

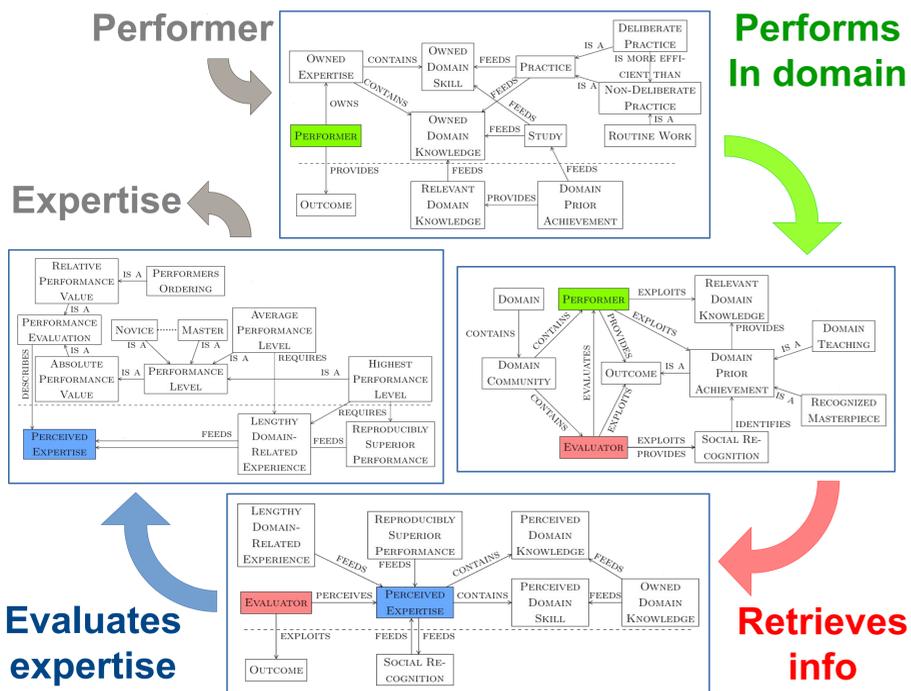


## PROBLEM and OBJECTIVE

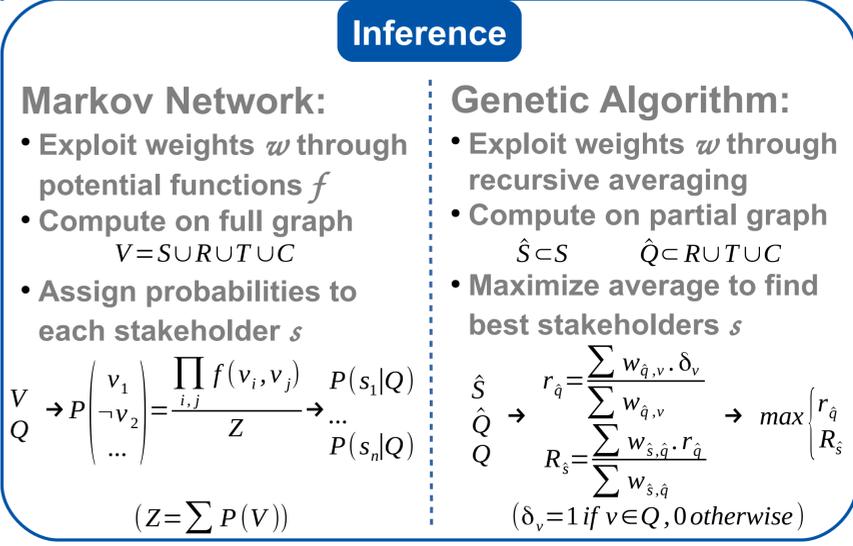
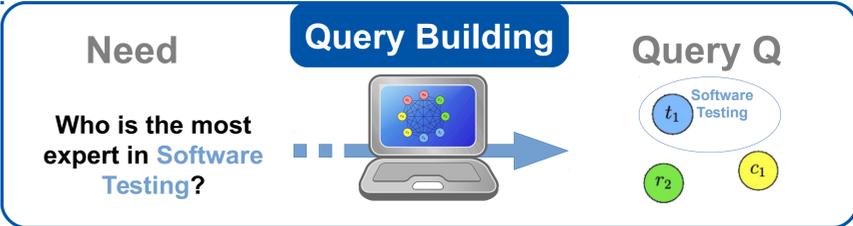
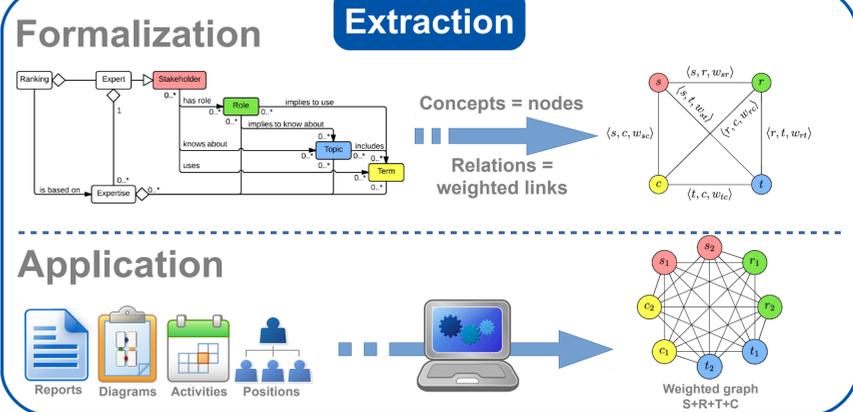
Requirements elicitation and refinement require expert-like information, but current research in RE does not focus much on sources of information, and otherwise experts are not targeted.

We aim at investigating further the evaluation of expertise based on usual RE indicators: knowledge evidences (terms & topics) and social recognition (roles).

## EXPERTISE METAMODEL



## EXPERT FINDER



## RANKING FORMALIZATION

### Two Representations

Ranking	Ordering
1: $s_1$	$s_1 > s_2$
2: $s_2, s_3$	$s_1 > s_3$
3: $s_4, s_5$	$s_2 ? s_3$
4: $s_6$	$s_2 > s_4$
...	...

### Group Centroid

$O_1$	$O_2$	$O_3$	$c(O_1, O_2, O_3)$
$s_1 > s_2$	$s_1 > s_2$	$s_1 > s_2$	$s_1 > s_2$
$s_1 > s_3$	$s_1 < s_3$	$s_1 < s_3$	$s_1 < s_3$
$s_2 ? s_3$	$s_2 ? s_3$	$s_2 ? s_3$	$s_2 ? s_3$
$s_2 > s_4$	$s_2 ? s_4$	$s_2 < s_4$	$s_2 ? s_4$
...	...	...	...

### Disagreement Distances

$s_1 > s_2$	$s_1 > s_2$	$\rightarrow A(\text{agree})$
$s_1 > s_2$	$s_1 < s_2$	$\rightarrow D(\text{disagree})$
$s_1 > s_2$	$s_1 ? s_2$	$\rightarrow U(\text{undifferentiated})$

$$\text{Disagreement Distance} = \frac{D}{A+D}$$

$$\text{Optimistic DD} = \frac{D}{A+U+D}$$

$$\text{Pessimistic DD} = \frac{U+D}{A+U+D}$$

### Compliance Measures

$O$	$R(\text{ref})$
$s_1 > s_2$	$s_1 > s_2$ $\rightarrow \text{Orders}(O, >) = 3$
$s_1 > s_3$	$s_1 > s_3$ $\rightarrow \text{Orders}(O, ?) = 0$
$s_2 > s_3$	$s_2 ? s_3$ $\rightarrow \text{Shares}(R, O, >) = 2$

$$\text{TotalComp}(R, O) = \frac{\text{Shares}(R, O, >) + \text{Shares}(R, O, ?)}{\text{Orders}(R, >) + \text{Orders}(R, ?)}$$

$$\text{OptimComp}(R, O) = \frac{\text{Shares}(R, O, >) + \text{Orders}(R, ?)}{\text{Orders}(R, >) + \text{Orders}(R, ?)}$$

$$\text{OrderComp}(R, O) = \frac{\text{Shares}(R, O, >)}{\text{Orders}(R, >)}$$

## EVALUATION

	Assumption	MN	GA
<b>No data</b>	Everyone at same rank	☹	☺
<b>No query</b>	Everyone at same rank	☹	☺
<b>Composition</b>	Common orders between Q1 and Q2 retrieved with Q1+Q2	☹	☺
<b>Expected</b>	Comply with human-made ranking	Synthetic ☹ Real small ☹ Real big ☹	Synthetic ☹ Real small ☹ Real big ☹

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