - Privacy can be compared to other values (such as safety) by importance.
  - Add value ‘privacy’.
  - Add keywords: ‘spying’, ‘cameras’, ‘by myself’.
  - After adding such value and keywords, the following keywords are suggested: ‘confidentiality’, ‘intimacy’, ‘secrecy’, ‘espionage’, ‘eavesdropping’
  - Add ‘eavesdropping’ to the list of keywords.
- Next motivation:
  - Read motivation: “That’s how it should already be!” for choice: “All public cameras should be visibly identifiable.”
  - Value: none (there are values related to the project choice, but not explicitly in the motivation)

## Progress plot

You can track your progress via the *progress plot*. The plot contains a bar per each read motivation. The bar height indicates how the motivation differs from the previously read motivations and the annotated values and keywords; the taller the bar, the more different the motivation. The bars are colored according to the action(s) performed upon reading the motivation, as detailed in the legend.

## When to stop?

Please continue until you deem that, based on the inputs you have read so far, no new values will emerge (i.e., the value list is *complete*). You can track the progress of your actions via the progress plot. When you see that your value list has not changed over the last several rounds, you can decide to stop.

## Value list refinement

After having decided that the list is complete, please make sure that the values you added are sufficiently distinct one from another and clearly defined by their keywords (i.e., the value list is *well-defined*). By clicking on the “*Next (Similar) Motivation*” button besides each of the values you added, you will be able to see a motivation which, according to the algorithm, is similar to the value. By reading this motivation, you can get inspiration to add additional keywords to the value in order to further characterize it and distinguish from the other values in your list. Upon annotation of the motivation (as described in the previous section), you can click again on the button to see new similar motivations.