

One Click Access Task (1CLICK-2)

Click the Search Button and Be Happy

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Task Overview:

Satisfy the user without search result clicks and browses

Runs are evaluated by identifying nuggets in the X-string



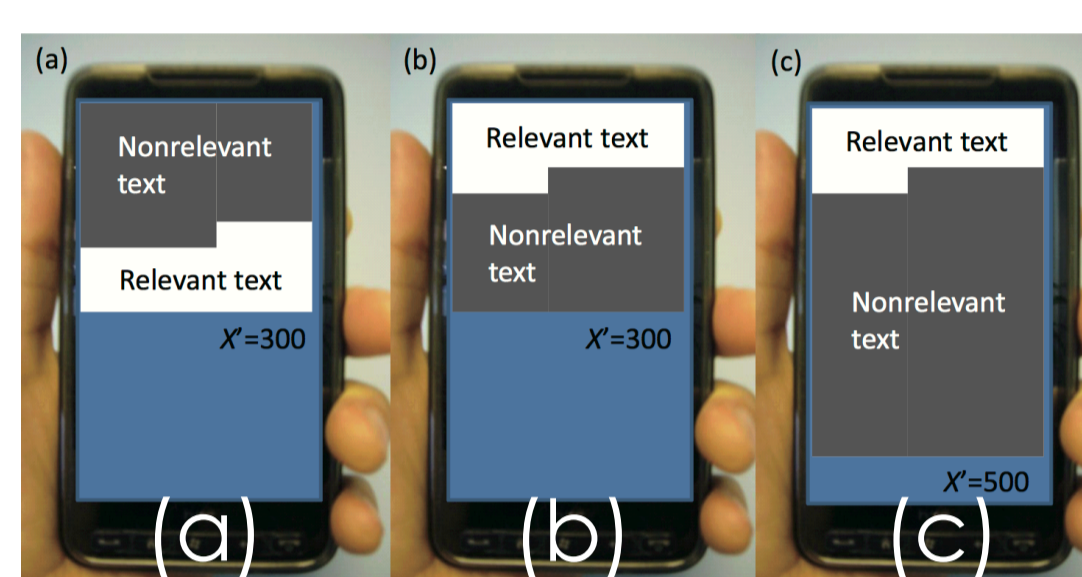
Task: Given a search query, return a single textual output (**X-string**)

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 Address: 118-1 Nurumizu, Atsugi, 243-8551.
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X-string

- Phone number: 046-223-3636
- Fax number: 046-223-3630
- Address: 118-1 Nurumizu, Atsugi

Nuggets



Evaluation metrics used in 1CLICK-2 say (a) < (b) and (c) < (b)

Go beyond the "ten-blue-link" paradigm, and tackle **information** retrieval rather than document retrieval

Systems are required to present **important information first** and **minimize the text the user has to read**

Task Structure:

Semi-automatic Nugget Extraction



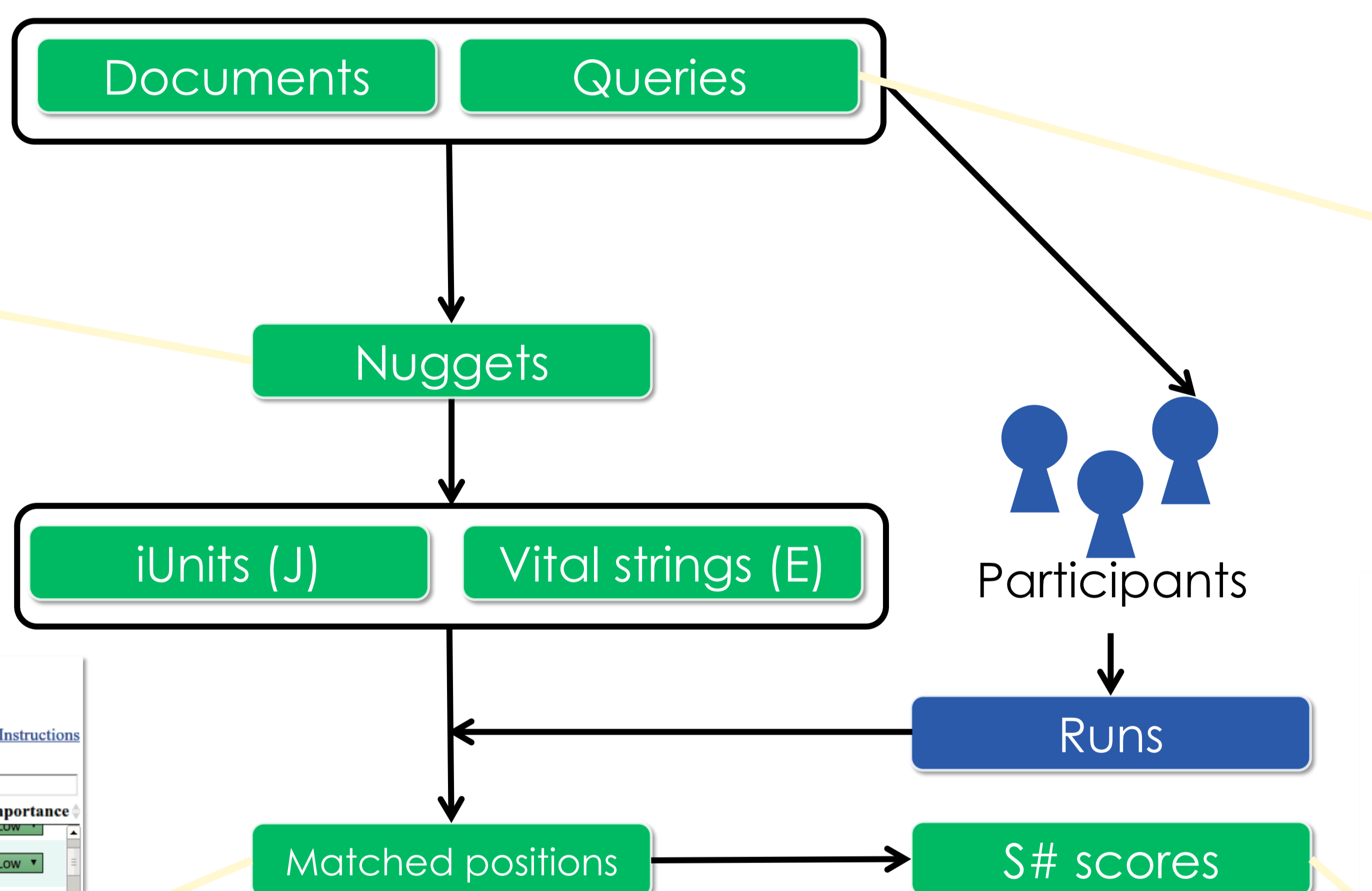
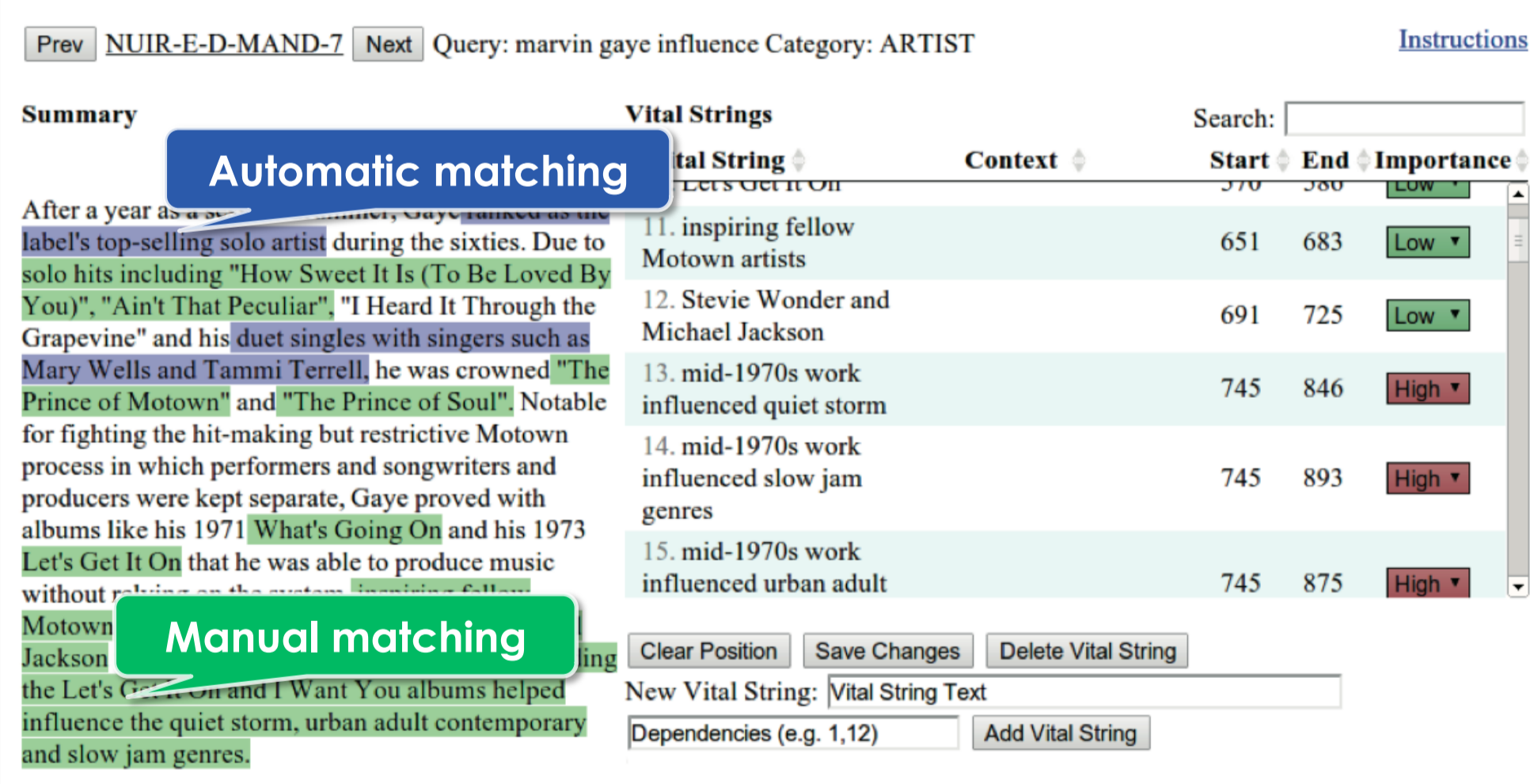
Select documents from which nuggets are extracted

Extract nuggets and rank them

Automatically Extracted Nugget

- Ichiro is a professional baseball outfielder who is currently with the New York Yankees
- Ichiro Ozawa is a politician

Semi-automatic Nugget Matching

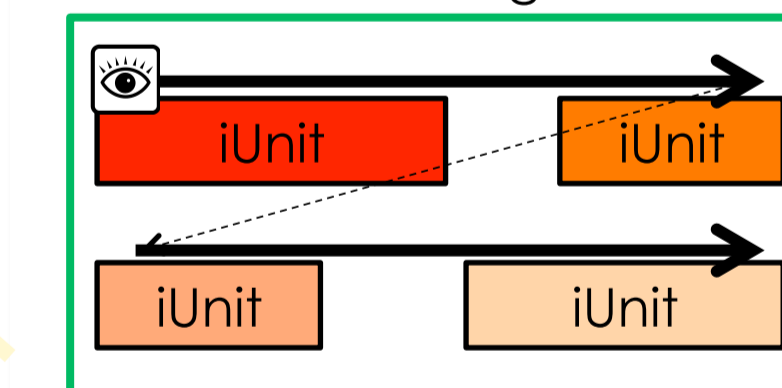


1CLICK-2 Query Types

ARTIST	"michael jackson death"
ACTOR	"sylvester stallone"
POLITICIAN	"robert kennedy cuba"
ATHLETE	"ichiro suzuki"
FACILITY	"atlanta airport"
GEO	"kyoto hot springs"
DEFINITION	"parkinsons disease"
QA	"why is the sky blue?"

Evaluation Metrics

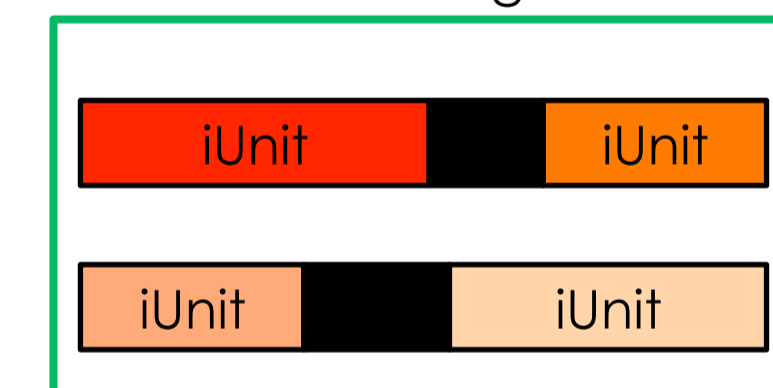
S-measure X-string



$$S = \frac{1}{Z} \sum_{i \in M} w(i)d(i)$$

w: weight, Z: normalization factor
 $d(i) = \max(0, L - \text{offset}(i))$
 discounts the iUnit (or VS) weight based on its offset

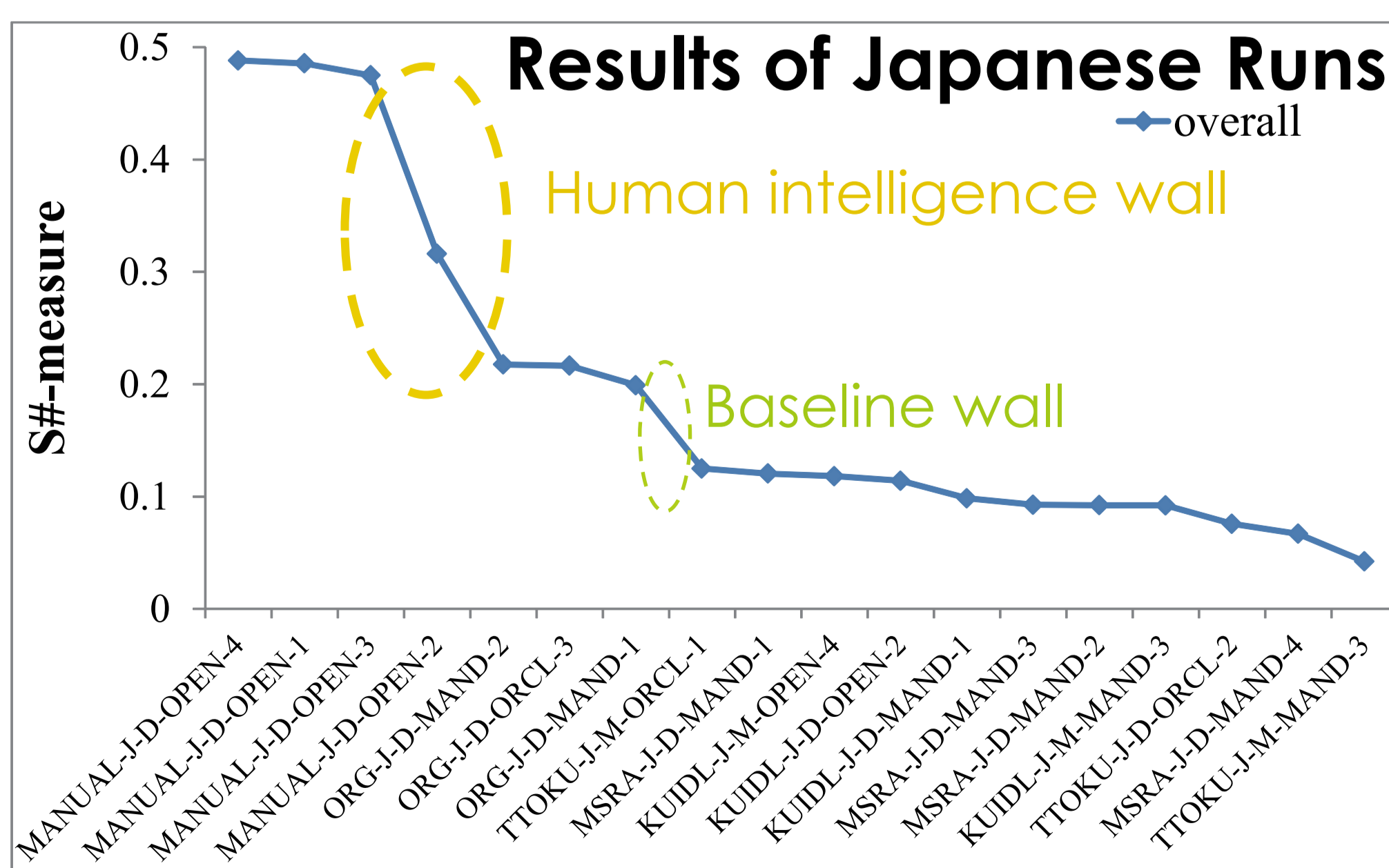
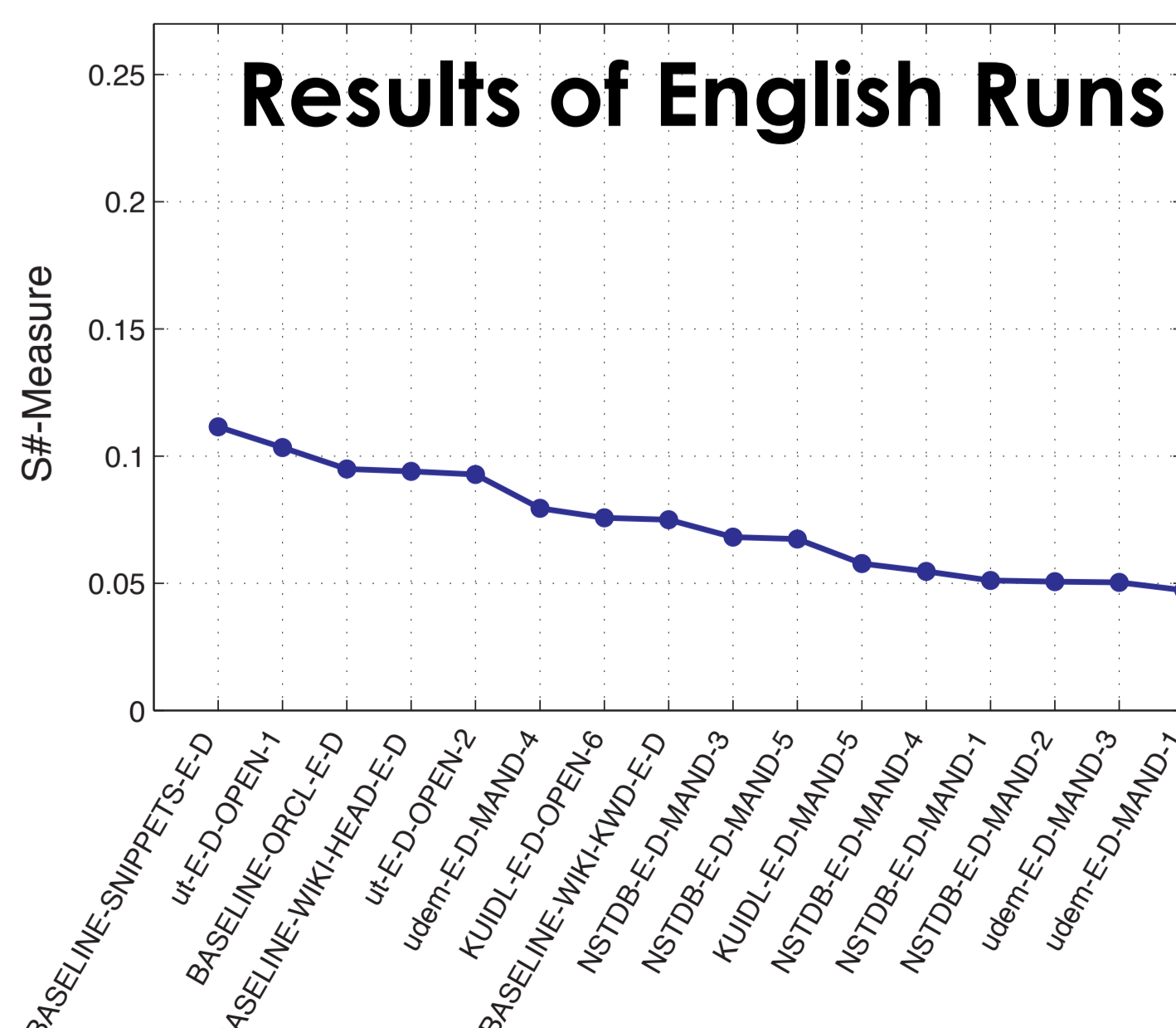
T-measure X-string



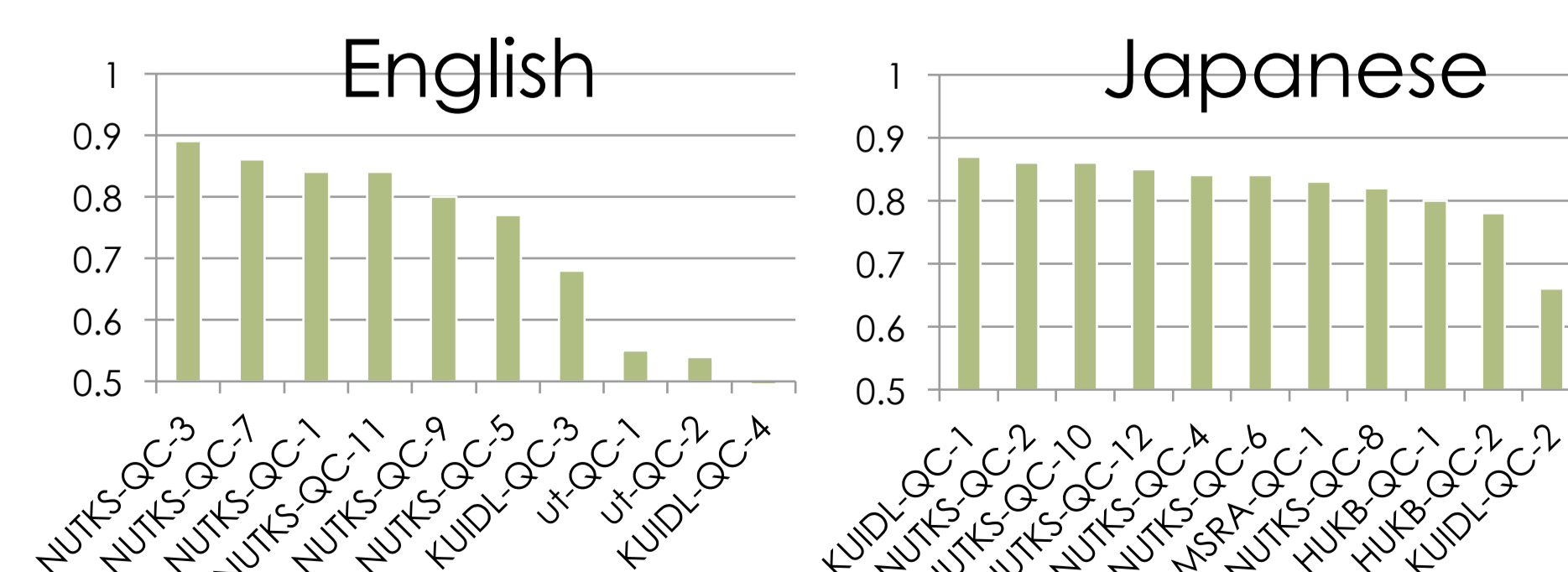
$$T = \% \text{ of matched text}$$

S#-measure
 The harmonic mean of S and T (official evaluation metric in 1CLICK-2)

Evaluation Results:



Query Classification Subtask Result



0.85+ accuracy achieved (by NUTKS&KUIDL)
 • DIFFICULT: DEFINITION type
 • EASY: CELEBRITY types (ARTIST, ACTOR, etc.)

Baselines show good performance for celebrity query types and DEFINITION, while KUIDL and TTOKU performed well for FACILITY and QA, respectively