

# iCLEF 2004 at Maryland: Summarization Design for Interactive Cross-Language QA

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MIRACLE: Maryland Interactive Retrieval Advanced Cross-Language Engine

Collections Configure Display Dictionaries Help

Look for: baku suffocated train Search Reset

PREVIOUS QUERIES

CURRENT QUERY

- baku
- suffocated
- train

TRAIN	Spanish	Synonym List	Sample Usage 1
<input checked="" type="checkbox"/>	adiestrar	train	
<input checked="" type="checkbox"/>	adiestrarse	train	
<input checked="" type="checkbox"/>	amaestrar	train	
<input checked="" type="checkbox"/>	ensillar	saddle, show, teach, point out, train	
<input checked="" type="checkbox"/>	entrenar	housebreak, train	
<input checked="" type="checkbox"/>	entrenarse	spar, train	
<input checked="" type="checkbox"/>	ferrocarril	railroad, railway, train	
<input checked="" type="checkbox"/>	tren	stream, stream orchid, train oil, train	tren: honduran migrants , who had been r...

Search Again

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>> Explosion registered in first wagon of **train**, in that a fire was declared that destroyed it completely, according to informed Interfax.

EFE19940413-06806

**4** >> The sources of the Azerbaijanian agency stand out that the set afire **train** did less of a month that was repaired in Jarkov (the Ukraine), which clouds the version of the " technical causes " and gives arguments to those who fear an attack.

>> In his opinion, the driver of the **train** must have reacted and have removed the wagons from the tunnel in ciudadosa reverse gear towards the station, where the possibilities of survival for the passengers are greater.

>> However, the " mortal shutdown " in the tunnel caused that the panic between the occupants of the **train** spread, who tried to escape by the windows and they were asphyxiated by lack of oxygen in the tunnel.

EFE19951029-19340

**5** >> The recent tragedy of the metropolitan of Bakú (Azerbaijan), in which 300 people died, can be repeated " at any time " in the one of Moscow, today noticed Friday an association of Russian labor unions.

EFE19951103-01464

**6** >> At least five people died and other seven were seriously wounded as a result of an explosion in a **train** of passengers that was arranged from the railway station of Bakú, the capital of Azerbaijan, informed today Wednesday.

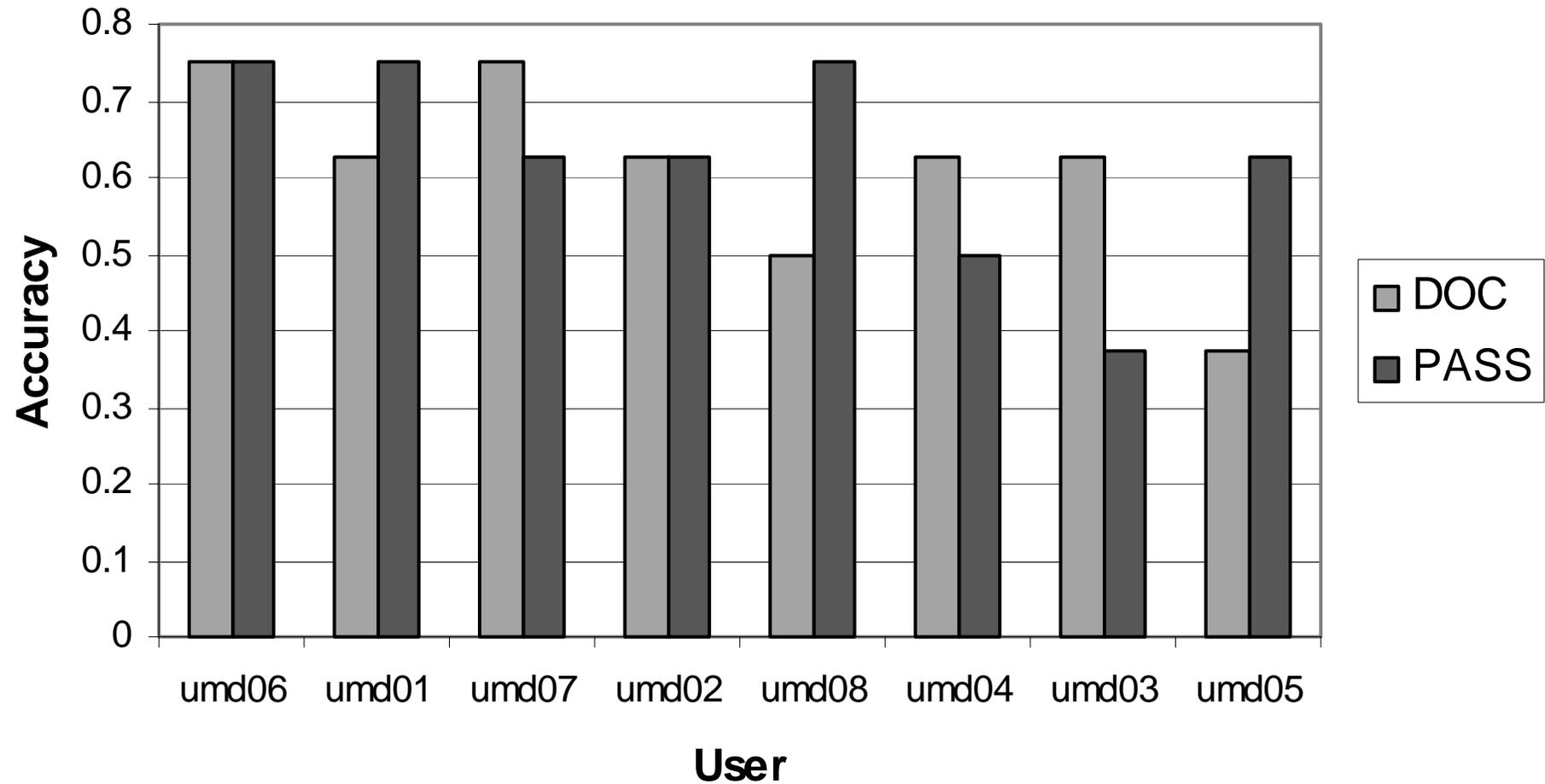
Previous Next

System Status: [CLIENT] Retrieving Document ...Done!

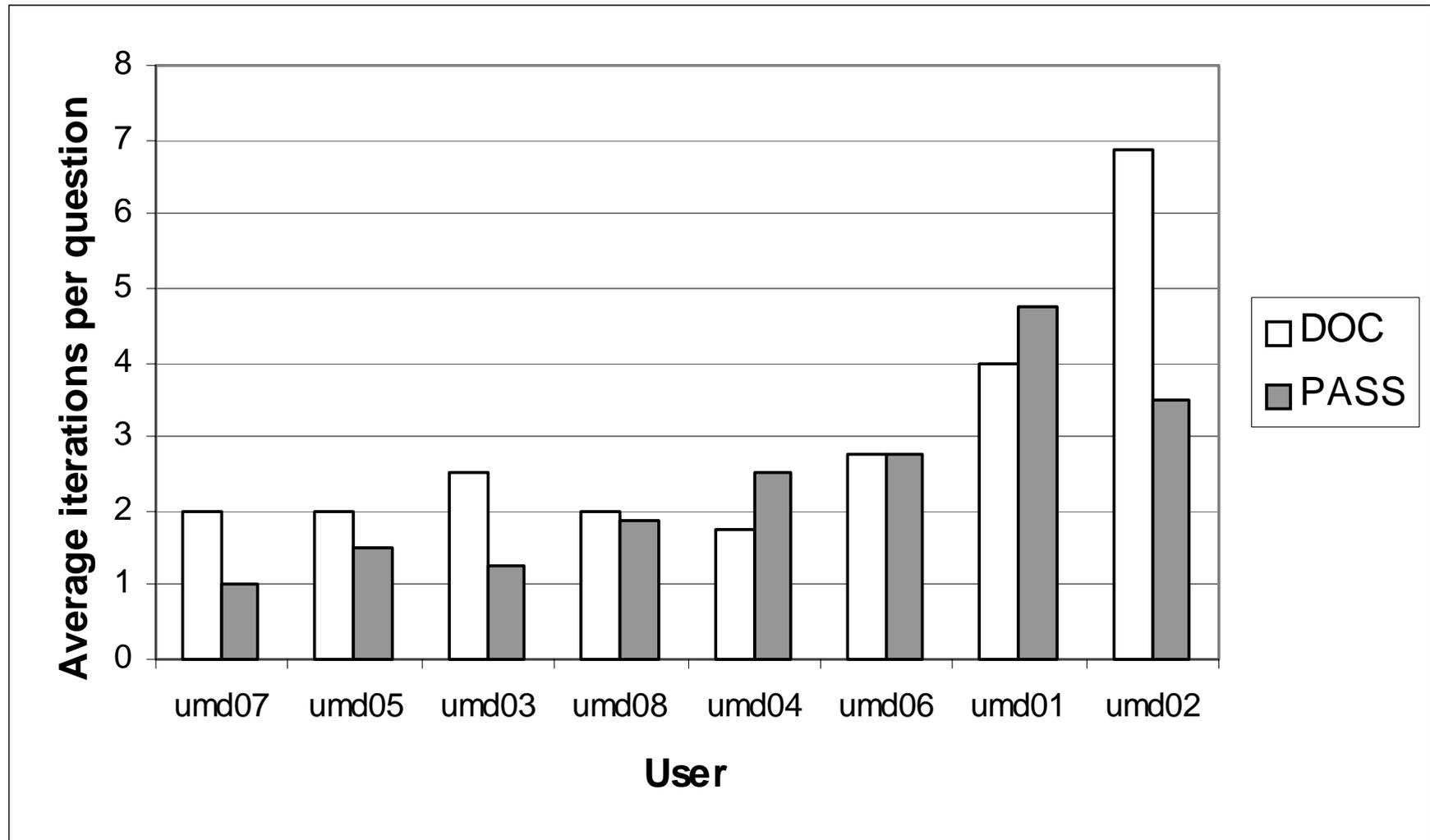
# iCLEF 2004 User Study Design

- Two systems
  - 3 Keyword in Context (KWIC) summaries
  - 1 single-passage summary
- 16 questions in English
- Spanish documents
- 8 skilled searchers, unskilled in Spanish
- 1-best answer, recorded on paper
- Supporting documents noted in interface
  - 1 arbitrarily chosen for submission

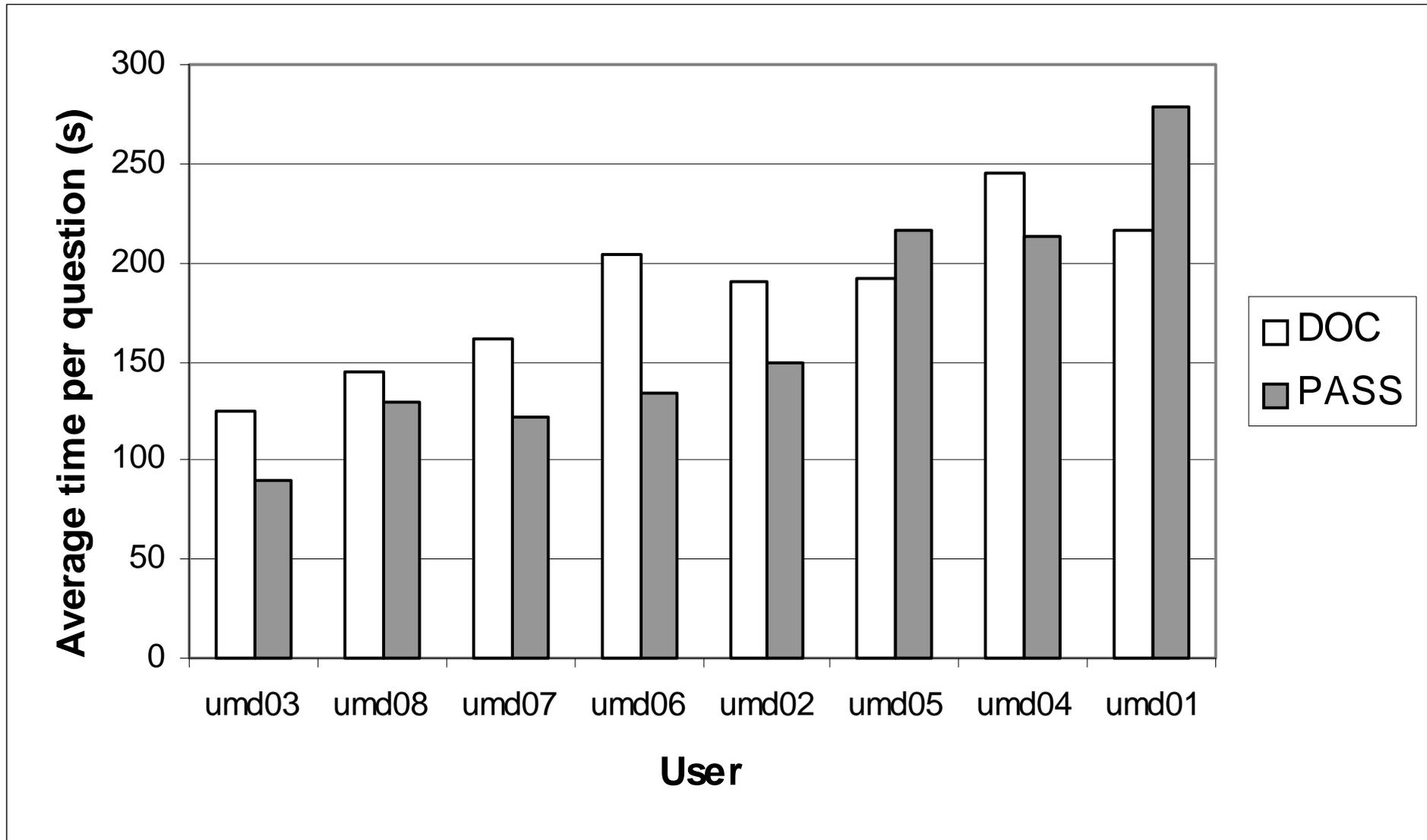
# Accuracy: No Difference



# Iterations: No Difference



# Search Time: Passages Help?



# Question Difficulty

# Questions, Grouped by Difficulty

- 8 Who is the managing director of the International Monetary Fund?
- 11 Who is the president of Burundi?
- 13 Of what team is Bobby Robson coach?
- 4 Who committed the terrorist attack in the Tokyo underground?
- 16 Who won the Nobel Prize for Literature in 1994?
- 6 When did Latvia gain independence?
  
- 14 When did the attack at the Saint-Michel underground station in Paris occur?
- 7 How many people were declared missing in the Philippines after the typhoon "Angela"?
- 2 How many human genes are there?
- 10 How many people died of asphyxia in the Baku underground?
- 15 How many people live in Bombay?
- 12 What is Charles Millon's political party?
  
- 1 What year was Thomas Mann awarded the Nobel Prize?
- 3 Who is the German Minister for Economic Affairs?
- 9 When did Lenin die?
- 5 How much did the Channel Tunnel cost?

Harder Questions Take Longer

# More Iterations for Hard Questions

# Subjective Reactions

- Both systems were “easy to use”
- Users liked question-term highlighting
- 5 of 8 users preferred single passages
  - Provided more context for answers
- 3 of 8 users preferred 3 KWIC sentences
  - Provided a good sense of document content
  - Required less time to read

# Observed Search Behavior

- Consistently precision-oriented
  - Stopped after finding 1-2 confirming documents
- Initial use of exact question terms
  - Less use of synonyms than in topic searching
- Reformulated query with possible answers
  - Strikingly similar to “answer verification” in QA
- Sometimes the summary alone was enough

# More Observations

- Bad MT sometimes hurt, but that was rare
  - Is a “Minister of Outer Subjects” the same as the “German Minister for Economic Affairs?”
- Prior knowledge did not always help
  - 5 of 8 found “When did Lenin die?” familiar
  - Only 2 found the right answer
- Desired answer granularity was not clear
  - July 25 was wrong (without the year)
  - September 1991 was right (without the day)

# Conclusions

- CL-QA baselines are remarkably high
  - Makes it difficult to see significant differences
- Need to measure interannotator agreement
  - We're closer to the limit than automated systems
- We might learn from watching people
  - Perhaps design future evaluations around this?