

Consolidation

Welcome to the consolidation phase! Previously, in the exploration phase, you and other experts, each created a list of values with keywords. Now, you are invited to discuss and *consolidate* the results of your explorations. It is likely that the lists you created in exploration overlap, i.e., they may have similar values and keywords. Such values and keywords are to be consolidated into one list of values with keywords in the consolidation phase.

At first, a draft list is created as the union of the individual value lists. Then, you can fetch a pair of most similar values (as determined by an algorithm) from the draft list and consolidate the two values in this pair. The actions you can take to consolidate a pair of values are explained in the next section. Then, you can fetch and consolidate the next pair of most similar values. You can repeat this process until you deem that the draft list does not require anymore consolidation.

Consolidation workflow

Please follow the flowchart depicted in Figure 1. Additional details for the components outlined in the flowchart are provided below.

- **Does the list need more consolidation?** At the beginning of the phase, let yourself be guided by the algorithm suggestions; as soon as no actions (merge or additions) are taken on several consecutive suggestions, inspect the draft value list and determine if it requires further consolidation. Please refer to the following section for a detailed explanation of the termination criterion. The following steps apply if you wish to consolidate further.
- **Fetch a new value pair.** By clicking on the “*Next pair*” button, the algorithm will provide the pair of most similar values from the draft list. Alternatively, you can manually select the next pair by clicking on the “*Pick next pair*” button and selecting the two values to be shown. The following steps guide you in consolidating the two values in the shown pair.
- **Authors explain values.** The experts who originally annotated the values are invited to give a brief overview of their reasoning to the other experts.
- **Want to read trigger motivations?** In order to refresh your memory, you can read the motivation(s) which led to the annotation of given values and keywords, by clicking on the “*Show*” button present on the top-right corner of the shown values.
- **Consolidate values.** The experts in the group should discuss whether the two values overlap. For example, discuss whether the two values have a similar name, whether the keywords overlap, whether the explanation of the values are similar, and so on. Then, you can perform one of the following actions.
 - **Merge the two values:** If you deem the two values as similar, merge them into one value. Upon merging, a new value is created with the name to be chosen by you (the new value name may or may not be the name of one of the two merged values); the keywords of this new value are the union of the keywords of the two merged values. You can update the keywords. The two originally suggested values are then deleted.
 - **Update one or both values:** If you deem the two values as distinct, you may update the name and/or keywords of one or both values to make the distinction clearer.

- **Take no action:** If you deem the two values as sufficiently distinct as is, you may take no action. The value pairs that were shown but not edited will not be shown again.

Important: The full value list will always be accessible and editable. At any moment you can merge values, add or delete a value, add or delete a keyword.

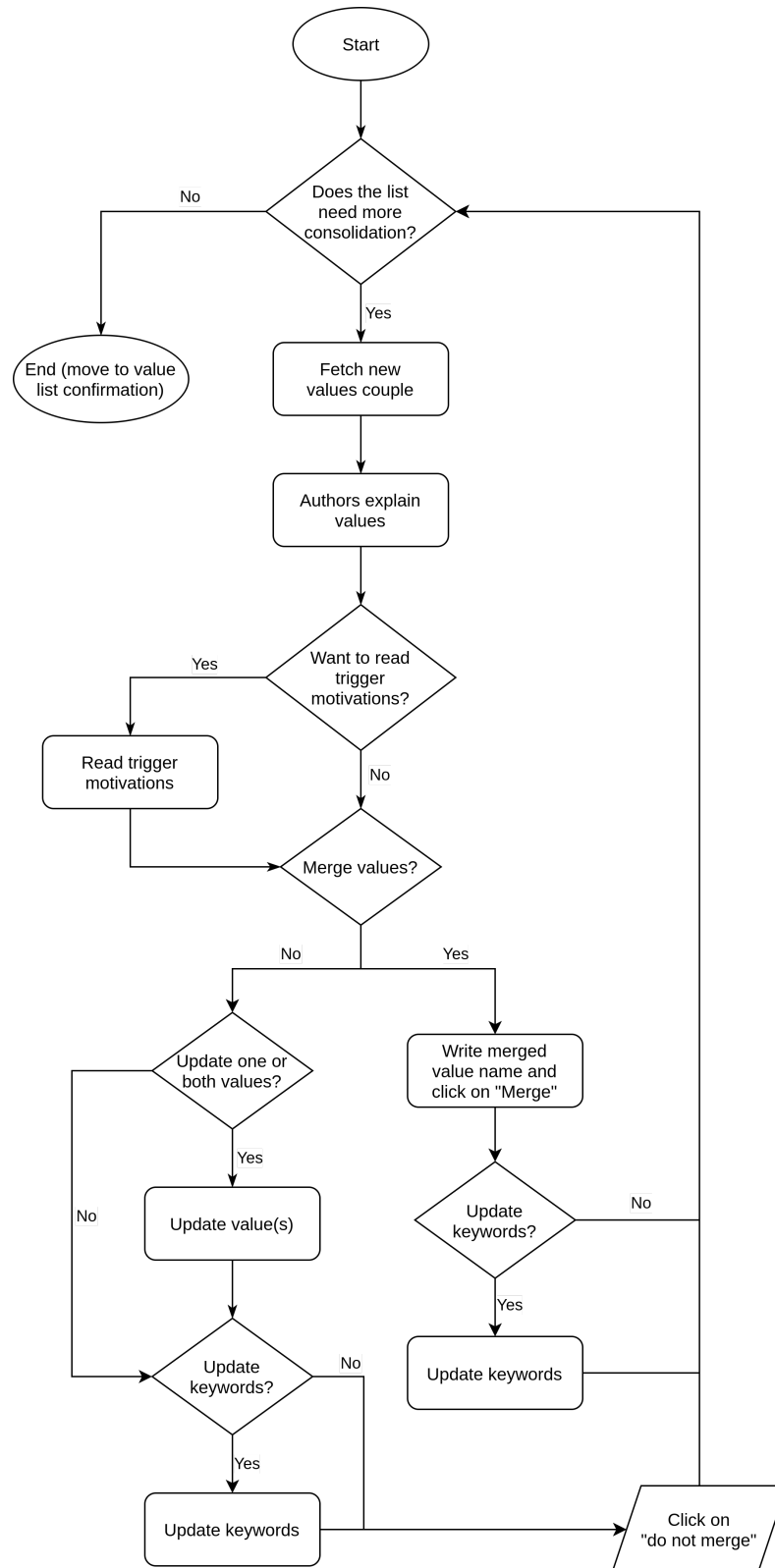


Figure 1: Consolidation workflow.

Here is a guiding example:

- The two following values are proposed:
 - Value: privacy
Keywords: surveillance, cameras, facial recognition
 - Value: anonymity
Keywords: cameras, identification
- The values authors explain their reasoning.
- The values are merged into one:
 - Value: privacy
Keywords: surveillance, cameras, facial recognition, identification

Here is another guiding example:

- The two following values are proposed:
 - Value: privacy
Keywords: surveillance, cameras, facial recognition
 - Value: safety
Keywords: cameras, theft, crime
- The values authors explain their reasoning.
- The values are not merged.

Progress plot

You can track your progress via the *progress plot*. The plot contains a bar per each seen value pair. The bar height indicates how different the two values are; the taller the bar, the more different the values. The bars are colored according to the action(s) performed upon reading the value couple, as detailed in the legend.

When to stop?

Stop when the values in the draft list are sufficiently distinct one from another and clearly defined by their keywords (i.e., they are *well-defined*). You can track your progress via the progress plot, and at any moment look at the full list of values and keywords.

Value list confirmation

The final step in the consolidation phase is to confirm the values in the consolidated list. To do so, **ask critical questions** on each value in the value list. Schwartz describes the features of all values indicated below. The experts in the group should ask whether each value in the list has each of these features or not.

- Values are beliefs linked inextricably to affect. When values are activated, they become infused with feeling.
- Values refer to desirable goals that motivate action.
- Values serve as standards or criteria. Values guide the selection or evaluation of actions, policies, people, and events.

- Values are ordered by importance relative to one another. People's values form an ordered system of priorities that characterize them as individuals.
- The relative importance of multiple values guides action. Any attitude or behavior typically has implications for more than one value.

Important: Schwartz also includes an additional feature that "values transcend specific actions and situations." However, since we are interested in values for a specific context, this feature may not apply. Nonetheless, the values in your list can transcend different actions within the same context.

As you confirm each value, you should also create a shared *definition of the value*, agreed by all experts in the consolidation group. In order to do so, we draw inspiration from Schwartz and bind each value to a *defining goal* (Schwartz, 2012). A defining goal characterises what "holding a value" means. That is, if a person holds a value, they are likely to have the corresponding goal in life.

The following are the defining goals for the 10 Schwartz values.

1. *Self-Direction*: Independent thought and action--choosing, creating, exploring.
2. *Stimulation*: Excitement, novelty, and challenge in life.
3. *Hedonism*: Pleasure or sensuous gratification for oneself.
4. *Achievement*: Personal success through demonstrating competence according to social standards.
5. *Power*: Social status and prestige, control or dominance over people and resources.
6. *Security*: Safety, harmony, and stability of society, of relationships, and of self.
7. *Conformity*: Restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms.
8. *Tradition*: Respect, commitment, and acceptance of the customs and ideas that one's culture or religion provides.
9. *Benevolence*: Preserving and enhancing the welfare of those with whom one is in frequent personal contact (the 'in-group').
10. *Universalism*: Understanding, appreciation, tolerance, and protection for the welfare of all people and for nature.

Upon termination of the consolidation procedure according to the described criterion, please add the defining goal(s) to each value present in the final list by using the "*Add defining goal*" button.

Note that the defining goals don't have to be generic (as in the defining goals of Schwartz values). In contrast, the defining goals can be specific to the context in which the values apply. For instance, in the context of an internet application, the defining goal for the value of privacy can be as follows.

- *Privacy*: Being able to control the extent to which one's personal information is shared with others.

References:

Schwartz, Shalom H. "An overview of the Schwartz theory of basic values." *Online readings in Psychology and Culture* 2.1 (2012): 2307-0919.