

Detailed guidelines in identifying re-finding.

Hint Title	Description
Exact repetitions in queries/clicks	<ul style="list-style-type: none"> • By comparing queries in the original search task with queries in the potential re-finding task, if the exact queries have been repeated, it could be a signal of re-finding. • The same comparison for the repetitions in clicks is applicable. If the intermediate clicks in the paired search tasks have been repeated, it could be an indication of re-finding.
Common or semantically related query terms	<ul style="list-style-type: none"> • By comparing queries in the original search task with queries in the potential re-finding task, if they are not exactly the same, but semantically related, it could be a signal of re-finding.
Common terms between queries and clicks	<ul style="list-style-type: none"> • Commonalities between the terms of queries of the potential re-finding and the terms in the clicks of the original search could be a signal of re-finding. (or vice versa: commonalities in the terms of the original queries with the terms in the clicks of the re-finding)
Same document, not necessarily same informational content	<ul style="list-style-type: none"> • There could be cases where the information in the document corresponding to the last click is updated. The dynamic change of the content of last click could not be a strong reason to reject re-finding. These cases can be considered as re-finding tasks as their underlying information need are the same/ broadly the same (example: new released dvd)
Extended or preceded tasks	<ul style="list-style-type: none"> • Extended: In some cases the potential re-finding task was extended after reaching to the same exact click in the original search task. This could be considered as a re-finding, if from the other interactions of the user, it seems that the underlying information need is the same or at least related. For these cases, the next question of the difficulty should be considered to the level that the user could re-retrieve the last click (no matter how the task has been extended). • Preceded: There could be examples that the potential re-finding task seems to be started with different need and then switched back to the same need in the original search. This could be considered as a re-finding task as well.

Detailed guidelines in re-finding difficulties.

Hint Title	Description
Temporal indications	
time after queries	<ul style="list-style-type: none"> • short <ul style="list-style-type: none"> – more likely to be related to search activity • long <ul style="list-style-type: none"> – more likely to be related to search activity, if the query is followed by another reformulated query with no clicks in between. – less likely to be related to search activity, if the click after the query is at the very top rank.
time after clicks	<ul style="list-style-type: none"> • short <ul style="list-style-type: none"> – more likely to be related to search activity • long <ul style="list-style-type: none"> – more likely to be related to search activity, if the rank of next click is from next result pages.
time gap between goals	If the time gap between paired goals is short (e.g. within one day), high number of interactions in terms of number of queries and clicks could have more impact on difficulty level, in comparison to the situation that the time gap is long.
search task completion time	If the spent time for search can be assessed by dwell times after queries and clicks, and the spent time for re-finding is longer in comparison to the original goal, then this could increase the level of difficulty in re-finding.
Query indications	
number of reformulations	Increase in the number of query reformulations could increase the level of difficulty (repetitions of the same query were not considered as a reformulation).
type of reformulations	How different are queries in reformulations? If queries are changed with related words, it might be more difficult than cases where queries are reformulated by simple corrections.
following event	Queries with a no clicks (particularly with high dwell time and the next query has been reformulated) could increase the level of search difficulty.
Click indications	
number of clicks	Increase in the number of clicks could increase the level of difficulty in re-finding (but be careful that the clicks are not repeated sequentially; otherwise it would be less likely to be counted as different clicks).
rank of clicks	Increase in the ranks of clicks (particularly at the level of pages) could increase the level of difficulty, as it could show more effort for assessing documents in next pages.
position of clicks	There could be examples where the recognized click as the target document appears earlier in the goal, which could decrease the level of task difficulty.
repetitions of clicks	<ul style="list-style-type: none"> • Repetition of identical clicks multiple times (without any other queries or clicks in between) is less likely to be effective in determining the level of difficulty in re-finding. • Repetitions of the same click by visiting other pages, and getting back to the same URL, could increase the level of difficulty in re-finding (as it could be indicative of comparisons between documents or showing that the user has been lost).